Urology and the Law
Lessons from Litigation

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Foreword

I was pleased and honoured to be invited by the authors to write a foreword to this book.

In my professional lifetime the problem of medical litigation has grown enormously – evidenced by the fact that my first annual subscription to the Medical Defence Union (in 1954) was two guineas (£2.10).

The aim of this book is to promote patient safety and, through that, avoid the anxiety and cost of litigation.

Experience is more slowly accumulated in these days of shortened training and I believe that every urological surgeon, particularly every urological trainee, will benefit from reading this book. It is well set out in short chapters and reading one each night will interfere little with sleep, but may well prevent many sleepless nights in the years to come.

The authors are to be congratulated on a volume of brevity, which is full of wisdom and common sense.

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Preface

The whole breadth of surgery has become increasingly the target of litigation in the United Kingdom during the latter part of the 20th century and into the present century. Urology has been as much affected as any speciality and it seemed that it might be instructive to examine how litigation affects urology. This book is the result.

Two of the authors are surgeons who have worked for many years in both NHS and private practice. Richard Notley, Emeritus Consultant Urological surgeon to the Royal Surrey County Hospital in Guildford, has over 15 years of experience of medico-legal work as an expert witness. John Reynard is currently in practice as a Consultant Urological Surgeon at the Churchill Hospital in Oxford, working at the ‘coal face’ of surgery. As such, they are both familiar with the often contradictory demands placed upon the surgeon, demands which expose him or her to the risks of errors and malpractice. James Badenoch QC is a barrister with extensive experience of medical litigation work. He provides a vital legal input and an explanation of the medico-legal process, from the perspective of the defendant, the claimant and the lawyer.

We started by examining the reasons which make people sue urological surgeons, what factors actually precipitate the litigation and how the urological surgeon can avoid litigation. As we began to do this it became clear that we needed to deal in some detail with the increasingly complex issue of consent for surgery. In turn this made us realise that any discussion of these aspects of litigation had to be illustrated by examples from urological practice of where things went wrong, or were perceived to have gone wrong. The book is therefore divided into two parts. The first part deals with the general aspects of litigation, why it arises and what the surgeon may expect if it does arise. The second part deals with actual cases. We have sought to make them unrecognisable by not identifying the origin of the case, by altering the sex and age of the patients and, in some cases, by amalgamating more than one case to provide a particular example. Anyone who believes he or she recognises a particular case is simply demonstrating that the themes are common and recurring! The exception is the chapter dealing with the case in which the wrong kidney was removed, which is bound to be familiar, having been the object of intense media examination.
Introduction

The threat of a lawsuit is ever present for today’s surgeon. The litigation may arise from genuine negligence, but the surgeon may have acted without fault and still an attempt to sue is made. The precipitating factor is commonly an unexpected post-operative happening of some kind. Paradoxically it is the complication occurring after the seemingly ‘routine’ case that is particularly liable to give rise to litigation, rather than the complex case after which one may have anticipated problems and therefore been particularly meticulous in one’s care and pre-operative counselling. Cases such as the ‘routine’ circumcision, the ‘simple’ cystoscopy or the ‘everyday’ TURP are fertile grounds for potential litigation if complications occur. In the eyes of the general public if a complication develops after ‘routine’ surgery, then someone must have done something wrong. All surgeons therefore are at risk of litigation, which often arises from unexpected quarters and at unexpected times. Most surgeons will be on the receiving end of at least one suit over the course of a 30-year career and oftentimes more than one. This takes an emotional toll on the individual surgeon and represents a substantial financial burden for the NHS, other healthcare providers and for medical defence organisations.

The growth in medical litigation has been fuelled from a variety of sources – rising patient expectations; an increasing willingness to question the medical profession; a desire for accountability; a desire to blame someone and an expectation that any adverse event deserves compensation. The risk of litigation is likely to increase, particularly for the younger surgeon, as training is shortened and specialisation occurs at an increasingly earlier stage in a surgeon’s career. Gone is the wide apprenticeship in general surgery and the surgical specialities, which gave a breadth and depth of experience providing the surgeon with the platform upon which to think ‘laterally’, both in terms of diagnosis and treatment.

There is a tendency for doctors and liability insurers to blame the problem of medical litigation on the overzealous tendency of patients to sue, on their lawyers and a litigious society. Patients and their lawyers, on the other hand, blame medical negligence and the relaxed attitude of some members of the medical
profession to patient safety. When things go wrong a malpractice suit may follow – blaming someone may make a patient feel better, but the fact of the matter is that from time to time medical care is negligent.

**PREVENTION IS THE BEST DEFENCE**

So, how can one avoid ending up in court? What types of conditions, presentations and operations have a tendency to misdiagnosis or mismanagement? What are the key ways of avoiding litigation? In this book we try to provide answers to these questions, using examples of cases in which we have been involved personally in the litigation as expert witnesses. Our aim is to demonstrate the reasons why litigation arose in each case and the ways in which such problems could have been avoided. Along with the common themes of malpractice cases, the behaviour characteristics of surgeons which predispose to litigation are explored. The emphasis is on how to avoid the situations and circumstances which expose the surgeon to lawsuit. The wide range of examples discussed provides the reader, particularly the younger one, with a 'cumulative' experience which only the habitually negligent surgeon will experience in a lifetime of surgical practice.

**THE FORMAT OF THIS BOOK**

As indicated in the Preface we have divided the book into two sections. In the first half we examine the generality of litigation as it affects urology, why and how litigation arises, consent and legal aspects of the problem. We will discuss problems occurring commonly in malpractice suits – themes that are shared across several cases, irrespective of the precise type of operation or condition. We have organised the order of these topics in the chronological order in which they might be encountered as the patient moves along the 'patient pathway', from referral, to outpatient consultation, inpatient treatment and postoperative care. This gives the reader some insight into 'risk' areas as they might unfold in day to day practice.

In the second half of the book we discuss conditions and procedures which in our experience have led to litigation. We have simply listed these anatomically, starting with the kidneys and moving south. We show examples where the case against the surgeon was both won and lost. Although the balance of 'winners' and 'losers' has been roughly equal in our own expert reports, we have perhaps tended to weight this book towards those cases which the surgeon has lost. In a sense, however, the final outcome of any of the cases we describe is irrelevant. The salient 'outcome' is that litigation arose in the first place. There are after all few real winners in the area of clinical litigation, for the patient must have suffered physically or emotionally to have brought the case and the surgeon will certainly have suffered emotionally in defending it.
THE PROCEDURES AND CASES COVERED

The cases we discuss are all contemporary, the action having been brought within the last 5 years or so. We believe, therefore, that they represent examples that the reader may well encounter in his or her current practice. We believe also that a description of events as they have unfolded in actual cases adds a realism which descriptions of complications and outcomes in conventional surgical textbooks can never convey. We emphasise that the contents of this book reflect our experiences. They are not ‘evidence based’ and we do not indicate the likelihood of their occurring to any individual surgeon or patient. However, they do, we believe, reflect what seem to us to be common problems.

It may seem that at times we repeat ourselves in the examples we use and the advice we have given. In many instances we have done so deliberately. We hope the repetition will at least serve to reinforce the message we are trying to get across. Sometimes committing a mistake just once provides the surgeon with enough motivation never to repeat it again. However, some surgeons learn faster than others. Some have longer learning curves. We hope that some degree of repetition will lessen the chance that the latter group will fall ‘victim’ to the litigious traps we describe.

We are sorry to say that for many particular operations or conditions, we have been spoilt for choice in terms of the number of cases we could have discussed. Inevitably we have had to be selective. From the point of view of confidentiality we have deliberately changed specific details, while retaining the ‘essentials’, from a learning point, of the case. Thus, it is not possible to identify the individuals (patients or doctors) involved. If it seems to the reader that he or she was involved in an identical case, this simply reflects the fact that this particular error is committed commonly and emphasizes the need for a ‘public’ airing of such examples so that others do not suffer the misfortune of repeating it.

At times we have felt almost embarrassed to put down in black and white advice and suggestions which, on the face of it, seem so obvious. Advice such as read the GP referral letter, keep careful records, write down what complications you have discussed and date all entries in the patient’s notes. That anyone would not do these basic things seems so stupid – but people sometimes are extraordinarily stupid and this can create litigation. We therefore make no apology for sometimes stating the obvious!

RECURRING THEMES AND LESSONS TO BE LEARNED

When we have come to review the cases we have presented as a whole, the causes of much litigation seem to centre round certain themes – many of them recurring themes – which could be so easily rectified, for the want of just a little more effort on the part of the surgeon and his or her surgical team. There is a tendency, particularly amongst junior surgeons, to define a ‘good’ surgeon as
one who has attained a high degree of technical skill in performing surgical operations. Skills such as effective communication, good note-keeping, attention to detail in consent, administration of antibiotic and venous thromboembolism prophylaxis and cross checking to ensure the correct operation is being done on the correct patient are regarded by some doctors as being of secondary importance. While technical ability in operating is clearly fundamental, we believe that these so-called non-technical skills of surgery are just as important to ensure safe surgical practice. The lack of non-technical skills is certainly not the only cause of litigation, but many errors and litigious problems in surgical practice do arise as a consequence of a failure to focus on non-technical aspects. The well-publicised wrong kidney case (Chapter 17, p 221) provides a good example where the operation was performed with perfect technical skill, but unfortunately it was done on the wrong side after a catalogue of simple, preventable errors! We believe that the investment of just a little time and effort in training junior doctors (and consultants!) in these fundamentals of good surgical practice could pay dividends for patients and surgeons alike.

The observant reader will notice that we do not always provide the outcomes in our illustrative cases – did they settle or were they abandoned? This is because oftentimes the instructing solicitors fail to tell their expert what the outcome was! And as we state above, the final outcome is irrelevant, for the important fact is that litigation arose in the first place.

No one is perfect. We are all human. Every surgeon makes mistakes. Every surgeon will from time to time carry out an operation in a patient only for a complication to develop or a poor outcome to occur. We are no exception to this rule. Indeed, as Lord Justice Donaldson¹ has said:

*There are very few professional men who will assert that they have never fallen below the high standards rightly expected of them. That they have never been negligent…. Whether or not damage results from a negligent act is almost always a matter of chance and it ill becomes anyone to adopt an attitude of superiority.*

THE AIMS OF THIS BOOK

It is not our intention in this book to wag the finger of blame, or to cast aspersions based on the benefit of hindsight. Indeed, in many of the cases in which we have been involved the surgeon has managed the case entirely appropriately, but despite his or her best efforts the case has still ended in litigation (though usually with expert witness reports in favour of the defendant). Having said this, in other cases the surgeon has clearly been at fault or has, for example, handled a post-operative complication insensitively, thus increasing the chances that the patient will seek recompense from the law.

It is, therefore, most definitely our intention to highlight what seem to us areas where mistakes are often made or where the surgeon's subsequent
handling of the situation has been less than perfect, so that we as surgeons can learn from these errors and thereby prevent them from occurring again. The US surgeon Chris Lillehei has said that 'Good judgement comes from experience; experience comes from bad judgement'. We hope the reader will find the contents of this book a source of good judgement, and that it will provide him or her with useful tips on how to avoid the sometimes awful experiences of bad judgement.

While an important aim of this book is to keep surgeons out of court, it should be seen not just in the narrow 'defensive' context, but in a broader one – that of preventing harm to patients. It goes without saying that patient safety and the prevention of harm to patients lies at the heart of good surgical practice. It is our firm conviction that only through sharing our experiences of why things go wrong, can we prevent errors from occurring in the future. We hope that this book will be seen as a positive step both to protect patients from harm and doctors from the threat of malpractice lawsuits.

LEGAL TERMS AND THEIR MEANING

Before proceeding it is worthwhile considering some definitions and words with which surgeons may not be familiar, but which form the language of the lawyer.

Every surgeon, even an incompetent one, owes the patient a duty of care. Negligence is defined as a breach of that duty of care. A breach of duty may be founded upon a positive act, or acts, of 'commission' by the surgeon (i.e. carelessly doing something which he/she ought not to have done). Alternatively it may arise from an act, or acts, of 'omission' (i.e. carelessly failing to do something which he/she ought to have done). Lawyers call the question of whether there has been a negligent breach of the duty of care the 'liability' issue. If the surgeon is proved to have been negligent he will be 'liable' for whatever injury and loss resulted.

The standard of proof is different between civil and criminal cases. The phrase 'the balance of probabilities' refers to the standard of proof in civil cases. It indicates simply that the evidence is 51% (or more) in favour of whatever is being judged. This is not the exacting standard of criminal law, which demands proof 'beyond reasonable doubt'.

If a surgeon has been proven to be negligent there will follow an investigation of precisely what harm and what consequential financial loss was suffered by the patient as a result of the negligence. This is what the lawyers call the 'causation' issue. When the matter of causation has been agreed or decided, the court assesses the appropriate level of compensation. That compensation is known as the 'damages', and its assessment is called the 'quantum' issue.

The amount (or 'quantum') of an award of damages will depend upon the extent of the harm, damage and consequential financial loss which can be proved in any given case. Quite apart from the value of any economic harm, such as loss of earnings or the cost of care, there will be awarded in every case
of injury caused by negligence a sum to reflect the ‘pain, suffering and loss of amenity’ sustained as a result of it. These are called the ‘general damages’. The amounts awarded by the UK courts for general damages are notional (for who can put an accurate value on the experience of pain?) and may be considered insulting by the claimants, particularly when compared to American awards. In many cases this ‘head’ of damages is the only one, because no actual economic loss has resulted. Such cases will include those where the patient was not in employment, or was never off work, and/or recovered without sustaining the kind of extra costs and expenses which longer lasting disability engenders. Where, on the other hand, the harm suffered results in a permanent and serious disability which restricts (or even prevents) the patient from carrying on with his or her pre-treatment employment, and/or which necessitates professional paid care, the award of damages may be very large. It is these cases which naturally attract the most publicity.

REPOSITORY

1

Why do people sue surgeons?

Litigation after an operation comes as a surprise and a shock to any surgeon – why has this happened to me? Any surgeon may make a mistake, just a very few are incompetent.

Alleged medical negligence leading to litigation costs the UK National Health Service many millions of pounds per annum. In 1990–91 this cost was estimated at more than £60 million. This sum has risen steadily, with the cost of clinical negligence to the NHS being £422.5 million in 2003–4, which itself was a slight fall compared with 2002–3 when it was estimated to be £446.2 million – just a little room for cheer! These figures include damages paid to patients and the legal costs borne by the NHS. Even allowing for inflation it is likely that in real terms the cost of negligence in 2003–4, when compared with 1990–91, has risen. This assertion is supported by the fact that there has been a significant expansion in systems for the handling of claims and compensation. NHS hospitals now have to maintain special departments to deal with this increasing workload and an NHS Litigation Authority, responsible for overseeing litigation within the health service, has been established.

Medical negligence and malpractice litigation are universal phenomena in Western societies. The source of much litigation is, of course, due to medical error, though litigation can certainly follow where no error has occurred. The incidence of medical errors seems to be roughly similar across developed countries. The California Medical Insurance Study from 1974 reported that a ‘potentially compensatable event’ (an event due to medical management resulting in disability or prolonged hospitalisation) occurred in 4.7% of hospital admissions.2 The Harvard Medical Practice Study3 recorded adverse events (an injury caused by medical management, rather than the disease process, and resulting in prolonged hospitalisation or disability at time of discharge) in 3.7% of hospitalisations in New York State acute care hospitals during the year 1984. Of these, 28% were judged to have been due to negligence (care falling below the standard expected). Almost 50% of all of the events were related to surgical care. The Quality in Australian Healthcare Study4 and the Utah and Colorado Medical Practice Study5 found an annual incidence of adverse events in 13% and 3%, respectively, of hospitalisations. In the latter study 30% of these adverse events were judged to have occurred as a result of negligent care.
Finally, in the University College Study⁶ in the UK, 11% of patients in two acute hospitals in Greater London experienced an adverse event, of which approximately half were preventable as judged by ordinary standards of care.

While the incidence of medical errors seems to be roughly similar across developed countries, the likelihood that such errors will lead to litigation is not. In the USA, for example, the incidence of litigation is higher and the costs are therefore relatively larger. US urologists may be expected to be sued for malpractice at least twice during their careers.⁷ The ‘lifetime’ risk of a malpractice suit for UK urologists has not been quantified.

The National Audit Office (NAO) in the UK has estimated that the value of all known claims (both reported ones and ones incurred, but not yet reported) is approximately £6 billion as of March 2003.⁸ Of course not all of these claims will require settlement, so this figure, though alarming, is a theoretical one. A proportion of claimants will withdraw their claims of negligence. Indeed, NAO figures for 2001 suggest that around 75% of clinical negligence claims are withdrawn by claimants, and of those that went to court in 1999–2000, only 61% were successful. Eighty per cent of outstanding claims by value are accounted for by just two broad categories – those for cerebral palsy and other forms of brain damage. While such cases obviously are principally against obstetricians and anaesthetists rather than urologists, claims against surgeons nonetheless represent a substantial financial burden for the NHS.

Of course, the true cost of injury to patients is much greater than the simple monetary costs of the litigation and the compensation. The physical and emotional effects on the patient of any such injury lead frequently to the increased use of medical resources, both in primary and hospital care. In addition, hospital staff may be affected not only by the litigation, but also by the original incident, for which they may feel responsible. Litigation is therefore likely to be a distressing and damaging experience for patient and doctor alike.

If litigation is to be reduced it is vital to understand why the original incident occurred, and why patients turn to litigation when something does go wrong. A person who decides to take legal action has to be very determined and must be prepared to endure a long and often frustrating legal process. The need for monetary compensation may be the over-riding reason for the litigation; for example the colossal financial burden over a lifetime of a child injured at birth, or an injury creating sufficient disability to prevent future employment. On the other hand the motivation for the litigation may not be exclusively financial, but may be determined by the way in which the original incident was handled by the staff concerned. Did a senior doctor give an apology, provide an adequate explanation and commence prompt reparative treatment? Or did the staff simply keep quiet and hope the problem would go away? Litigants often state that they entered the complicated legal process simply to get an explanation of what had gone wrong, and that a reasonable explanation, possibly linked to an apology, would have satisfied them. It is therefore worthwhile examining the reasons why people sue doctors so that one may learn by the experience of others.
One might imagine that it would be simple to establish why patients sue surgeons. It would seem sensible for the NHS Litigation Authority, the organisation overseeing litigation within the NHS, to audit the reasons why legal action has arisen carefully and to feed this information back to doctors so that they might learn from examples of poor practice. However, remarkably, in a national healthcare system such as the NHS, there is no single, unified source of information about claims managed by individual NHS Trusts (the NHS Litigation Authority does hold limited data on the causes of incidents that lead to claims). One therefore has to explore several sources in order to start to get to grips with the causes of litigation. Broad categories of causes of litigation are available from organisations such as the NAO and the medical defence organisations (e.g. the MDU or MPS). However, data are sparse in terms of peer reviewed research into the causes. Let us start by reviewing what information there is about the reasons why patients sue surgeons.

The Auditor General for Wales’ report entitled ‘Clinical Negligence in the NHS in Wales’ is a useful starting point. It categorises the main causes for litigation as misdiagnosis, operation/technical, operation/surgical, drug complication, delay in treatment, other technical, wound infection, other and inappropriate discharge from hospital. Misdiagnosis, operation/technical and operation/surgical accounted for approximately 70% of alleged or admitted causes of claims. Typical events leading to the alleged or admitted negligence are shown in Table 1.1. Of those claims that have been categorised as being due to so-called non-clinical errors (those not directly related to the technical process of performing a surgical operation, for example), the majority centred round poor communication with patients and/or poor documentation (Table 1.2).

A survey carried out in the early 1990s demonstrates the scale of the problem at that time. There were five main reasons for considering litigation. The two most common were a failure to diagnose (or a delay in diagnosis) and incorrect or inappropriate treatment – similar reasons to those in the Auditor General for Wales’ report. Next came an injury during surgery, then the failure to apply appropriate corrective management for the injury (or undue delay of that management) and, finally, an adverse drug reaction (Table 1.3). A variety of less common causes were additional precipitating factors. Vincent et al showed that the effect of the incident on the patient may not only be physical or financial, but also that the effect on family relationships, social life, the ability to work and a general effect on life overall were important factors. Over 70% of litigants described themselves as severely affected by what had happened. Their reaction was most commonly anger, but reactions of bitterness, of betrayal or of humiliation were nearly as common. Almost all litigants expressed their subsequent loss of faith or trust in the medical profession.

Lack of adequate information was a prominent factor in the germination of the idea to initiate a lawsuit. In the Vincent survey of over 220 litigants, most had difficulty in finding out what had happened. Only 128 had been given any explanation at all, of which approximately 40% were provided with an explanation within a few days, 20% within a few weeks, 30% within a year and 10%
<table>
<thead>
<tr>
<th>Main cause</th>
<th>Events contributing</th>
</tr>
</thead>
</table>
| Misdiagnosis                   | Doctor fails to take an X-ray  
Doctor underestimates patient’s concerns  
Failure to recognise signs of illness  
X-rays not being read properly or being difficult to read  
Poor communication between clinicians |
| Operation, technical           | Failure to listen to the patient’s request  
Failure to perform pre-operative checks  
Failure to provide pre- and post-operative explanations  
Inadequate supervision of instruments – dislodged or not removed  
Unnecessary or inappropriate operation – in some cases due to inadequate supervision of clinicians  
Wrong or faulty use of anaesthetic  
Poor communication between clinicians |
| Operation, surgical            | Damage to organs, muscles or nerves  
Failure to administer appropriate drugs during operation  
Incomplete operation  
Poor post-operative care – pain and suffering  
Miscommunication between patient and doctor – patient never consented to operation or failure to alert patient to risks involved |
| Drug complication              | Drug administered to person with known allergies or person on known other medication  
Drug administered inappropriately – intravenously, orally, etc.  
No information provided to patient on side effects of medication  
Failure to listen to patient’s concerns |
| Delay in treatment             | Administrative error  
Lack of continuity of care – changing doctors and nurses |
| Other, technical               | Doctor/nurse misreading medical notes  
No correct instruments available |
| Wound infection                | Inadequate cleansing of wound |
| Other                          | Potential accident in the waiting room |
| Inappropriate discharge from hospital | Poor communication between clinicians |

over a year later. Over 35% of the whole group never received any explanation at all from the medical or nursing staff involved. When an explanation had been given many litigants had been dissatisfied with what they were told. Less than 40% felt that the explanation had been given sympathetically, with the majority finding the explanation unclear, inaccurate or lacking information, although in over 70% of cases the explanation had been provided by the consultant or senior registrar (specialist registrar). In over 30% of cases the patient or relative was not given a chance to ask questions, and in only 13% of the total had any responsibility for what had happened been acknowledged.

From the litigants in their survey, Vincent et al\textsuperscript{10} sought more specific reasons why they had pursued the course of litigation. They were asked to rate their reasons for litigation according to how strongly they agreed or disagreed with a list of 13 statements:

\begin{table}[h]
\centering
\begin{tabular}{|l|c|}
\hline
\textbf{Type of non-clinical error} & \textbf{Number of instances} \\
\hline
Poor documentation of clinical procedures undertaken & 15 \\
Poor communication between clinicians & 12 \\
Poor communication between clinician and patient & 11 \\
Poor documentation of communications with patient & 8 \\
Inappropriate person giving advice to patient & 3 \\
Inadequate supervision of clinicians & 2 \\
Inappropriate person undertaking clinical procedure & 1 \\
\hline
\end{tabular}
\caption{Analysis of non-clinical errors in Wales (total of 94 claims)}
\end{table}

\begin{table}[h]
\centering
\begin{tabular}{|l|}
\hline
Failure of or delay in diagnosis \\
Incorrect or inappropriate treatment \\
Injury during surgery \\
Failure to apply corrective management for a surgical injury or delayed application of that management \\
Adverse drug reaction \\
\hline
\end{tabular}
\caption{Reasons for considering litigation\textsuperscript{10}}
\end{table}
• So that it would not happen to anyone else
• I wanted an explanation
• I wanted the doctors to realise what they had done
• To get an admission of negligence
• So that the doctors would know how I feel
• My feelings were ignored
• I wanted financial compensation
• Because I was angry
• So that the doctor did not get away with it
• So that the doctor would be disciplined
• Because it was the only way I could cope with my feelings
• Because of the attitude of the staff afterwards
• To get back at the doctor involved.

Over 90% said that they had taken action to try to ensure that whatever it was would not happen to anyone else, 90% wanted an explanation and 90% wanted to make the doctors realise what they had done. The objective had been to obtain an admission of negligence in over 80%, and in almost 70% to make the doctor know how the patient felt. More than half had gone to law because they felt that they had been ignored (67%), because they wanted compensation (65%) or simply because they were angry (65%). About 50% wanted to ensure that the doctor would not get away with it or to make sure that the doctor would be disciplined. Others had found that the process of going to law was the only way they could cope with their feelings (45%). Some had been influenced by the adverse attitude of the staff after the event (42%); 23% simply wanted to revenge themselves on the doctor involved.

From these data four main general factors emerge. These are accountability (a wish to see staff disciplined and called to account), explanation (a combination of wanting an explanation and feeling neglected after the incident), standards of care (wishing to ensure that a similar incident did not happen again) and compensation (wanting financial compensation and an admission of negligence). Patients and relatives are manifestly hoping for more than compensation when they embark on a lawsuit. The UK legal system is thus being used for a variety of reasons, some of which it was not intended to serve.

Doctors reading this list might regard some of the examples as unreasonable. They may feel a sense of indignation. While, in individual cases, the reason for litigation may not be justified, the essential fact is that these are the common reasons why patients sue. Whether doctors like it or not, whether the reasons are justified or not, does not really matter. What does matter is that in order to avert litigation one must understand its root causes, and the Vincent survey provides a very good start in helping us analyse and understand these causes.

The Vincent survey took place some years ago. At that time the UK civil system did provide compensation for medical negligence, but it involved a prolonged and often tortuous legal process. The clinical staff might have to account for themselves in a court of law, but the process was long-winded and
could prove humiliating and distressing for both patients and doctors. The situation has changed since. In the early 1990s the Lord Chancellor, Lord Mackay of Clashfern, invited an eminent and radical judge, Lord Woolf, to set up an inquiry into innovative Civil Justice reform. Lord Woolf set about streamlining the process, producing various interim reports. These culminated in the Access to Justice Final Report, encapsulating the new Civil Procedure Rules (CPR), which was made law in 1999. Among Lord Woolf’s manifest aims was the wish to speed up and make less expensive the complicated process of civil litigation for medical negligence cases. He has been reasonably successful in this aim and there is no doubt that far fewer cases now end up in court, with a consequent saving of money. Whether the process has been speeded up to any great extent is arguable. His wish to eliminate oppositional expert evidence and to modify the adversarial system in medical negligence cases has not come about.

REFERENCES

What actually precipitates the litigation?

Litigation after any operation more often than not arises because something unexpected has happened. It may be a known complication of the operation that the surgeon may not find surprising, or simply a poor outcome, but whatever it is, it happens entirely unanticipated by the patient. The patient believes, or the relatives believe, that something has gone wrong which ought not to have gone wrong. They then interpret this as having been due to an error by the surgeon, and go on to make the assumption that such an error on his part must have involved negligence. Litigation may then follow.

The judgement as to whether an act or omission is negligent is a subtle one, and is not exercised harshly against the practitioner who has done his best and been unlucky. It has to be related to a bed-rock of basic standards of knowledge below which one cannot go. Negligence in medicine or surgery has been defined straightforwardly by the courts as the making of an error (by act or omission) of which no ordinary doctor/surgeon, professing the relevant skill, would have been guilty, if acting with reasonable care. Note here the word reasonable, which does not connote exceptional, or Olympian, or perfect. Simply to make a wrong decision, or to incur a bad outcome is not of itself negligent. To be held negligent in English law an error will have to be demonstrably and definitely outwith the standards of skill and care which are reasonably to be expected of one carrying out the task or procedure in question. The consequence of this may be that the junior or generalist practitioner will not be judged by the higher and different standards which are rightly expected of particularly experienced and specialised colleagues. So there might be an act or omission with a bad outcome which was found by a court not to be negligent at the hands of a junior trainee, but which would be regarded as negligent if done (or not done) by a consultant.

However, it is in law incumbent on the junior and the generalist to recognise the limits of his/her abilities and experience, and to call in a senior or a specialist before trespassing in areas in which he/she is unqualified to tread. If you take on a task which you ought to know is beyond you, or persevere with a course of action when you ought to have recognised that greater or different
expertise was needed in the patient’s interests, you may be held negligent if attributable harm ensues. There is a logical corollary of this. Whereas the court may in particular circumstances absolve a junior member of a hospital team of individual negligence in the making of a given mistake, it may in those same circumstances condemn the employing hospital or Trust in negligence for having failed to allocate the right personnel to the case. Similarly it may condemn that hospital or Trust for leaving the junior member to cope unaided with matters beyond his experience or competence, and/or for failing to devise and enforce systems which ensure that cover of the right kind is available to the junior staff when needed or when called for.

The point in time when the supposedly negligent act or omission took place will also be significant, in the sense that the question of breach of duty or not will be judged by the standards of skill and knowledge prevailing at the material time. Accordingly a complication that was acceptable 5 years before the impugned procedure may no longer be so, due to changes in techniques, preventative measures or improved understanding of its management. The judgement of what is negligent may vary as practices vary, surgery being an imprecise art. It is a defence to a civil action in negligence if it can be shown that, in relation to a particular act or omission, a body of surgeons of similar experience and skill would have done (or not done) the same, even if there are others who disagree. This is the so-called Bolam defence. Latterly this defence has been qualified so that an act/omission is defensible, however many others of the profession may assert their approval of it, only so long as there is a logical basis for the act or omission (the Bolitho modification of the Bolam defence). To show that your conduct is indeed endorsed by others of the profession may not be enough to exonerate you, if the rationale for it, when subjected to logical analysis, is found wanting.

But litigation may start when there has been no negligence. Probably 50% of allegations have no basis in fact, so why should they be made? A very few arise from malice, or the perception that there is money to be made, and some arise from the distorted perception by a diseased mind of what has happened. Some patients take legal action against a doctor for the development of a condition that quite clearly has absolutely no relationship whatsoever to any treatment they have or have not had. It is a shame that such cases are sometimes allowed to progress as far as they do. The patient is given a false perception of what they might achieve, and the whole process is costly, both financially and emotionally, for them as much as for the doctor involved. Sometimes there is arrogance on the part of the surgeon, who may feel that the patient has no right or need to be given explanations — in years gone by this was a commonplace attitude, but it is happily rare today. There may be a simple lack of courtesy on the part of the surgeon — polite surgeons do not often get sued without reason. Cultivation of a ‘good’ doctor–patient relationship can go a long way to avoiding litigation.1,2

It is a fact, however, that most unfounded allegations of negligence arise from a simple failure to communicate between patient and surgeon — indeed
Poor communication is a recurring theme in so many claims, whether justified or not. The surgeon may have failed to explain clearly the plan of what is to be done. On the other hand the patient may simply not have understood what had been said. Most commonly the loss of proper communication is based upon the fact that the surgeon has misjudged his or her patient’s ability to comprehend the situation or the explanation. It is sometimes hard to realise just how ignorant a person may be about the workings of his or her body and how lacking he or she may be in the most elementary understanding of how the surgeon intends to modify it. That ignorance has little to do with social or educational status – a High Court judge may have less understanding of anatomy or physiology than a filing clerk. So the surgeon must put as much thought, skill and care into the explanation of the treatment as he/she has put into the diagnosis and investigation of the condition about to be treated.

Failure of communication is not, of course, restricted to the pre-operative period. Good communication is just as essential after the operation, even if nothing untoward occurs. A clear explanation of what has been done needs to be provided, together with a plan of management for the post-operative period – why there is bladder irrigation up, what is the significance of the blood in the urine, when the drain may come out, etc. It does not really matter how long this list is – the important thing is that the patient gets information from the doctors in a clear and intelligible form. Explanation from nurses may not carry the same weight and sometimes is not completely accurate. Post-operative explanations often have to be undertaken by a junior member of the surgical team, so it is vital for that person to be briefed properly in what to say. It is also vital for that doctor to know that if he or she gets asked a question to which he or she does not know the answer, it is essential to say so (and they must understand that this can be done without loss of face), and to explain that they will find out and come back. In more than one case in our experience the fruitless litigation had almost certainly been precipitated because a junior doctor had made some careless comment in the post-operative period. Patients may interpret such comments in an entirely different way to what you might expect. They might interpret a throw-away comment, which was not intended to have any sinister connotation, as indicating a lack of care during the operation, and this, amongst other things, could be the catalyst for a legal claim. The World War II slogan ‘Careless talk costs lives’ might be only minimally modified to suit post-operative mis-explanations!

If complications do occur, if something went wrong during the operation, or if something unexpected occurred, good communication becomes even more vital, as this is when the seed of litigation may germinate. A clear and accurate explanation that is understood by the patient and the relatives needs to be provided, by as senior a member of the surgical team as possible, preferably the consultant in charge. This clear explanation will go a very long way towards preventing that germ of suspicion growing into subsequent litigation. (It is the regular experience of many lawyers that the first real explanation ever understood by the patient was that given in the litigation expert witness’s report.)
If necessary this explanation can be accompanied by an apology. An apology is not an admission of liability, but an apology must be offered by someone with the authority to do so, which usually means the consultant in charge. The fact that an apology has been offered must be documented in the clinical records.

It is a truism that it is necessary to ensure that the standards of history taking, physical examination and investigation before an operation are appropriate. Similarly it is essential to ensure that the operation is done carefully and accurately and that aftercare is appropriate. It is absolutely vital to document all this activity accurately and legibly in a set of records written at the time, so that, if necessary, you can prove what you did and why. This all takes time, particularly because it must be done for every single case, but it is time well spent. It is the regular experience of the defence associations that a case may have to be settled because documentation concerning the events in question was absent, incomplete or illegible, when it is likely that an effective defence could have been mounted if the records kept had been detailed and accurate.

In today’s atmosphere of potential litigation it is all too easy to fall into a defensive attitude and to over-investigate patients. However, the sensible surgeon can avoid litigation, or reduce litigation, by appropriate care in these areas without going to extremes – there is no need to resort to doing magnetic resonance or CT scanning for men with bladder outflow obstruction, for example. Such elaborate investigation need only be done if the specific circumstances indicate that it is necessary. Many procedures are covered by national guidelines in the twenty-first century, and it is interesting to see that the most rigorously constructed guidelines are often those that recommend the least number of routine investigations. The diagnostic work-up of men with LUTS/BPH provides a good example of this. More is not necessarily better.

It is important for the modern surgeon to acknowledge to the patient and the relatives that things can go wrong, or appear to go wrong. The apocryphal law that states ‘what can go wrong will go wrong’ is the surgeon’s recurrent nightmare!

WHAT UROLOGICAL CONDITIONS AND PROCEDURES LEAD TO LITIGATION?

There are only limited data on the likelihood of one urological condition or procedure leading to litigation when compared with another. In the Utah and Colorado Medical Practice Study, which reported an annual incidence of adverse events in 3% of hospitalisations, TURP and TURBT were amongst the eight most ‘high risk’ operations in terms of the preventable adverse event rate. Four per cent of TURPS and TURBTs were associated with an adverse event – an event caused by the surgical management itself (rather than the disease process) and which resulted in prolonged hospitalisation and/or disability at the time of discharge.

An analysis by the MDU of claims against urologists in private practice gives some idea of areas of relative risk. This analysis represented 12 years’ worth of
claims and examined 84 settled claims from urological procedures carried out by urologist members of the MDU (Table 2.1). The largest single payout was for ischaemic and infective complications following a circumcision (just over £1 m). Delay in diagnosis of a testicular tumour led to a payment of £600,000 and sexual dysfunction following a bladder neck incision led to a payment of £300,000. In two thirds of cases harm was suffered during surgery such as peripheral nerve damage, diathermy burns and haematoma formation. Failure to inform patients about the risks of sexual dysfunction following bladder neck incision or TURP is a common problem leading to settlement of claims. Two patients had their operation performed on the wrong side and in three cases the wrong operation was done (vasectomy instead of circumcision, bilateral instead of unilateral orchidectomy, colposuspension instead of ileal conduit). Some cases involved retained swabs (two cases), drain tubes (five cases) and parts of urinary catheters (two cases).

United Medical Protection, an Australian insurer, has documented areas leading to litigation in urological practice according to anatomical site of injury (not necessarily a successful action). These include PCNL (two cases, loss of kidney because of bleeding; colon injury); ureteric injury at ureteroscopy (three cases) and during gynaecological surgery (six cases); bladder injury during gynaecological surgery (fistula, four cases), injury during cystolitholapaxy (one case), injury during incontinence surgery (three cases) and injury during reconstructive surgery (one case); prostate – retrograde ejaculation after BNI (eight cases), TURP related problems (four cases, impotence, incontinence, infection, acute renal failure); radical prostatectomy (one case); testis (vasectomy, six cases, vas injury during hernia repair in a child, one case), pain or atrophy of testis after testicular or epididymal surgery (three cases); penis (circumcision, two cases), other penile operations (seven cases), problems related to prosthesis insertion (five cases).

### Table 2.1 Claims against urologist members of the MDU in private practice

<table>
<thead>
<tr>
<th>Area of claim</th>
<th>Number and percentage of claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate surgery</td>
<td>17 (5 open, 12 TURP) (20%)</td>
</tr>
<tr>
<td>Delayed cancer diagnosis</td>
<td>8 (10%)</td>
</tr>
<tr>
<td>Kidney surgery</td>
<td>8 (10%)</td>
</tr>
<tr>
<td>Vasectomy</td>
<td>7 (8%)*</td>
</tr>
<tr>
<td>Cystoscopy</td>
<td>5 (6%)</td>
</tr>
<tr>
<td>Gynaecological repairs</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>Excision of testicular lesions</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>Drug treatment</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>Circumcision</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>Other surgery to the urinary tract</td>
<td>12 (14%)</td>
</tr>
</tbody>
</table>

*Three cases (4%) of pregnancy post-vasectomy.
Such lists of events contributing to the alleged or admitted negligence are useful up to a point, but they do not give the clinician a feel for the events that led to the problem in the first place. Every surgeon knows, for example, that ‘delayed cancer diagnosis’ can occur and that this can lead to litigation, but the precise circumstances in which this delay occurs are crucial in learning how to prevent such problems from being repeated. The chapters that follow, dealing with organ systems and potential sources of litigation related to each system, are designed to add flesh to the dry bones of these lists of ‘causes of litigation’, to place these causes in the context of real life surgical practice. We believe that this approach adds a realism which would not otherwise be possible.

REFERENCES

What can be done to prevent possible litigation?

We have examined the various aspects of patient care when referred for a urological opinion along what one might call the ‘patient pathway’. This follows the course of management from the receipt of the referral letter to the post-operative clinic.

SUMMARY

- The referral letter
- The clinic appointment
- Patient identification
- Modesty and humility
- History taking and note writing
- Medical notes
- Physical examination
- Chaperones during intimate physical examination
- Talking to patients, use of language and behaviour of staff in the presence of patients
- Other aspects of communication
- Talking to the angry patient
- Investigation
- Interdepartmental meetings
- Guidelines
- Explanation of the plan of treatment
- Consent
- Outcomes, risks and complications
- Pre-admission clinics
- Explanatory leaflets
- On the ward
There are a number of things that the surgeon can do to avoid the possible threat of litigation. It is therefore necessary to start by considering in general terms what can be done, before going on to the more particular. Some of the advice which follows may seem so blindingly obvious that the reader may ask why we have felt it necessary to put it down in black and white. However, the chapters that follow will demonstrate that surgeons sometimes do the most stupid things, and we therefore make no apologies for stating what to many, but not all, is so obvious.

Virtually every operation in the urological surgeon's repertoire is open to the possibility of litigation, as we shall discuss. How may this be coped with? There are a number of general principles to be heeded and various ways in which the urological surgeon can guard his patient from harm and him/herself from litigation.

First look at yourself. Patients expect their doctors to look respectable, to be appropriately clad and to have clean fingernails! This also applies to your junior staff and any visiting medical students – jeans and brightly coloured trainers are not acceptable gear for the clinic or ward round.

How you deal with your patients and staff will create the impression of your persona. The cultivation of modesty and humility is not always a pre-eminent surgical characteristic, but both virtues will help you to get through a professional career with as little contact with lawyers as possible. Courtesy and good humour are as valuable. By all means lock yourself in your office to scream, curse and throw books at the wall when the going is hard, but doing that in public is counter-productive to the image you want to promote of a reasonable, wise, temperate and experienced doctor. If you do get cross, make sure that it is a passing cloud and that no ill will is being harboured nor grudge nurtured. Take other people's feelings into account – treat your patients and your staff as you yourself would like to be treated.

So, how can germination of the seed of litigation be prevented?

This process commences at the first point of contact with the patient. It continues until well after he or she leaves the clinic or ward after whatever it is that you have decided was necessary to treat their condition. Many of the points made in the ensuing paragraphs may be self-evident, but every one of them has been omitted in at least one of the illustrative cases to be discussed, and we make no apology for going through them all, or for repeating certain especially important points.
THE REFERRAL LETTER

From the surgeon’s point of view the general practitioner’s referral letter may be the first point at which something can go wrong which may lead to litigation. The GP has decided that a specialist opinion is necessary and writes the referral letter setting out the problem. Clearly the detail given in this letter must apprise the consultant of the broad details of the problem, and a failure to do so can only be the GP’s responsibility. However, assuming a clear referral letter, the consultant’s duty is then to act appropriately when it arrives. Make sure that referral letters are read promptly after delivery by someone of sufficient seniority to make informed judgements concerning the urgency of the referral. That should be the consultant wherever possible. The letter then needs to be categorised for urgency, and that information must be transmitted in an unequivocal form to the clerk whose duty it is to provide the patient with an appropriate appointment. Just how urgent your urgent appointment is must depend on your workload and your clinic availability, but it is prudent to have a system in which a really urgent problem can bypass the less urgent, so that unreasonable delays do not occur. Do not accept unreasonable delays, argue with your managers, wheedle with your nursing managers, chat up your clerks, set up extra clinics – you owe it to your patients! Remember to date when you receive and action the letter. You are not responsible for the delays that have occurred prior to the letter arriving on your desk (and sometimes these delays can be substantial), but you will only be able to prove that you were not responsible for such delays by dating the letter when you receive it.

We have been involved in several cases where a doctor’s failure to read a GP referral letter, or to read the relevant notes about a patient’s past history, have been important factors leading to litigation. In one case (Bladder chapter, Case 2, p 124) a urologist was carrying out a patient’s first check cystoscopy following the recent resection of a muscle invasive bladder cancer. For some reason the patient had not been reviewed in clinic with the histology result, and had therefore not been told he had locally advanced bladder cancer which should be treated either by cystectomy or radiotherapy. The urologist doing the cystoscopy appeared not to have read the previous clinical notes, for he did not recognise that the patient had had no adjuvant therapy. At cystoscopy the resection site had healed, but beneath the surface lurked the muscle invasive cancer which slowly, but inexorably continued to grow. When the patient’s cancer was finally treated by cystectomy it had advanced to an incurable stage. Had the urologist read the notes he would have appreciated the likelihood that untreated cancer was still present. But he did not read the notes, and the outcome was an unhappy one for the patient and for the urologist.

The GP referral letter often contains information that is very relevant to the way in which you will subsequently manage a patient. Sometimes this information is hidden a few lines or paragraphs from the beginning of the letter. From time to time we see referral letters where the fact that a patient has had haematuria is mentioned almost in the last line of the letter. To the urologist,
of course, haematuria is a highly significant symptom, but some GPs may attach less relevance to it. The bottom line is, read the referral letter all the way to the bottom line!

Jumping ahead a little, when you dictate letters to GPs or to patients and these letters come back to be signed, it is equally important to read what you think you have written to ensure that there are no errors (even more importantly read what your junior doctors have written). This is tedious, but important. Even the very best secretary will from time to time make a mistake and such errors can sometimes change the entire meaning of what you are trying to say (the simple omission of a ‘not’ or a ‘no’ does sometimes happen). We are reminded of the consultant whose letter to solicitors seeking his expert opinion began: ‘I cannot help you I’m a fraud’ when he meant to say ‘I cannot help you I’m afraid’! Of course nothing may come of the error, but occasionally this can be the catalyst in the development of a serious problem.

THE CLINIC APPOINTMENT

The appointment having been provided for the patient to be seen in a clinic, make sure that a doctor of appropriate skill and seniority sees the patient. It is inappropriate for a patient to be seen by a pre-registration house surgeon, unless there is a system in place so that the house surgeon has to discuss the case with the consultant before any action is taken.

A point to consider here is what happens if you are away on leave or off sick. Beware the thoughtless delegation of a clinic to an unsuitable junior. Better to cancel and keep a patient waiting than to expose one to an inexperienced junior, for the sake of each of them. An explanation that the cancellation was because the consultant was not available will soften the disappointment for the patient.

PATIENT IDENTIFICATION

Make sure that you identify patients (both outpatients and inpatients) by a process of ‘active’ identification rather than ‘passive’ identification. To ‘actively’ identify a patient in outpatients, for example, you should, after calling the patient’s name, go on to ask them their date of birth and their address, to confirm that you are talking to the correct patient. Many of the patients we see are elderly and have poor hearing (RNID, The Royal National Institute for Deaf People, estimates that 1 in 7 adults are hard of hearing¹). Not surprisingly, patients sometimes mistakenly think you have called their name, when in fact you called the name of another patient. There have been instances where the wrong patient enters the consulting room, is told they have cancer and then is very upset when it becomes apparent that they are not the patient you thought you were talking to! It is surprising how often this happens and it is entirely avoidable by ‘active’ identification.
Similarly, when looking at blood, urine or pathology results or X-rays, it is good practice to check that the name on the report corresponds to the patient sitting in front of you. Occasionally X-rays are filed in the wrong packet, or the results of blood and urine tests are filed in the wrong set of notes. It is all too easy to assume that the results in the notes you are looking at are necessarily those of the patient to whom the notes belong. Occasionally you may inadvertently pick up a set of X-rays which do not correspond to the patient you are dealing with. Check the name – and also the date – on the X-ray you are looking at.

Remember, active identification.

MODESTY AND HUMILITY

Nobody likes arrogance and patients who experience a complication at the hands of an arrogant or dismissive surgeon may decide to ‘teach him or her a lesson’ and sue. They may of course have no grounds for taking legal action, but they may cause no end of trouble. Treat people the way you would like to be treated, be patient and courteous. Listen to what they have to say. Do not be arrogant.

HISTORY TAKING AND PHYSICAL EXAMINATION

Urology is an investigation intensive speciality and in the age of advanced body scanners there is a tendency to assume that history and examination are superfluous. This is not the case. A carefully taken history and examination remain the mainstays of diagnosis. By just listening to patients, a considerable amount of information helpful to diagnosis and treatment planning can be obtained. Similarly, clinical examination can provide important diagnostic clues and is critical in planning certain procedures. The CT scan may suggest that a bladder cancer can be removed by cystectomy, but only a physical examination by the surgeon will determine whether the mass is mobile (operable) or fixed to adjacent pelvic structures (inoperable).

Always perform a physical examination, even if this might not seem necessary at the time, and record what you find. It may well be a negative examination, but occasionally something unexpected turns up which needs investigation. The accusation that ‘the doctor did not even examine me’ is not uncommon in complaints. Patients clearly attach significance to the ‘laying on of hands’. Many regard it as an indication of your thoroughness in assessing their problem and as an indication that you are taking their concerns seriously.

Remember also that you can only prove that an abnormality was not present when you originally saw the patient by making a clear contemporaneous record of your examination findings. If you did not examine the patient, or if you made no record or only a cursory record of your examination, then the
patient could quite easily argue that an abnormality was present, but that you
failed to detect it because you did not examine for it. Thus, it is important
to record the results of your examination, even if this is normal. Imagine the
scenario – ‘if the doctor had only done a rectal examination the prostate can-
cer might have been detected at a stage when it could have been cured’. That,
of course, may simply not be true, but you may find it difficult to defend a case
in which it is alleged that you missed the obvious, if you failed to record the
fact that you had done a rectal examination, but that the prostate felt entirely
benign at that point in time.

NOTE-KEEPING

Reference has already been made to the vital necessity of ensuring that the
highest standards of history taking and physical examination are maintained.
This is where good communication must start. It is vital that this information
is properly recorded in the clinical notes. Remember that no records of the
events that took place may equal no defence, and poor records may equal a
poor defence.3,4

The General Medical Council specifies that doctors should ‘keep clear, accu-
rate, legible and contemporaneous records which report the clinical findings,
the decisions made, the information given to patients and any drugs or treat-
ment prescribed’.5 The Royal College of Surgeons of England also provides
guidelines on note-keeping.6 It recommends that every sheet of note paper
on which you write should have the patient’s name, date of birth and record
number clearly written. When you make entries in the notes you should write
the date, including the year, the time you made the note and who you are,
including your grade (e.g. consultant, registrar, house officer). Cases often
come to court many years after the events that led to the litigation so that it can
sometimes be difficult to establish in which year the notes were made if they
are not dated carefully. A recent audit of surgical note-keeping found that only
27% of entries were timed and in only 16% was the name of the clinician’s
name legible (printed).7

A note of the time of an entry in the notes is particularly important in the
context of emergencies. Of course, it is not always possible to make a note at
the time of an emergency event. In such situations you should record when you
were called to see the patient, when you actually attended and when you wrote
the note (if this was at a later time). Be careful about this – if you record the
time as that when you made the note and that time alone, it may appear that
you did not attend the patient promptly. The time you wrote the note may be
some time after the emergency, and this may be interpreted as the time you saw
the patient.

One of the fundamentals of good note-keeping is good handwriting. We have come across numerous examples where the defendant’s handwriting
has been so poor that it is difficult to decipher what has been written. If it isn’t
possible to read what you’ve written, vital information that could be used to justify your actions is lost. If your handwriting is so bad it can’t be read, why bother writing anything! And if you know your handwriting is difficult to read, then write in capital letters. It takes only a few moments longer and may save endless hours later. One of us had an eminent chief who always did this, to his eternal credit, so we all knew exactly what he wanted us to do!

What you actually write in the clinical records is important – you may need to justify what you have written in a court of law under oath. So it is important to think about what you write. Write legibly and write enough to make it clear to anyone coming after you precisely what you found and what you intended to be done. Try not to use abbreviations, or if you do so try to remember to explain it the first time you do so, thus: shortness of breath (SOB). L0 S0 K00 is a common abbreviation for the findings on examination of the abdomen, signifying that the liver, spleen and kidneys are not palpable, but to the uninitiated it looks a bit like a visiting oriental princess! In particular you should write ‘right’ and ‘left’ in full, rather than ‘R’ and ‘L’ because some people’s Rs look like Ls. Do use clear diagrams of your physical findings. Record why you have chosen a particular course of action, particularly in the context of operative notes. There may be a perfectly reasonable explanation for a particular decision, but only by recording this reason will you be able to recall, months or years later, why you did what you did.

Never make critical comments at the expense of the patient in the records, no matter how irritating he or she may have been. Not only may your rude remarks be exposed in a court of law, but also patients have access to their records on request. We have come across comments such as ‘histrionic’ in reference to the back pain that a patient with an evolving cauda equina syndrome was experiencing. The patient had a massive central disc prolapse and his pain was quite genuine. The diagnosis of cauda equina syndrome was delayed and the patient suffered permanent bladder, bowel and erectile dysfunction as a consequence. That his medical attendants had decided that he was overplaying the pain did not go down well when the case came to court.

Some patients can be regarded as medico-legally high risk patients. While it is not always easy to anticipate who these patients are going to be, there are certain clues which can be used to identify them. These include patients and relatives who find fault with their carers; patients who refuse treatment or discharge themselves from hospital; patients where adverse events have occurred; patients who require re-admission because their symptoms fail to resolve. In these cases in particular you should be especially careful to maintain notes of a high standard.

**MEDICAL NOTES**

The system of paper records is an antiquated one in this age of advanced information technology, but it is one with which we are likely to have to live for at
least some years to come. There are certain dangers one must be aware of with paper records.

Beware the patient with multiple sets of notes, perhaps because they have attended more than one specialist department. This is a common problem and often there is no reference on the front of the notes that a patient has two or more sets of notes, neither of which is a full record of the patient's medical history, investigations or treatment.

If you are going to the effort of recording the details of a consultation with a patient, make sure that the notepaper you write on is secured in the notes. It is a source of great frustration to us that important documents, such as consent forms and even operation notes, are often left loose within the notes rather than carefully secured within the binder of the notes. Presumably the surgeon thinks that someone else is going to secure the operation note within the notes. But this may not happen. Loose bits of paper have a tendency to fall out and to be lost forever. You might argue that you are a surgeon, not a filing clerk, but it will not be the filing clerk that the patient sues! So in your own best interests, do ensure that all important documentation is reliably secured within the notes. This includes consent forms, notes of your pre-operative counselling and the operation note.

CHAPERONES DURING INTIMATE PHYSICAL EXAMINATION

The publication of the Ayling report in 2004 has put the issue of chaperones under the spotlight. Clifford Ayling was a GP from Kent who was convicted of 13 counts of indecent assault on female patients between 1991 and 1998. He was imprisoned for 4 years in December 2000 and removed from the medical register by the GMC in 2001. The Ayling report followed an independent inquiry into the way that the NHS dealt with allegations about Clifford Ayling's conduct.

In the last 5 years the Medical Defence Union has opened approximately 80 files (0.2% of its total) involving allegations of improper examination by a doctor. The subsequent investigations involved either the police and/or the GMC, so clearly these allegations are taken extremely seriously.

Allegations of improper examination can occur against both male and female doctors from both male and female patients, although most are from female patients against male doctors. The urologist performs digital rectal examination in male patients on a regular basis, and also pelvic examination in females. Thus, it is important that he or she be aware of the 'dangers' of such examination.

For those urologists with an interest in neurological bladder problems, testing the bulbocavernosus reflex can be completely misconstrued by the patient as an assault. The BCR is a test of the integrity of the sacral reflex arc (sacral nerve roots 2–4, afferent and efferent nerves) and is conducted by squeezing the glans of the penis with a finger in the rectum. A positive response, indicating
an intact reflex is one where the anus contracts as the glans is squeezed. You must explain clearly why you are doing this intimate examination and what it involves. It is clearly a sensible idea to have a chaperone present while you are performing it. However, it is important to have a chaperone present even for a straightforward DRE. When examining a male patient’s scrotum it is a sensible idea to ask the patient if they mind you examining their scrotum. Explain why. Explain you need to make sure they have no evidence of testicular cancer or other scrotal masses.

The GMC has issued clear guidelines on the use of chaperones during intimate examinations, and these guidelines are based, amongst other things, upon recommendations made by the Ayling enquiry. The definition of ‘intimate’ is a broad one. It is not necessarily confined to examination of the breast, genitalia, pelvis or perineum. It can, in fact, be extended to what the patient defines as intimate. There have been instances where, for example, a male doctor has inadvertently brushed a female patient’s breast during examination of her eye with an opthalmoscope. The doctor thought nothing of this, but the patient interpreted it as a sexual advance and made a complaint. Thankfully an explanation and apology was enough to prevent matters going further, but this example demonstrates how what you may think of as a routine, non-intimate examination, may not be thought of as such by the patient.

The GMC Guidelines state that you should explain to a patient why an intimate examination is necessary and what it will involve. You are obliged by the GMC to offer the patient a chaperone, whether you are examining a male or a female patient. The chaperone should be a suitably qualified healthcare professional, such as a nurse or another doctor. A patient’s friend or relative, medical students or a receptionist (if untrained in the skills of being a chaperone) are not suitable individuals. A patient’s friend or relative is very likely to side with the patient rather than with you if an allegation is made against you. Another reason to avoid using relatives or friends as chaperones is that inadvertent breaches of confidentiality may occur if a friend or relative is present during the examination. If a suitable chaperone is not available the GMC recommends that you should explain this to the patient and, if possible, offer to delay the examination till a later date. You should record the details of this discussion.

It is the patient’s right to refuse to have a chaperone present and approximately 15% of patients do just that, usually because the patient is embarrassed about the presence of a third party. A doctor cannot insist that a chaperone is present, but often by explaining why you need a chaperone the patient will accept the presence of one. If the patient does decline the presence of a chaperone, many doctors will proceed to examine the patient without a chaperone. However, you also have a right to protect yourself, and if you do not wish to proceed with the examination without a chaperone present, explain this to the patient and ask them to change their mind. If they continue to decline the offer, one solution (according to the GMC) is to suggest referral to another doctor (though this seems to us to be simply transferring the problem to another doctor!). If, despite your explanation of why you want a chaperone the patient
still declines to have one present and if you are unhappy to proceed with the examination in this situation, we would recommend delaying the examination till a later date until you have had an opportunity to contact your medical defence organization to ask for advice.

It is worth remembering that a chaperone does not provide a guarantee of protection against a complaint or legal action. Make sure your chaperone remains in the room until the patient is completely dressed and reseated. Sometimes the chaperone makes a desperate bid for the door as soon as you have removed your hand from the patient, leaving you on your own with a half dressed patient. Release the chaperone only when the patient is fully dressed and re-seated. You must document clearly in the notes who the chaperone was and what their position is. It is unlikely that you will be able to remember who the chaperone was by the time any allegation is under investigation. Complaints against doctors have certainly been upheld because there was no documentary evidence of the chaperone’s name or position (even though the doctor thought it very likely that a chaperone had been present, unfortunately he was not believed).

Finally, avoid making any personal comments during the examination. In their vulnerable state patients may misinterpret these remarks as inappropriate and a complaint or worse may follow.

TALKING TO PATIENTS, USE OF LANGUAGE AND BEHAVIOUR OF STAFF IN THE PRESENCE OF PATIENTS

It goes without saying that clear communication is essential at all times. Use simple words. Speak in the vernacular rather than using technical terms – talk of peeing, not micturition, of balls, not testicles – to ensure understanding. Use simple images. Ensure that the message is being received – is the patient’s deaf-aid working? Are your words being understood by a patient whose first language is not the same as your own?

Avoid vivid descriptions and colourful language, either when speaking to patients or in your written records. Be particularly careful when describing the course of events that took place during an operation. Some bleeding at the time of a nephrectomy for a large renal tumour is to be expected, and this bleeding may at various times of the operation be quite brisk. Describing these events as ‘very heavy haemorrhage’ may be interpreted by a surgeon in a different way to the interpretation that a patient and their relatives put upon the use of such a term. A fellow surgeon is simply likely to nod his or her head in a knowing way, for they appreciate the difficulties that can be encountered during nephrectomy. Surgeons usually are not that impressed by a bit of ‘haemorrhage’. The patient on the other hand may interpret careless or throw away lines such as ‘very heavy haemorrhage’ as indicating carelessness during the operation. If they experience some post-operative problems, even though these may have
absolutely nothing to do with the haemorrhage at the original operation, your
thoughtless remarks may lead them to think that the reason for the complica-
tion was something you did or failed to do during the operation. It is unlikely
that this will end in litigation, but why expose yourself to the risk that it might
do so, or to create an unhappy patient and relatives?

On the theme of colourful language we know of one case where a junior
doctor said to the patient that the operation involved ‘a lot of pulling’. This was
said as a throw away line, but the patient developed complications and they
interpreted the ‘pulling’ at the operation to have been the cause of the compi-
lcation (even though it was not!). It was interpreted as indicating a lack of care
having been taken during the procedure. The case did end up with legal action
being instituted. The claimant ultimately dropped the action, but the surgeon
lost some sleep during the process!

Avoid cracking jokes or laughing during a consultation, unless you really
know the patient very well. Remember the old adage – be prepared for any-
thing you say to be repeated back at you in a court of law. Jokes and throw
away lines may seem terribly funny at the time, but when the claimant’s lawyer
repeats them back to you in a court room full of other people (particularly if
quoted out of context), they may sound crass to say the least. You will find this
experience very embarrassing. This does not mean you cannot be friendly and
smile at the appropriate times, but jocularity may cause offence.

With regard to your manner during patient consultations, it is disturbing to
note the results of one study, which showed that less than 5% of medical con-
sultations were friendly or sociable. Consultations are not just about gaining
information from patients and imparting information. They are also about
establishing a relationship with your patient, so that amongst other things they
trust your judgement. It goes without saying that it is easier to establish a
relationship with a friendly person than with one who is cold and reserved.

Be aware of the atmosphere during investigations. It must be friendly and
pleasant, but controlled. If you or your staff laugh and joke during some sort
of investigation, flexible cystoscopy for example, patients may misunder-
stand the situation and think that the amusement is at their expense. To us, the
professionals, performing many such tests every year, they are minor procedures,
but to the patient they can be a very worrying and unpleasant experience. They
are undignified and uncomfortable. So, you must set the example. If your
attending staff do something that you think is inappropriate, tell them, then
and there. This demonstrates to the patient that you are on their ‘side’, which
after all is precisely where you should be. You do not need to shout at your staff
(if you do nowadays they are likely to turn the tables on you and complain in
an indignant fashion that you have hurt their feelings!). Tell them quietly, but
firmly, that their laughter is not appropriate. Apologise, on their behalf, to the
patient. This is not only the right thing to do, but it is the sensible thing to do
because it shows the patient that you care.

Be aware of your own body language. In particular do not give an impres-
sion of watching the clock. You may have had a ghastly journey to work and
scraped your car in the consultant’s car park, but do not take it out on your patients or your staff. Do your best to give the impression that you think that this patient is the most important person to you at that time by giving him or her your full and undivided attention. We remember one patient who stated that the doctor he was seeing ‘couldn’t take his eyes off the clock’. What better way to make a patient think you’re not that interested in their problem? If you can establish a relationship of friendship and trust at this stage, your patients are going to relax and you will find that they will share surprisingly private and relevant information with you very comfortably.

OTHER ASPECTS OF COMMUNICATION

Euphemisms

Doctors sometimes use a variety of terms to hide what they really mean, often out of a misguided desire not to hurt the patient’s feelings. Bladder cancer is a good example of this. Bladder tumours have been variously described as ‘polyps’, ‘warts’, ‘trouble in the bladder’, ‘growths’, ‘sea anemones’ or ‘mushrooms’, a whole host of alternatives to the simple, but very clear word ‘cancer’. The reason we use these terms is, of course, from a desire not to upset people. But such attempts are misguided, because they can lull patients into a false sense of security. As a consequence patients sometimes do not bother to keep important appointments or, when your admission system breaks down, they fail to chase you up to find out when you’re going to deal with their cancer (Case 1, Chapter 8 p 122). Patients awaiting treatment for ‘cancer’ do not let you forget; those awaiting treatment for ‘mushrooms’ might.

So, if you mean ‘cancer’, use the term ‘cancer’. Do not beat about the bush. This does not mean that you must be lacking in compassion or that you must be austere or severe in your communications with your patients.

Communication is the imparting of information and, as a general rule patients want more information than their medical attendants think they do. A recent study suggested that 40% of oncologists underestimated their patient’s wishes and thought that patients preferred not to know too much about their condition, even if the patient said otherwise.13 There is plenty of evidence to support the assertion that doctors underestimate the amount of information that patients want.14

Patients who fail to attend appointments for investigations or for outpatient consultations

A substantial number of patients fail to attend outpatient appointments. In some hospitals these are known as ‘DNAs’ (‘did not arrive’ or ‘did not attend’). Similarly, some patients fail to attend for investigations such as flexible cystoscopies or radiological tests. The response to such DNAs is variable. Some surgeons send another appointment and, if the patient fails to attend this
appointment, no others are made. So-called ‘DNA’ letters are variable in content and most seem to be written to the patient’s GP and not to the patient. They often state ‘your patient failed to attend a second outpatient appointment. I have not made another one’. Presumably the surgeon expects the GP to contact the patient and admonish them. All of this represents poor communication. It is possible that the patient has not appreciated the potential significance of their symptoms. If you don’t tell a patient that macroscopic haematuria may well be due to a cancer, they may assume that its resolution indicates that the problem has gone away. Address your DNA letters directly to the patient, with a copy to the GP. Explain in the letter why it is so important that they attend for follow-up. Be explicit. If you do not mention the possibility that the patient may have an undiagnosed cancer, you are not giving them adequate information. This will protect your patients from delays in diagnosis and it will protect you from litigation.

**Communication with senior staff**

Make sure your junior staff know how to contact you in an emergency. Let them know that they should never feel afraid to contact the on-call consultant for advice with regard to a difficult clinical or administrative problem. Make sure they and the nursing staff have your mobile phone number. Let them know that if they cannot get hold of you in an emergency, they should call another consultant to ask for advice, even if that consultant is not on-call.

**TALKING TO THE ANGRY PATIENT**

Never, ever, get angry with a patient who is angry with you. It is only natural to raise your voice when confronted by an angry and verbally aggressive person, but you must avoid the temptation to do so. Remain calm. Try to cool the situation down. Do not start arguing and shouting with the patient. This will not only make you more stressed, but it is also very unlikely to calm the patient down. People often get angry because they have been kept waiting, or because tests or treatment have taken a long time to be completed, or because things have genuinely not gone according to plan. Try to put yourself in the position of the patient. Try to understand why they are angry. Show empathy. Apologise about the long wait, agree with them that this is frustrating. Nine times out of ten the patient will come round to thinking that you do genuinely care, and they will regard you as their friend rather than their adversary.

If they continue to be aggressive, tell them calmly that you cannot continue a dialogue under such circumstances, and that you are going to leave the room to give them a chance to cool off.

Make sure that you record the details of the consultation with the angry patient or relative accurately. Note what they and you said (direct quotations can be helpful). Record carefully any explanations and apologies you made.
INVESTIGATION

Once you have taken a history and examined the patient, it is then necessary to investigate them along the lines indicated by this history and examination. Use up to date standard investigations, but be prepared to justify unusual ones if you think they are indicated. Be aware of the capabilities (or even the shortcomings) of your investigation departments. By all means use non-invasive investigations such as ultrasound in preference to more invasive contrast radiology where appropriate, but never hesitate to go for radiology if in your judgement it will give more accurate or more easily interpretable images. A suspicion of a ureteric tumour calls for an intravenous urogram rather than ultrasound, as it will give much better information in most cases. Do not fall into the trap of defensive medicine and over-investigate your patient. Elaborate investigation need only be done if circumstances indicate that it is necessary. As already noted, many procedures are covered by national guidelines and the best guidelines are sometimes those that recommend the least number of routine investigations.

Appropriate investigation should lead you to a diagnosis in urology. The exploratory laparotomy is not a part of the urological surgeon's repertoire, as specialised investigation will provide a diagnosis in almost all cases – as long as you read the reports and look at any images produced. This is not an idle comment as several of the cases to be discussed in subsequent sections of this book came to litigation because no one read the report or looked at the images!

Ensure that the relevant X-rays and test results are available. Look at the X-rays yourself and form your own opinion, even if you know your radiologist well. Ultimately you carry the responsibility for getting it right. Check the film orientation markers – a recent prominent case hung upon the fact that the films were looked at back to front and the markers were only visible from one side, being stickers.

Failure to review the results of abnormal investigations and/or act upon them can lead to litigation. In Chapter 8 (Case 2, p 124) we describe a patient who underwent resection of a bladder tumour. The histology report showed a G2, pT2 transitional cell cancer. The report had been stamped with the word 'File'. No further action was taken to ensure that appropriate follow-up had been arranged. As a consequence adjuvant treatment of his cancer was delayed, and when he eventually underwent cystectomy the tumour was staged as T4.

One of the problems, of course, is that there is no single system for ensuring that test results are acted upon. The onus is on the individual doctor to collate results and act upon them. All healthcare systems are under pressure and the National Health Service in the UK is no exception to this. In order to ease pressure on overbooked outpatient clinics there is a tendency to discharge patients who have results pending. One often sees the comment 'we will write with the result' in letters to family doctors. This, sadly, is fertile ground for the 'lost
report’ and it is a great way for results never to be acted upon, particularly where the test result does not become available until several weeks after the clinic appointment. Some junior doctors use the word ‘we’ in the ‘royal’ sense, assuming that the result will miraculously be followed up and acted upon by someone other than themselves. Encourage your junior to take responsibility for following up the results of investigations they, or indeed others, have requested. This is particularly important where the patient is discharged pending outstanding results.

One way to ensure that all test results are acted upon is for each individual doctor to carry a notebook where all tests ordered are recorded. When the results become available they can be ticked off against the relevant patient’s name. Another is simply to follow up every single patient to ensure that every single result has been reviewed and communicated to the patient.

INTERDEPARTMENTAL MEETINGS

A regular clinico-pathological conference and a regular X-ray review meeting in the department are both essential for several reasons. Such meetings will keep you up to date with your colleagues in other specialties – you will come to understand what information you can reasonably expect your radiological colleague to provide and whether your histological colleague understands what is significant from your point of view. Healthy argument and robust discussion between colleagues is good news. Fortunately, the advent of the multi-disciplinary uro-oncology meeting has meant that the management of urological cancer cases is discussed between surgeons, oncologists and radiologists so that appropriate decisions are made. Such group decisions are likely to provide a more robust defence where the appropriateness of a particular management course is questioned. Once again it is vital to document as comprehensively as possible the nature of the discussion that took place and also to record who was present at such meetings.

GUIDELINES

We live in an era of clinical practice guidelines. Guidelines are aimed at summarising best practice, in some cases at reducing variability in diagnosis and treatment between different geographical regions (so-called ‘post code’ rationing), and at containing costs. In the United States the Agency for Health Care Policy and Research (AHCPR) was originally set up to commission guidelines for a range of conditions (although its main role is nowadays to disseminate information about guidelines). In the UK the National Institute of Clinical Effectiveness, NICE, assesses (through an ‘expert’ panel) new treatments and interventions and offers guidance on their use in clinical practice. Its aim is to ‘promote clinical and cost-effectiveness by producing clinical guidelines and
audits for dissemination throughout the NHS’. The American Urological Association, the European Association of Urology and The British Association of Urological Surgeons all publish guidelines on a variety of urological conditions.

Where does the surgeon stand, medico-legally, with regard to guidelines – must he or she adhere strictly to every aspect of a particular set of guidelines, or is digression allowed? Will failure to adhere to a guideline increase the risk of a successful suit if things go wrong? Will adherence to guidelines always allow a robust defence?

The answer to all three questions is not necessarily clear. There is no need to stick slavishly to every aspect of a guideline. The Bolam principle still applies. If the defendant has managed a case by an alternative to that recommended in the guidelines and is able to show that a reasonable body of opinion would have acted similarly, he will not be liable. However, be wary, for guidelines are increasingly being interpreted as a benchmark for good clinical practice and it may become increasingly difficult to find a group of surgeons who would have digressed from them.

Will adherence to guidelines always allow a robust defence? While there might be a body of medical opinion that suggests that the guideline should not have been followed, it will be difficult for a claimant to argue against the recommendations of the guidelines, where these have been endorsed by a responsible body of medical opinion. Thus, generally speaking, adhering to guidelines that have been drawn up by a professional organisation or the Department of Health, for example, is likely to be a robust defence.

Be prepared, however, for the ‘quality’ of the guidelines to be scrutinised in a court of law. The ‘quality’ of guidelines and the methods used in their design will be important factors in determining their value as a defence. The fact that guidelines have been drawn up by a reputable professional body does not necessarily mean they are enshrined in clinical practice. After all, the recommendations of one set of guidelines may not necessarily be the same as another set of guidelines, though both may have been drawn up by august national or international bodies. From a urological perspective, perhaps the best example of discrepancies between guidelines is in those drawn up by the American Urological Association, the European Association of Urology and the Fifth International Consultation on BPH for the assessment of lower urinary tract symptoms in men suspected of having BPH. All are reputable bodies of medical opinion, but there is considerable variation between these ‘BPH’ guidelines in terms of the diagnostic tests that they recommend.

Guideline ‘quality’ can be measured against a set standard, using criteria based on the system used to create the guidelines. Some guidelines make no mention of the search strategy used for obtaining the evidence on which their recommendations are made, while others do not identify the methods used to assess the strength of the evidence they quote. High quality clinical practice guidelines rank this evidence according to whether it is derived from
randomised controlled trials or based on descriptive evidence such as case series or case reports (evidence from randomised controlled trials being regarded as ‘stronger’). Low quality guidelines do not do this. Interestingly, higher quality BPH guidelines (e.g. those of the AUA and Australian BPH Guidelines) are less likely to recommend lots of diagnostic tests. Thus, more is not necessarily better.

Many departments draw up local guidelines. Local guidelines often represent versions of national ones that have been customised to local needs and resources. Even though not necessarily endorsed by professional organisations (they will rarely be so) these guidelines can certainly be used as a valid defence if it can be shown that they have a rational basis.

EXPLANATION OF THE PLAN OF TREATMENT

Having made a diagnosis the necessary treatment becomes clear. The communication process must continue with a clear and understandable explanation for the patient of what you intend to do, whether surgical operation, medical treatment or reassurance and observation. The most senior member of the operating team should provide this explanation, preferably the operating surgeon. Just as in history taking, use simple words and images for this to ensure understanding. Make certain that the message is being received and being understood by your patient. Repeat the explanation if in doubt, changing the words and images if necessary. Clear, simple diagrams are useful tools in the promotion of understanding. Perhaps you can keep a diagram of the relevant anatomy and of the operation you are about to advise on your desk, which you can show to the patient during the consultation. You may draw such diagrams in the patient’s notes. This is not only a good way of explaining the reasons why a procedure is needed and the possible risks, but also serves as a permanent record of the efforts you made to explain the nature of the procedure. When you have finished your explanation of the plan of treatment it is a sensible idea to ask the patient what it is he or she thinks you are going to do. Do not just ask if the patient has understood what you have said, get him or her to tell you what he or she has understood you to have said. If they cannot explain it to you, you have not made it clear.

CONSENT

The individual providing the explanation should then obtain the patient’s signed consent for the operation planned and should countersign the declaration to say that the procedure has been explained. Consent is not for the admitting house surgeon, the ward nursing staff, the anaesthetist or a passing medical student.
For consent to be valid the following criteria must be met:

- The patient must be legally competent
- The consent must be freely given
- The patient must be suitably informed.

Consent for treatment, whether surgical or medical, has become a minefield for the clinician. We have therefore devoted a whole chapter of this book to a consideration of the modes and problems of obtaining consent for operation – see page 51.

OUTCOMES, RISKS AND COMPLICATIONS

It is necessary to warn patients of certain outcomes of your proposed operation, or the possible complications that may arise. In the past these have been selected on the basis of their frequency of incidence, their severity or their unpleasantness. For example it is necessary to warn men that they will have troublesome urinary frequency with pain on urination, urgency and possible urge incontinence when the catheter is first removed after TURP. Although these symptoms are not a sign of a significant problem, they are unpleasant and universal, so you must tell your patient that they will occur. Rare complications did not warrant a warning in the past, even if the possible outcome was grave, because the risk was so small. However, the medico-legal climate has changed and much more detail in the explanation of even uncommon possible complications has become necessary because some complications carry such far-reaching consequences that they merit explanation even if the risk is small. All urological surgeons will be familiar with the necessity to warn of the possible spontaneous late return of fertility after vasectomy – the incidence is tiny (1 in 2000), but its effect is not.

The possible significance of such a small risk was brought into the medico-legal arena many years ago when a neurosurgeon was sued by a patient who developed a rare but well-documented complication after an operation. This significance has been underlined recently by an Australian High Court decision in 1992 (Rogers v Whittaker) in which an ophthalmic surgeon was found guilty of negligence for not warning of the tiny risk (1 in 14,000) of losing vision in the normal eye after surgery to the contralateral eye, due to sympathetic ophthalmoplegia. So the Bolam test – the defence that a group of reasonably competent doctors of similar skills would have done the same – may no longer be the impregnable defence in consent cases that it has been in the past, as the courts may move away from it towards a Rogers v Whittaker ‘reasonable patient’ test in cases involving consent.

Even more recently a neurosurgeon lost his appeal against a decision that he had been negligent because he had failed to warn his patient of the very small but known risk of nerve paralysis associated with the proposed operation.
for prolapsed intervertebral discs (Chester v Afshar\textsuperscript{25}). The Law Lords agreed that the risk of the injury was not increased by the failure to warn, nor would a warning have lessened it, but the risk was already there, as an inevitable possible outcome of the operative procedure. However, they held that if the patient can establish, as in this case, that a warning of the possibility, however remote, would have influenced her in deciding to seek a second opinion, and to decline to undergo the procedure at the particular time and at the hands of the defendant surgeon, then her suffering the complication at that operation (despite due care in its performance) could be held to have been caused by negligent failure to warn. It will be interesting to see if this judgement, which many see as odd, will be of any significant application to the generality of consent cases.

So – the modern surgeon is caught between the proverbial rock and the hard place. Today's atmosphere of litigation and the recent case law make it clear that a surgeon must warn of all possibilities, however remote, if the risk in question might influence the patient against having the operation being advised. Thus, there has been an important evolution in thinking about pre-operative warning. The old view that the very small risk did not require a warning because it might only cause unnecessary concern for the patient has not been valid for a long time. This attitude was replaced in the latter part of the twentieth century by the necessity to warn of a very small risk if the outcome was potentially serious – as in late recanalisation of the vas after vasectomy. Now the situation seems to have evolved into the necessity to warn of any complication that the patient might reasonably use as a reason for refusing to have the operation being advised. This might be termed the 'but for' test. The Chester v Afshar judgement states that justice requires that 'the claimant be afforded the remedy sought (i.e. damages) as the injury at the defendant's hands was within the scope of the very risk which he should have warned about when obtaining consent to the operation which resulted in that injury.'\textsuperscript{26}

The difficulty that the surgeon now has to face will not only be in deciding what a reasonable patient would wish to know, but also whether the warning of the tiny risk might be reasonable grounds for the patient to decline the advice for surgery. On whose advice or on what evidence will the court make a decision about what a reasonable patient would want to know? Using the Bolam test, expert witnesses provide evidence to the court as to the views held by a body of reasonable opinion among the profession, and, using this information, the court makes a decision. This was modified by Bolitho to require that the existence of a body of supportive opinion will not absolve negligence automatically, but only if it withstands logical analysis. If the test becomes the Rogers v Whittaker test, the court will have to make its own assessment of whether a risk was a material one or not. There may be additional problems in adopting the Rogers v Whittaker approach to what a patient thinks is appropriate, as the perception of information provided or not provided may change with events. Chester v Afshar could be the last straw! Once a patient knows
more about a risk or complication – usually when they have just experienced it – they are likely to think that information about this risk should have been given prior to the procedure. All of this presents the dilemma of uncertainty for the surgeon, who may respond by overloading patients with information. It is nevertheless some comfort to know that a negligent failure to warn will not (as the law currently stands) of itself make the surgeon liable to the claimant in damages. The causation issue will remain to be tried, and here the effect of the law (with the odd case of Chester v Afshar providing a possible extension of it) is to require the judge to balance the nature and degree of suffering pre-operation against the benefits (whether alleviation or cure) for which the operation was undertaken, and to decide whether the absent warning would in fact have dissuaded the patient from undergoing it. Only if the judge is satisfied that the patient would, if properly warned, probably have refused surgery will liability in damages for the bad outcome be established as a consequence of negligent failure to warn.

What complications should be detailed, and what are the risks of those complications materialising in the planned procedure? Complications may occur after any operation. In a perfect world it should be possible to quantify the risk of any particular complication, but many episodes go unpublished in the literature so that any survey of operative outcomes is necessarily incomplete. The true incidence of a particular complication may therefore be significantly greater than is actually recognised, so lawyers get cross with expert witnesses for refusing to provide neat percentage measurements of incidence! Furthermore, publications of complication rates are often from centres of excellence, and it may not be possible to extrapolate these figures to those of the ‘average’ surgeon. It is, of course, stating the obvious to say that the average surgeon is an average surgeon – he is neither particularly brilliant nor particularly bad. The implication of this is that his complication rate will be average, i.e. worse than those from the centre of excellence, but nonetheless acceptable.

The mere fact of the occurrence of complications which have been documented in the surgical literature is not in itself a reasonable ground for litigation, but neither is it right to assume that because a particular complication of a certain operation is a recognised complication, its occurrence cannot be attributable to negligence. For if it can be demonstrated that the complication occurred because the surgeon did not exercise the appropriate skill to avoid it, or failed to take a specific precaution that had been identified beforehand as appropriate to eliminate or lessen the incidence of that complication, the court may find the surgeon negligent. For example, septicaemia is a recognised complication of TURP and antibiotic prophylaxis can reduce the risk of this occurring. Failure to give antibiotic prophylaxis to an at-risk patient undergoing TURP who subsequently develops septicaemia could be construed as negligence.

Things change. Whether for better or worse may be a matter of opinion, but sometimes a surgeon has failed to notice a change going on in attitudes or practices affecting aspects of his or her work. A complication arising after an
operation that he or she had hitherto thought was a recognised and acceptable risk of the particular procedure may have become an unacceptable one. This change may have arisen for several reasons. New techniques and new instruments may have evolved. Not only may there be a better understanding of the causes of the problem, and therefore its prevention, but also there may have been progress in specific treatment for the problem or its cause. Constant attention to the current medical literature, continuing medical education (CME) and the participation in departmental death and complication meetings, with appropriate departmental audit, should be a guard against such failures to keep up to date.

With regard to risks and complications, how much information should you provide? The amount and nature of the information that patients receive can be daunting for the surgeon and frightening for the patient. However, do not forget that it is your duty as a surgeon to give adequate information to the patient concerning the benefits and risks of a procedure, unpleasant though that information may be. As a general rule, as stated above, patients tend to want to be told more than you might think they want. No one likes to talk about serious complications, but you should not shy away from discussing these issues with the excuse that you are trying to ‘protect’ the patient. There are a number of specific complications associated with any operation that must be discussed with each patient advised that a particular procedure is necessary. Each patient must know that various complications may occur, the reasons why they occur and what their management will be. He or she must also know that certain things are an inevitable sequel of the procedure and will happen. The BAUS procedure specific consent forms do not require that you mention every single complication that can occur after an operation, but they were written before the Chester v Alshar decision, so you must make up your own mind what you are going to explain. While it is quite obviously impossible to mention all possible complications, you may wish to make a patient aware of additional potential risks not mentioned in the BAUS consent forms. Erring on the side of giving more information rather than less is a safe practice to adopt, bearing in mind the case law mentioned above. Litigation is far more likely to occur if you have not warned a patient of a particular complication than if you have warned him that it could occur.

It is perfectly possible to talk gently about any serious risks without frightening the patient, but it will depend on you having already established a friendly relationship and perhaps by emphasising the likelihood that a serious complication is not going to happen. For instance a risk of a 1 in 200 chance of death can be put the other way round – that 199 out of 200 patients leave hospital fit and well, which sounds like better odds, even though of course it isn’t!

Gone are the days when a patient might say ‘don’t bother to explain doctor – if that is what you think I need it is good enough for me’. However, occasionally you will meet a patient who specifically expresses a desire not to know about any unpleasant or serious risks. This places you in a difficult position.
A way around this is to suggest to the patient that he or she is actually putting you in a difficult position and that it is unacceptable to perform a procedure that does carry significant risks without being able to explain in advance what these risks are. An alternative is to talk to a close relative or friend about the risks, with the patient’s consent. Making sure the relatives are au fait with the ins and outs of the proposed operation is in any case a good principle to follow when obtaining consent for any procedure. Never forget that it will often be a close relative with whom you will be communicating afterwards if a very serious complication does occur.

It is worth bearing in mind that in the light of the Bristol paediatric heart scandal there is a move towards surgeons being required to warn patients of their own individual outcomes and complications, rather than relying on national or international figures. Audit of your own outcomes will allow you to modify the discussion with regard to the complications that may occur after whatever operation is contemplated. It may also give you a nasty surprise as you realise that you produce a higher complication rate than you thought! This means more work for you, but it may save you from the unpleasant effects of unjustified law suits.

So, if the surgeon sets out to investigate a patient using appropriate and established tests, establishes a diagnosis according to orthodox contemporary knowledge, gives appropriate advice, writes that sequence of events clearly in the records and finally makes sure the patient really understands what is proposed, together with its risks, he or she should be immune from suit. Or that is the theory! However, further potential hazards remain.

**PRE-ADMISSION CLINICS**

These are now widespread in the UK, where patients are screened and examined by junior staff at a suitable interval before the admission for the planned operation. While the notes from these clinics need to be recorded with care they are not appropriate places, generally speaking, for the main explanation of the proposed surgery to be given, or consent obtained, as the doctors seeing the patients are usually junior members of the surgical team. However, if a consultant is able to be present at the pre-admission clinic, then consent may be taken at this time if it had not been obtained at the clinic when the decision to operate had been made.

**EXPLANATORY LEAFLETS**

Many urological surgeons provide explanatory pamphlets or leaflets which aim to set out the information they wish to transmit to the patient about the proposed operation. Common examples are the use of a pamphlet as a back-up for the explanation of transurethral resection of the prostate or for
vasectomy, including their complications and sequelae, but many other operations can be dealt with in a similar fashion. Such pamphlets can be used as the basis for consent with all that entails. They are kept by the patient, providing a record of what has been said, and there should be copies on the ward for reference by the nursing staff, so that they know what the patient has been told. As the years go by it is likely that the content of these information leaflets will evolve and change, perhaps as your own outcomes from a procedure change. Make sure that each version is dated (e.g. 'version 1, October 2004'), so that it is possible to determine which version you were using with any particular case.

The advantage of such as information leaflet is that the patient can take it home and refer to the various points when a doubt arises, or when he/she cannot remember what you said. It is also useful reading for the patient's spouse! Its final function is to be available as a rebuttal to the grisly tales of well meaning friends who take such innocent pleasure recounting what happened to their grandfather or uncle when they had a prostate or a kidney operation, often many years before! As long as you have recorded in the records that you gave the pamphlet to your patient it is clear evidence that you offered explanations, which should save you from vexatious litigation in that respect. Remember, however, that such material may provide good general information, which may be of universal validity, but patients are not 'standard issue' and there will always be a need to tailor the information to the individual circumstances of the patient. Leaflets must never be used as a substitute for direct explanation to each patient.

Litigation based upon the risks which you have identified in discussion and explanation, and in the pamphlet, if you use one, can usually be avoided if it is possible to demonstrate clearly that they have been aired with the patient pre-operatively. Clear contemporaneous notes of the warnings given are the best way of proving that you have discussed the risks pre-operatively. This is time consuming, but so is trying to defend a case because your documentation does not provide adequate support for what you said, or what you think you said, to the patient!

**ON THE WARD**

Communication on the ward is as vital between the health professionals themselves as between the health professionals and the patients. Make sure you know your nurses and that they know you. Be on good terms with your junior staff – the ogre consultant should be a figure of the past. You should not be trying to score points off your juniors! Regular ward rounds not only help your staff to meet you and learn your little ways, but they also help you to get to know them and assess their competence.

The patient's notes and X-rays must be available on the ward at the time of his or her admission. If they are missing insist that they are found before any
decisions are made. Be prepared to postpone those decisions until the necessary records and investigations are produced. Beware of duplicate sets of notes which may not contain all the available information.

Make sure that all members of the staff of the ward into which your patient is to be admitted know exactly what operation is proposed, what explanation has been given and what warnings have been provided. Ensure that any explanatory pamphlets you provide are available on your ward so that the staff know what each pamphlet says. Ensure that your particular habits are clearly understood by the nursing staff, particularly if you have a colleague who does things slightly differently. For example perhaps you aim to remove the catheter after transurethral resection 24 hours after TURP regardless of circumstances, whereas your colleague removes it when he/she is happy that there is no more haematuria. There is nothing worse than a patient receiving contradictory information. Many hospitals use a set of individual ward protocols to ensure all the necessary points are covered for each operation.

**CLINICAL RECORDS**

When the patient is in hospital make sure that your junior staff have made a clear and comprehensive admission record of history, past medical problems and physical examination. A gentle way to do this is to ask for the clinical notes on your mandatory pre-operative ward round. Go through these notes, asking your house surgeon to elucidate any unclear points. Ensure that there is a daily record of what is happening to the patient post-operatively, even if all it says is ‘no change’.

**IN THE OPERATING THEATRE**

Meet your patient in the anaesthetic room before he or she is anaesthetised. Identify your patient. Check that the notes and X-rays are present and correct. Check the consent form. Have no truck with the dictatorial anaesthetist who will not let you ‘disturb’ the patient before being put to sleep. One of the factors that was identified as a potential source of error in the well known ‘wrong kidney case’ was just such an anaesthetist (Chapter 17, p 221). It is your responsibility to identify the patient and anaesthesia will have to wait until you have done so – which means you must be punctual! If your anaesthetist will not co-operate with this mandatory identification of the patient and the verification of the proposed procedure, change your anaesthetist. This is also the best opportunity for the operating surgeon to identify which side is to be operated upon, if appropriate. Take the X-rays into the theatre and display them as you require – correctly orientated for right and left!
**ACTUAL OPERATION**

Examples of general intra-operative problems that have led to litigation are discussed in Chapter 15 ‘General problems’. We have summarised some of these problems here and discuss some additional sources of trouble that we have encountered.

**Failure to give DVT and antibiotic prophylaxis**

DVTs and pulmonary emboli and complications due to infection are the commonest, potentially avoidable post-operative problems in urological surgery and every surgeon must take appropriate precautions to prevent their occurrence. A recent House of Commons Select Committee\(^2\) has reported that a substantial number of hospitalised patients, many of them undergoing surgery, do not receive measures to prevent DVTs and pulmonary emboli and then subsequently develop a DVT or PE. Not surprisingly, patients may sue you if they develop a DVT and have not received adequate DVT prophylaxis.

Post-operative infective complications, specifically septicaemia, are not uncommon complications of urological surgery, particularly where the urinary tract already contains a source of urinary pathogens, e.g. a staghorn calculus. Septicaemia can be life-threatening or lead to other serious sequelae, and as for thromboembolic complications, failure to administer appropriate antibiotic prophylaxis at the time of surgery can lead to litigation where such complications arise.

**Failure to ask advice where appropriate and inappropriate delegation**

This probably happens far less than it used to. The days of ‘registrar only’ lists are numbered and the relative inexperience of junior staff nowadays means that increasingly the consultant will be in attendance for emergency procedures as well as for elective ones. However, some consultant surgeons continue to delegate operations to junior surgeons who are not capable of performing such procedures safely, and who unfortunately do not have the insight to appreciate this. This does still happen. Even within the last 2 to 3 years we have come across such cases which have, sadly, resulted in post-operative problems and subsequent legal action. As a consultant, if you do delegate operations to junior surgeons – elective or emergency – do make sure that the operation is within the capabilities of that junior surgeon and make sure that the surgeon knows you are very happy to come in and assist at the drop of a hat. If you are not in a position to be immediately available, ensure that a named consultant colleague is and that the operating junior surgeon, the anaesthetist and the theatre staff know who that consultant is. Do not forget to ask the named consultant to provide such cover! Of course, the simplest way to avoid such problems is not to delegate. This may seem an extreme view, but it is certainly
one effective way of avoiding the courts and it is one that some surgeons have already adopted.

**Patient identification issues and wrong side/wrong site surgery**

Wrong patient and wrong side errors continue to be a problem and not surprisingly they usually end in litigation (see the wrong kidney case, Chapter 17). A recent Medical Defence Union analysis over a 10-year period revealed an average of 12 notified incidents each year of wrong side/wrong site/wrong patient operations.²⁸ The number of such errors must actually be somewhat higher than this as no doubt the Medical Protection Society has been involved in a similar number of such cases. In the great scheme of things, 12 cases per year reported to one defence organisation represents a small proportion of the total number of procedures done in the NHS, when one considers that approximately 25,000 operations are carried out every day in the NHS. However, even one case is too many and every surgeon must do his or her utmost to avoid this particular error.

The National Patient Safety Agency has been working with the Royal College of Surgeons to develop nationally applicable guidelines designed to reduce the risk of wrong site surgery.²⁸,²⁹ The guidelines are currently being tested in the clinical environment across a number of NHS Hospital Trusts and will be published once these initial studies have been completed.

In the interim the MDU has issued the following suggestions to reduce the risk of such errors:

- Avoid the use of abbreviations in referring to site, side or anatomical location, in written notes, consent forms and on operating lists
- Use multiple sources of written information to confirm that you are doing the correct operation on the correct side and in the correct patient. These sources can include the patient's original referral letter, consent form and X-rays
- The appropriate site and side of the operation should be marked by a member of the surgical team who is going to be present at the operation
- The process of marking should involve more than one member of clinical staff
- When marking the patient, you should ask them to identify themselves actively by stating their name, their date of birth and their address. You should ask them what procedure they think they are about to undergo and the anatomical site/side. (Clearly, in the case of nephrectomy, the patient will usually not have symptoms referable to the diseased side and they will only know which kidney is to be removed because you have told them which side. So, if you make a mistake right at the beginning of the 'patient pathway' the patient's confirmation of the side of surgery may not be a safe source of confirming the correct side)
- The operating surgeon should see the patient before administration of anaesthesia and ensure that all clinical documentation is available (referral letter, source of referral, a signed consent form, supporting radiological images)
- Marking should use a clear, unambiguous, indelible method
- The operating surgeon must be satisfied of the intended site and side of the operation before the patient is draped
- Marks should be clearly visible to the operating surgeon after the drapes have been positioned
- A ‘time-out’ before the procedure starts should be called, so that the patient details and the site and side of the operation can be confirmed against the clinical records.

On its website the NPSA has published a document entitled ‘Correct Site Surgery Alert’ along with a checklist designed to help reduce the risk of wrong site/wrong side errors.

**OPERATIVE RECORDS**

It is the absolute responsibility of the operating surgeon to write a clear and comprehensive note of the operation performed, including any unexpected problems and complications encountered, as well as the steps taken to neutralise any problems arising. If you leave it to a junior it is your responsibility to make sure the account is reasonable and accurate. It is acceptable to dictate an operative note for your secretary to include in the notes, especially if your handwriting is illegible, but make sure it really is contemporaneous and comprehensive (ensure it is inserted into the patient’s note folder without unreasonable delay – after the patient has died or gone home is not adequate).

You really cannot write too much on an operative note. Accompany your text with a diagram on the principle that a picture is worth a thousand words. Some surgeons make a virtue of an artistic rendering of the procedure (we know a urologist whose operative notes deserved to be displayed in a gallery!), but a simple stick diagram will suffice. Telegrams such as ‘straightforward nephrectomy’ are not sufficient. Complications have certainly occurred after what has been described as a ‘straightforward nephrectomy’ and in the subsequent litigation the surgeon was found to have been negligent. Defence of the case was compromised by the surgeon’s failure to document what precautions he had taken to avoid the complication which subsequently occurred – he was unable to prove that he had taken these precautions because his operative note provided inadequate information. State explicitly what techniques and methods you used to avoid damaging important structures. If difficulties were encountered because of multiple adhesions from previous surgery, say so. Give at least a shorthand account of your wound closure. Specify drains and catheters and
draw a clear diagram to demonstrate to the nursing staff and your surgical team what all the tubes are draining and when they should be removed (Figure 3.1).

Finally make a clear note of your intended post-operative plan. More cases have been settled unnecessarily because the surgeon has written an incomprehensible telegram as an operative record, when a sensible account would have enabled a reasoned defence of an unexpected complication. Continuation of antibiotics and DVT prophylaxis such as subcutaneous heparin are common post-operative requirements. Failure for these to be administered can lead to litigation. Write in the operation note that it was your intention for them to continue for so many days. Though you might regard it as the houseman’s job to write up the antibiotics and DVT prophylaxis on the chart, it takes less than a minute to write these up yourself. At least then you know it has been done. The houseman or registrar (assuming you have one!) sometimes neglects to read your operation note and this can lead to a failure for the post-op heparin to be given, with the potential for disastrous consequences. The problem, of course, is that you might end up thinking that you, as the operating surgeon, have to do everything. Such is life! Perhaps you can console yourself in the knowledge that not only will the patient benefit from such an approach, but you also will do so.

**POST-OPERATIVE EXPLANATIONS**

It is essential to make sure that your patient is given a clear explanation of what has been done after the operation, preferably by the operating surgeon. If this is not possible you should brief your juniors carefully as to what should be said. The doctors involved need to understand that if they cannot answer any
particular query they must say that they do not know the answer, but will find out. If any untoward problem or complication took place during the operation it is mandatory that you, as the operating surgeon, provide a careful and sympathetic explanation of what happened, making sure that this is noted in the contemporaneous records. This is when an apology may be appropriate, which must also be noted in the clinical records. We reiterate that an apology is not an admission of liability. There is no need to go down on one knee and apologise in a verbose fashion, but a simple statement along the lines of ‘I’m really sorry you’ve had this problem, but we’ll sort this out for you’, said in a sincere manner, can help to make the patient think you really do care and may convert them from being angry to being grateful.

If a serious complication does develop post-operatively it is all the more important to provide a clear and sympathetic explanation of what is going on, with a clear outline of what is being done to correct the situation.

**DAY TO DAY CARE**

It is the consultant’s responsibility to make sure that the junior staff have adequate skills and expertise. A proper scheme of supervision within the surgical team is essential so that general management and a knowledge of symptoms and signs of complications can be taught. Make sure that inappropriate delegation does not occur, where an insufficiently experienced or knowledgeable doctor is expected to make decisions beyond his or her capability. A close system of communication must be set up and the junior staff must know that they are able to get in touch with their seniors at all times without fear of rebuff.

Make sure that your junior staff do at least a daily ward round and write daily follow-up notes during the post-operative period, recording any significant events. Be particularly wary at weekends when fewer senior doctors are available. Leaving junior doctors, particularly the inexperienced senior house officer, to care for a ward of patients for an entire weekend without some senior input can lead to problems. We can draw lessons from one particularly sad case which involved a young man who had undergone surgery to a fractured patella. Over the course of the weekend following his operation, the patient developed sepsis. He was ‘cared’ for by two senior house officers working on a shift system. Neither doctor recognised the signs of septicaemia. They never suspected a possible infective cause for the patient’s deterioration. At no stage was the patient reviewed by a senior doctor. The patient died of toxic shock syndrome. The two senior house officers were convicted of manslaughter on the basis that their care had amounted to gross negligence. Regular ward rounds by consultants, particularly at weekends, provide a safeguard against such catastrophes.

Post-operative note-keeping is particularly important. One not infrequently sees the criticism that nobody from the medical team reviewed the patient that day or that he was only seen by a very junior doctor and no-one else. It will be difficult to defend yourself if you do not record the date on which you saw
the patient and the time. Record also the members of the team who were also present. If there were two registrars present, a senior house officer and nurse practitioner, record the fact. Record the names of individuals and their ‘rank’.

Make the notes from ward rounds meaningful. By this we mean relevant to the case in hand. The nature of the notes and the level of detail will obviously depend on the type of case. In the immediate post-operative period after major surgery relevant points to highlight will usually include comment on the following:

- Is the patient getting better or worse, i.e. what is the trend in their post-operative course?
- Record negative findings which indicate that serious post-operative problems have not occurred, i.e. is there any calf pain or tenderness, is there any breathlessness or chest pain (i.e. is there any evidence of a DVT or pulmonary embolus?)
- What is their temperature? If raised is the trend up or down?
- What is their cardiovascular status? Well perfused peripheries? Strong, slow pulse? Normal blood pressure?
- What has their urine output been in the last 12–24 hours?
- What is the status of their abdomen? Is the wound healthy or does it look as though it is about to dehisce? Is there abdominal tenderness and if so is it a new finding, or, if present previously, is it getting worse?
- What is the plan of action for the day – blood tests to be done, plans to avoid venous thromboembolic disease (is the patient to mobilize, and continue with TED stockings and heparin) etc., etc.

Finally make sure that your junior staff provide a reasonable summary of the operation and admission for the summary to the general practitioner within a day or so of discharge. An uneventful cystoscopy under general anaesthesia requires little explanation for the GP, but a 6-week stay in hospital after what should have been a simple nephrectomy needs some careful explanation. To make sure the GP has got the full information the consultant in charge should dictate a more detailed letter giving an account of the admission and the pathological findings, with any instructions for further treatment or management. This letter should include a plan for the future, be this discharge, clinic follow-up or further treatment.

What you expect of your junior staff can be summarised in departmental guidelines, which are given to each new member of the clinical team. Our departmental guidelines are contained within a document which extends to about 40 pages. We give each junior member of staff the guidelines printed on paper together with an electronic version so that it can be carried in a computer disc or in a personal organiser for rapid reference. The guidelines are reviewed in regular departmental meetings and they are revised on a regular basis as problems are encountered and solutions and preventative measures are developed. Our DVT prevention and antibiotic policies are reviewed on a regular basis with
our haematologists and microbiologists. Old versions of the guidelines, stating the period during which they were valid, are stored in a separate file so that should we need to refer to them in the future, we know which particular set of guidelines we were using at the time that a medico-legal issue arose.

**SHARED CARE**

In some large departments of urology the care of individual patients may be shared between consultants. The surgeon who saw the patient in the clinic and booked the admission may therefore not be the consultant who actually carries out the operation. This is a situation which increases the risk of error, often because of simple communication issues. It therefore requires especial care to make sure that the patient gets the treatment he or she expected and has had explained. The process of consent needs particular attention. We are aware of several urology departments in the UK from which a number of allegations of negligence have arisen, almost certainly because of failures of communication between colleagues. A dysfunctional department makes for higher litigation risks.

One of the problems with shared care is the potential for the lack of a lead clinician whose responsibility it is to co-ordinate the patient’s care. The fragmentation of care between specialists and sub-specialists – often on hospital sites in different locations – is a particular problem here. Such a system runs the danger that no one single clinician has ‘ownership’ over the patient’s care. There is no easy solution to this problem. One cause of this problem may be the move towards consultant surgeons being viewed as technicians rather than professionals.31

**FUNDAMENTAL LACK OF KNOWLEDGE LEADING TO LITIGATION**

We have presented several cases where an important factor (sometimes the only factor) that led to litigation was a basic lack of knowledge of a presenting condition or a post-operative complication. Examples include:

- Failure to appreciate the symptoms and signs of cauda equina syndrome
- Ignorance of the possible occurrence of ureteric injury during pelvic surgery
- Ignorance of femoral neuropathy due to inappropriate application of self-retaining retractors
- Failure to appreciate the symptoms and signs of compartment syndrome
- Failure to appreciate the symptoms and signs of bladder perforation.

It is difficult to give specific advice on how to avoid such problems – you or your junior staff can only recognise them if you and they know about them.
There is of course no substitute for experience. However, if you expect your junior staff to look after your patients in the post-operative period, you must equip them with the skills to do so. Make a point of teaching your SHOs and registrars about possible complications and problems they should look for. So, for example, in the context of transurethral resection of a bladder tumour, tell them what symptoms and signs to look for that might indicate the possibility of a bladder perforation. It takes some time to educate your team in these important areas, but it is time well worth spending.

One way of educating your junior staff is to produce written guidelines which are distributed as each new member joins the team. Each department and each speciality does things in a particular way, and written guidelines or departmental policies on your requirements for pre- and post-operative care, given to new members of the team when they start the job, can be very helpful in preventing future problems that might lead to litigation. Emphasise how important it is that they read them. Better still spend 15 minutes with your new house officer, SHO or registrar, running through the guidelines section by section. This may be the most worthwhile 15 minutes you ever spend with them. If you do issue such guidelines, update them as methods of management change, or as problems are identified. Keep a record of past versions of your guidelines, so that you can refer to what they were 5 years ago, when problems with a particular case first occurred.

**AND IF AN ERROR OR POTENTIALLY LITIGIOUS PROBLEM OCCURS …**

Thus far we have outlined ways of avoiding getting into a situation where errors or problems leading to litigation can occur. However, if an error does occur, litigation (or at least prolonged, expensive litigation) may still be avoided by adopting the correct approach to subsequent management of the situation.

In Vincent’s survey,32 41% of those patients who had taken legal action for clinical negligence said they would not have taken legal action (i) had they been given an apology and an explanation of what had happened, (ii) had the mistake been corrected, (iii) had they been paid compensation and (iv) had there been an admission of negligence. Clearly doctors are not themselves in a position to be able to offer direct financial compensation, nor is it necessarily appropriate to admit negligence where there has been none. However, we are in a position to be able to apologise and explain what has happened and to correct the mistake in a timely and appropriate manner. Saying sorry is not an admission of negligence – rather it is an expression of empathy for the plight of a fellow human being who has suffered some problem (which may well have occurred despite exemplary care). Of course failure to give an apology and to explain what went wrong and failure to correct the harm that has occurred as a consequence of the mistake (if indeed a mistake has been
made) are not the only causes for litigation (as will become apparent in this book), but they are potential ways of averting the possibility of litigation. The National Patient Safety Agency (NPSA) in the UK provides ‘Being Open Guidance’ in which it suggests that doctors should ‘Say sorry for what has happened’ and ‘explain exactly what went wrong’. This policy is endorsed by the Medical Defence Union and by several health-care providers in the United States.

In the National Audit Office report ‘Handling clinical negligence claims in England’, a ‘package’ of remedies for patients who have suffered some harm as a consequence of medical treatment (whether negligent or otherwise) was suggested as one possible way of avoiding expensive litigation. The aim was to change the approach to such problems from a legal process into an extension of clinical care. Possible items that could be included in the package are shown in Table 3.1.

Such a package approach is used by some NHS Hospital Trusts, but sadly the NAO found that over 80% of Trusts reported that they rarely or never offered meetings with clinicians, nor did they offer remedial care or pay for that care outside the Trust. Barriers to the use of such packages include the fact that claimants’ solicitors tend to ask for money rather than non-financial remedies, and claims managers are not accustomed to offering them and many lack the training or authority to be able to use them.

**FINALLY**

Having said all of this, there is a risk that you will get involved in litigation when strange and rare complications arise, but these should be entirely defensible. The occurrence of what is a recognised complication of an operation is defensible if a clear warning has been provided (and can be demonstrated to

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<td>Meetings with medical staff to explore what went wrong</td>
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<td>An explanation of action taken to prevent it happening again</td>
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have been provided) and the necessary precautions against its occurrence had been taken. Some complications of certain operations are all too well recognised, but are not defensible against an allegation of negligence as there are reasonable and established methods of avoiding them which the surgeon has not followed. Beware of the very small risk that just might cause a patient to refuse surgery. Do not hesitate to communicate with your defence association if any untoward situation occurs. Read all the literature provided by your defence association – it might happen to you next week!

Finally pay your defence association subscription by direct debit to make sure you are not suddenly unsupported by their wise counsel and help.

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23. Sidaway v Board of Governors of the Bethlem Royal and the Maudsley Hospital [1985] 1 All ER 643.
34. 'I'm sorry'. Lancet 2005;366:1138.
Consent

FROM BOLAM TO CHESTER v AFSHAR – THE EVOLUTION OF INFORMED CONSENT

It is regarded as part of a doctor's duty of care to inform a patient of the options for treatment, the nature of that treatment and its potential outcomes and complications. Thus, a doctor who fails to consent a patient adequately for a treatment will be in breach of his duty of care to that patient and he may, if the patient suffers ill consequences from that treatment, be judged to have been negligent in carrying out his duty. Consent for operation is a process to be gone through carefully with the patient, which is designed to ensure that the patient gives a valid consent. Valid consent means consent which makes lawful what the surgeon is proposing to do to the body of the patient, which is only possible if that patient, at the time of consenting, has a real understanding of what it is that will be done. Be aware that a surgical operation done without the true consent of the patient is in law technically an assault, although claims brought in such cases are not nowadays generally framed specifically in such terms. So the consent is not just a form to be filled in as part of a routine, nor does the fact alone of the patient having signed the form of itself constitute valid consent in law. Unless you have achieved the patient's real understanding of what it is you are asking him/her to consent to, the consent form is no more than a bit of paper with a name on it.

In the absence of a valid consent the patient will have the opportunity, in the event of a bad outcome, and even if that bad outcome is not your fault, to argue that if fully informed before signing the form he/she would have refused the procedure, or opted for a second opinion, and so escaped the unfortunate consequences of the operation at your hands. In certain circumstances, and provided the judge accepts that the patient would indeed have avoided your operation if properly informed about it, you may be held liable in damages for the consequences in fact suffered. So be sure to annotate your consent process in the clinical records. If a problem does arise subsequently the evidence of a full and thorough discussion with the patient, clearly recorded in the contemporaneous records, speaks much more powerfully than a signed consent form.
So much of consent is about good communication – communication of alternative management options, communication of the nature of the procedure and the post-operative course, communication of likely outcomes and communication of risks. It is a sensible idea, particularly for major surgery where there is a real risk of serious complications or poor outcomes, to consent your patients with a relative of the patient present. The patient may not think or remember to ask important questions. Their relative may do this on their behalf. Obtaining consent well in advance of the intended procedure has significant advantages for the patients and the relatives. It provides a time for reflection, an opportunity to change their mind and an opportunity to ask for more information. Make it easy for patients to do this. Give them a number that they can call to contact you. If you are not available at that time, ask them to leave a message and call them back. They will appreciate your accessibility, and this can prevent problems occurring in the future. Remember, it is better to be too accessible rather than too inaccessible.

So valid consent involves the duty to inform. The General Medical Council sets out 12 items of information which the patient will need: 1

- Details of the diagnosis and prognosis, including what will happen if the condition is left untreated
- Any uncertainties about diagnosis, including what options there are for further investigation before treatment
- Options for the treatment or management of the condition, including the option of not treating
- The purpose of any proposed investigation or treatment – details of the procedures involved, including any additional treatment, such as pain relief; how the patient should prepare; what they can expect during or after the procedure, including common or severe side effects
- The likely benefits and probabilities for success for each option – what the likely risks are and what changes they may have to make to their lifestyle
- Whether the treatment is experimental
- How the patient’s progress will be monitored
- Who has overall responsibility for the treatment and who are the other senior members of the team
- To what extent students or trainees will be involved
- A reminder that patients can change their mind at any time
- A reminder that they can request a second opinion
- Details of any charges there may be for the treatment, if applicable.

All this must be done in the same careful fashion as the explanations and history taking, making sure that it is within the context of the patient’s individual experience – their knowledge, background and culture.

There is a temptation to write in the notes ‘options and complications discussed’. You are in a busy clinic, there is pressure to see patients as quickly as possible and you did not have time to write down everything you said. But how
easy will it be to remember what you said when the case comes to court several years later? It will not take a prosecuting barrister of even average ability more than a few seconds to suggest that on this one occasion you might just have forgotten to mention a particular complication. You are only human after all. Remember, the only evidence that you said what you think you said will be what is written in the patient’s notes. If it is not written down, there is a risk that the court will find that on this occasion you didn’t say it. This need not be a handwritten note – it can be a typed letter to the patient’s GP (better still with a copy sent to the patient), or it can be a copy of an information leaflet that you gave to the patient (preferably signed to say they received it). ‘I didn’t have time’ is a common excuse for poor record keeping. If you are the type of doctor who thinks that they can retreat behind this excuse, then accept that you will have to make time to defend yourself when legal action is taken against you for inadequate consent or rather inadequate proof of consent. You will find that defending such a case will consume a disproportionate amount of your time.

It can be helpful not only to state what your plans are for a particular series of investigations or treatment, but also the rationale behind why you are doing it. If you have decided against a particular course of action, explain why. There may be a perfectly sensible reason for what you did, but years down the line when the case has finally come to court, you might not be able to remember your reasoning for what you did or did not do. Similarly, during the course of an operation explain why you did what you did. If your memory is anything like ours (bad!) you may be thankful for making such a contemporaneous note.

It has become common practice for the formal consent to be obtained at the end of the final pre-operative consultation, rather than leaving it until admission to the ward. There is much to be said for obtaining consent some days or weeks before the operation. As stated above, this provides a cooling off period, allowing the patient a period for contemplation, giving him time to ask questions that did not originally spring to mind and giving the patient time to change his mind.

In April 2002 all hospitals in the UK adopted a standardised form for the purpose of consent. The new consent form was introduced alongside a Reference Guide to Consent for Examination and Treatment and a Good Practice Guide, produced by the Department of Health (both documents can be viewed at the website of the Department of Health). The new consent form was developed to provide a check list of information that patients should receive in a way that was standardised across the entire NHS. It had originally been intended that the forms be produced in a standardised format which could be customised to individual hospitals and departments. However, because of time constraints the unmodified forms were introduced and blank spaces were left for the sections entitled ‘intended benefits’ and ‘serious or frequently occurring risks’. The space available for documenting these benefits and risks is limited and this information must be documented by hand. This is a tedious process and, paradoxically, the risk that the documentation may be incomplete is thereby increased. Obviously this may have the effect of exacerbating the risk of litigation.
The new consent form is an extensive document which takes time to read and complete, but it must be completed and signed by the patient. Its ‘readability’ has been called into question by Pothier. He applied the Flesch readability ease score to the standard UK consent form. This is a validated measure of readability, a document scoring 65 or more being considered readable by most adults. A lower readability score means that fewer adults will be able to read it (i.e., a higher level of education is required to read the document). Pothier found that the score for the entire text was 45 and that the ‘Statement of patient’ section scored 49, a score corresponding to a ‘difficult college’ level of literacy. Do not forget that nearly half the adult population in the UK between the ages of 16 and 65 have levels of literacy low enough to interfere with daily work tasks. Many patients are therefore unlikely to be able to read and therefore understand the current UK consent form. What this means is that surgeons must take it upon themselves to try to enhance the patient’s level of understanding during the process of consent. The form itself should perhaps be regarded as a bare minimum requirement for obtaining consent. The use of additional explanations, as evidenced by written documentation and diagrams within the patient’s medical records, is one way to enhance such understanding. Recently the British Association of Urological Surgeons (BAUS) procedure specific consent forms have been produced in an attempt to standardise the process of consent for urological surgery.

The process of obtaining consent has become a fairly tedious and time-consuming process. Unfortunately it is one of the principal ways in which to guard yourself against vexatious litigation, so it is actually time well spent. It is still depressing to find how many consent forms have not been properly filled in, with no suggestion of warnings and an illegible name for the doctor countersigning the form.

During the process of consent, the extent to which students or trainees will be involved in the care of a patient must be explained to the patient. Patients not infrequently ask ‘will you be doing my operation?’ and in the Department of Health information to patients about the new consent forms a subsection is entitled ‘Who is treating me?’. As the GMC guidelines on consent specifically state, ‘you must respond honestly to any questions the patient raises’. If a trainee is going to perform the procedure then tell the patient, but assure them that you will be in attendance to supervise the trainee in order to ensure that the procedure is carried out correctly. While the patient section of the NHS consent forms states that ‘I understand that you cannot give me a guarantee that a particular person will perform the procedure’, this is not an abdication of responsibility when it comes to informing the patient about who the operating surgeon is going to be. At least when it comes to TURP, TURBT or cystodiathermy, most patients in a recent survey felt that junior surgeons should perform surgery as part of their training, but at the same time 82% thought that they should be told if the operation was going to be done by a junior surgeon. Only 15% of patients in this survey said that they would be happy for a junior surgeon to operate on them unsupervised. It is worth emphasising that these
findings relate only to TURP or TURBT. They may not apply to more major surgery. Similar findings have been reported with regard to the involvement of medical students in the care of patients during their training.7

Failure to inform a patient who the operating surgeon is going to be – or rather misinforming them – has already led to litigation in at least one case, decided in the American courts. In *Dingle v Belin*8 the patient, Mrs Dingle, underwent a cholecystectomy. Prior to the operation she had been assured that the operation would be done by the surgeon in charge of her case, Dr Belin, and that a resident would only assist as was absolutely necessary. In reality a fourth year resident carried out the cholecystectomy and the patient suffered a bile leak. This required further corrective surgery. Mrs Dingle sued Dr Belin. The case went to the appeal court, where it was held that the surgeon must discuss and resolve with the patient the identity of the persons who will be performing the operation if the identity of these persons is of importance to the patient (which it clearly was in the case described here).

**REFERENCE GUIDES AND ADVICE FOR OBTAINING CONSENT**

In terms of specific advice to assist with the process of consent, The Medical Protection Society produces an excellent laminated card on consent – Medico-legal Advice 001 – which can be kept available in the clinic and on the ward as an aide memoir for the consenting process. The UK Department of Health Reference Guide to Consent for Examination and Treatment and a Good Practice Guide are very useful documents, and ones which the sensible surgeon should make every effort to read. They can be downloaded from the website of the Department of Health.2

**THE CONSENT TIMELINE**

1957: The *Bolam* test – the professional medical standard

The case of *Bolam v Friern Hospital Management Committee*9 formed the basis of the law of consent for much of the twentieth century. It is described as the professional medical standard – the test of responsible medical opinion. Mr Bolam underwent electroconvulsive therapy for depression. He suffered fractures during the procedure. The possible risk of fractures was known to his doctor, but Mr Bolam was not informed of this risk. He alleged that the failure to warn him of the risk was negligent. The judge found that the amount of information given to Mr Bolam accorded with accepted medical practice stating ‘A doctor is not guilty of negligence if he acted in accordance with a practice acceptable by a responsible body of medical men skilled in
that particular art’. The judge added that Mr Bolam’s case would only have succeeded had he been able to show that, knowing there was a risk of fractures following ECT, he would have refused consent for ECT. Mr Bolam’s case was dismissed.

**1972: Rejection of the Bolam test (the professional medical standard) by the reasonable patient test (in the US)**

In the United States the case of *Canterbury v Spence*\(^\text{10}\) represented a shift away from the doctor knows best towards the patient knows best. The case became known as the prudent patient test (also known as the ‘transatlantic test’ or the ‘reasonable patient test’). It represented a shift in thinking towards the patient’s right to know, obliging doctors to disclose to their patients any material risk inherent in a proposed treatment, a material risk being one that a reasonable person would attach significance to.

**1980: Bolam rejected by the Canadian Supreme Court (*Reibl v Hughes* [1980])\(^\text{11}\)**

**1985: Endorsement of the Bolam test by the House of Lords in Sidaway v Board of Governors of the Bethlem Royal and the Maudsley Hospital – the patient’s right to know**

In the case of *Sidaway v Board of Governors of the Bethlem Royal and the Maudsley Hospital*,\(^\text{12}\) Mrs Sidaway became permanently paralysed following a laminectomy for nerve root compression. She alleged that she had not been warned of the <1% risk of spinal cord damage and that, if she had, she would not have undergone the operation. The case was referred to The House of Lords. The majority of the Law Lords (four out of five) endorsed the Bolam test, that while some neurosurgeons warned of the risk of SCI, many did not. Mrs Sidaway lost her case.

Lord Scarman, however, rejected current medical practice (a rejection of the Bolam test) in favour of the patient’s right to know.\(^\text{12}\) He stated that the doctor would be liable ‘where the risk is such that in the court’s view a prudent person in the patient’s situation would have regarded it as significant’. *Sidaway* was significant because it was the first time that the courts were willing to be critical of a ‘responsible body’ of medical opinion. The concept of the ‘reasonable patient’ had been born. *Sidaway* represented a shift away from standards of reasonable care being set by the medical profession towards these standards being set by the courts. *Sidaway* explicitly stated that it was open to the courts to decide that information about a particular risk was so obviously necessary that it would be negligent not to provide it, even if a ‘responsible body’ of medical opinion would not have done so.
1992: *Bolam rejected by the High Court of Australia*  
(*Rogers v Whittaker* [1992])

In *Rogers v Whittaker* a one-eyed patient underwent a non-essential procedure to her blind eye. An ophthalmic surgeon failed to disclose a 1 in 14,000 chance of blindness in the contra-lateral eye, although she had expressed specific concerns about losing her residual sight. The generality of the medical evidence was to the effect that it was so small a risk that most surgeons would not warn of it. The High Court of Australia nonetheless held the surgeon negligent for failing to give the warning.

*Rogers v Whittaker* and *Sidaway* demonstrate that to claimants it is not just the size of the risk (the *percentage* chance that the risk will occur) that matters. It is also the *nature* of the risk – more specifically the impact that it will have on the individual. Thus the loss of the tip of a little finger may be of little consequence to a bus driver, but it may end the career of a concert pianist. Remember, only the patient can judge whether the risk is significant or not. The wisest counsel is that the reasonable doctor must tell the patient what the reasonable patient would want to know in the particular circumstances.

1998: *Bolam rejected by the GMC*

The GMC publishes guidelines on consent – *Seeking Patient’s Consent: the ethical considerations*. The GMC states that *Bolam* will be no defence if the doctor fails to reach the GMC standard, as laid out in this document (the profession’s own regulatory body has effectively imposed a US style approach to consent). The following extracts from the GMC guidelines should be borne in mind during the process of gaining consent from a patient:

- ‘You must meet the standards of competence, care and conduct *set by the GMC*’
- These guidelines set out the principles of good practice ‘which all registered doctors are expected to follow when seeking patients’ informed consent to investigations, treatment, screening or research’
- ‘Existing case law gives a guide to what can be considered the *minimum* requirements of good practice in seeking informed consent from patients’
- You should provide ‘for each option, explanations of the likely benefits and probabilities of success, discussion of serious or frequently occurring risks, and of any lifestyle changes which may be caused by, or necessitated by, the treatment’
- ‘You should discuss treatment options at a time when the patient is best able to understand and retain the information’ and ‘allow patients sufficient time to reflect, before and after making a decision, especially where the information is complex or the severity of the risks is great’.
In *Pearce v United Bristol Healthcare NHS Trust* \(^{15}\) [1996] the pregnant Mrs Pearce was two weeks past her due date. She discussed induction with her obstetrician who warned her of the risks of induction and Caesarean section, but not of the 0.1 to 0.2% risk of stillbirth with no intervention. She went into spontaneous labour and her child was stillborn. She alleged that the failure to warn her of the risk of stillbirth with no intervention amounted to negligence. The Court of Appeal held that she had not established negligence. Though Mrs Pearce lost her case, Lord Woolf’s statement was significant because it essentially rejected the professional medical standard – the *Bolam* test. Lord Woolf stated ‘if there is a significant risk which would affect the judgment of a reasonable person… it is the responsibility of a doctor to inform the patient of that significant risk, if the information is needed so that the patient can determine … what course of action to adopt’.

**Chester v Afshar** \(^{16}\) [2002]

The claimant, Miss Chester, consented to surgery to remove three prolapsed lumbar intervertebral discs. Despite the fact that Mr Afshar, an eminent neurosurgeon, carried out the operation in an entirely appropriate fashion she suffered nerve damage leading to paralysis. Mr Afshar had not warned her of this possible effect of surgery. It was a known risk of the operation to which she submitted, and the failure to warn her of it had not increased the risk. She argued that had she known about the risk of paralysis she would have sought further opinions to explore the necessity and risks of the operation, before consenting to it, and so would not have consented to surgery at that time, though she might have consented to surgery at some other time in the future. Mr Afshar was held liable to her in negligence for having caused her to suffer the injury by not warning her of the possibility of paralysis and this judgement was upheld on appeal.

In the past patients could effectively only succeed in a failure to warn case by proving that had they known about a risk they would *never* have proceeded with surgery at any time. The significance of this case was that Miss Chester did not state if warned she would *never* have gone ahead with the operation. The crucial fact in determining that Mr Afshar was liable to her for the injury was that she would not have gone ahead with surgery *at the time that she did*, and instead would first have sought other opinions about need and risk, and so avoided the risk of paralysis which materialised at his operation. This case protects the patient’s right to choose. The law imposes upon a doctor the duty to warn so that the patient is able to make an informed choice.

The essence of the *Chester v Afshar* decision was that the surgeon should have warned the patient of the very small risk, not so much because the risk existed, but so that the patient could then have thought about that very small risk, having been warned, and could have deferred the operation. Then, when the operation was finally done, the risk would have been so small that it was extremely unlikely to occur. Not a concept easy for a simple surgeon to grasp!
CONSENT – FREQUENTLY ASKED QUESTIONS

For what sort of procedures or treatments do I need to seek consent from patients?

You must obtain consent from a patient prior to any examination or treatment, whether this is taking blood from the patient’s arm or carrying out a cystectomy. However, during the process of taking blood, the fact that the patient voluntarily offers you their arm is an indication that they have consented for you to take blood from them. This is enough to allow you to take blood and you need not get them to complete a formal consent form.

Formally recorded consent for flexible cystoscopy is relatively uncommon, although it is likely to become more common in the future. Nonetheless, you probably already explain to the patient how the procedure is done, the fact that it is uncomfortable or even painful for some people, and you might also mention that some haematuria and burning dysuria is common afterwards. If you do have this sort of conversation with the patient prior to the cystoscopy, effectively you have consented them, even though you may not formally record that this process took place. We do now formally consent patients for flexible cystoscopy, using a consent information leaflet which is signed by the patient, countersigned by the surgeon and secured within the patient’s notes (see Figure 4.1).

When should consent be sought?

Consent is a process rather than an event. The process of consent should, ideally, start well in advance of the planned procedure. This allows the patient to ask appropriate questions without feeling under pressure and it allows you, the doctor, to provide adequate information about the planned treatment, alternative treatment options, potential outcomes and risks. The time immediately before an operation is a stressful one for the patient and they are particularly vulnerable at this time. It is therefore sensible to avoid trying to obtain consent immediately prior to surgery.

Do I need to get the patient to sign a consent form in order for consent to be valid?

No. A patient may give verbal consent to a procedure and this is a perfectly adequate ‘form’ of consent. However, absence of documentation to support the fact that you went to certain lengths to explain the procedure to the patient may make it difficult for you to defend yourself against allegations that you did not inform the patient fully about a certain risk or outcome. The use of a specific consent form prior to a surgical procedure is regarded as good practice. Its role is to provide a record of the patient’s decision. There is no substitute for carefully written notes made in the patient’s medical records outlining the
procedure you went through to explain the nature of a treatment, alternatives to that treatment and its possible outcomes and risks.

Does the process of signing the consent form need to be witnessed?

No. Having said this, going through the outcomes and complications of a procedure with a close relative, particularly prior to major surgery, is a sensible idea. If you have done this, record the fact that a relative (named) was present during the consultation.

Who should obtain consent?

The consultant responsible for the patient’s care is ultimately responsible for ensuring that a patient has been provided with enough information about a treatment or procedure for them to decide whether they wish to undergo that treatment or procedure or not. Consent may be obtained by a junior doctor (or another health professional) as long as that doctor (or health professional) is

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This is telescopic examination of the inside of the bladder and is carried out by passing a thin telescope down the length of the urethra (the ‘waterpipe’). It can be done under local anaesthetic (flexible cystoscopy) or general or spinal anaesthetic (rigid cystoscopy).

- Flexible cystoscopy is done using a lubricant gel, containing an antiseptic and anaesthetic, which is squeezed down the length of the waterpipe (‘urethra’).
- It is uncomfortable and some people describe it as painful
- It is done to exclude or confirm the presence of bladder cancer or other bladder abnormalities
- A biopsy (small tissue sample) of the bladder may be taken to be examined later by a pathologist under the microscope
- A burning sensation in the waterpipe (urethra) while passing urine can occur for several hours afterwards
- Passage of blood in the urine can occur for some hours or, more rarely, for days afterwards
- Urinary infection requiring a course of antibiotics is uncommon.

I confirm that Dr____________________________________________________________
has explained what the above procedure is likely to involve and has discussed each of the risks as outlined above.

Signed (patient’s name)_______________________________________________________
Date________________________________________________________________________

Attach identification label:

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Figure 4.1
Oxford Radcliffe Hospitals consent information leaflet for flexible cystoscopy and rigid cystoscopy.
suitably qualified and trained in performing that procedure. That means that they may obtain consent as long as they are capable of explaining alternative options, the nature of the procedure and its potential outcomes and risks. Where the health professional has inadequate knowledge of the procedure, such that they cannot provide full information for the patient about the proposed treatment, the consent may not be valid.

How much should I tell the patient about the operation?

You must inform the patient of any risks that they might regard as ‘material’ or ‘significant’. This will vary from patient to patient. The GMC states that doctors should find out about the patient’s individual needs and priorities when providing information about treatment options. Err on the side of giving more information rather than less. Remember that some patients will attach great significance to a 1 in 1000 chance of a particular side effect occurring whereas others will not be concerned about such a risk. Absolute percentages are meaningless when it comes to obtaining consent. The fact that a patient may be upset by hearing certain information or might refuse treatment as a consequence of hearing that information is not sufficient cause to withhold that information. Remember, any misrepresentation of possible benefits and risks of a procedure will invalidate consent.

In summary, the type of information that you should consider discussing with the patients includes:

- The treatment options
- The benefits of each option
- The risks of each option
- The success rates of each option – nationally, for your unit, for you as an individual surgeon
- Why is an operation necessary?
- What are the risks of not having the operation?
- How will the patient feel after the operation?

This is not an exhaustive list and there may well be other things that should be discussed with the patient, depending on their circumstances and the procedure in question.

Can another person provide consent for a patient?

No-one can give consent on behalf of an incompetent adult. Incompetent adults include unconscious adults. If you believe that a treatment or operation is in the patient’s best interests, then you may go ahead with that treatment or procedure in the absence of consent from the patient. Thus, for example, you do not need to ask permission from anyone to stop life-threatening haemorrhage in an unconscious patient, because you will, in almost every case, be
acting in their best interests (most Jehovah’s witnesses excluded). If a patient has never been competent, then it is sensible to ask relatives, carers and friends about the needs and preferences of the patient, but these people cannot give consent for that incompetent adult. If an incompetent patient has in the past, at a stage when they were competent, indicated that they would refuse treatment in certain circumstances (a so-called ‘advance refusal’) you must abide by that refusal.

Can children consent for themselves?
People aged 16 and 17 have the competence to give consent for themselves. Younger children who understand fully what is involved in a proposed procedure can also give consent, although their parents will usually be involved in the process. If a competent child consents to treatment, a parent cannot override that consent. However, a child cannot refuse consent. A parent can consent for a child if that child refuses consent (such situations are likely to be rare).

Can I consent a patient if they have been given pre-operative medication?
The simple answer is no. If the patient has been given sedation prior to an operation, but has not consented for that operation, you will need to wait until the patient has fully recovered from the sedation, even if this means postponing the operation until a later date.

How long is consent valid for?
Indefinitely, unless consent is withdrawn by the patient, or if the circumstances of the case change in some relevant way (e.g. a new treatment option becomes available or the patient’s problem changes in some way such that there is a change in the risks or likely benefits of a procedure). If circumstances do change, the process of consent must be repeated.

What should I do if a patient withdraws consent during a procedure?
This can occur if the patient is undergoing a procedure under local or spinal anaesthesia. Stop the procedure. Find out why the patient is concerned. Explain the consequences of not completing the procedure. Clearly if not continuing the procedure would endanger the patient in some way (e.g. if there is continued bleeding) you should continue the operation until the patient is no longer at risk. Document carefully the conversation you had with the patient, get attending staff to witness what you say to the patient and ask them to countersign your version of events to corroborate what has occurred.
REFERENCES

12. Sidaway v Board of Governors of the Bethlem Royal and the Maudsley Hospital [1985] 1 All ER 643.
What to expect if you are sued

Every professional faces the risk (some would say likelihood) of being sued at least once in a career, and surgeons are no exception. As Lord Donaldson, a former Master of the Rolls, put it succinctly: ‘Any professional man who says he has never been negligent is either a fool or a liar’. Sadly, as discussed elsewhere in this book, you may find yourself accused of negligence where the outcome was bad but neither you nor anyone else was at fault. Whether or not there is merit or substance in the claim against you, it will (unless withdrawn at an early stage) mean that you are compelled to submit yourself to part or all of the litigation process, and to take an active albeit reluctant part in what follows. Obviously the best way to avoid being sued is to ensure by all means possible (and those means are thoroughly discussed in other chapters) that you do not make careless mistakes, and do not give an unhappy patient any occasion to want to pursue you through the courts. However, if you do find that a claim is being made against you, remember that you are by no means alone. It is an experience you share with many distinguished surgeon colleagues, and like it or not your turn has come to place yourself and your trust in the hands of the lawyers. This chapter will describe briefly what you can expect if you find yourself in that situation.

THE ‘LETTER OF CLAIM’

Firstly there will be prepared and sent out by the solicitors for the aggrieved patient a preliminary letter, known as the ‘letter of claim’. Sometimes this letter will enclose a draft version of a more formal document, known as the ‘particulars of claim’, which is usually the work of a barrister. The particulars of claim is the first of the pre-trial ‘pleadings’ by which a claim must be fought out on paper before it gets to court (more about pleadings below). The letter and/or the draft particulars of claim will set out the essentials of the case which is alleged against you. Whether or not accompanied by the draft pleading, this letter is the required first step towards initiating legal proceedings. It is likely in most cases to be based on an expert report obtained by the lawyers from a surgeon in the relevant field, so you may assume that the patient has already
received expert advice that *prima facie* (on the face of things) an error was made which was outwith acceptable standards of skill and care. The letter will set out in varying degrees of detail what it is being said you did wrong, and the consequences for the patient which it is alleged your error has avoidably caused. It has the dual purpose of giving early warning to you and your advisers of what you are facing, so that you can start investigating and dealing with the allegations, and also of requiring a formal response from you, which must be given within a fixed time scale.

**WHO IS THE ‘DEFENDANT’?**

The named defendant, and so the addressee of the letter of claim, will not be you in person if the allegations involve NHS treatment, but the Trust or Authority by which you were employed to carry out the relevant procedures. To that extent you are spared the pain of being personally sued, which will be your fate if the allegedly negligent treatment was given by you ‘on your own account’, i.e. when the claimant was your private patient. In the latter case you alone are the target of the litigation, and your defence organisation will support you (and pick up the bill if damages are ultimately awarded). In the former case it is the NHS Trust which is the target, because in law they are, as employers, ‘vicariously’ liable for the negligent acts or omissions of their staff when acting in the ordinary course of their NHS duties. Here the National Health Service Litigation Authority (the NHSLA) will take up the task of arranging and funding the defence, and will meet the damages bill if any arises.

**DEALING WITH THE LETTER OF CLAIM**

If a letter of claim comes onto your desk, do not panic, and above all do not ignore it. Keep a cool head, and study its contents very carefully. Whether to the Trust or to your defence organisation, you must now provide a thoughtful and thorough account of the treatment which is criticised, and of how you answer the allegations of fault and causation. This is best done in writing, as soon as is practicable, because the nearer you are in time to the events in question the clearer your recollection will be. You should ensure that for the purpose of this reply you have been sent all relevant notes and records which cover the history of the patient and the treatment given. You may find, given a busy surgeon’s work load, that save in the case of outstandingly awkward or catastrophic events, which have a habit of sticking in the memory, you do not recall anything about the case until you have revisited the contemporaneous notes. Even then it is not uncommon for a surgeon to be totally reliant on what the notes contain, because he has otherwise no independent recollection of the facts. This adds particular force to the advice given elsewhere in this book to make in every case the best possible notes of your reasoning, your decisions and your actions.
THE ‘RESPONSE LETTER’

Your early and full attention to the case about which complaint is made is essential because the Civil Procedure Rules (CPR) require that there should be a response to the letter of claim before litigation can be commenced. The response letter must give the proposed defendant’s answers to the allegations, and must indicate clearly what is contested and what is not. Before the response letter achieves its final form, and to help with its drafting, you will probably be expected to meet with your legal advisers (perhaps including a barrister) to go through matters in detail and to formulate the best possible reply. Sometimes there is a very obvious and simple answer to everything which has been alleged against you, and the lawyers will be content to rely on you alone for a robust and convincing response. In more complex cases they may decide to take statements from as many relevant witnesses to the material events as can be found, and also to enlist an independent expert in your field to provide impartial and objective advice on the merits or otherwise of your position. The full-blown defence of claims such as these can be very expensive, as can the damages if that defence is unsuccessful. For that reason those who will fund the process, and who must pay the damages if awarded, may want to obtain the fullest possible information and advice before committing to it.

Sometimes the response letter is effective to stop the incipient litigation in its tracks. That is of course devoutly to be wished, but it is better not to expect it, because in the modern era there is less likelihood of a patently silly or obviously baseless case getting to the stage of a letter of claim. Claimants’ solicitors are more specialised nowadays (if they are not they cannot get onto the panel of those allowed to do this work) and they are usually quite adept at weeding out hopeless cases before a letter is sent. However, as explained elsewhere, litigious patients are known sometimes to resort to law only, or mainly, because no-one has ever sat down with them and explained what went wrong or why. The true explanation, thoughtfully and politely given in the response letter – perhaps with added words of regret and even apology for the unhappy outcome – may, if soundly based and convincingly expressed, be acceptable and accepted. To this end, and especially if satisfied on good grounds that you were blameless, your good-hearted and thorough attention to the contents of the letter of response is truly vital.

IS IT ‘DEFENSIBLE’?

Of course the letter of claim may come as no surprise to you. It may refer to a case of which you are only too well aware, with a bad outcome which you have already come to think was or may have been due to some error on your part. Perhaps it is a case about which you have already alerted your defence organisation as a potential claim. As another unhappy possibility you may, on reading the letter or when you come to explore the case in detail, conclude that you
probably were at fault, and that there are going to be real difficulties in defending the allegations outlined against you. Or it may be that the defensibility of your performance is undermined by convincing criticism of it by an independent expert, in a report or when you meet him/her in conference (though as an expert in your own right you are not obliged automatically to agree with such criticisms, and should fight your corner in discussion and debate for as long as seems right to you).

If there are compelling reasons, arrived at after enquiry and deliberation, and with the advice of your legal team, not to defend allegations of negligence, you should remember that there is nothing unique or disgraceful about making an admission of liability in that circumstance. If that is the reality it is usually better to accept, at an early stage and with as good a grace as you can muster, that on the given occasion you made a mistake which you should not have made, than arrogantly to defend the probably indefensible to the bitter end in court, with public condemnation by a judge as the conclusion. An ‘admission of liability’ will then follow, by letter between legal advisers, and the attention of the lawyers and the court will turn to the quantification of the damages, which is a process with which you are unlikely to have any further dealings or concern.

**NO ‘LIABILITY’ WITHOUT CAUSATION**

There may be circumstances in which you and your advisers conclude that you were indeed at fault in your performance, but that the admitted fault was probably not the cause of the bad outcome. This would be so, for example, where it can be shown, or is at least reasonably arguable, that the outcome was the probable and perhaps inevitable result of the disease process itself, irrespective of any perceived or actual failings on your part. If that is the considered view taken, your lawyers may advise against any admission of negligence being made, at least at the outset, because in the absence of a causal connection between fault and unhappy outcome there is no liability to the claimant. In such a case it is more likely, in the modern climate of openness, that the response letter will indicate that while negligence is admitted, causation is not, and that on that ground liability is denied and a contest can be expected. Litigation which is focused on disputed causation is not uncommon, which is hardly surprising given that the patient only comes into the surgeon’s hands because there is already some potentially dangerous disease process at work.

**THE PLEADINGS STAGE 1. THE PARTICULARS OF CLAIM**

Assuming that the response letter does not cause the claimant to retreat and abandon the claim, the case will now proceed to the pleadings stage, in which the parties must state their respective cases in formal written form. As the first
part of this process you must expect that the particulars of claim (which you
may already have seen in draft with the letter of claim) will in due course be
served. If seeing it for the first time, you will no doubt experience anxiety
mixed with indignation. The draftsman will probably have relied on the reports
of experts enlisted for the claimant, but it is not always or necessarily the case
that the resultant allegations are all well reasoned, or scientifically valid, or
even entirely fair, especially to the eyes of the accused. Remember that this is a
document created by a lawyer, and that it is designed to present one side's argu-
ments about your failings in as strong a light as possible. It should have been
submitted to the advising experts for checking and endorsement (or otherwise)
before it was finalised, but this is not always a foolproof system. So, again keep
a cool head, and remember that unless you have decided or been advised that
the claim is indefensible, your turn will come to see your side of the matter set
down in the pleading which will be created and served in response, which is
called 'the defence' (see below).

For your lawyers, who will now certainly have the conduct of this litigation,
the first task is the identification of the witnesses of fact, and the taking of state-
ments from them. These are the personnel who were directly involved with the
care and the procedures which are the subject of the claim. Some statements
will usually have been taken already in order to deal with the letter of claim,
but it is likely that further efforts of this kind will now be made. There may be
very few such witnesses who need to be interviewed, but in some cases there
are quite a number of nurses and ODAs and medical/surgical colleagues who
each played a part and who may be able to shed some light on the acts or omis-
sions under review. Each must be approached and asked to give their own
account of any part of the history with which they were personally concerned.
On occasion such witnesses are fearful or reluctant, due in part to the hierar-
chical structure of health services, but it is usually possible to reassure them
and gain their co-operation, provided you have not for any reason forfeited
their confidence or good will, which certainly in the past some high-handed
consultants managed to do.

First among the factual witnesses will be you, the surgeon alleged to have
been negligent, and you must now, to the extent that you have not already done
so, supply the fullest possible account of everything about your management
of the case which may affect the view taken of it, and which addresses the alle-
gations made in the formal pleading against you. In this crucial task your solic-
itors will play a helpful role, making sure that you deal with all the matters of
which their experience tells them an account is needed. What they must not
do, and will never attempt to do, is to put words into your mouth, or to sug-
gest what might be best for you to say in your defence. That said they will be
at pains to make sure that your mind is directed to the issues which do matter,
and away from the matters which do not, that you address carefully the areas
in which you are most vulnerable and that you are enabled to give the fullest
and best account of yourself that is possible, by reference to all available notes,
records and expert advice.
THE PLEADINGS STAGE 2. THE DEFENCE

Out of all the material thus gathered, including in particular the independent expert opinions which the lawyers will obtain, there will be created the defence, the first and probably the only pleading which will be filed on your behalf. It will usually be part of the process of its creation that you should meet your lawyers and independent experts in conference, usually held in the barrister’s ('counsel’s') chambers. Here you will be given, and should take, every opportunity to express your own views and to give your own account of what you did, and how and why you came to do it. If you have, as you almost certainly will, an opinion on the merits or otherwise of the allegations made against you, and of the way they can and should be countered, it will be heard, and will be welcomed and valued. Insofar as you may disagree with the views expressed by your expert, you must say so, and you should enter into what may be a useful and fruitful debate. Altogether, and given that you are yourself an expert, and were there at the crucial events whereas your independent adviser was not, your input is of the greatest importance. Remember only that strong emotional feelings of anger or resentment, though they may quite naturally be felt, should be put aside so far as you are able. A cool head and a measured approach will best ensure that you get your case across constructively and well.

THE PLEADINGS STAGE 3: REPLY AND REQUESTS FOR FURTHER INFORMATION

After the defence has been served, there may be a riposte to it in a pleading known as a reply, though nowadays this is rare. Sometimes there will follow formal ‘requests for further information’, which can be directed by and to either side in respect of averments made in their respective pleadings. Such requests must be answered formally, and your lawyers may seek information from you and/or from your expert advisers for that purpose. If no such documents are forthcoming you have reached the close of pleadings, after which there is usually quite a long silence. During this period the claimant and his advisers will be taking stock of the case and assessing the merits of the dispute on either side. Your team will wisely be doing the same.

THE ‘BURDEN AND STANDARD OF PROOF’

The so-called ‘burden of proof’ is on the claimant, because it is for the one who asserts a claim to prove it. This means that in order to win the claimant must prove both that there was negligence, and also that the negligence probably caused or contributed to injury. The standard of proof required is ‘on the balance of probabilities’. If the judge is not persuaded to that standard the
claim will fail. The defendant does not have to prove or disprove anything, which means that if the opposing contentions made on either side are evenly balanced, so that in the end a judge cannot say which is the more probable, the claimant must lose.

Principally for this reason (and the cynic might say more commonly now that so many cases have to be conducted by lawyers on a ‘no win no fee’ basis), there may at close of pleadings, as indeed at any stage, be a retreat and abandonment of the claim. This can happen if the claimant’s legal and expert advisers sense that the claim has been shown to be particularly vulnerable for one or more reasons which had not originally been apparent. Because of the burden of proof, it is incumbent on the claimant’s advisers to decide at each significant stage whether to continue is justified, and their calculations will be concerned with how much better than evens, if better at all, the odds can be said to be in the claimant’s favour. Those calculations they must continue to make at each of the following stages in the process, and to these we turn.

‘DIRECTIONS’ OF THE COURT

The court has overall control of the process and procedures of litigation, and as part of that control it will at certain stages give ‘directions’ for the conduct of every case. Different directions orders will be made at various times, some as an automatic part of the litigation process, and some because the lawyers on either side request specific directions to meet particular circumstances. Most of these directions will not concern or trouble you at all, but some will involve action on your part, and about these your lawyers will inform you. In particular the court will give directions as to how many experts, and in what specialist fields, each side may deploy, and as to when the statements of the factual witnesses (the ‘factual evidence’) and the reports of the experts (the ‘expert evidence’) shall be exchanged. Note the word ‘exchanged’, because the normal directions are for simultaneous exchange, not sequential service, of those statements.

EXCHANGE OF FACTUAL EVIDENCE

The exchange of factual evidence is directed to take place first, so that both sides can see what the factual basis is for their opposing contentions. Your own statement will be part of the factual evidence on your side. Sometimes there is a startling statement served for the claimant which comes from an unexpected source, or which is unexpectedly hostile, and occasionally there is a revelation capable of putting a very different complexion on the case. Such major effects are unusual, and the principal task is now careful scrutiny of these statements, and for the expert witnesses to make sure that their opinions have taken proper account of every salient fact which has emerged, before they are in turn exchanged. The court’s directions will be for mutual exchange of expert reports
some time after the factual statements. This is to allow sufficient time for the experts to put the finishing touches to their opinions in light of the factual evidence as a whole.

EXCHANGE OF EXPERT EVIDENCE

The exchange of expert evidence is a significant landmark in the litigation. You and your expert advisers will now be able to discover the identity of those who have been your accusers, and to study their opinions in detail and with great care. The approach which you should take to this task is that opinions against you are likely to be honestly held, by people who may be distinguished in the field, but which may have been founded on a view of the case which is not necessarily the right or the only legitimate one. That approach will help to dampen down the anxiety and resentment which the first encounter with these reports sometimes engenders. It may be sensible for you to put into writing your thoughts in answer to the expert case made against you, and to send them to your lawyers and experts to help them in their task of advising you. Whether you do that or not, you can expect that your experts will be asked to do so, and that a conference with counsel will then be convened at which the now perceived strengths and weaknesses of the claimant’s case, and the implications for the outcome of the dispute, can be discussed and analysed in detail, with access to all disclosed material.

TACTICAL DECISIONS, TO FIGHT OR TO SETTLE?

Be aware that there will in many instances now follow a discussion of how defensible your position is, and of whether to dig in and pursue the defence all the way to trial, or to open negotiations with the other side with a view to achieving a settlement. Given the apprehension which tends to accompany the prospect of a court hearing, it may be that you are by now hoping that settlement will be the chosen course. By contrast you may feel that it is of decisive importance to your reputation (and your pride) to go through with it, and so ‘clear your name’. Both these feelings are very understandable, and will be very familiar to your advisers. Here, although your own wishes will carry great weight (probably greater weight with a defence organisation than with the NHSLA), it is not you who will pay the possibly huge costs and damages if the case is lost, and you may find that there are identified quite strong commercial imperatives to ‘buy out’ the claimant as early as possible, by a negotiated settlement.

The point is that at this stage the claimant too, faced with what it is hoped are strong opinions in your support, will often perceive a real risk of losing at trial and getting nothing, and so be willing to accept a discounted sum now (a bird in the hand) in preference to risking all before a judge. Try to face these
deliberations on the part of your lawyers and experts with equanimity. Do not assume that your team have lost faith in you, or decided that your defence lacks merit or is hopeless. What is revealed is only that those whose daily work is medical litigation have, for reasons which often include gut feeling, become concerned enough about the risks in front of a judge to think that a retreat now is the most sensible course. That such decision making is sometimes somewhat cynical, and commercially driven, does not mean that it is either irrational or disloyal. It may help you to reflect that these people, although in a real sense still on your side, have a bigger picture to consider, and major financial concerns too.

**PREPARING FOR TRIAL**

Once it is clear that negotiations are not to be attempted, or in the event that negotiation fails to bring about a settlement acceptable to either side, preparations for trial will begin in earnest. You can expect further conferences with counsel and your experts. There may be toing and froing about fixing dates for the hearing which are convenient for all parties and witnesses (often a difficult task), and directions of various kinds will be given by the court. Among these is a direction that the experts on either side shall meet to discuss their respective views, and to prepare a joint report which identifies all points of agreement and disagreement, in order to narrow the issues which must be tried.

**EXPERT MEETINGS**

These meetings and resultant joint reports sometimes present the prospect of seeing a full-blown contest dwindle towards probable settlement. This is because there can be a powerful effect on the minds of experts when they meet their opposite numbers. One may succeed, by reasoned debate among equals, in persuading his counterpart of a point to which he or she had hitherto been opposed. Another may discover that the unreasonable argument she had thought was being advanced was not what was meant, and so recognise the force of a different and convincing view which had not previously come across well. Given that this is now a scientific forum, generally without lawyers present, the discussion is likely to be less adversarial than the contest on the face of the lawyers’ pleadings. As a result these meetings can, and quite often do, produce a large measure of agreement, with the potential to have a major effect on perceptions of the merits of the case on either side.

If therefore you have been hoping for a settlement, this is a further occasion for it to happen. Among the possibilities is that the claimant’s case will be seen to be so weakened by the agreements reached that it leads to discontinuance of the claim, or to willingness to settle at a discount which had earlier been rejected. Be prepared also for an outcome of the other kind, which might
involve a retreat from a bullish defence towards the need to extricate you on the best terms negotiable. Whether or not the meetings produce a dramatic change in perceptions, you will be involved closely in the discussions which follow the presentation of the joint reports.

THE OPENING SUBMISSIONS/‘SKELETON ARGUMENTS’

Assuming that the case has not been discontinued or settled, you will eventually get to the trial. During the week before the trial begins the barristers on each side are obliged to prepare, exchange with each other, and serve on the court, a statement of the case to be presented on their client’s behalf. This document may be long and detailed, or short and pared down to essentials. Either way, the barrister will often, and some say should, invite you and your expert witnesses to read this ‘skeleton argument’ in draft, and to make suggestions and additions to make it as accurate and as powerful as possible before it is exchanged and served. Its purpose is to inform the judge in advance of the real issues and respective arguments which are to be tried, and also to get across to the other side how your case is being put at the end of the long road which has led to the door of the court.

It is hardly surprising that the cases as now advanced may differ in some respects from the cases which appeared to dominate thinking at the stage of the pleadings. That is not to say that a new or unheralded argument can now be deployed by way of ambush (the rules do not allow that to happen), but only that some points will have fallen away, and some which were earlier seen as minor or peripheral may have assumed a new and greater importance. In any event the receipt of the other side’s skeleton argument can be a defining moment, when you can get to grips with the reality of what you are about to face in court, and perhaps experience renewed apprehension and anxiety. Alternatively it may be a damp squib, or even a relief, when you confront what has become a rather less impressive case than you had originally expected. Again do not panic. Keep a cool head at all times, and give your most careful attention to the document which you have received, and marshal your thoughts in answer to it, in the knowledge that it gives clear notice of the things you will be dealing with in the witness box.

THE TRIAL: 1. A GENERAL DESCRIPTION

Remember always that this is not a criminal trial, nor is it anything like the circus of a televised American court room. A civil action in the UK courts is mostly a low-key and civilised affair, with a judge of considerable intellectual power presiding over what might (with political incorrectness) be described as ‘gentlemanly’ proceedings. This means that politeness is expected on both sides, and raised voices and histrionics are not encountered – with the
occasional exception of a spat between the barristers. As to the barristers, their adversarial role is real to them, and however much they may be friends outside court (which may be apparent to you as the trial proceeds) they give no quarter to each other in court where the opposing interests of their clients are concerned. Notwithstanding that, you may find that you are sometimes engaged, before or after a court session, in friendly conversation with the lawyers on the other side. However odd this may seem to you, it underlines the civilised nature of the proceedings, and can make a long trial less of an ordeal.

THE TRIAL: 2. YOUR ROLE

However hard it may be to remain phlegmatic when accused of harming a patient negligently in a procedure you undertook conscientiously to alleviate his suffering, the following are suggestions (some born of bitter experience) for the way you should try to conduct yourself during the hearing:

(i) Try as far as possible, though it is not obligatory, to attend the whole or most of the trial. If clinical duties call you away, the judge will always be sympathetic, and will not hold your absence against you.

(ii) Try to avoid feeling or showing animosity towards the other side yourself. The claimant is often someone who has suffered considerably, perhaps will never work again, and is understandably hoping to win damages to make a difficult life easier. The experts have come to court to give their honest opinions and as part of the process of justice, and the barristers are doing their job.

(iii) When you are in court sit as near to your counsel as you can. You will find that the furniture is usually arranged to make this possible. Counsel will hope to receive advice from you whenever you have something useful to offer as the trial goes on, preferably in the form of short legible notes, but if necessary as a whisper in his ear.

(iv) Treat the judge respectfully at all times, whether or not you feel he deserves it.

(v) Find out before you go into the witness box whether the judge is addressed as ‘My Lord’ (High Court judges) or ‘Your Honour’ (circuit judges), though ‘Sir’ will always do very well.

(vi) Speak up loudly and clearly when you give your evidence, and always direct your answers to the judge, even though the barrister is asking the questions. The judge is the one whose attention you need to gain, and whose pen you must watch, and whose reactions will best help you to gauge how much and how well the science has been understood, and what he is making of your evidence.

(vii) Avoid arrogance or haughtiness, and always remember that the judge and the lawyers are laymen in matters of medicine and surgery, albeit often quite clever ones.
A measured, modest and thoughtful approach is always best, which means avoiding becoming riled or impatient, however stupid some questions may seem.

If you don't understand or didn't catch a question, say so and ask for it to be repeated. Don't blunder on blindly.

If a question appears to you to proceed from a misunderstanding (either of an earlier answer of yours or of some science in the case), say so politely and give your reasons. The question may then be withdrawn or rephrased.

Always be ready to give an inch, if a point is made against you which you believe has force. The judge is much less likely to take your principal case seriously if you appear pig-headed or obdurate in the face of logic and reason.

THE TRIAL: 3. THE PRACTICE AND PROCEDURE

It is not possible here to give a completely definitive account of what will happen at trial, because there are so many variables, but a summary of the usual order of events may be helpful. That order is generally as follows:

(1) The claimant’s counsel ‘opens’ his case, with his skeleton argument as his template. Some judges like a full and detailed opening, and in medical cases often expect to be taken through the important documentary evidence at this stage, in particular the notes and records relating to the central events. Other judges cut this process short, on the basis that the submissions in writing are a sufficient introduction.

(2) The witnesses of fact are called to give evidence. Usually nowadays that means the factual witnesses on both sides, so after the claimant’s witnesses of fact, those for the defence will be called, who include you. The idea is that when the expert witnesses thereafter follow, everyone is aware of all the factual assertions which may affect their opinions, and there can be no surprises of fact sprung after the claimant’s experts have left the witness box.

For all witnesses the sequence of events is as follows

(i) The barrister who calls the witness may first ask him questions designed to elicit some of the main points from his witness statement (which was exchanged), though strictly speaking that statement should be treated as his main evidence and not repeated orally.

(ii) The barrister for the other side cross-examines him, seeking to elicit answers useful to his cause, and/or attempting to unseat the witness from his certainties, or to expose inaccuracy or even untruthfulness.
(iii) After the cross-examination has finished, the barrister who called that witness may 're-examine', by asking questions arising out of what has been said under cross-examination, hoping to clarify or perhaps to undo the effects of answers given to his opponent.

(iv) Now the judge, if he has not asked enough questions during the above stages, may ask questions of his/her own.

(v) Both barristers are given the opportunity to ask the witness further questions about matters elicited by the judge's questions.

(vi) All witnesses are asked to speak loudly and clearly and not too fast, because the judge and lawyers will be taking a laborious longhand note of what they say. Increasingly some may have laptops into which they will type the evidence at impressive speed, but it will be a long time yet before that is the norm.

(3) The expert witnesses give their evidence. Nowadays the norm is for each side's experts in like disciplines to do so alternately ('back to back'), which has the advantages that the judge and the lawyers hear all the evidence in each discipline at one time rather than dotting around between them, and that each expert will be present to hear his counterpart's evidence, so assisting counsel to cross-examine, and ensuring that there is no scope for loose reasoning or questionable science.

(4) Closing submissions are made, with the defendant's counsel going first and the claimant's counsel having the final word. It has become customary for these submissions to be reduced to writing, indeed some judges insist on this and will give a day out of court for their preparation (if a weekend is not intervening). You may be consulted in conference with counsel to help in their drafting, unless by your daily meetings and conversations with him/her during the trial you have got enough helpful information across already.

The final submission stage often involves a dialogue between judge and counsel, rather than speechmaking. Sometimes the judge will indicate that, having read the written submissions, there are only certain specific topics on which he wants or needs to hear further argument. Sometimes he will identify a particular area as one which he sees as holding particular difficulty for one side or the other, and so invite attention to that alone. There are many permutations, but it is certainly quite often possible during final submissions to discern, or to think you discern, a distinct leaning for or against one side. This may prove later, when the judgement comes, to have been entirely illusory, not least because some judges like to put arguments to the test by playing devil's advocate, or by appearing to denigrate points which may be persuasive if counsel proves able to elucidate or justify them.

(5) The judgement is given, but not necessarily there and then. In medical cases, because of their complexity, the judge very rarely delivers his decision immediately after closing submissions, though that does occasionally
happen. More often than not he will announce that ‘judgement is reserved’, by which he means that he will take time to reflect on his decision and to write his judgement. It is quite likely that he has already made his mind up, but naturally requires time to put his decision and his reasoning into full and proper form. He may give an indication before he leaves court of how long it is likely to be before judgement is given, but often he does not. All you can do now is wait. When the day comes the case will be listed in open court again, and judgement will be delivered. Usually it is handed down in typed form a little in advance, but if so there is an embargo on its publication until the actual public pronouncement.

The final formalities may follow the judgement, and may include some argument over the costs of the proceedings, which need not concern you, and sometimes an application to the judge for permission to appeal his decision. This last is not as silly as it sounds, because although he is unlikely to have decided as he did without being convinced that he is right, he may agree that the case has raised some particular point of wider public interest, or has involved a finely balanced judgement which he thinks could have gone the other way, and so consider that the higher courts should have a look at it. In those rare circumstances permission may be given at the end of the trial. If not, and the lawyers still think, having analysed the decision and the reasoning, that there are good grounds for an appeal, they will have to formulate them, and go to the Court of Appeal in an attempt to get permission out of them. If it is a judgement against you the defendant, your lawyers may involve you politely in their deliberations about an appeal, but you should be aware that the justification for an attempt to appeal may turn more on a point of law allegedly wrongly decided (about which you are unlikely to have much to offer) than on the perceived merits of your medical case.
Delay in diagnosis of renal tumours presenting with haematuria, and failure to appreciate the significance of this symptom, are potent causes of litigation. Failure to communicate to patients the possible significance of haematuria by the use of explicit terms such as ‘cancer’ again can lead to litigation, particularly where the diagnosis is delayed. Failure to discuss the range of management options for a variety of renal conditions again can lead to problems. It seems that many cases of litigation involving pathology in the kidney are due, at least in part, to a failure to communicate. This really is a recurring theme in urological litigation. Over-aggressive management of abnormal urine cytology results has led to litigation in several cases. The resurgence of urinary tract TB is a concern and failure to manage it appropriately both in terms of diagnosis and upper tract surveillance during treatment is a good way of ending up in court. Heroic attempts to cure renal cancer in cases with advanced disease and technical errors during nephrectomy again can lead to litigation.

SUMMARY

- Inadequate or delayed investigation of haematuria, leading to delayed diagnosis of renal cancer
- Presumed ureteric stone colic due to clot colic from bleeding renal tumour
- Failure to communicate the potential (malignant) significance of haematuria
- Inadequate diagnostic work-up of suspected upper tract transitional cell carcinoma
- Failure to warn of possibility of benign pathology in cases of radical nephrectomy or nephroureterectomy done for suspected renal or ureteric cancer (adenocarcinoma or transitional cell carcinoma)
- Over-aggressive response to ‘positive’ urine cytology
- Errors of judgement during renal surgery
- Severe infective complications following failure to administer antibiotic prophylaxis at the time of extracorporeal lithotripsy
- Technical errors occurring during nephrectomy
Persistent pain post-pyeloplasty
- Over-aggressive approach to advanced disease renal cancer
- Failure to diagnose tuberculosis
- Failure to monitor the upper tracts appropriately during anti-tuberculous medical therapy.

RENAAL TUMOURS

Case 1: Delayed diagnosis of a renal adenocarcinoma

A 50-year-old man presented to his local Accident and Emergency Department with right loin pain and macroscopic haematuria. A provisional diagnosis of a urinary tract infection was made, possibly associated with a stone, although there were no symptoms of cystitis, and no pyuria. No imaging studies were done. The patient was discharged from the Accident and Emergency Department.

Subsequent urine culture revealed no bacterial growth, though it did confirm the presence of haematuria. The negative urine culture result was noted by the Casualty Department consultant who wrote to the patient and his GP suggesting that further investigations should be carried out, but not specifying which investigations. The patient saw his GP who simply repeated the urinalysis and, as this showed no blood, did nothing more.

Three months later the patient had a further episode of haematuria and loin pain and was referred by his GP to a urologist, as an emergency. A KUB X-ray was normal and an IVU was also reported to be normal, note being made of prompt excretion by both kidneys. An ultrasound scan was not done. A flexible cystoscopy was normal. The patient was discharged. Review of the IVU when the subsequent litigation commenced showed a mass arising from the lateral border of the right kidney. The urogram consisted of only four films, a control film and just three post-contrast films.

Four months later (7 months after the original presentation with haematuria and loin pain) the patient was admitted with further haematuria and loin pain. In fact, his haematuria was so heavy that he went into clot retention and required catheterisation and bladder irrigation. An IVU was repeated and showed markedly delayed excretion from the right kidney. An ultrasound was reported as showing right hydronephrosis. The patient underwent cystoscopy under general anaesthetic. Clots were seen in the bladder and were washed out. Blood was noted coming from the right ureteric orifice. A ureteroscope was passed to the renal pelvis and no abnormality was seen. A JJ stent was inserted.

Finally a CT scan was done which showed a mass in the right kidney consistent with a renal adenocarcinoma. The patient underwent a right radical nephrectomy and histopathological examination confirmed a renal cell carcinoma with several positive lymph nodes. The patient was subsequently diagnosed with lung metastases.
The patient sued the surgeon and GP, claiming that a delay in diagnosis had allowed his renal cancer to progress such that when it was finally diagnosed it was at an advanced, non-curable stage.

Case 1: Learning points

Investigate haematuria appropriately. The haematuria should have been investigated by urine culture, urine cytology, IVU, ultrasound and flexible cystoscopy at the outset. We know that renal ultrasonography is a more sensitive test for diagnosing small renal parenchymal tumours when compared with an IVU.1–3 On the other hand intravenous urography is better at identifying urothelial abnormalities such as transitional cell carcinoma of the collecting system. Renal ultrasonography and intravenous urography are complementary investigations, each potentially being able to demonstrate an abnormality which the other may not show. This provides a safety net in the diagnostic work-up for haematuria.

To compound the error in this case the IVU was reported as being normal, when in fact subsequent review after the litigation commenced revealed this not to be the case as a mass could be seen distorting the lateral border of the kidney. An ultrasound, had it been done, would have revealed the mass.

Point of technique. The radiologist missed the renal mass, but in addition the IVU consisted of just four films, a control and three post-contrast films. How the radiologist expected to demonstrate the kidneys and the entire length of both ureters adequately with only three post-contrast films is not clear.

Erroneous assumption that loin pain was due to benign pathology.

It is often assumed that sudden onset of severe flank pain is due to the presence of a ureteric stone as it passes down the ureter. However, we know from large series of patients presenting with loin pain that in only 50% is a final diagnosis of a ureteric stone made, based on positive identification of a stone on imaging or visualisation of a stone once it has passed.4,5 The other 50% have some other cause for their pain – urological or non-urological.

In any case of flank pain, take a few moments to consider the possibility that you are dealing with one of these uncommon urological causes. Bleeding renal tumours (renal or transitional cell carcinoma) can cause clot or tumour colic (as in this case). Ureteric transitional cell carcinomas may cause ureteric obstruction and acute loin pain. Pelvi-ureteric junction obstruction may certainly present acutely with flank pain, which may be severe enough to mimic a ureteric stone and of course sudden onset of loin pain may be due to an infective process (acute pyelonephritis, pyonephrosis). The diagnosis in such cases is usually obvious from associated clinical and radiological signs.

Ureteric stones may cause macroscopic haematuria, but it is uncommon. We have never seen a case of a ureteric stone that caused haematuria that was heavy enough to lead to clot retention. Perhaps such cases do occur, but they
must be very rare. Heavy (i.e. macroscopic) haematuria makes the likelihood of malignant disease (bladder or kidney) much more likely, when compared with microscopic haematuria. These features should have led to the search for a renal source of bleeding (i.e. a renal tumour).

On a slightly different note (and not directly relevant to this case), the question is often asked whether patients with loin pain and haematuria – microscopic or macroscopic – should undergo flexible cystoscopy to exclude a co-existent bladder cancer. The answer must be to have a low threshold for cystoscopy. Of course, the young patient with flank pain and microscopic haematuria who subsequently passes a stone is very unlikely to have a bladder cancer and flexible cystoscopy in such cases may not be appropriate. However, the older patient who presents with a ureteric stone and macroscopic haematuria is at greater risk for bladder or renal cancer, particularly if he is a heavy smoker who has worked all his life in the local dye factory. He probably has a ureteric stone and nothing else, but both ureteric stones and bladder cancer are relatively common conditions and from time to time they may co-exist. Where no stone is seen – either on radiological imaging or visually – be particularly suspicious. Repeating the upper tract imaging and doing a cystoscopy are safe precautions.

Investigate even a single episode of haematuria fully. Intermittent bleeding from renal tumours is a well recorded phenomenon. In fact, early on in its course, the bleeding from renal cancers is usually intermittent. Thus, a negative urinalysis after an initially positive test is a common occurrence in patients with renal cancer (and this is exactly what happened in the case described above). A single episode of proven haematuria therefore warrants full urological investigation, i.e. ultrasound scanning, intravenous urography and cystoscopy.

Communicate effectively. When the patient initially presented with flank pain and macroscopic haematuria, he was told that it was probably due to a urinary infection. Appropriately, when no evidence of infection was found on urine culture, he received a letter from the Casualty Department consultant suggesting he contact his GP so that a repeat urine sample could be checked for the presence of blood. However, the potential significance of the haematuria – the possibility that it may be a presenting symptom of urological cancer – was not communicated to the patient. His assumption that the problem was simply one of urinary infection was reinforced by the absence of blood on dipstick testing of a repeat urine sample. Neither the patient’s GP nor the Casualty Department consultant gave him any indication that something more sinister might account for his symptoms. Perhaps the Casualty Department consultant knew, but this fact was not communicated to the GP, who obviously did not know that haematuria is a symptom or sign of urological cancer.

We reiterate throughout this book that good communication is vital. In order to communicate effectively you must give the patient the information that is
relevant and of potential importance. Explain why further tests should be
carried out. Do not shy away from your responsibilities with the paternalistic
excuse that you are trying not to worry the patient. Just be honest. Explain that
haematuria can, in some cases, be due to serious conditions such as kidney or
bladder cancer. Five per cent of patients aged less than 50 years of age who
have macroscopic haematuria have a renal or bladder cancer – a not insignifi-
cant proportion. In those aged more than 50 with macroscopic haematuria,
approximately 30% have bladder or renal cancer.

Many hospital departments run one stop haematuria clinics, where the
patient has a history taken, an examination and a flexible cystoscopy and renal
ultrasound on the same day. You can communicate the reason for doing these
tests to the patient in advance of their appointment and this can be done either
by letter or by a telephone call. Alternatively you can explain the reason for
the tests in person when the patient attends the haematuria clinic. There is a
tendency to shy away from communicating the possibility of cancer by letter
without ever having laid eyes upon the patient. Some regard communicating
this sort of information by letter as unkind, or even callous. However, if you
do not explain why the tests should be done, the patient may not appreciate
the importance of attending the clinic. The passage of blood in the urine is
enough for most patients to assume that they have something seriously wrong,
particularly if the patient is a man – women are accustomed to periods so
blood in the urine is not such a surprise. For most people this is encourage-
ment enough for them to turn up to the clinic. Other patients, however, will
assume that because the haematuria has stopped (which it does more often
than not), nothing is wrong. They assume that nothing further need be done.
Some might later argue, in a court of law, that had you told them that a diag-
nosis of a bladder or kidney cancer had been a possibility, they would defi-
nitely have turned up for the appointment, rather than not bothering to do so
because the haematuria had gone away. This has happened before, and will
continue to happen if you do not communicate effectively. Unfortunately, of
course, this does involve the use of the word ‘cancer’ in your written or verbal
communications with the patient (and their GP). This is the price we must pay
for effective communication.

There are of course ways of wording the information so as to minimise the
sense of alarm. You might wish to say something like this: ‘Most people with
blood in their urine don’t have anything seriously wrong with them. However,
blood in the urine can sometimes be due to serious conditions such as blad-
der or kidney cancer, which if diagnosed and treated promptly can be cured’.
This presents information in a positive, reassuring manner, but nonetheless
it provides factual information and gets the point across that further tests
are necessary. Most people will become considerably more proactive when
informed that their symptoms might be due to cancer, and not fail to attend
for appointments – and will not let you forget to arrange their investigations
in a timely fashion. Some patients might complain that this information was
given by phone or letter rather than in person, but in our experience this is
not a common occurrence. Many patients may already be worried that they have cancer and will welcome your honest approach and the fact that you have taken the effort to call or write.

**Erroneous radiology reports.** One of the essential problems in this case was that the imaging and the radiology reports were inadequate. The first IVU was abnormal, but this abnormality was not identified by the radiologist and the study was reported to be normal. The ultrasound, when it was done, was reported as showing hydronephrosis, when in fact there was a solid mass with cystic elements within the kidney. The presence of hydronephrosis would lead many urologists nowadays to arrange a CT scan in preference to an IVU, and this of course would have established what was going on earlier in this case.

Do not rely on X-ray reports. Always look at the films yourself. If you are not in agreement with the report, check with the reporter. If in doubt repeat the investigation, perhaps with modification, such as adding tomography to the IVU for example.

So, in summary, in patients with loin pain and haematuria:

- Investigate the haematuria (even a single episode, whether dipstick, microscopic or macroscopic) promptly and appropriately
- Think of the possibility of a non-stone cause for the pain
- Communicate your concerns to the patient about the possibility of urological malignancy – if they know you are concerned, they won't let you forget them!
- If the imaging doesn't add up, consider repeating the investigations or an alternative radiological test – looking at the problem in a different way might identify what is going on

**Case 2: Delayed diagnosis of a renal adenocarcinoma**

A 65-year-old man presented with painless haematuria to his GP. His GP organised an ultrasound scan, cultured the urine and referred the patient to his local hospital. The ultrasound scan was said to be normal and the surgeon to whom the patient had been referred made plans to perform a cystoscopy, but did no IVU.

During the course of these haematuria investigations the patient moved out of the area and he informed the hospital where he had been undergoing investigations of his new address and the address of his new GP. No action seems to have been taken by the patient’s original GP or the hospital. Neither seems to have taken active steps to ensure that the patient’s investigations continued in his new locality and the patient did nothing about it himself.

Six months later the patient saw his new GP because of further haematuria and right loin pain of 4 weeks’ duration. The patient was referred to another urologist who arranged an IVU. This showed poor filling and thus poor
visualisation of the collecting system of the left kidney. The patient was listed for a left retrograde ureterogram.

Unfortunately the patient waited on the ‘urgent’ list for 6 months. At the time of the retrograde ureterogram contrast failed to enter the pelvi-caliceal system of the left kidney. A CT scan was arranged. This showed a solid mass in the left kidney and multiple metastatic lesions in the lungs. In view of the latter findings a percutaneous needle biopsy of the mass was performed and this suggested a renal cell carcinoma. The patient died from advanced renal cell carcinoma 6 months later.

The patient’s family sued both the original hospital and the GP, claiming that they had a duty of care to forward information relating to the patient’s presentation with haematuria to the patient’s new GP. They also sued the second urologist for the delay in reaching a diagnosis of kidney cancer.

Case 2: Learning points

Investigate haematuria appropriately. The original ultrasound scan had been normal and one could therefore argue that the haematuria had been appropriately investigated. However, an IVU had not been done. It is arguable that this might have demonstrated the tumour where the ultrasound had missed it.

Communicate effectively. Again, the patient had not been informed about the possible significance of haematuria. Had he known that it could have been due to a kidney cancer he would probably have taken a greater interest in ensuring that his investigations were done and followed up, and he would probably have made efforts to ensure that his haematuria investigations continued at his new hospital.

Patients who move house. Patients move, sometimes remaining within the area and sometimes moving to another part of the country. If a patient lets you know, either verbally or in writing, that they are moving, make sure you know their new address. Tell your administrative staff. Get hold of their notes to see if they are in the middle of important investigations. Ensure that any address labels in their notes relate to the new address, rather than the old (you might like to argue that ‘it’s someone else’s job to do this’, but you may be the one who suffers the consequences of litigation if an error occurs, not the clerk who you will argue should have removed the old address labels). Send all correspondence to this new address. If the patient is in the course of radiological investigations, check that your radiology department knows that appointments should be sent to the new address – you may well have put an old address label on the radiology request form, which at the very least will delay the test being done or at worst the test may never take place.

If a patient moves out of the area while in the course of investigation or treatment, or has a urological condition that requires follow-up (e.g. previous bladder cancer requiring cystoscopic surveillance) impress upon them, either
verbally or by letter, the importance that they must get their new GP to refer them to a local urologist so that the investigations, treatment or follow-up may continue uninterrupted. Document this advice in the notes. If you don’t, you never said it! Of course, you could argue that it is someone else’s job to do all this. The court, on the other hand, may argue that you had at least some responsibility in this respect. You could save yourself a lot of trouble by taking the initiative.

Case 3: Delayed diagnosis of transitional cell carcinoma of the renal pelvis

A 65-year-old man presented with a single episode of frank haematuria together with some lower urinary tract symptoms. He was referred by his GP to a local urologist. He was seen 1 month later. Note was made by the registrar who saw him that the patient had dipstick haematuria and the episode of macroscopic haematuria was also noted. A renal ultrasound and flexible cystoscopy were done and both were normal.

The patient was started on medical therapy for his LUTS, which were presumed to be due to BPH. He was reviewed on a regular basis in the urology clinic over the course of the next 4 years. Repeat urinalysis was done on several occasions during this 4-year period, and showed microscopic haematuria.

In the fifth year of review his GP notified the consultant urologist that the patient had dipstick haematuria, noted on routine urinalysis done during admission under the care of the general surgeons for a gastroscopy for symptoms of a peptic ulcer. The urologist wrote back to the GP saying ‘don’t worry unless he develops macroscopic haematuria’. One year later the patient reported macroscopic haematuria. The patient’s GP referred him back to the urologist. This time an IVU was done, which showed a filling defect in the collecting system of the right kidney. He was booked for a cystoscopy and bilateral retrograde ureterograms under a general anaesthetic. This was not done for another 15 months! A large filling defect was noted in the renal pelvis of the right kidney. A staging CT showed large para-aortic nodes, both in size and number. He underwent a palliative right nephroureterectomy.

Histology of the resected tumour revealed a high grade TCC, breaching the renal pelvis and extending into the perinephric fat (T3), with involvement of multiple nodes (N3).

The patient sued the urologist, claiming that the original episode of haematuria had not been adequately investigated, and that as a consequence when his transitional cell cancer was finally diagnosed it was at an incurable stage.

Case 3: Learning points

Investigation of haematuria. Conventional teaching is that a patient with haematuria should be investigated by urine culture, urine cytology, cystoscopy, renal ultrasonography and IVU. There is a tendency to omit the IVU in younger patients with microscopic haematuria, which we have discussed
already. However, in our view it is unacceptable to omit the IVU (or arrange a CT urogram with contrast as an alternative) in a 65-year-old man, with macroscopic haematuria. In patients with a history of macroscopic haematuria, where dipstick haematuria persists on multiple occasions, additional imaging should be done (over and above just a renal ultrasound). This can be an IVU, possibly followed by an appropriate retrograde ureterogram or a high resolution CT with contrast. Renal ultrasonography will often miss TCCs of the collecting system.

If urine culture and cytology, a renal ultrasound and IVU and cystoscopy are all normal it is our policy to arrange additional imaging in the form of a CT scan of the kidneys and ureters (with and without contrast) and retrograde ureterography in the following patients:

- Patients at high risk for TCC
- Where microscopic or dipstick haematuria persists at 3 months
- Where macroscopic haematuria persists.

Patients at high risk for TCC have a positive smoking history, occupational exposure to chemicals or dyes (benzenes or aromatic amines) or a history of analgesic abuse (phenacetin), pelvic irradiation or previous cyclophosphamide treatment.

In this patient no initial IVU had been done, despite his age (65) and his original presentation with macroscopic haematuria. He had persistent microscopic haematuria. This had been recorded in his urology notes on several occasions over several years of follow-up. At the very least an IVU should have been done, and had this been normal a strong case for additional imaging could have been made (CT, retrograde ureterography). When the abnormality was seen on the urogram it took 15 months to do the necessary further investigation.

During these delays there is no doubt that the original TCC had time to grow from entirely curable to incurable.

**Case 4: Nephroureterectomy for suspected ureteric cancer, but benign histology**

This case concerns a 50-year-old man referred by his GP to a urologist because of persistent dipstick haematuria. Urine culture, urine cytology, a plain abdominal X-ray and a renal ultrasound were all normal. Flexible cystoscopy demonstrated a 2 cm papillary tumour overlying the right ureteric orifice and this was resected, under general anaesthetic. Histological examination revealed a G1, pTa transitional cell carcinoma – i.e. a low grade non-invasive tumour.

Three weeks after the TURBT the patient had an IVU, as a baseline investigation to assess his upper tracts. The kidneys, upper ureters and lower left ureter were normal, but the distal ureter on the right side was described as being dilated, with no contrast seen in its distal few centimetres.
The patient therefore underwent repeat cystoscopy and right retrograde ureterography. Tumour was seen in the bladder around the right ureteric orifice. The tumour and the ureteric orifice were resected. A ureteric catheter was inserted, without difficulty, into the ureter and a retrograde ureterogram performed. The distal ureter was noted to be narrowed on this study and this was taken as an indication of a possible lower ureteric TCC. Histology of the resected bladder tumour again revealed a G1, pTa TCC. The patient’s urologist recommended a right radical nephroureterectomy.

The patient made an uneventful recovery from this operation. Histological examination of the ureter failed to reveal any tumour at any point from the kidney to the lower free end of the ureter. The patient sued the urologist, claiming that he had undergone a nephroureterectomy unnecessarily.

Case 4: Learning points

*Inadequate diagnostic work-up.* First beware of introducing iatrogenic artifacts. The urogram which showed the dilated ureter on the side of the tumour was done only 3 weeks after the resection of a non-invasive tumour overlying the ureteric orifice. It is likely that the reactive oedema following the resection was the cause of the apparent ureteric obstruction, rather than residual tumour. The message is to do the special investigation *before* any form of surgery, but if this is not possible for some reason leave a 6 week gap to permit the effects of the resection to subside completely.

Then, was it reasonable to diagnose a lower ureteric tumour solely on the basis of a narrowed area in the lower ureter seen on the IVU and retrograde ureterogram? Should ureteroscopy have been carried out to visualise directly the narrowed area of ureter, and to take biopsies or brushings for cytological examination? Ureteroscopy would probably have been technically possible – the ureteric catheter used to perform the retrograde ureterogram had been inserted easily into the ureter. Biopsies or brushings of the lower ureter could therefore probably have been done. If, however, it had not been possible to perform ureteroscopy, the imaging studies (retrograde ureterography or an IVU) could have been repeated a few weeks later to determine whether there had been any change in the narrowed section of ureter. The absence of progressive narrowing would suggest the absence of malignant pathology.

Finally upper tract tumours in patients with low grade, pTa TCCs of the bladder are rare. After the diagnosis and treatment of superficial bladder cancer only between 0.002% to 2.4% of patients will go on to develop upper tract TCCs over surveillance intervals of 5 to 13 years. This fact alone should have led to a more critical diagnostic approach to the narrowed area identified on the IVU. The possibility of a benign stricture of the lower ureter, rather than a malignant one, should have been considered.

Consent. *Management options for TCC of the intramural ureter – failure to offer alternative options.* TCC of the intramural ureter is
uncommon. The visualisation of tumour around the ureteric orifice raises the possibility that the tumour is arising from the lower ureter. If the tumour is high grade or muscle invasive (and this is much more likely if it is solid in appearance rather than papillary), standard treatment is nephroureterectomy. How should superficial, low grade TCC of the intramural ureter be managed? Is simple deep resection of the ureteric orifice adequate? What are the recurrence and progression rates from transurethral resection alone?

Palou et al. reported on 19 patients with mostly superficial (Ta or T1) intramural ureteric tumours treated initially by transurethral resection of the intramural ureter from within the bladder using a resectoscope. In ten patients (~50%) follow-up IVUs and cytology suggested no tumour recurrence. In nine patients (~50%) ureteroscopy was performed because of suspected recurrent intramural TCC based on their first follow-up IVU appearances or urine cytology results. In four of these cases no tumour was found. In five cases small papillary TCCs were found and photocoagulated. On subsequent follow-up (averaging 5 years across the group) five patients developed recurrent disease in the ureter, treatable ureteroscopically in four and requiring nephroureterectomy in one. This, together with other series, suggests that many patients do not develop recurrent ureteric TCCs after transurethral resection or endoscopic treatment for low grade, low stage ureteric TCCs, and of those who do most are in the distal or intramural ureter (rather than in the proximal ureter), and the majority can be managed ureteroscopically.

In the current case, transurethral resection alone had, in fact, provided adequate initial treatment of the tumour in question. No tumour was seen on subsequent pathological examination of the ureter. Of course the surgeon did not know this until he had taken the kidney and ureter out, but the likelihood of subsequent tumour recurrence in the ureter and of progression was low, given the initial histology (G1, pTa). With a low grade and low stage tumour, a period of observation with follow-up IVUs, retrograde ureterography or ureteroscopy was an option that should at least have been discussed with the patient. If tumour had been identified, ureteroscopic ablation was an option.

**Consent for nephrectomy and nephroureterectomy. Failure to consent for the possibility of benign pathology.** As suggested in the BAUS procedure specific consent forms, always warn patients that, from time to time, what you suspect to be a malignant growth may turn out to have been some benign process. The current case was one of suspected TCC of the ureter. The differential diagnosis of a narrowed area in the ureter post-TURBT includes a benign stricture, which may have been due to oedema initially or ischaemia subsequently.

In the case of radical nephrectomy for a suspected renal cell carcinoma, all of us at some stage in a surgical career are going to remove a kidney because we suspect a cancer, but with the final histology report being benign. The differential diagnosis for radiographically detected solid renal masses is extensive and includes renal cell carcinoma, renal adenoma, transitional cell carcinoma,
oncocytoma, angiomyolipoma, metastatic tumour, abscess, infarct, vascular malformation or renal pseudotumour. The diagnosis can often be established on the basis of the clinical presentation and the characteristic radiographic features. Novick\textsuperscript{19} reminds us that ‘10–15\% of small, solid, CT-enhancing renal masses with features of RCC prove to be benign adenoma or oncocytoma after surgical excision’ (our emphasis). Clearly, the proportion of larger tumours that turn out to be oncocytomas will be much less, but for small tumours, which are often asymptomatic and diagnosed incidentally on a scan done for some other reason, a substantial minority are benign.

Discussing this diagnostic difficulty with the patient, and giving them the option of repeat scanning, is a sensible thing to do. Share your doubts with the patient. Explain that there is a possibility that they might have a cancer, but that the diagnostic tests are inconclusive. Seek opinions from colleagues. This is easier nowadays in the era of the multi-disciplinary cancer meeting. In cases which are not straightforward, offer to arrange a second opinion for the patient.

Having done this the tests may remain inconclusive. In this situation some patients will say ‘just take it out doctor’, while others may be prepared to wait and see. But at least you will have involved the patient in the decision making process and you will have made reasonable efforts to consider the alternatives. It has been our experience that patients so warned are universally relieved to be told that they do not have cancer. Rather than taking you to court they often thank you profusely for the care and attention you have devoted to their case.

\textit{Communication.} Finally, the patient was told that a ‘mistake’ had been made in removing a completely normal kidney. Nothing is more likely to light the fire of litigation than the use of such emotive language! Try to avoid the use of colourful or emotive words and phrases, tempting though off the cuff remarks may be.

\textbf{Case 5: Nephroureterectomy for suspected transitional cell cancer, but benign histology}

A 40-year-old man presented with several episodes of macroscopic haematuria. A renal ultrasound, IVU and urine cytology from a mid-stream urine were all normal.

The patient was unable to tolerate a flexible cystoscopy and he therefore proceeded to rigid cystoscopy under general anaesthetic. During this procedure, a jet of blood stained urine was seen coming from the left ureteric orifice. A left retrograde pyelogram was therefore performed. There were no filling defects in the collecting system of the left kidney, but the lower pole calyx of the left kidney was not demonstrated on this study. Washings were taken for cytological examination. The cytology report read ‘clusters of urothelial cells which raise the possibility of trauma or neoplasia’.
Given these two findings – the inconclusive cytology report and the absence of filling of a lower pole calyx on the retrograde pyelogram – the surgeon proceeded to ureteroscopy. A rigid ureteroscope was initially passed up the ureter. A red area in the upper ureter was seen. A note was made by the operating surgeon suggesting that this was probably an area of trauma related to prior passage of a guidewire. Biopsies were taken from the red area. A flexible ureteroscope was then passed into the renal pelvis. Every calyx was inspected. No abnormality was seen. Washings were sent for cytological examination.

The histopathology report from the upper ureteric biopsies suggested the possibility of TCC, though it was not possible to comment on the grade or stage. The ureteric washings showed ‘atypical cells suspicious for malignancy’.

It was recommended that the patient undergo a left nephroureterectomy. The patient asked his surgeon whether the abnormal cytology results could be due to something else. He was told – ‘I am absolutely certain that you have cancer’.

Histology of the specimen failed to show any ureteric or renal TCC. The patient sued the surgeon on the grounds that he was given no alternative management options. He argued that he had lost a normal kidney unnecessarily and that had he been given the option of watchful waiting (active surveillance) he would probably have taken this option.

**Case 5: Learning points**

**Options for management of positive or atypical urine cytology.** One not infrequently receives an equivocal urine cytology report where ‘atypical’ or ‘susicious’ cells are seen in the urine, rather than frankly malignant ones. This is a fairly non-specific finding, i.e. a proportion of such test results are falsely positive. Schwalb et al20 state that approximately 50% of patients with ‘atypical’ urine cytology have no identifiable upper tract tumours on long term follow-up. Causes of a false-positive urine cytology report include inflammation, such as that produced by urinary infection or calculus.

The finding of atypical or positive cytology often leads to upper tract imaging in the form of an IVU or retrograde pyelography. While upper tract TCCs are usually seen on such imaging as a filling defect, they can produce incomplete filling or non-filling of a calyx. However, non-filling of a calyx is usually associated with a greater degree of invasiveness21 and such tumours will be obviously visible on flexible ureteroscopic examination of the kidney. Certainly, where there is non-filling of a calyx, it will not be possible to visualise the renal papilla of that calyx.

In the case presented above no discrete lesion was seen on the IVU, but a lower pole calyx failed to fill on retrograde pyelography. However, at ureteroscopy no abnormality was seen other than a red area in the ureter (i.e. at a site which did not correspond to the abnormality seen on the retrograde pyelogram). This red area was thought to relate to passage of a guidewire prior to ureteroscopy. No discrete lesion was seen ureteroscopically within the collecting system of the kidney, every calyx having been inspected.
The patient underwent a radical nephroureterectomy for presumed renal TCC on the basis of an abnormal cytology report and a retrograde pyelogram that was interpreted as being abnormal, but in the absence of visual identification of a tumour at ureteroscopy. Was this reasonable? Was it wise for the surgeon to counsel the patient in terms such as ‘I am absolutely certain that you have cancer’? Were there other options that he should have been offered?

This case is almost one of isolated positive upper tract cytology, the definition of which is the finding of abnormal transitional cells on cytology of a specimen taken from the upper tracts, but with a normal cystoscopy and bladder biopsies, a normal IVU and a normal retrograde pyelogram. Of course, this patient did have what was interpreted as an abnormal retrograde pyelogram (interpreted as incomplete filling of a lower pole calyx), but flexible ureteroscopy, which achieved good visualisation of all the calyces, was completely normal. Thus, for all intents and purposes it is essentially a case of isolated positive upper tract cytology.

In such cases the spectre of an occult cancer has been raised, and the patient and surgeon will be worried that delay in treatment could compromise the chance of cure. The initial reaction from patient and surgeon on finding possible cancer cells in the urine is to remove the kidney and ureter. However, we know that a substantial proportion of positive urine cytology reports are false positives. Radical nephroureterectomy was performed in the past for unilateral positive upper tract cytology to eliminate presumed carcinoma in situ, but this practice is no longer recommended.22

In such cases semi-rigid ureteroscopy and flexible ureteroscopy are indicated to visualise the ureter and pelvi-caliceal system. Ureteroscopy for small lesions is a more effective diagnostic investigation than retrograde pyelography. An attempt to biopsy any lesions that are seen to confirm the diagnosis should be attempted. In the absence of direct visualisation of a TCC, so-called ‘frequent-interval re-evaluation’ is recommended, rather than immediate nephroureterectomy. Frequent-interval re-evaluation is urinalysis, bladder cytology, cystoscopy every 3 months, and retrograde pyelography and/or ureteropyeloscopy every 6 months. This should be done for a period of 1 to 2 years. Consistently positive upper tract cytology in the absence of a visible lesion may signify carcinoma in situ. The emphasis nowadays is to ‘avoid overtreatment and excessive evaluation and instrumentation of a patient who may have had a single false-positive result’.22

The patient in this case was not given the option of frequent-interval re-evaluation. His surgeon said ‘I am absolutely certain that you have cancer’ and not surprisingly the patient consented to a nephroureterectomy. Faced with that degree of certainty, you would, wouldn’t you?

One final point. It is important to study the contralateral kidney and ureter carefully for subtle filling defects, since the finding of a contralateral TCC will clearly have a major impact on the treatment options (generally speaking this would be an indication for an attempt at endoscopic treatment, rather than nephroureterectomy). No contralateral retrograde ureterography was done in this patient, to establish whether or not the IVU had missed a small contralateral
TCC. The initial diagnostic assessment of the patient was inadequate, and the pre-nephroureterectomy work-up was also inadequate.

**Case 6: Death during nephrectomy for advanced transitional cell carcinoma where palliative care was more appropriate**

This case concerns an 80-year-old man with a history of a non-invasive bladder tumour, diagnosed and treated cystoscopically 1 year earlier. He presented with haematuria, abdominal pain of 4 weeks’ duration and a haemoglobin of 8 g/dl. An abdominal CT scan showed a large, solid mass replacing the left kidney with an associated large mass of para-aortic lymph nodes. The patient was noted to have a substantial degree of associated co-morbidity (aortic stenosis, diabetes and angina), such that he was categorized as ASA grade 3, i.e. he had ‘severe systemic disturbance or disease’.

It was recommended that the patient undergo nephrectomy. No alternative management options were discussed.

The left renal mass was approached through an upper midline incision. After mobilising the left colon the tumour mass was exposed. The left renal vein was identified with some difficulty and was divided and ligated, although the left renal artery was unidentifiable. The surgeon decided the mass was removable and proceeded to cut across the hilar region, transecting the renal artery flush with the aorta. During efforts to identify the renal artery, which took about 20 minutes, the patient lost 4 litres of blood and became profoundly hypotensive. The abdomen was closed before the blood pressure had been restored adequately. Resuscitation with colloid and blood resulted in an improvement in the blood pressure, but within an hour of return to the recovery room the patient suffered a cardiac arrest and died.

Subsequent histological examination demonstrated a T3 N3 transitional cell carcinoma of the renal pelvis.

The surgeon was subsequently sued by the family of the patient. It was claimed, amongst other things, that the pre-operative CT scan was highly suggestive that the tumour was already at an incurable stage and that palliative care was a more appropriate course of action than surgery.

**Case 6: Learning points**

If nothing else, this case reminds us to discuss the available options with the patient and his or her relatives. This is particularly important in an elderly patient with co-morbidity, and where there is good evidence that, as in this case, the cancer had already metastasised. The BAUS procedure specific consent forms\(^1\)\(^8\) remind us that ‘Alternative ways of dealing with kidney cancers include embolisation of the kidney cancer (blocking the blood supply to the kidney where it is bleeding and where the kidney cancer has already spread outside the kidney so that it cannot be cured by surgery)’. In this case it appears that no thought had been given to this possibility.
This patient had a history of previous TCC, so it was possible that the renal lesion was the same, although the incidence of such a situation is small (see the discussion of Case 3 above). However, the 5-year survival rate of transitional cell cancer of the renal pelvis with nodal metastases is at best just 5%. It is not difficult to argue that an 80-year-old man with substantial co-morbidity, such that he was deemed to be ASA grade 3 ('severe systemic disturbance or disease'), might be more appropriately managed with analgesia, blood transfusion and referral to a palliative care team, possibly with an attempt to embolise the tumour to alleviate the haematuria.

The surgeon in this case then broke the rules in several ways.

First he took no steps to minimise the intraoperative bleeding before he created it. He decided that the tumour was removable, although it seemed unlikely from the CT scan. He transected the tumour mass in the region of the hilum, presumably knowing he would divide the renal artery in the process and cause significant haemorrhage. He made no effort to control the aorta before dividing the renal artery by applying a Satinsky clamp. Any dissection in the renal hilum may cause major haemorrhage from the great vessels and it is standard surgical technique to control the aorta or the vena cava with such a clamp before dividing the renal vessels if they are not clearly identifiable.

Second, he failed to tell the anaesthetist he was going to divide the renal artery blindly, so the resulting massive haemorrhage was not anticipated and no precautions could be taken by the anaesthetic team to reduce its effects. It is simple common sense to warn your anaesthetist if you think you are about to make things bleed.

Finally he closed the wound before the blood pressure was restored to adequate levels. It is a basic rule never to do this, as you may be leaving damaged vessels uncontrolled.

Case 7: Technical errors during nephrectomy

A 70-year-old man presented with macroscopic haematuria. Cystoscopy was normal, but a renal ultrasound showed a solid mass in the left kidney, reported to be a renal cancer on CT. There was no evidence of metastatic spread of the tumour and he therefore proceeded to left radical nephrectomy.

The operative note was extremely brief – 'straightforward left nephrectomy.' No reference was made as to how many renal arteries were found. It suggested that the operation had proceeded without event or difficulty. However, postoperatively the patient became unwell with abdominal pain and the development of peritoneal irritation. He underwent an exploratory laparotomy 24 hours after the nephrectomy. This revealed necrosis of his jejunum, ileum and ascending colon to beyond the hepatic flexure. The necrotic bowel was resected. He was transferred to the ITU, but died 7 days later from multi-organ failure.

A post-mortem examination revealed that his superior mesenteric artery had been ligated and this had led to necrosis of his midgut.
In a similar case the patient developed acute hepatic failure after radical right nephrectomy and at post-mortem was found to have had the coeliac axis ligated.

**Case 7: Learning points**

A conference entitled ‘The Rise and Fall of Anatomy’ was recently held at The Royal Society of Medicine in London and this was reported in the *British Medical Journal*.23 The decline in medical student teaching of anatomy was described as ‘a dangerous trend’. Others described the demotion of anatomy teaching in favour of communication skills being responsible for producing a generation of smiling articulate doctors who do not know their stuff. While we emphasise throughout this book the fact that so many litigious problems arise from poor communication, one cannot help but agree with these sentiments that a basic core knowledge of anatomy is equally as important for safe surgical practice as are communication skills. Harold Ellis bemoaned the move away from anatomy teaching based on cadavers to purely theoretical teaching, stating that it is surely better ‘to see and understand mistakes in the dissecting room rather than in the operating room’. This opinion was shared by others who felt that anatomical ignorance was partly responsible for operative complications.24

Renal tumours, particularly large ones, can distort the anatomy of the renal pedicle and make identification of the renal artery or arteries difficult. If you are not sure what the vessel you are planning to ligate is, expose the aorta and identify its various branches until you are confident that what you think is a renal artery is indeed that. You can put an occlusive clamp on the aorta as a safety measure while you do this. Remember, the renal arteries arise as lateral branches of the aorta. The coeliac axis and the superior and the inferior mesenteric arteries are anterior midline branches of the aorta and therefore arise from the front of the aorta. The senior author has vivid memories of a well-known anatomy teacher tapping him on the head with a large ebony ruler while chanting ‘embryology, my boy, embryology’!

**Case 8: Persistent pain following a pyeloplasty**

A 55-year-old woman underwent a right pyeloplasty for pelvi-ureteric junction obstruction, thought to be the cause of her loin pain, in the 1980s. Within a few months of the operation she reported further episodes of right loin pain. A repeat renogram was equivocal, i.e. it neither confirmed nor refuted recurrent pelvi-ureteric obstruction.

In the late 1990s she was referred back to a urologist because her episodes of right loin pain had become more frequent. An ultrasound scan showed right hydronephrosis and a MAG3 renogram showed rapid excretion of radioisotope following the administration of a diuretic.

It was suggested to the patient that she be admitted for a right retrograde ureterogram to determine whether or not there was evidence of narrowing at the pelvi-ureteric junction and that if there was, a stent would be placed.
and left in situ for several weeks to see if the pain improved. The retrograde ureterogram was duly done and it showed a narrowing at the pelvi-ureteric junction. A stent was inserted and was left in place for 3 months, at the end of which her pain was no better. The option of a balloon dilatation was put to the patient, as a relatively non-invasive method for trying to relieve her pain. She went ahead with this and an endopyelotomy stent was left in place for 6 weeks. A follow-up MAG3 renogram showed no obstruction. However, her pain persisted and she was referred to the pain control team.

The patient sued on the basis that her loin pain had been caused by all the various urological procedures she had had done. The expert witness supported the surgeon.

Case 8: Learning points
Pain is a difficult symptom to treat, whether it is that arising from a pelvi-ureteric junction obstruction, from stones or whatever. During the process of consent for a pyeloplasty, it is sensible to warn the patient that, although the obstruction may be successfully relieved by the operation, they may continue to experience pain, either in the flank or within the wound itself. Try to avoid giving assurances that the pain will definitely go away. It is worth reinforcing this message by repeating it on several occasions. Record the fact that you have done so.

In this case the surgeon did a series of appropriate investigations which showed no evidence of obstruction to urine flow, but unwisely still went on to invasive treatment.

STONE DISEASE
Case 1: Septicaemia following ESWL
A 75-year-old man presented with an asymptomatic stone in the lower pole of his left kidney. It was diagnosed as an incidental finding during an abdominal ultrasound scan done for the investigation of right upper quadrant pain. The stone measured 6 mm in diameter. No discussion about the merits of watchful waiting versus ESWL versus flexible ureteroscopy was recorded in the notes. In fact the clinical notes were cursory to say the least, stating ‘left lower pole stone. For ESWL’. And as far as the consultation went (if it can be called that), that was it! The urine was not cultured.

The patient underwent ESWL. No antibiotic prophylaxis was given. Three days later he was admitted to the Intensive Care Unit in septic shock. A coliform organism was isolated on both urine and on blood culture. As a consequence of profound hypotension during this episode of sepsis, the patient developed an ischaemic stroke, leaving him with a permanent hemiplegia.

The patient sued the urologist claiming that he had not been offered alternative management options, and that he should have been given antibiotic prophylaxis at the time of ESWL.
Case 1: Learning points

Consider and offer alternative treatment options. Would it have been reasonable to adopt a watch and wait policy, rather than proceeding with ESWL? The advent of ESWL has made it considerably easier to treat small caliceal stones. Its relatively low morbidity has provided a minimally invasive treatment option and so the traditional indications for stone treatment – pain, infection, obstruction – have been broadened somewhat to include asymptomatic stones. The rationale is that asymptomatic stones might at some stage in the future become symptomatic, and that it is therefore better to treat them when they are small enough to be still amenable to ESWL. They could drop into the ureter, causing sudden onset of ureteric obstruction and severe loin pain. They could grow, and become a nidus for recurrent urinary tract infection, or they might enlarge to such an extent that they could cause a slow, but nonetheless relentless decline in renal function.

What are the chances of such events occurring? Glowacki et al. identified 107 patients with asymptomatic renal calculi, ‘visible’ by plain radiography or ultrasonography. ‘Asymptomatic’ meant absence of symptoms for 6 months after stone recognition. The patients were followed up for a mean of 32 months and the number experiencing an event (ureteric colic, need for ESWL, need for surgery) was recorded.

The results of the study are worth considering in detail, because they give some idea of the risk of a subsequent event relative to stone size and number, showing how infrequently a significant event did happen. Table 6.1 shows the chances of an event occurring over a mean of 32 months of follow-up, relative to stone size. So nearly 70% of patients remained completely asymptomatic over an average of almost 3 years of follow-up. Fifteen per cent of the patients developed pain due to spontaneous passage of the stone down the ureter. The remaining 15% or so of patients required intervention for pain, either in the form of ESWL (8%), ureteroscopy (6%) or PCNL (3%). Table 6.2 shows the chances of an event occurring relative to stone number.

<table>
<thead>
<tr>
<th>Stone size at initial diagnosis</th>
<th>Number of patients experiencing no event (%)</th>
<th>Number of patients experiencing an event (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–2 mm</td>
<td>24 (75%)</td>
<td>8 (25%)</td>
</tr>
<tr>
<td>3–6 mm</td>
<td>24 (69%)</td>
<td>11 (31%)</td>
</tr>
<tr>
<td>≥7 mm</td>
<td>17 (59%)</td>
<td>12 (41%)</td>
</tr>
<tr>
<td></td>
<td>65 (68%)</td>
<td>31 (32%)</td>
</tr>
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Table 6.1 The chances of an event occurring relative to stone size.

25
Kaplan–Meier time to event ‘survival’ curves for probability of a symptomatic event were constructed. Essentially after 1 year 10% of patients had had a symptomatic event, after 2 years 20%, after 3 years 30% and after 4 years 40%. The cumulative probability of a symptomatic event over a 5-year period was 50%. Half of these events required intervention (ESWL, ureteroscopy, PCNL) and half did not.

So, this study would suggest that while patients do develop symptoms as a consequence of their stone, many do not do so over several years of follow-up. Watchful waiting had a less favourable outcome in the study by Hubner and Porpaczy.26 They followed initially asymptomatic caliceal stones in 63 patients, with 80 stones, with a slightly longer follow-up period averaging 7.4 years. Unfortunately they made no mention of initial stone size or number, both size and number of stones being important factors influencing the likelihood of progression of stone disease. Thus it is difficult to draw general conclusions from this paper.

Hubner and Porpaczy reported that approximately 16% of stones passed spontaneously, 40% required surgical intervention and 38% remained in situ. Over this period of observation 45% of the stones increased in size, 68% of the patients experienced symptoms of infection and 51% of the patients experienced pain. Of those that were followed up for 10 years only 11% remained symptom free. The authors of this study concluded that most caliceal stones, when not actively treated, are likely to increase in size, resulting in further pain and/or infection. Over the long term, the likelihood of spontaneous stone passage decreased with a concomitant increased likelihood of developing complications.26

So, the Glowacki and Hubner papers are at odds. From a design point of view and statistical analysis the results of the Glowacki paper do provide what we believe to be clinically useful conclusions. We believe it provides good evidence to support the option of watchful waiting, and that this option should have been discussed with the patient in the case described above.

Finally, it is worth considering the 1988 National Institutes of Health (NIH) Consensus Conference which addressed the issue of small, asymptomatic caliceal stones. It stated that the use of ESWL for small (less than 5 mm),

<table>
<thead>
<tr>
<th>Number of stones at initial diagnosis</th>
<th>Number of patients experiencing no event (%)</th>
<th>Number of patients experiencing an event (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>33 (82%)</td>
<td>7 (18%)</td>
</tr>
<tr>
<td>2</td>
<td>19 (73%)</td>
<td>7 (27%)</td>
</tr>
<tr>
<td>≥3</td>
<td>21 (51%)</td>
<td>20 (49%)</td>
</tr>
</tbody>
</table>

Table 6.2 The chances of an event occurring relative to stone numbers.25
incidentally discovered, asymptomatic kidney calculi was controversial and that more data were required.²⁷ No studies have been reported in the intervening 17 years which change this. Indeed, as recently as 2002 Lingeman et al²⁸ reminded us that ‘prophylactic treatment of small (less than 5 mm), non-obstructive, asymptomatic stones remains to be determined’.

In the context of the case described above it is worth remembering Glowacki’s advice²⁵ that ‘prophylactic extracorporeal shock wave lithotripsy, although often advocated, has associated risks and is not always a benign procedure’.

If you do elect a watchful waiting policy, advise the patient of the need for follow-up because a significant proportion eventually become symptomatic and require treatment. The decision to treat is based on the evaluation of risk factors in an individual patient.²⁷ Remember that in several groups of patients treatment for asymptomatic caliceal stones is indicated (children, patients with a solitary kidney, patients in high-risk professions, e.g. pilots, and women considering pregnancy).²⁸

**Use prophylactic antibiotics for ESWL.** What about the failure to give prophylactic antibiotics at the time of ESWL? Sepsis occurs in between 0.5 and 1.5% of patients undergoing ESWL.²⁹,³⁰ Severe urosepsis is rare, but is nonetheless reported and the consequences may be devastating.³¹

A recent meta-analysis of antibiotic prophylaxis prior to ESWL in patients with sterile urine before treatment has demonstrated that such prophylaxis reduces the post-ESWL urinary tract infection rate.³² This meta-analysis included the results of eight randomised, placebo controlled trials of prophylaxis versus placebo or no treatment. Post-ESWL urinary tract infections occurred in 7% of patients receiving no antibiotic prophylaxis and 2% of those who received prophylaxis. The relative risk of post-ESWL urinary tract infection was 0.45 for those receiving prophylactic antibiotics compared to those not receiving antibiotics.

If you argue that culturing the urine in patients undergoing ESWL is unnecessary and that antibiotic prophylaxis is likewise unnecessary, you may find it difficult to defend your decision.

**Case 2: Failure to identify progressive ureteric obstruction during treatment for urinary tract TB**

A 25-year-old Caucasian man attended his GP over the course of many months with urinary frequency, without any other symptoms. Several urine cultures were sent and reported as sterile, although white cells were seen in most samples. Various courses of antibiotics were prescribed, but did not alter the urinary frequency, which worsened progressively. After a year the patient was referred for a urological opinion. By this time the patient was passing urine every 10 minutes in the day with urgency and urge incontinence. There was no haematuria. The GP referral letter made it clear that he thought the symptoms were being exaggerated.
The urologist arranged for a urine sample to be cultured and carried out a plain X-ray and an ultrasound scan of the urinary tract, prescribing oxybutinin meanwhile. The plain X-ray showed no abnormality, but the ultrasound showed bilateral hydronephrosis. An IVU showed both kidneys to be excreting contrast medium, but with bilateral hydronephrosis, more marked on the left side, where the kidney was smaller and scarred. The ureters were strictured and the bladder was small and irregular. The urine sample had been sterile, but contained white cells, so three early morning urines were sent for culture and a clinical diagnosis of tuberculosis was made. A family history of pulmonary TB was elicited and the patient admitted to night sweats and weight loss on direct questioning.

The three early morning urine specimens confirmed the presence of TB and the patient was referred to a chest physician for commencement and monitoring of a 6-month course of anti-tuberculous medication. Nine months later (3 months after he had finished this 6-month course) a follow-up IVU was done. This showed a completely non-functioning left kidney, confirmed on a DMSA scan. At some stage between starting his anti-TB therapy and this point 9 months later, function in his left kidney had completely disappeared.

**Case 2: Learning points**
This man lost a kidney due to a delay in diagnosis of a treatable and curable condition. The correct diagnosis was made with commendable speed by the urologist, who passed the patient on for treatment to a physician. The physician failed to monitor the course of treatment and the left kidney was allowed to deteriorate until it was functionless because of ureteric obstruction which went un-monitored and was allowed to progress.

**Do not dismiss symptoms which are seemingly bizarre or implausible.** Such gross urinary frequency may seem implausible, but the patient should always be given the benefit of the doubt. However, all the hallmarks of genuine disease were present and the GP simply failed to spot them – weight loss, night sweats and a family history. TB causes scarring of the ureters and bladder, the latter sometimes producing gross urinary frequency. The urologist did accept the story and investigated it, putting the clues together rapidly to reach the correct diagnosis.

**History, examination and special investigations in suspected or confirmed urinary tract TB.** The classical presentation, clinical findings and investigation of genitourinary TB are summarised in this case. Genitourinary TB is uncommon in the indigent Caucasian patient in the UK, although more common in the immigrant population of any ethnic origin. However, the wary clinician should be aware that it occurs. The symptoms of TB, at least in the early phases, are vague. In the case described here, the patient obviously had very marked urinary symptoms, and the finding of hydronephrosis on ultrasound and the very small bladder on the IVU with lower ureteric strictures allowed the diagnosis to be made promptly.
There is no excuse for failing to take a family history. So often patients with tuberculosis give a history of an affected relative or relatives.

Constitutional symptoms (night sweats, weight loss, malaise, fatigue) may be absent until the disease is advanced. The urinary symptoms usually arise from involvement of the bladder. The obstructed kidney does not usually cause loin pain as the obstruction is chronic. In the initial stages of infection there is usually no pain in the bladder or urethral pain on voiding. The increased frequency of micturition may initially manifest itself only at night. Urgency is a sign of extensive bladder involvement and is often accompanied by burning, on voiding, suprapubic pain and haematuria (due to ulceration of the bladder). Beware the patient with ‘recurrent cystitis’ – consider TB, particularly if you cannot find an organism on conventional urine culture.

In terms of investigations, the urine is usually sterile, although secondary bacterial infection occurs in about 20–30% of patients (usually E. coli), so do not assume you have found the cause of the patient’s symptoms just because a ‘conventional’ cause of urinary tract infection is isolated. Approximately 80% of patients have so-called sterile pyuria, but 20% have no pyuria. Culture of early morning urine is crucial in making the diagnosis. Traditionally three early morning specimens of urine (EMU) are sent, but it may take more than this number to identify tubercle bacilli. So, if you suspect TB send more EMUs.

**Radiological investigations.** An IVU is the best radiological investigation for detecting the pathological changes of TB. Ultrasound scans are of limited value, as is plain radiography. The former may of course show hydronephrosis as a consequence of ureretic obstruction and a tuberculous renal mass may also be identified (which can be difficult to differentiate from a renal malignancy). The latter may demonstrate punctate calcification in the renal area (distributed in the parenchyma rather than within the collecting system), a calcified prostate and loss of the psoas shadow. It goes without saying that if you suspect urinary tract TB, you should also arrange a chest X-ray looking for active or healed pulmonary TB.

The features of TB as seen on intravenous urography are:

- So-called moth eaten calyces (representing ulceration of the calyces); calyces may be obliterated from fibrosis of the calyceal neck
- Ureteric strictures, especially at the vesico-ureteric junction (pelvi-ureteric junction strictures are uncommon and middle third ureteric strictures are very rare)
- Hydronephrosis and hydroureter
- Non-function of the kidney secondary to ureteric occlusion
- A calcified mass replacing the kidney (autonephrectomy).

**Failure of monitoring of progress of the disease.** It is essential to monitor the upper urinary tract in patients being treated for genitourinary tuberculosis.
As the drugs used in the treatment kill the tuberculous bacilli the process of healing will be accompanied by marked fibrosis. Even apparently normal ureters may undergo stenosis. The risk of obstruction in ureters which are already strictured by the disease is high and renal function may be lost rapidly, completely and irretrievably, without any symptoms.

So in a patient without evidence of ureteric strictures before commencement of anti-tuberculous chemotherapy a follow-up urogram is necessary during the first few weeks of treatment. This then needs to be repeated every 3 months throughout treatment, even if the original urogram was normal, and again 3 months after the course of treatment is finished. A patient with known ureteric strictures needs an even stricter follow-up, with uograms at shorter intervals, perhaps even on a weekly basis. It is not necessary to do a formal urogram; a plain film and a 20 minutes post-contrast film are sufficient. Have a very short fuse to do a MAG3 renogram to check if obstruction is present or worsening. If these show any sign of progressive ureteric obstruction some form of surgical intervention is necessary as a matter of urgency if progressive loss of renal function is to be prevented. If obstruction in a ureter persists or progresses, insert a JJ stent. If this is not possible, because the stricture is very tight, a percutaneous nephrostomy may be necessary. For vesico-ureteric junction strictures an alternative is ureteric re-implantation into the bladder using, for example, a Boari flap.

No such radiological surveillance was carried out in this patient, who was known to have bilateral lower ureteric strictures. As a consequence he lost what function was present in his left kidney and he brought an action against the urologist who managed his case. Perhaps he should have brought the action against the GP, who delayed the diagnosis, or the physician who did not monitor the urinary tract during treatment.

**Case 3: Urinary tract TB**

A 50-year-old man consulted his GP because of blood in his urine and left loin pain. The haematuria and loin pain persisted despite a course of antibiotics. The urine culture result from the initial consultation showed no infection. The patient was referred to a urologist.

The patient was seen a few days later. An IVU was organised and this was done 1 week later. This demonstrated a calcified mass in the left kidney, which the radiologist said was ‘strongly suggestive of a renal cancer’. Within 2 weeks of this investigation, the patient was reviewed in clinic and told the provisional diagnosis was that of a renal cancer, that a staging CT was necessary and that a nephrectomy would, in all probability, be necessary.

The staging CT was done 4 days later and this showed that the renal mass was a calcified cyst. The radiologist reviewed all the imaging (ultrasound, IVU, CT) and stated that ‘none of the scans indicates beyond doubt that this is a malignancy although calcification within a renal mass increases the likelihood of neoplasia’. The radiologist arranged review of the imaging by a specialist
uroradiologist and this was done within a few days. This specialist uroradiologist commented that he had not seen such appearances before, suggested it could be a tumour, but recommended that aspiration of the cyst be carried out to allow cytological examination of the fluid.

Within 1 week of this advice the patient was reviewed in clinic again and the urologist told him that the cyst might not be cancer and suggested cyst aspiration as a sensible way forward. This was duly done 10 days later. The aspirate was pus. Multi-nucleated giant cells were seen and the microbiologist suggested the possibility of renal TB. The patient took his own discharge from the hospital, against medical advice, and so this information could not be given to him at this stage.

Four weeks later the patient was reviewed and he was told that he did not have cancer. He was told that the diagnosis might be one of TB, but that the results of culture of the pus should be awaited. After 6 weeks of culture no tubercle bacilli had been grown and it was thought that the diagnosis might be one of nocardia infection. Appropriate anti-nocardia antibiotic treatment was started. After a further month of culture, tubercle bacilli were isolated and the final diagnosis was changed to renal TB. The patient started anti-tuberculous chemotherapy promptly. On follow-up 18 months later he was well and a renal ultrasound scan was normal.

The patient sued the urologist on the grounds that it had taken 6 months to reach a diagnosis of TB. He also complained that, in his opinion, he should not have been told the provisional diagnosis of a possible renal cancer.

**Case 3: Learning points**

The surgeon was exonerated. It was judged that he had investigated the patient in an entirely appropriate way, that he had communicated the rationale for the investigations and their results to the patient in a clear and timely fashion, and that once the diagnosis of TB had been confirmed he had commenced anti-tuberculous treatment quickly.

TB culture may take many weeks or months to confirm the diagnosis and in a case such as this, where there was no evidence of ureteric strictures, a delay in commencement of treatment while awaiting confirmation of the diagnosis was entirely reasonable. Anti-TB chemotherapy is not without its complications and confirmation of the diagnosis before starting such therapy is important to avoid the unnecessary use of potentially dangerous drugs.

Clearly the patient was aggrieved that he had been told that the mass might be a cancer. However, this was regarded as an entirely reasonable thing to say to the patient, given the initial radiological findings which were reported to be suspicious for malignancy.

Defence of this case was made considerably easier by the surgeon's good note-keeping and his timely and appropriate approach to all phases of diagnosis and treatment. He had made clear records of his discussions with the patient regarding the radiological findings, their potential implications and of the need for further tests. The radiologist similarly arranged investigations in a timely
fashion and sought advice from a specialist uroradiologist when the diagnosis was uncertain. It is unfortunate that despite all their efforts, the patient still sued. C’est la vie!

REFERENCES

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FURTHER READING


Grossfeld GD, Litwin MS, Wolf JS Jr et al. Evaluation of asymptomatic
Ureters

Ureteric injury during gynaecological and obstetric procedures is a recurring theme, which frequently leads to litigation. The diagnosis is often delayed, often because the significance of loin pain or vaginal discharge after hysterectomy or Caesarean section is not appreciated. Damaging a ureter at hysterectomy or during a Caesarean section may or may not be a negligent act, but the double whammy of injuring the ureter and failing to diagnose such an injury in a timely fashion will often be construed as such. Many patients will accept the development of complications and will not sue the surgeon as long as the complication is diagnosed and treated promptly. Sadly urologists are not immune from injuring ureters or from delays in recognising the presence of ureteric injuries. Once again, poor pre-operative counselling and communication (failure to warn of the possibility of ureteric injury after pelvic surgery or ureteroscopy) can land the gynaecologist or urologist in trouble. Retained JJ stents are another recurring theme.

SUMMARY

- Delayed diagnosis of ureteric injury following a hysterectomy – the double whammy of ureteric injury and failure to diagnose that injury
- Delayed diagnosis of ureteric injury following a Caesarean section
- A urinary fistula following emergency Caesarean section
- Ureteric injury after hysterectomy
- Ureteric avulsion during ureteroscopy
- A retained JJ stent.

URETERIC INJURIES

Case 1: Delayed diagnosis of ureteric injury following a hysterectomy

A 45-year-old woman underwent a hysterectomy and bilateral salpingo-oophorectomy for menorrhagia, associated with endometriosis. No particular operative problems were encountered according to the operation note, other
than the procedure being described as ‘vascular’. She developed pain in the right iliac fossa within 24 hours of the operation, and this was noted by the gynecology team to radiate to the right loin. The pain continued, but no specific investigations were arranged. Five days after the operation she was discharged, despite continuing loin pain.

She was re-admitted 1 week later because the right loin pain had not resolved. An ultrasound scan showed right hydronephrosis and hydroureter. An IVU was not done for another 5 days. The IVU confirmed the presence of hydronephrosis and showed delayed excretion of contrast by the right kidney. The left kidney and ureter were normal. The urologists were contacted. A self retaining percutaneous nephrostomy tube was inserted that same day. The patient was sent home with the nephrostomy in place. Two weeks later a nephrostogram was done and this showed complete obstruction of the distal right ureter.

The patient underwent right ureteric re-implantation 1 month later. A tight stenosis of the distal ureter was found. It was difficult to establish the cause of the stenosis; no ligature surrounding the ureter was found. The ureter was divided above the level of the obstruction and was re-implanted into the bladder. The patient made an uneventful recovery and has had no urological sequelae. A follow-up MAG3 renogram 18 months later showed 35% function in the right kidney, with no evidence of obstruction.

The patient sued the gynaecologist claiming that there had been a delay in diagnosis of a ureteric injury which had (a) caused her unnecessary suffering and had (b) led to a loss in function of her kidney.

**Case 1: Learning points**

*Delayed diagnosis of ureteric injury following a hysterectomy.* The interval between the hysterectomy and the diagnosis of the ureteric injury was almost 3 weeks. The patient was complaining of right iliac fossa pain, radiating to the loin, within a day of the operation. Right iliac fossa pain radiating to the loin is not a usual sequela of hysterectomy and therefore deserves to be investigated promptly. Ultrasonography is simple, non-invasive, easily available and cheap. In this case it would have shown a dilated renal pelvis and/or ureter, which could then be investigated by intravenous urography.

**Case 2: Delayed diagnosis of ureteric injury following a Caesarean section**

A 25-year-old woman underwent an emergency Caesarean section for foetal distress. Four days post-operatively she developed right loin pain. This was severe enough to require opiate analgesics. The pain continued every day until finally on the twelfth post-operative day an IVU was done. This showed a very delayed nephrogram, contrast appearing in the right kidney no earlier than on a 2 hour film. The left kidney was normal.

The urologists were contacted. A retrograde ureterogram was performed. This showed a tight stricture in the right lower ureter. It was impossible to pass a
guidewire beyond the stricture. A percutaneous nephrostomy tube was therefore inserted later that evening.

The patient was re-admitted 2 weeks later. A radiologist was able to pass a guidewire through the stricture via the nephrostomy, to dilate the stricture with a balloon and to pass a JJ stent. The nephrostomy tube was removed 48 hours later after a nephrostogram had shown free flow of contrast from the renal pelvis to the bladder.

Eight weeks later the JJ stent was removed and a retrograde ureterogram was done. This showed an area of stricturing at the site of the original stricture. This was again balloon dilated and a JJ stent was left in situ for a further 3 weeks. On removal a retrograde ureterogram showed minor narrowing of the ureter. An IVU was done 6 weeks later. This showed rapid excretion of contrast from both kidneys, and no hydronephrosis.

The patient sued the gynaecologist claiming that there had been an unacceptable delay in diagnosis of a ureteric injury.

Case 2. Learning points

Delayed diagnosis of ureteric injury following a Caesarian section.

The patient developed right loin pain within 4 days of the Caesarean section. The pain was severe. Loin pain is not a usual sequela of Caesarean section, so it deserves investigation. In this case an IVU was not done until the twelfth post-operative day. As with Case 1 above, the presence of loin pain after a procedure where ureteric injury is possible is an indication for urgent renal imaging. A renal ultrasound is a reasonable first line investigation. If it shows hydronephrosis arrange ureteric imaging in the form of an IVU or a retrograde ureterogram. If there is no hydronephrosis on the ultrasound and the pain resolves spontaneously, all is well and good. If the pain persists, get an IVU.

Case 3: A urinary fistula following emergency Caesarean section

A 30-year-old woman was admitted as an emergency with vaginal bleeding. She was 30 weeks pregnant, and had had three previous Caesarean sections. A diagnosis of placenta praevia was made. The vaginal bleeding continued despite conservative measures and she underwent a semi-elective Caesarean section. She was consented for hysterectomy and bilateral tubal ligation.

The bladder was not catheterized. No DVT prophylaxis was given. The procedure was carried out via a midline incision. A live baby was delivered. There was heavy bleeding, estimated to amount to 5 litres of blood loss. A hysterectomy was carried out. The bladder was opened during this procedure and was closed in layers, with a catheter and drain being left in situ.

Post-operatively the patient continued to bleed and she was returned to the operating theatre that same night. Several litres of blood were found in the
The peritoneal cavity. The internal iliac arteries were clamped. Several areas of bleeding in the pelvis were oversewn with vicryl.

The patient remained in hospital for 6 weeks with a number of post-operative problems including a clotting disorder which was corrected with haematological assistance, a pulmonary embolus (requiring anti-coagulation with warfarin) and a chest infection. There were problems with leakage of urine per vagina, noted initially at the end of the first post-operative week. This was attributed to catheter bypassing. An entry in the notes was made suggesting the possibility of a fistula between the bladder and vagina, but because the leakage of urine was intermittent rather than continuous, a fistula was thought unlikely. By the end of the fourth post-operative week leakage of urine from the vagina continued and was becoming worse. By the fifth post-operative week the leakage of urine was continuous. An IVU was done.

The IVU showed prompt bilateral excretion of contrast. There was no hydronephrosis or hydroureter. Contrast was seen to be accumulating in the pelvis, around the bladder on the left side. The possible diagnoses of a ureterovaginal fistula, a vesico-vaginal fistula or both were considered. A urologist was consulted. A cystogram was done and this showed no vesico-vaginal fistula and a presumptive diagnosis of a left ureterovaginal fistula was made. In view of the fact that she had by now had a pulmonary embolus and was fully anti-coagulated on warfarin, the decision was taken to manage the fistula conservatively with catheter drainage and left nephrostomy tube drainage.

The leakage of urine per vagina slowed and finally stopped within a few more weeks. A repeat IVU one month later showed slight narrowing of the left ureter, but was otherwise normal. A subsequent MAG3 renogram has shown no obstruction to either kidney and the patient remains well and asymptomatic. It is likely that there had been a fistula between the left ureter and the vagina, which had healed spontaneously. Urinary diversion via the nephrostomy tube had prevented extravasation of urine, thereby preventing the development of periureteral fibrosis and subsequent ureteric stricture formation.

**Case 3: Learning points**

This was a difficult case. The patient required Caesarean section for placenta praevia which had been the cause of her vaginal bleeding. She had had three previous Caesarean sections. There was considerable blood loss during the procedure. She required emergency re-exploration for persistent bleeding. It is little wonder, given all of this, that the bladder and ureter were damaged during the procedure. One could argue that this was an unfortunate, but nonetheless acceptable complication of surgery in a patient such as this.

Given that the possibility of damage to the urinary tract was a real possibility, at the first sign of leakage of fluid per urethra, it would have been prudent to arrange investigations to confirm or refute such a diagnosis at that time (an IVU and a cystogram, with bilateral retrograde ureterograms as necessary). Having said this, there were clearly a number of other serious problems going on, and it is easy to see how a vaginal discharge might have taken back stage to these. Overall it was deemed that the case had otherwise been appropriately managed.
Fortunately the patient made a full recovery, but nonetheless she sued the obstetrician who did the original operation. The occurrence of such an injury, given the circumstances (the very heavy bleeding), was not deemed to represent substandard management. However, the failure to administer DVT prophylaxis at the time of surgery was.

Unfortunately, cases of ureteric injury leading to ureteric obstruction or to the development of a uretero-vaginal (UVF) or vesico-vaginal fistula (VVF) often take a long time to be diagnosed simply because of the natural history of such fistulae. In the case of fistulae, these usually appear between 1 and 6 weeks post-operatively. Ninety-four per cent of fistulae start to leak urine per vagina between 5 and 35 days post-operatively; only 4% do so within 3 days.\(^1\) The delay in presentation reflects the mechanism of injury. Delayed pressure necrosis in prolonged labour or diathermy injuries take time for the barrier properties of the urothelium to break down. Delayed fistulae (those presenting more than 30 days after surgery) usually occur in the context of surgery performed after radiation therapy.

The voiding pattern is useful in helping to establish the site of a urinary fistula. Patients with VVF usually leak urine constantly and because of this their bladders do not fill enough for them to void (unless the fistula is very small, in which case their bladders may have time to fill enough for them to be able to void reasonable volumes of urine). Normal voiding (i.e. intermittent voids of good volumes of urine) with a constant leak in between times implies the presence of a UVF. Remember that both a VVF and a UVF may be present in the same patient.

The natural history of such fistulae is, however, not the only reason why they often take some time to be diagnosed. We believe that diagnosis of many fistulae is delayed because of a lack of knowledge that such a complication may occur after pelvic surgery. This is due in part to delegation of post-operative ward rounds to junior staff who have limited clinical experience. Surprising though it may be, these doctors may simply not know that ureteric injury may occur at the time of gynaecological or obstetric surgery. We believe also that some doctors are not aware that such problems may take many weeks to manifest themselves.\(^2\)

**Case 4: A ureteric injury after hysterectomy**

A 50-year-old woman was admitted under the care of the gynaecologists with menorrhagia. Clinical examination revealed an enlarged uterus. It was easily palpable up to the level of the umbilicus. It was estimated to be the size of a 20 week pregnancy. She underwent a hysterectomy. The operation was done by a specialist registrar late one evening. The consultant was not in attendance. No particular operative problems were noted. The operation lasted 1 hour. The patient received no heparin and was not fitted with TED stockings. She was discharged 7 days later.

Two weeks after the hysterectomy, she developed pain and swelling in her right calf. An ultrasound demonstrated a deep vein thrombosis extending into the femoral vein. She was commenced on warfarin.

Approximately 1 month after her operation she was re-admitted with severe lower abdominal pain. A pelvic ultrasound scan showed a fluid collection in
the pelvis, behind the bladder. This was interpreted as representing an abscess or haematoma, though there was no fever or constitutional upset to suggest the possibility of an abscess. The ultrasound scan also showed bilateral hydronephrosis. The scan was repeated a week later. The hydronephrosis and the cyst in the pelvis were no longer seen, though free fluid was noted in the pelvis. Her abdominal pain resolved and she was discharged. This episode was attributed to a vaginal vault haematoma.

She was re-admitted approximately 6 weeks after the hysterectomy with pain in her left buttock. She was tender on palpation in the left iliac fossa and at the left vaginal vault. After a brief period of observation (lasting several hours), during which the pain remained stable, she was sent home with analgesics. No diagnosis was made.

That evening (a Friday) she started to pass clear fluid from the vagina. She telephoned the gynaecology team at the hospital who told her to contact her GP the following Monday. In the event she was not able to get an appointment with her GP until the following Thursday. Throughout this time she was passing a watery discharge per vagina. When her GP saw her, he immediately requested that she be re-admitted and this was done the same day. A three swab test showed no blue discolouration of the proximal swab suggesting there was no VVF, i.e. scrub, between the urinary tract and the vagina. A CT scan was done. This showed contrast in the vagina, confirming the presence of a fistula. The right ureter was normal, with free flow of contrast from the right ureter to the bladder. The left ureter was dilated and virtually no contrast was seen in the left ureter. No pelvic urinoma was seen.

The urologists were asked to see the patient and they reviewed her that same day. A cystoscopy and bilateral retrograde ureterograms were done 2 days later. The bladder was normal. There was no evidence of a VVF. The right ureter was normal. The left ureter was completely obstructed approximately 2 cm proximal to the vesico-ureteric junction. A diagnosis of a left UVF was made. A percutaneous nephrostomy tube was inserted as a temporizing measure.

One week later the patient underwent a laparotomy via a midline incision (having been converted from warfarin to heparin). The left ureter was found to be dilated and it was traced down into the pelvis where it disappeared into scar tissue around the vaginal vault. The ureter was re-implanted into the bladder and a JJ stent was left in place, together with a drain. The patient made an uncomplicated recovery.

Case 4: Learning points

*Delay in diagnosis of a ureterovaginal fistula.* The interval between the hysterectomy and the diagnosis of the UVF was 2 months. The presence of abdominal pain combined with the finding of bilateral hydronephrosis on ultrasonography is a clear indication for an IVU, but the opportunity to diagnose the ureteric injury was not taken. The patient continued to have problems for a further 4 weeks, including a vaginal discharge of clear fluid. Despite this symptom, an IVU was delayed yet another month. This seems an inordinately
long period of time for the penny to drop, but sadly this case is by no means unique.

**No DVT prophylaxis at the time of the hysterectomy.** Both the American College of Chest Physicians and the Thromboembolic Risk Factors (THRIFT) Consensus Group in the UK recognise that surgery that lasts for more than 30 minutes is 'major' surgery (see also Chapter 15). This puts the patient into at least a moderate risk group with regard to venous thromboembolism. Both sets of guidelines recommend that at least one thromboprophylactic measure should be applied in such patients. This patient received no such prophylaxis and this was regarded as below the standard of care that the patient should expect.

**Inappropriate delegation of operation to junior doctor and failure of that junior to call for help.** A hysterectomy in a uterus of this size can be technically very difficult. It was known from the clinical examination that this was a big uterus. It was argued by the patient's lawyers that allowing a specialist registrar to perform the procedure, late at night and with no immediate assistance, was inappropriate delegation. No particular operative problems were described by the surgeon, so one assumes that he felt he did not require assistance. Certainly none was offered nor sought.

**Inappropriate advice to the patient when requesting help.** The patient was concerned that she had passed clear fluid per vagina and she called the gynaecologists asking for advice. This was on a Friday evening. She was told to visit her GP the following Monday, but could not get an appointment to be seen until Thursday. Throughout this time she was passing a watery discharge per vagina. When her GP saw her, he immediately requested that she be re-admitted and this was done the same day. Five days had been wasted. That lapse of time probably made no difference to the physical situation, but it was 5 days in which the patient became angrier. Five days during which she developed the impression that the surgeons did not care.

If a patient calls the ward asking for advice or reporting some untoward problem, make life easy for them. Offer to see them on the ward either the same day, or in the morning if they call in the middle of the night (assuming the problem can wait till then). The problem may seem trivial to you, but for the patient to have telephoned in the first place implies concern on their part. Do not get someone else such as the GP to sort the problem out when in all likelihood it is related to the procedure you have recently done. The GP may not be familiar with the operation you have done and may not know how to sort the problem out. Do not bury your head in the sand and hope the problem will go away. Telling the patient to visit their GP, which may take several days (as in this case), will delay the problem being sorted out and it might give the patient the impression that you do not care.

**One final point.** Abdominal pain, fever and nausea are symptoms which may occur after any operation, including hysterectomy, but *loin* pain after a pelvic
operation should not occur after routine pelvic surgery. This is a symptom which should always be regarded as suspicious of ureteric injury, and which may or may not lead on to the development of a UVF. The classic presentation is one of loin pain developing within a day or so of the hysterectomy. The pain is due to a rise in pressure in the obstructed collecting system and is spontaneously relieved some 10 days or so later as the urinary leak decompresses the distended collecting system. The underlying pathological process is that the initial pain is due to acute ureteric obstruction associated with ureteric oedema consequent upon the injury. The local devascularisation caused by the injury then leads to late necrosis of the ureteric wall, with development of the urinary fistula. Such an injury may be a suture involving the ureteric wall, temporary crushing of the ureteric wall by a surgical clamp or coagulation of the ureteric wall by misplaced or over-enthusiastic diathermy.

Finally, with regard to gynaecological ureteric injuries, transfer the patient as soon as is practicably possible to the urology ward where experienced urology nurses can provide appropriate care and where you are able to keep a close eye on the patient in the post-operative period.

In summary, the recurring theme in gynaecological ureteric injuries leading to litigation is delay in diagnosis. In too many cases it seems to have taken a long time to appreciate that the presence of loin pain, or hydronephrosis or persistent drainage of fluid from a drain following hysterectomy or other gynaecological procedures, could indicate the possibility of a ureteric injury. Damaging a ureter at hysterectomy or during a Caesarean section may or may not be a negligent act, but the double whammy of injuring the ureter and failing to diagnose such an injury in a timely fashion will often be construed as such. Many patients will accept the development of complications and will not sue the surgeon as long as the complication is diagnosed and treated promptly.

Where the possibility of such a complication occurring has already been mentioned in the pre-operative counselling and where the surgeon shows obvious concern and compassion for the patient’s plight, recourse to litigation can be averted, in many cases. Conversely, where the surgeon seems not to care, where the patient experiences difficulty in getting back into hospital following discharge, and where appropriate investigations are not done in a timely fashion, the likelihood of litigation is greater.

Sadly urologists are not immune from injuring ureters (as the next case demonstrates), nor are they immune from delays in recognising the presence of such an injury, although the diagnosis of ureteric injury is usually obvious at the time of operation since it tends to occur during ureteroscopy (the ureter avulsed by a stone basket has an unmistakable appearance at cystoscopy – that of a worm attached to the site of the ureteric orifice).

**Case 5: Ureteric avulsion during ureteroscopy**

In this case a patient’s ureter was completely avulsed during ureteroscopy. We describe the case because it demonstrates that careful note-keeping, both of
outpatient consultations and of operative procedures, is the linchpin around which it is possible to defend a case successfully.

A 70-year-old man developed a single episode of haematuria. Three years previously he had undergone a right hemi-colectomy for bowel cancer. An IVU showed multiple filling defects in the pelvis of the right kidney. The radiology report gave a list of differential diagnoses including multiple stones, transitional cell carcinoma of the renal pelvis or pelvi-ureteritis cystica (pyelitis cystica). The possible significance of these findings was discussed with the patient and it was decided to repeat the IVU to see if there had been an increase in size of the filling defects.

A repeat IVU was done 4 months later and this did indeed show an increase in the number and size of the filling defects in the kidney. The patient was told that this increased the likelihood that the IVU findings represented a malignant tumour within the right kidney. The patient underwent ureteroscopy.

The operative note was clearly written and the rationale behind each step of the procedure was outlined by the surgeon in this note. The bladder was normal. A right retrograde ureterogram confirmed the presence of filling defects in the pelvis of the kidney. A safety guidewire was positioned in the renal pelvis. A second guidewire was inserted, over which a semi-rigid ureteroscope was easily passed all the way into the renal pelvis. Nodular lesions were seen in the renal pelvis. A stone basket was passed down the ureteroscope, the plan being to biopsy the lesions in the renal pelvis by cutting off tumour with the basket. Unfortunately the stone basket jammed in the open position. It was therefore dismantled and the ureteroscope was removed. The basket was slowly withdrawn. No resistance was felt while this was done. Unfortunately when the patient was cystoscoped, the telltale appearance of an avulsed ureter was seen in the bladder. A retrograde ureterogram confirmed marked extravasation of contrast into the retroperitoneum.

A laparotomy was immediately carried out. The middle third of the ureter had been completely avulsed, and it proved impossible to find either the proximal or distal ends of the ureter. A decision was taken to mobilise the kidney in order to identify the ureter and allow possible repair or autotransplantation. During mobilisation of the kidney dense scar tissue was encountered around the hilum and the renal vein was damaged. The subsequent haemorrhage could only be controlled by nephrectomy. The patient made an uneventful recovery.

Case 5: Learning points

Good note-keeping and in particular good operative notes can allow a robust defence. The outpatient notes and in particular the operation note were clearly written, and outlined in detail the thought processes of the surgeon concerned. They showed the rationale for the urologist repeating the IVU – to determine whether there had been an interval change in the filling defects in the renal pelvis. The notes demonstrated that the urologist had discussed the rationale for the ureteroscopy with the patient (to establish whether or not there was
a renal pelvis tumour). The operative notes were of a high standard and outlined clearly the steps that had been taken during the course of the ureteroscopy. This had been carried out in a textbook fashion, with a safety wire and a second guidewire to allow safe instrumentation of the ureter. The stone basket had jammed in the open position and for some reason, which never became apparent, it would not close. This was a freak accident and in no way represented negligent care on the part of the surgeon.

On a slightly different note, stone baskets can get caught on a stone within the ureter. This can be a difficult problem to deal with. What should one do in this situation? Perhaps the first thing to say is, try to avoid using stone baskets unless absolutely necessary. The advent of the holmium laser obviates the use of baskets, other than for manipulating stones from a calyx into a more favourable position for subsequent laser lithotripsy. However, if the basket does get stuck, do not panic. Do not try and pull it out. Dismantle the handle so the ureteroscope can be removed over the wire of the basket. Pass the ureteroscope back up to the stone and fragment it. Once this has been done the basket can usually be safely removed. If it still won’t come out, pass a ureteric catheter or JJ stent (to allow continued urine flow from the kidney) and leave this, together with the basket, in position for 24 hours or so. Over this period the ureter will passively dilate. A second attempt to remove the basket under general anaesthetic the following day can then be tried.

Faced with the situation described above, many urologists would have done exactly the same. When the ureteroscope was removed no resistance was encountered. Presumably, however, the ureter was encased in surrounding scar tissue (around the site of the previous hemicolectomy) and this no doubt increased the rigidity of the ureter and hence predisposed to the risk of damage. The surgeon could perhaps have injected contrast medium down the ureteroscope during the process of slow withdrawal, stopping at the first sign of any extravasation. However, most urologists would probably not have done this. A less attractive alternative would have been immediate laparotomy with an attempt to remove the stone basket by opening the ureter. No doubt this would have been a difficult procedure (as indeed the subsequent nephrectomy turned out to be) given the density of periureteric scar tissue.

It is worth mentioning the process of consent for ureteroscopy and indeed the BAUS procedure specific consent form for ureteroscopy with biopsy (Figure 7.1) mentions this as a potential, albeit rare, complication. Of course the great majority of ureteroscopies proceed without event. There is, therefore, a tendency for surgeons to regard it as a relatively minor procedure and this perception may be communicated to the patient. However, clearly ureteroscopy does not always go according to plan. When things go wrong, they tend to go wrong in a big way, e.g. ureteric avulsion. Remember, even for seemingly minor operations – in fact, particularly for minor procedures – tell the patient that serious side complications do occur, albeit rarely. Again, we would emphasise that consent for such procedures needs to be at least as comprehensive as that for major procedures.
Case 6: Ureteric avulsion during ureteroscopy

A 55-year-old man presented with a left ureteric stone at the junction of L2/L3, measuring 10 mm in diameter. He had ongoing pain despite analgesics and was therefore offered ureteroscopy or JJ stenting with extracorporeal lithotripsy. He opted for ureteroscopy.

At the time of surgery a guidewire was passed beyond the stone. The ureteroscope was passed over this. No second safety wire was used. The wire was removed and a laser fibre inserted. The holmium YAG laser was used to fragment the stone in two. A stone basket was inserted and used to extract the two fragments. It is not clear from the operative note whether this was done by two passes of the scope or whether the two fragments were removed together. The ureteroscope was passed back into the bladder to re-inspect the ureter. It was not possible to find the ureteric orifice (a second wire had not been used). A cystoscope was passed. A length of ureter was found protruding from the ureteric orifice. The patient was taken to the radiology department and a nephrostomy tube was placed into the renal pelvis.

A nephrostogram 4 weeks later showed no flow of contrast from the renal pelvis into the ureter. The patient was offered the options of an ileal interposition or nephrectomy. He opted for the latter. He made an uncomplicated recovery following this.

Case 6: Learning points

This book is not designed to be an exhaustive textbook of surgical technique, and it is not our intention to discuss the ins and outs of the technique.
of ureteroscopic stone removal in great depth. However, ureteroscopy, and particularly the use of baskets during this procedure, is nowadays probably the commonest cause of iatrogenic ureteric injury. The best way to minimise the occurrence of such injuries is to minimise the use of stone baskets.

One of the advantages of holmium laser lithotripsy is its ability to fragment (vaporise) stones into such small pieces that basket extraction of fragments should not be necessary. The laser fibre should be 'painted' backwards and forwards over the surface of the stone, rather than being used to cleave it into large fragments which, because of their increased mobility, can be difficult to target effectively with the laser fibre. If you think that a stone fragment is too big to pass spontaneously down the length of the ureter, it is probably too big for safe basket extraction and you should consider further fragmentation with the laser. There are situations where use of a stone basket is necessary, such as manipulation of a lower pole stone into an easier position for laser lithotripsy. However, as a general rule, avoid the use of baskets if possible.

No safety wire was used in this case. A guidewire was passed up the ureter, but this was used to facilitate passage of the ureteroscope up to the stone. It was removed once access to the stone had been achieved, in order to allow passage of the laser fibre. Had a safety guidewire been used it might have been possible to place a JJ stent. This might have led to preservation of a greater length of ureter so that subsequent reconstruction rather than nephrectomy might have been an option.

Case 7: A retained JJ stent

A 25-year-old man was admitted with left loin pain. An IVU demonstrated a stone in his left lower ureter measuring 7 mm in diameter. Because of persistent pain, the patient underwent left ureteroscopy where the stone was successfully fragmented with a holmium laser. A double J stent was placed at the end of the procedure. Two days later the patient was discharged. There was no record in his notes that he had been told that he had a stent in place. No arrangements for stent removal were made. The urology department had no stent register to record that a stent had been inserted, to ensure its subsequent removal.

The patient failed to attend an outpatient review 6 weeks later. A letter was sent to the patient's GP stating that he had failed to attend a clinic appointment, and that no further appointments would be offered, other than at the patient's request.

Six months later the patient was referred back to the urology clinic because of a single episode of haematuria. A KUB X-ray showed the stent, at the bottom end of which was a 2 cm stone. A 3 cm stone had formed at the proximal (renal) end of the stent.

The stone on the lower end of the stent was successfully removed with stone forceps, but it proved impossible to remove the stent. The patient ultimately required percutaneous removal of the stone following which the stent was successfully removed.
The patient sued the urologist, claiming that (a) he had not been told that he had a stent in situ, (b) he had not been told that failure to remove it within a few months of its insertion could lead to stent encrustation, making subsequent removal very difficult, and (c) that, as a consequence, he had required two further operations, both under general anesthesia, to remove the stent.

Case 7: Learning points

Forgetting a stent is a relatively common problem. In some cases no ill effects arise despite the stent being in place for many months. In other cases the stent becomes encrusted with stone, at the top or bottom ends or throughout its length. Removal of such stents can be very challenging and may require a combination of cystolitholapaxy (for the stone on the bottom end), ureteroscopic stone fragmentation (for stones on the ureteric segment of the stent) and percutaneous nephrolithotomy for the renal stone. In rare cases the stent is so heavily encrusted with stone that nephrectomy is the only option.

The BAUS procedure specific consent form for J stent insertion does not mention the possibility of stent encrustation, but it does mention that a further procedure to remove the stent is necessary. The reason why the stent should be removed is not stated. The consent form therefore provides only the bare minimum of information. The prudent surgeon will be more specific and annotate the warning clearly.

In the case just described, no attempt was made to communicate to the patient that a stent had been placed. No attempt was made to explain that stents can become encrusted with stone, if left in situ for more than a few months, making subsequent removal very difficult. The department in question did not keep a stent register, so there was no way of tracking stent patients to ensure that the stent would not be forgotten. No arrangements were made for stent removal. When the patient failed to attend an outpatient appointment for review, no one looked at his notes to double check that no further follow-up was an appropriate course of action. Instead a standard ‘did not attend’ letter was sent. The case was indefensible.

Stents are forgotten for a number of reasons. Firstly, poor communication with the patient. Many patients get stent symptoms (frequency, urgency, bladder pain) and as a consequence they will not allow you to forget to take the stent out. Others, however, get no such symptoms, as in the case described above, until the stent is heavily encrusted. Obviously if you do not tell the patient you have inserted a stent and the serious consequences of not removing it and then you fail to make arrangements for its removal, it will be forgotten. If you do not record this warning in the notes, you might as well not bother saying it, because you will not be able to prove that you said what you think you said if the stent does not get removed and turns to stone!

Secondly, if you have no system for registering that a stent has been inserted, and therefore needs to be removed, again there is a danger that you will forget about it. It is necessary to warn the patient before ureteroscopy that they may require stent insertion. If a stent is inserted, warn them that it must be removed in a timely fashion because failure to do so can lead to encrustation necessitating
further surgery or even leading to loss of the kidney. Document this warning in an information leaflet which is inserted in the patient's notes. When a stent is inserted, make arrangements for it to be removed on a particular date, at a particular time. This may involve a short walk from the main operating theatre to the surgical day unit if this is where your stent removals are done. Arrange a date with the surgical day unit clerk so that a reminder letter can be sent to the patient's home address. Record the date and time of intended stent removal in the operation note and enter the patient's name onto a computerised database. When the patient has recovered from their anaesthetic, tell them they have a stent inside and that you have arranged for its removal on the specified date. Consider having a computer database which provides an automatic reminder that the stent should have been removed on a particular date, so that on that date you can confirm with your day unit staff that the patient did indeed attend and that the stent was removed.

Very occasionally a stent is inserted into both ureters, or two stents into one ureter (malignant ureteric strictures sometimes require an additional stent to hold the ureter open). Remember to remove both. And if you think a urologist wouldn't possibly remove only one, think again. Such cases, where the second stent is not removed, do occur and the subsequent difficult stent removal has led to litigation. One can only speculate as to why the operating surgeon did not remove the second stent. Perhaps he simply failed to read the patient's notes, but surely you would see the second stent when removing one?

Finally, patients who have suffered a ureteric injury, whether at the hands of a gynaecologist or urologist, are best followed up in outpatients by the most experienced member of the urological team (usually the consultant). This allows a consistent approach to post-operative counselling and avoids conflicting versions of events.

REFERENCES

Diseases of the bladder and the necessary operations to deal with them, together with the problems that arise from those procedures, provide many examples of the sort of problem which may give rise to litigation. We have selected five cases to illustrate the problems of delayed diagnosis, delayed treatment and the complications of surgery. Once again, the theme of poor communication is at the forefront of the several reasons for litigation, as is poor note-keeping.

**SUMMARY**

- Bladder tumour – delayed diagnosis
- Delayed adjuvant treatment for muscle invasive transitional cell carcinoma of bladder
- A case of bowel perforation after bladder biopsy
- A case of bladder perforation after bladder tumour resection
- Post-partum retention leading to bladder problems.

**CASE 1: BLADDER TUMOUR – DELAYED DIAGNOSIS**

A 65-year-old woman was referred by her GP to a urologist because of a 1 year history of urinary frequency, urgency and nocturia. She had also noted occasional episodes of haematuria. She was seen a few weeks later in the urology outpatient department and a series of investigations was arranged including urinalysis, an ultrasound and a cystoscopy. Urinalysis revealed pyuria, but no haematuria. The ultrasound scan showed normal kidneys, but identified a 3 cm mass in her bladder.

The patient was told that she had a ‘polyp’ in her bladder. She later recalled that she found this reassuring, and remembers being relieved that it wasn’t cancer. There was no record in the patient’s notes stating that she had been informed of her possible diagnosis – that of bladder cancer. The patient then seems to have been ‘lost’ at some point while awaiting cystoscopy. It was only several further episodes of haematuria that prompted her to call her GP. As a
consequence he contacted the hospital on several occasions to enquire when the cystoscopy would be done. The time elapsed from the original urology outpatient consultation to the cystoscopy finally amounted to 15 months. Histology of the resected tumour revealed a G3, pT1 transitional cell carcinoma with carcinoma in situ. She was transferred to the care of another urologist and proceeded to a cystectomy. Histological examination of the bladder tumour revealed a G3, pT2 TCC, with no involved nodes.

The patient sued the first urologist claiming that the waiting time of 15 months between first being seen in the urology clinic and the cystoscopy had led to progression of her cancer such that the only option available to her was cystectomy.

Case 1: Learning points

Administrative problems
One can only speculate that the reason for the delay in carrying out the cystoscopy was some administrative error. The decision to perform a cystoscopy had been made at the original consultation. Presumably the admission process whereby a date for operation should have been given had broken down at this stage.

No admissions system is perfect, but some are less perfect than others. The system currently used in the Oxford Department of Urology gives patients with known or suspected bladder tumours a date for the TURBT immediately after the flexible cystoscopy where the tumour has been identified. Before they leave the surgical day unit they are informed verbally of this date and told why they need to undergo the procedure ('you probably have a form of bladder cancer which we need to remove'). Written confirmation of this information is sent to the patient from the admissions department and a letter detailing the plan of action is sent to the patient's GP. Similarly, those patients with an ultrasound or IVU diagnosis of a mass in the bladder are given a date for rigid cystoscopy/TURBT so that the growth may be resected. The radiological findings are communicated to the patient by letter, along with the possible nature of the mass ('cancer') and the date for its operative removal. The importance of the patient attending for their operation is stressed in the letter.

Such a system of immediate dating for TURBT (rather than one that adds patients to a waiting list), avoids the potential for the patient to be 'lost' on the waiting list. It removes a layer of bureaucracy. It may not be perfect, but we believe that it goes some way towards preventing the problem described above.

Communication problems and the use of euphemisms
Again, we come back to a communication problem. Had the patient and GP known that the reason for the cystoscopy was to determine whether or not she had a bladder cancer, it is unlikely she or her GP would have adopted such a passive approach to the long delay which occurred. Informing patients and their GPs of the reason for the cystoscopy provides a safety net and should prompt the patient to do something about potential delays. This is not only good for them, but it's good for you. It could keep you out of trouble.
The ultrasound scan had shown a probable bladder tumour. In a follow-up outpatient consultation the patient had been told that a ‘polyp’ had been found in the bladder. This provided a second opportunity to check that a cystoscopy had been arranged. It would only have taken a minute or two to check that there was a definite date for the cystoscopy/TURBT. This opportunity was lost.

What interpretation do patients make of the various euphemisms for bladder cancer, such as ‘polyp’, ‘wart’, ‘trouble in the bladder’, ‘growth’, ‘sea anemone’ or ‘mushroom’? The use of such euphemisms is common. Doctors presumably feel that the substitution of a mild or vague expression for a blunt or direct one is a kinder form of communication. ‘Warts’ are generally regarded by the general public as a mild problem – a nuisance, but not a life-threatening condition. After all, when was the last time one of your patients died from a wart? We have never known a patient to die from ‘mushrooms’ in the bladder and we imagine that most patients will think ‘thank goodness it’s not a cancer’ when told they have ‘mushrooms’ in their bladder. Many patients think because you haven’t told them that there could be a serious problem, there is no serious problem. After all, patients tend to trust their doctors – ‘the doctor would have told me if there was something wrong’. ‘Cancer’ on the other hand is a term that most people regard with great respect and fear. Most people know that a ‘cancer’ or a ‘malignant’ growth is something that needs to be sorted out urgently.

So, is it sensible to use euphemisms when trying to explain to a patient that they have a cancer? You might think you are being reassuring, but in fact you are lulling the patient into a false sense of security. They are after all going to know sooner or later that they have a bladder cancer (one would hope that ultimately you will tell them – won’t you?). Unpleasant though it may be, it is better and safer to be honest and tell the patient what they probably have wrong – a bladder cancer? This information can be communicated in a compassionate way, but in a way that leaves the patient fully aware that they have something wrong that needs to be sorted out in a timely fashion. ‘You have a growth in your bladder. I have to be honest with you and tell you that this is probably a form of bladder cancer. We need to remove this cancer via a telescope inserted into your bladder. In many cases this is the only treatment you will need for the cancer. In some cases additional treatment may be needed. We need to remove the growth as a matter of urgency. I have fixed a date for this to be done on the … ’. This is factual and to the point. While it imparts bad news, it also provides the patient with some reassurance that the cancer may be relatively easy to treat. But it emphasises in a very clear way what you think is going on, why you need to do an operation and when that operation will be.

We remember one patient (of all people a lawyer!) who was told by the doctor who did his flexible cystoscopy that he had a wart in his bladder. Like the patient described in the case above, the patient recalled being reassured by this. He remembered feeling relieved that it was not a cancer! Various delays occurred before his cystoscopy and TURBT. These delays were due to the patient deferring his admission because of pressure of his work and some administrative problems in the department. He was understandably angry when
he was later told that he had a bladder cancer and that the doctor who had done
the cystoscopy knew this, but had not told him what was going on. He said that
had he known that he had a cancer he would have made a great effort to ensure
that the delays in carrying out his cystoscopy/TURBT would not have occurred.
As it was he adopted a passive approach to the problem. He had not been given
the information he needed to become more active in his own management.

We also recall another patient who had undergone intravesical BCG therapy for
carcinoma in situ of the bladder. The carcinoma in situ recurred. He was reviewed
in an outpatient clinic to discuss the need for cystectomy. He was surprised to be
told that he had bladder cancer and even more surprised that his treatment was
suddenly going to be escalated from check cystoscopies and bladder instillations
to major, life-threatening and disfiguring surgery. Despite multiple previous
cystoscopies and despite several months of intensive BCG therapy, despite multi-
ple exposure to several urologists and urology cancer nurses, not once had he been
formally told that the underlying diagnosis was one of bladder cancer! Of course
he might have been told and might simply have chosen not to hear what he was
told, but this is unlikely given the number of times he had seen doctors and
cancer nurses. There was no written record in the notes that he had been told of
his diagnosis of bladder cancer and so technically, from a legal perspective, he had
not been told. It is, surely, an indictment of our ability as doctors to communicate
effectively that he only knew what was really going on so late in the course of his
bladder cancer treatment.

It is essential to learn to communicate more effectively. The bottom line is
really very simple. Just be honest. Just tell the patient what is really going on and
document that you have done so. We accept that many patients will find this
upsetting and indeed you may occasionally even get a complaint for having done
so. But this must be better than misinforming the patient.

Poor note-keeping

One of the points that came out in the case described above was the poor level
of note-keeping. The handwriting of several doctors involved in her care was illeg-
ible. It was impossible, in many cases, to establish who the doctors were who were
writing the notes. The illegible handwriting made it very difficult to decipher
exactly what the patient had been told about her diagnosis. It was impossible to
determine whether or not she had been told of the need for urgency in carrying
out a cystoscopy. Defence of the case was therefore difficult. Remember, poor note-
keeping equals a poor defence and no notes equals no defence!

CASE 2: DELAYED ADJUVANT TREATMENT
FOR MUSCLE INVASIVE TRANSITIONAL
CELL CARCINOMA OF BLADDER

A 70-year-old was referred by his GP to a urologist because of a single episode of
haematuria. The patient had ischaemic heart disease (one previous myocardial
infarction, stable angina), mild left ventricular failure and chronic obstructive pulmonary disease. His exercise tolerance was limited by breathlessness to 50 metres.

An IVU showed a standing column of contrast from the left kidney to the ureterovesical junction. At cystoscopy a 3 cm solid looking tumour was seen overlying the region of the left ureter. This was resected and a single dose of intravesical mitomycin was administered post-operatively. The patient made an uncomplicated recovery and plans were made for a check flexible cystoscopy 3 months later. No plans for follow-up in outpatients were made.

Pathological examination of the resected tumour revealed a G2, pT2 transitional cell carcinoma. Stamped on the pathology report were the words 'File'. No further action seems to have been taken.

As planned, the patient had a check cystoscopy 3 months later, done under local anaesthetic using a flexible cystoscope. The operating surgeon was a specialist registrar in urology. No recurrent tumour was seen and the patient was listed for a repeat flexible cystoscopy in 6 months time.

On the repeat flexible cystoscopy 6 months later (9 months after the original tumour resection) a solid mass was seen overlying the original resection site. This was resected under spinal anaesthesia a few weeks later and histological examination of the resected tissue revealed a G3, pT2 TCC.

The patient was reviewed in outpatients with the result of the histology. He came to the consultation on his own. The notes referred to the ensuing discussion as follows – ‘treatment options discussed. Has opted for cystectomy over DXT’. There was no recorded discussion about operative risks, nor of the outcomes of radiotherapy when compared with cystectomy. No offer to discuss the patient’s problem, intended treatment and likely outcomes with a relative was made.

A staging CT showed thickening around the left postero-lateral wall of the bladder, but no lymphadenopathy. He underwent a cystectomy. Pathological examination of the bladder revealed a G3, T4, N1 transitional cell carcinoma.

He made a relatively uncomplicated recovery from his operation. He was discharged 3 weeks after surgery. One month later he was admitted under the care of the cardiologists with a myocardial infarction. He died from a cardiac arrest 3 days later.

His wife sued the urologist claiming that (a) his original pT2 tumour had not been adequately treated, (b) the delay of 9 months between the first and second TURBT allowed the tumour to progress from being potentially curable (T2) to incurable (T4, N1), (c) he had not been adequately counselled about the risks of cystectomy and (d) given his significant co-morbidity, he had not been adequately counselled about the alternative option of radiotherapy. The case was settled in the widow’s favour.

Case 2: Learning points

This is not the place to discuss the merits of radical cystectomy versus radical radiotherapy, but this case highlights other aspects of care and record keeping
which were deficient and are worth discussing. The first aspect of care relates
to familiarising yourself with the patient’s history. The second to recording
what you say to patients and their relatives. The third is to read the reports of
tests done – in this case the histology report.

**Read the notes – acquaint yourself with the patient’s past history**
The doctor who carried out the original check cystoscopy was a specialist
registrar in urology, near the end of his training programme. He was therefore
an experienced trainee with a good understanding of the appropriate treatment
for transitional cell carcinoma of the bladder. This doctor made no attempt
to review the patient’s previous histology. Had he done so, it would have been
apparent to him that this muscle invasive tumour had been treated by TURBT
and mitomycin only, hardly adequate treatment for a muscle invasive TCC.
Two options would then have been available to him at this stage. He could have
assumed that tumour was likely still to be present in the depths of the bladder
wall and made plans for CT staging in anticipation of proceeding either to
cystectomy or radical radiotherapy. Alternatively he could have made arrange-
ments for an urgent re-resection of the original tumour site. It is possible
(though relatively unlikely) that the tumour had been cured by the original
TURBT, so this would have been a reasonable course of action.

Unfortunately he did neither. One can only imagine that he made only a cur-
sory attempt to read the patient’s notes and that he assumed on seeing normal
mucosa overlying the original resection site that all was well. He simply arranged
for the cystoscopy to be repeated in 6 months time. Another 6 months elapsed and
all the while the original tumour, inadequately treated, was continuing to grow.
And as it continued to grow, the patient’s lawyers argued, it started to metastasise.

**Beware writing ‘treatment options discussed’**
The discussion about pros and cons of radical cystectomy over radical radio-
therapy can, in this case, only be described as cursory at best. The patient had a
significant degree of co-morbidity (ischaemic heart disease including a previous
myocardial infarction, stable angina, mild left ventricular failure and chronic
obstructive pulmonary disease). Radiotherapy was certainly an option that should
have been discussed in detail with the patient. Of course, the urologist may well
have discussed the options in greater detail, but the entry in the notes relating to
this discussion was simply ‘treatment options discussed’ and unfortunately for the
urologist the notes were the evidence.

You might try to argue that you have a standard approach to discussing the
available treatment options and that, although it was not explicitly stated in the
notes that you had this discussion, there is no reason to suggest that you did not.
However, if you use this line of argument, the patient’s barrister may suggest to
you that you might possibly, on this one occasion, have failed to discuss the pros
and cons of the various options to the same degree of detail that you usually do.
Imagine for a moment the barrister’s possible line of cross-examination – ‘The
clinic was busy. You had a lot of patients to see. You only had a limited amount
of time with my client. You are only human. It is possible, is it not, that while
you would usually have had a detailed discussion, in this particular case you did
not? Is that not possible? It is difficult to argue against this. Put like that, of
course it is possible that you didn’t discuss things in detail, in the way that you
would normally do, and you would therefore probably find yourself having
to say ‘Yes, it’s possible that I didn’t discuss things in quite as much detail as
I usually do’. And at that point the barrister will simply say ‘Thank you. No
further questions’. And that will be that.

If, on the other hand you had carefully documented what you said, in a
contemporaneous record made in the patient’s notes, it will be very difficult
to refute what you say you said. If you also make a note of the time the patient
entered and left the room (The Royal College of Surgeons1 recommends timed
as well as dated entries), this will provide additional evidence that you had a
lengthy discussion with the patient. This is such a simple thing to do. Your dis-
cussion with the patient about their high grade, muscle invasive bladder cancer
is likely to have taken some time. Why not record how long you took to discuss
the implications of the pathology result, the options for treatment and the pos-
sible outcomes and complications? If you spent an hour with the patient, record
that you did so. The fact that you spent an hour with them implies that your
discussion was thorough. After all, you are hardly likely to have spent an hour
talking about the weather! If, on the other hand, you really did spend only 5
minutes with the patient, it will not take too long for the barrister to suggest that
this was hardly time for the patient to take their coat off and sit down, let alone
have a detailed discussion about the treatment of the complex and upsetting
issue of muscle invasive bladder cancer.

In the context of complaints it is not uncommon to read statements from
patients such as ‘the doctor only spent 5 minutes with me’. Patients often have
little recall of the amount of time they spent with you. It can be useful when
replying to such complaints to be able to say, based on your contemporaneous
notes, that in fact you spent 30 minutes with them.

Make life easy for yourself. Record the length of time you spent talking to
the patient. It really is so simple!

Pre-operative counselling and relatives
In this case the patient was dead, and the legal action was taken by his wife.
Unfortunately she had not been present at the original consultation. There
were no witnesses to what was said at this consultation and the brief notes were
of no value in providing a defence of the case.

Try, if at all possible, to carry out such consultations with a relative present,
particularly where there is a very real risk of post-operative complications and
unpleasant outcomes. This relative may well have questions to ask and where the
patient themselves might forget a particular complication having been discussed,
the relative may remember. And of course, if a serious problem does occur and
the patient ends up on ITU, in all likelihood it will be this relative with whom
you will be interacting. It can be very difficult to start your relationship with the
relatives under such stressful conditions.
Having relatives present during the pre-operative counselling also provides an opportunity for the relatives to witness for themselves what sort of doctor you are and what level of detail you provided in discussing the options and their possible risks. Hopefully they will leave the consultation feeling that you have taken the time and effort to explain things clearly, that you have discussed the treatment options and that you have been honest in your discussion about the possibility of complications. Hopefully, also, they will leave the consultation thinking that it is your sincere wish that their loved one will make a speedy and uncomplicated recovery while under your care. This is a good opportunity for you to show that you really do care.

CASE 3: A CASE OF BOWEL PERFORATION AFTER BLADDER BIOPSY

A 45-year-old woman, who had smoked 15 cigarettes a day for 20 years, had haematuria and was referred by her GP to a urologist. A renal ultrasound scan and IVU were normal. Urine cytology was reported as showing 'abnormal cells strongly suggestive of transitional cell carcinoma'.

The patient was admitted for cystoscopy, bladder biopsy and bilateral retrograde ureterography. She signed a form of consent. No mention was made of the possibility of bladder perforation.

A day-case cystoscopy was carried out under general anaesthetic by a specialist registrar with the consultant in attendance. Four 'small red patches' were seen in the bladder on the posterior wall and in the dome. Biopsies were taken from each of these areas using a cold cup biopsy forceps and the biopsy sites were coagulated using a Bugbee diathermy electrode. A record was made in the operation note that no perforations were seen. The patient was left without a catheter at the end of the procedure.

From the time of awaking from the anaesthetic, the patient complained of lower abdominal pain. This became worse despite the introduction of a urethral catheter. Over the course of the next 12 hours the patient's abdomen became distended and she developed worsening lower abdominal tenderness. A cystogram showed no bladder perforation. An ultrasound showed free fluid within the peritoneal cavity. The patient was consented for a laparotomy.

At laparotomy a diathermy burn was noted on the dome of the bladder, but the wall of the bladder was intact (there was no visible perforation). A loop of small bowel adjacent to the dome of the bladder had a 5 mm perforation on its antimesenteric border and small bowel contents were present in the pelvis and lower abdomen. The area of the diathermy burn on the dome of the bladder was excised and the bladder repaired in two layers. The bowel perforation was closed. A drain was placed down to the site of the bladder repair.

Post-operatively the patient made an uncomplicated recovery. The bladder biopsies showed non-specific inflammation only.

She sued the urologist claiming that he had been negligent in damaging her bladder and injuring her bowel.
Case 3: Learning points

Every urologist who has been in practice long enough has perforated at least one bladder and most of us have perforated more than one. Bladder perforation is a well recognised complication of bladder biopsy, TURBT and cystolitholapaxy and in itself is not necessarily an indication of substandard care. So why did the patient sue the surgeon in this particular case? Again, the answer is probably communication, or rather the lack of it in the light of today's changing attitudes to counselling and consent. The patient was not counselled about the rare possibility of bladder injury. She was not counselled about the implications of bladder perforation, i.e. the need for open surgical repair via a long midline incision resulting in the need for hospitalisation for a week or so afterwards. Nor was she counselled about the possibility that bladder injury is sometimes also associated with bowel injury. All uncommon events, but not unheard of. Some urologists might argue that bladder injury or perforation occurs with such rarity that there is no need to mention this complication. However, it is no longer acceptable to assume that a rare complication is not worth mentioning, particularly if the possible outcome of that rare complication may be serious. Perforation of the bladder is a rare complication, but the implications of perforation are serious. Patients, particularly the elderly, do sometimes die as a consequence of developing medical problems after laparotomy for bladder perforation.

Remember, it is not so much the rarity of an event that the courts will use to determine whether or not a patient should be warned of the possibility of an event, but its seriousness, as regarded by the individual patient. The Whittaker case is an example of a very rare event, a 1 in 14,000 chance of blindness in the opposite eye to that being operated on, where litigation followed. The ophthalmologist in this case failed to warn of the possibility of contralateral visual impairment, even though the patient specifically asked if this was a possibility. Remote though the possibility of such an event was, for the patient in this case it was clearly a great worry – it represented a so-called material risk (a risk to which the patient attaches significance). Doctors continue to be confused about what a material risk is. We continue to hear junior doctors state that there is no need to mention the possibility of a complication occurring if the risk of that complication occurring is less than 1%. This is not the case, as Rogers v Whittaker shows. The Whittaker case represents a rejection of the Bolam test of professional opinion, whereby one could hitherto use as a defence the fact that a body of responsible medical opinion would have done as you did. As a consequence of this rejection, even if a group of urologists side with you in deciding that patients need not be told about the risk of bladder perforation after bladder biopsy, the courts now have a precedent for agreeing with the patient that they should have been so warned. Why expose yourself to the risk of future litigation, which will consume your time and energy for many months, when for the sake of a few minutes' worth of explanation you may avoid all of these problems?

As stated above, we all perforate bladders from time to time and it has been our experience that it usually occurs when you are least expecting it – the ‘simple’ bladder biopsy (as in this case) or the ‘straightforward’ cystolitholapaxy.
Diathermy injury to a loop of bowel adjacent to the bladder may occur, though with less frequency than bladder perforation. It is, of course, impossible to detect such an injury cystoscopically. Everything appears to be fine, until the patient develops lower abdominal pain which progresses to peritonitis. In the case described above the post-operative management was exemplary. The patient’s symptoms and signs were acted upon quickly and appropriately. Within 24 hours the laparotomy had been performed, the diathermy burn in the bladder excised, the bladder repaired and the bowel injury dealt with.

It is possible that the patient might still have taken legal action, even had she been warned about the possibility of a bowel perforation post-bladder biopsy, but it is likely that the chances of this would have been less had she been forewarned of this rare event. If you feel that the patient should be warned about the possibility of perforation (and we obviously think they should), it is worth explaining what the implications of perforation are. We say something like this – ‘There is a very small risk that a hole may be made in the bladder during biopsy of this possible cancer. This usually heals itself if we leave a catheter in the bladder for ten days or so, but occasionally an operation may be necessary to repair it. That would require an abdominal incision to enable examination of the bowel and any necessary repair necessary. That very unlikely event would keep you in hospital longer than originally planned and you would need a longer convalescence, but in a fit person the recovery should be complete’. Your patient information leaflet can also include a written version so that you need not write down the explanation every time you give it, but you can record the fact that you explained it as given in the information leaflet. It has been our experience that the great majority of patients are not unduly alarmed by such a warning, if it is communicated in a compassionate way.

One final point with regard to the technique of coagulating biopsy sites or bleeding vessels within the bladder. Use the smallest diameter electrode that you can such as a small Bugbee electrode or a small diameter roly-ball. Remember the physical effects of diathermy. The heating effect adjacent to the roly-ball or electrode and therefore the depth of the burn is proportional to the square of the diameter of the contact area. The bigger the contact area (the bigger the roly-ball), the deeper the area of coagulation.

Of course despite all of your best efforts sometimes the patient will still sue you – despite a detailed process of consent outlining all possible complications, despite carrying out the procedure with all due care and attention and despite dealing with any complications in a timely and appropriate fashion. If you can demonstrate clearly that you did all those things such a suit will fail.

**CASE 4: A CASE OF BLADDER PERFORATION AFTER BLADDER TUMOUR RESECTION**

A 65-year-old man with macroscopic haematuria was admitted for biopsy of a mass lesion seen at flexible cystoscopy. The operation note was brief, to say the least – ‘2 cm mass at dome of bladder resected. Review clinic with histology’.
It was impossible to decipher who the operating surgeon was (it subsequently transpired that the surgeon was a consultant urologist). There were no recorded post-operative instructions. No catheter was inserted.

The course of events over the following 3 days could only be determined by records made in the nursing notes, since there were no entries by medical staff. Six hours after returning from the operating theatre the patient complained of lower abdominal pain and nausea. The patient had passed no urine, so a catheter was inserted. Over the next few hours the output of urine from the catheter was noted to be poor and the urine was heavily blood stained. The patient was reviewed by a house officer in the middle of the night who (from the nursing notes – there were no clinical notes) made a diagnosis of wind and prescribed an analgesic and anti-emetic. It was impossible to determine whether the patient had been examined by the doctor.

At around 3 pm the day after the cystoscopy and biopsy the nurses recorded that there had been no urine output for the previous 12 hours. The patient's abdominal pain had worsened and he was vomiting. The patient was reviewed by a urology senior house officer. The mainstay of management continued to be analgesia and anti-emetics. The nursing records noted that an abdominal ultrasound had been requested. This ultrasound was done later that evening. The presence of distended loops of small bowel made examination of the pelvic organs difficult. The bladder was, however, seen and was reported to be empty. Free fluid was noted in the pelvis.

The following day happened to be a Saturday and a surgical registrar who happened to be 'covering' for urology patients was asked by the nursing staff to review the patient. His records were clear. He noted the recent bladder biopsy, the worsening abdominal pain, the low urine output and the ultrasound findings. On examination he noted the presence of abdominal distension, lower abdominal tenderness and absent bowel sounds. He made a provisional diagnosis of an intra-peritoneal bladder perforation and arranged an urgent cystogram. This was done within 2 hours. It demonstrated an intra-peritoneal bladder perforation and the patient proceeded to a laparotomy and bladder repair. Fortunately he made a straightforward recovery following this.

Histology of the resected lesion was reported as showing no malignancy.

The patient sued the urologist claiming that there was an unacceptable delay in diagnosis of a bladder perforation. The case was settled in the patient's favour.

Case 4: Learning points

Poor note-keeping
The standard of note-keeping in this case was very poor, to say the least. The operation note was cursory. The name and grade of the operating surgeon was not recorded. Indeed, from the point of bladder biopsy to the laparotomy there were no entries by medical staff, seemingly taking their lead from their chief, other than the clear and comprehensive notes made by the on-call surgical registrar. The overall standard of care, other than that provided by the surgical
registrar, was deemed to have been substandard, and the poor note-keeping was seen as a manifestation of this poor standard of care. The expert was left with an unpleasant sensation of arrogance and self-righteousness on the part of the urologist involved in the case, which must have been transmitted to the patient and was presumably a precipitating factor in the pursuit of the litigation.

**Lack of knowledge**
The house officer and urology senior house officer who reviewed the patient over the first 24 hours or so post-operatively failed to establish the cause of the patient's abdominal pain, heavy haematuria, poor urine output and nausea. The urology senior house officer had completed his basic surgical training and was qualified MRCS. The possibility that this constellation of symptoms in the context of a bladder biopsy could have been due to a bladder perforation does not seem to have been entertained. One must presume that neither of these two doctors was aware of the possibility that such an event could occur after bladder surgery. This is supported by the request for an abdominal ultrasound scan, an investigation which is unlikely to diagnose a bladder perforation with any degree of accuracy.

**Failure to ask advice**
Neither doctor sought more senior advice, despite the patient's deteriorating clinical condition.

**Attitude of consultant**
The consultant wrote to the GP after the event and failed to acknowledge that a bladder perforation could be a complication of the operation carried out.

**CASE 5: POST-PARTUM RETENTION LEADING TO BLADDER PROBLEMS**

We have been involved in several such cases. The action is usually brought against the obstetric team rather than the urologist, but it is as well for the urologist to be aware of the problem for he or she may be consulted in the post-partum period and will need to be able to recognise the problem. The case presented is typical.

A 30-year-old woman, pregnant with her third child, went into labour. An epidural anaesthetic was administered and this was 'topped up' several times throughout her 12 hour labour. She was catheterised. Delivery of her baby required forceps.

The urinary catheter was removed 24 hours later. The following day the patient complained of difficulty in passing urine, combined with leakage of urine. A frequency–volume chart was commenced, with the patient recording her urine output on every void, and this was combined with a record of fluid intake. Despite drinking 3 litres of fluid over the next 36 hours she passed just 200 ml of urine. She reported her urinary difficulties frequently to the nursing staff over the course of this period. She was advised to continue drinking and to practise pelvic floor exercises for the urinary leakage. Recorded in the patient's
records was the note ‘doctor informed’. There was no record of her being
attended by a doctor. There was no record, either in the nursing or medical
notes, of any examination of her abdomen. After 36 hours a catheter was passed
and 2500 ml of urine was drained from the patient’s bladder. The catheter was
removed and she was allowed to go home the same day.

The patient returned 24 hours later, complaining of lower abdominal pain. She
reported having not passed urine since being discharged. Again ‘in-out’ catheteri-
sation was done, with a residual urine volume of 2200 ml being recorded. Again,
recorded in the patient’s records was the note ‘doctor informed. Can go home.
Advised to return if continued problems’. She was again discharged and advised
to return if she continued to experience urinary difficulties. She was able to pass
only small volumes of urine over the next 2 days. She again returned to the ward
and at this point a suprapubic catheter was inserted, the option of a urethral
catheter or intermittent self-catheterisation having been offered, but declined.
Again a residual urine volume over 2 l was drained from her bladder.

The patient’s bladder function gradually improved, such that 2 months later
the residual urine volumes were consistently <100 ml and the suprapubic
catheter was removed.

Over the course of the next 2 years the patient experienced continued dif-
ficulty in emptying her bladder, with residual urine volumes in the order of
100 ml combined with a loss of awareness of bladder fullness. She reported
frequent episodes of cystitis and on several occasions culture of her urine
showed significant bacteriuria.

The patient took legal action against the obstetrician claiming that the delay
in recognising and treating her post-partum retention had led to a distension
injury to the bladder, leading to an unnecessarily prolonged period of supra-
pubic catheterisation and persistent urinary difficulties. The court found in her
favour.

**Case 5: Learning points**

Post-partum urinary retention is more likely in women who have had a
regional anaesthetic (spinal or epidural), in those who have had an instrumental
delivery (forceps) and in those who have undergone Caesarean section.

In this case the patient’s bladder had been distended for many hours with large
volumes of urine. On the day following removal of the first catheter she was
clearly experiencing urinary difficulties and was obviously in the process of devel-
op ing urinary retention. She had reported her problems on several occasions to
the nursing staff. The possibility that she was in urinary retention does not seem
to have been entertained until she was catheterised 36 hours later. It would have
been the work of a moment to examine the patient’s abdomen and it would have
taken a matter of minutes to catheterise her in order to determine whether or not
she was in retention. ‘In-out’ catheterisation with such a large volume of urine
drained on catheterisation is indefensible. It is likely that the prolonged blad-
der distension, occurring on several occasions, led to a distension injury to the
bladder and that this led to the long-term problems that she developed.
REFERENCES


Operations on the prostate form a major part of the average urological surgeon's workload. Because it is a 'routine' procedure it is often dealt with lightly, wantonly or ill-advisedly, and therefore creates enormous potential for litigation. In today's atmosphere of cautious consent and risk warning there are a multitude of pitfalls for the urological surgeon in operations on the prostate. We have selected just five examples to illustrate some of those pitfalls. As usual our emphasis is on the vital importance of care taken to diagnose, explain and then document each procedure.

SUMMARY

- Heavy rectal bleeding following TRUS biopsy
- Delay in diagnosis of prostate cancer
- Failure to inform about outcomes and alternative treatments for bladder outflow obstruction
- Incontinence after transurethral resection of the prostate
- Another unnecessary bladder neck incision.

CASE 1: HEAVY RECTAL BLEEDING FOLLOWING TRUS BIOPSY

A 76-year-old man undergoing investigation by his GP for lower urinary tract symptoms was noted to have a PSA of 5 µg/l. He was therefore referred to a urologist. The prostate was recorded as feeling benign on rectal examination. Note was made by the urologist that the patient was on clopidogrel (an anti-platelet drug), because of a previous transient ischaemic attack. He also had a history of ischaemic heart disease, with one previous myocardial infarction and angina, and transient ischaemic attacks (TIAs). The urologist recommended that the patient undergo a transrectal ultrasound scan and prostate biopsy and a referral was made to a second urologist, who specialised in such biopsies, for this to be
done. A note was made in this referral letter that the patient was on clopidogrel. There was no record of any discussion about the risks of prostate biopsies. The biopsies were duly carried out by the second urologist. In his written notes of the biopsy, a record was made that the patient was currently on clopidogrel. Again, there was no record of any discussion about the risks of prostate biopsies. Later that day, having returned home, the patient had an episode of profuse rectal bleeding. He called an ambulance and was taken to a local Accident and Emergency Department. The records from the Emergency Department staff note that he was pale and sweaty, hypotensive and tachycardic. The patient was resuscitated with a plasma expander and blood. He required 6 units of blood transfusion in order to stabilise his pulse and blood pressure. A sigmoidoscopy revealed no source of bleeding. The rectal haemorrhage stopped spontaneously.

Subsequent histological examination of the biopsies demonstrated benign prostatic hypertrophy only.

The patient sued and the case was indefensible.

Case 1: Learning points

It is not our intention to discuss the indications for prostate biopsy. However, one might argue that a 76-year-old man with a history of TIAs and ischaemic heart disease could have been counselled about a PSA surveillance policy, rather than immediate prostate biopsy, particularly as the PSA was only marginally raised. It is unlikely that he would have been offered radical therapy even had a diagnosis of prostate cancer been made. Nor is it likely he would have been commenced on hormonal therapy given that he had a low PSA.

The issues here centre around consent (again!). Did the surgeons know what clopidogrel is? Should anti-platelet drugs such as clopidogrel be stopped before the prostate biopsies?

The latter is the more difficult question to answer. It depends to a degree on the indication for the anti-platelet drug in the first place. In the context of patients who are on clopidogrel post-cardiac stenting, they should remain on the drug for a month. For those with drug-eluting stents, many remain on clopidogrel for 12 months. Some patients following angioplasty remain on the drug for 6 months. It seems sensible, if you are not sure, to ask the advice of the patient’s cardiologist. A simple phone call may suffice or a letter, for prostate biopsy is rarely that urgent that it must be done within days.

What is the practice of urologists with regard to cessation of anti-platelet drugs prior to prostate biopsy? A sizeable proportion of urologists stops anti-platelet drugs prior to prostate biopsy while a sizeable proportion does not. Thus, at least in 1999 when Connor and Wingate reported on the practice of radiologists and urologists, approximately 50% of the former and 30% of the latter discontinued aspirin and non-steroidal anti-inflammatory drugs around the time of prostate biopsy. In two studies, aspirin use did not place patients at risk for bleeding after biopsies. There are clearly arguments for and against stopping anti-platelet drugs – reduction of bleeding risk on the one hand and prevention of embolic events on the other. Whether you do or do not stop these
drugs for prostate biopsy will, to a certain extent, be determined by your personal experiences of complications associated with their continuation or discontinuation. The urologist involved in this case could therefore easily argue that his practice was that of a sizeable proportion of urologists and this would be a good defence.

Anti-coagulation therapy with warfarin is a different matter. 95% of radiologists and 84% of urologists advising termination of warfarin before biopsy. The urologists stopped warfarin on average 4 days before biopsy and the radiologists 5 days beforehand. Having said this, in a recent comparative study of bleeding complications following TRUS biopsy in men on warfarin when compared with those not taking anti-coagulation, haematuria and serious complications did not seem to be more likely in the warfarinised group. The number of patients in this study was relatively small and the number of biopsies between four and six (as opposed to the current practice of eight biopsies). Serious bleeding problems might have been more apparent with larger numbers of patients and biopsies. A recent review of this subject concluded that 'Currently there is not enough evidence to guide best practice'. Given this, it seems sensible to counsel patients carefully about the risks of bleeding and the controversy over whether or not to stop warfarin, so that at least they are party to the decision whether to continue warfarin or not.

What about the issue of consent for prostate biopsy? In this particular case there was no record of the process of consent. On first inspection prostate biopsy might seem to be a fairly innocuous procedure, until one delves deeper into the literature:

- **Risk of complications.** Norberg et al and Rodriguez and Terris report the occurrence of at least one minor complication in 64 to 78% of patients undergoing TRUS biopsy.
- **Haematuria** is common with at least 50% of patients having haematuria for up to 7 days after the procedure. So too is haematospermia (30% of men). Heavy rectal bleeding occurring from a haemorrhoidal vessel can usually be managed by digital pressure, but may require control by proctoscopy. The amount of rectal bleeding at the time of the procedure is associated with the total number of biopsies, but not with the location of the biopsies, the prostate volume or the presence of cancer.
- **Bacterial sepsis.** Perhaps the most serious complication of TRUS prostatic biopsy is bacterial sepsis. Even with antibiotic prophylaxis, serious infectious complications occur in a small proportion of patients. Bacterauria has been reported in between 20 and 50% of cases, and bacteraemia in 15 to 70%, but both are usually asymptomatic. Symptomatic infections are most commonly caused by *Escherichia coli*, followed by *Enterococcus*, *Klebsiella*, *Bacteroides fragilis* and *Clostridium*. Septicaemia certainly occurs after prostate biopsy and at least four deaths from anaerobic sepsis after transrectal prostate biopsy have been reported. We know from colleagues who have acted as expert witnesses that there have been deaths from septicaemia post-prostatic biopsy, but these cases have not been reported in the medical literature. Death following
prostatic biopsy therefore represents an under-reported complication. Indeed, an audit of prostate biopsies, carried out by the National Confidential Comparative Audit Database of the Royal College of Surgeons in 1995,\(^8\) reported that despite antibiotic prophylaxis being administered in 89% of men, death occurred in 0.4% (5 of 1321 patients) of cases!

- **Urinary retention** may occur in 1 to 2% of patients after the procedure. It usually resolves promptly with temporary urethral catheterisation. Approximately 10% of patients report difficulty voiding after biopsy. It is said that patients with a high AUA symptom score are at the greatest risk for worsening voiding symptoms after the procedure.\(^2\)

- Finally, a **vasovagal response** may occur due to vagal nerve stimulation from anxiety and discomfort during biopsies. This leads to vasodilatation and bradycardia. Rodriguez and Terris\(^2\) reported that 8% of patients experienced a vasovagal episode, with 5% having a moderate episode, defined as systolic blood pressure lower than 90 mmHg, diaphoresis and bradycardia. Placing the patient in the Trendelenburg position is usually sufficient treatment, but intravenous fluids may be necessary.

Thus, while urologists might regard prostate biopsy as a ‘minor procedure’, patients may not. It is not surprising that patients may be very angry about the development of a complication after TRUS biopsy if they have not been warned that sometimes serious problems can develop. As with all seemingly minor procedures, an argument can be made that the extent of consent should be just as comprehensive as for major procedures. After all, the occurrence of complications after a ‘routine test’, ‘routine or minor surgery’ comes as a surprise, if the surgeon had not explained beforehand that complications do, albeit infrequently, occur.

The key to avoiding major morbidity and mortality is early recognition and intervention and, in the case of bacterial sepsis, antibiotic prophylaxis. Counsel your patients about the signs and symptoms of infection and provide them with emergency contact information so that the onset of such symptoms can be acted upon promptly. Record that you have counselled them. If a patient is forewarned that a complication can occur, and they are told what symptoms might indicate that such a complication is occurring, then diagnosis and appropriate treatment for such complications can be instituted at an earlier stage. Clearly this is better for the patient, but it is also likely to be better for you, for a complication treated earlier is less likely to progress to a more serious stage.

### CASE 2: DELAY IN DIAGNOSIS OF PROSTATE CANCER

A fit 65-year-old man was referred to a urologist with a history of lower urinary tract symptoms for the preceding 6 months. His GP had recorded the result of the patient’s PSA in the referral letter (5 µg/l), but there was no record of an examination of the prostate having been done. A history was taken from the patient in the urology clinic, his abdominal examination was noted to be normal, but
surprisingly no examination of his prostate was performed. The patient was discharged on an alpha blocker and told to visit his GP if his symptoms failed to resolve. The patient was not informed that he had a raised PSA and therefore there was no record of any discussion about the possible implications of this abnormal test result.

One year later he presented to his GP with lower back pain radiating to his perineum. His GP checked the patient’s PSA, which was now 120 µg/l. The patient was referred back to the urology clinic where a ‘hard, craggy prostate’ was noted on DRE (digital rectal examination). A prostatic biopsy was arranged together with a bone scan. The biopsies showed poorly differentiated prostate cancer and the bone scan showed multiple bone metastases in the pelvis, lumbar spine and ribs. Hormonal treatment was commenced. The patient died 9 months later from advanced prostate cancer.

The patient’s family sued the urologist claiming that the raised PSA noted on the original referral warranted a prostatic biopsy and that had his prostate cancer been diagnosed and treated at this stage he could have been cured.

**Case 2: Learning points**

It was impossible for the urologist to defend this case. He had not done a rectal examination at the original referral. He had not told the patient that his PSA was raised, albeit marginally so. A PSA of 5 would, at the very least, be an indication for at least discussing prostate biopsy in a 65-year-old man – it was certainly a reason to examine the prostate rectally.

This case underscores the importance of examination of patients, as well as giving accurate information. Even if the examination is completely normal, you should still record this fact, since an abnormality could subsequently develop and you will only be able to prove that you didn’t miss this abnormality by recording the fact that the examination you did on a certain date was entirely normal.

**CASE 3: FAILURE TO INFORM ABOUT OUTCOMES AND ALTERNATIVE TREATMENTS FOR BLADDER OUTFLOW OBSTRUCTION**

A 55-year-old man presented to a urologist with symptoms of hesitancy, poor flow, frequency of urination and nocturia. He had to pass urine every 1 to 1.5 hours and had to get out of his bed three times each night to void. These latter symptoms he found particularly bothersome. His symptoms had been present for just under 12 months. No imaging of his urinary tract was undertaken. Neither his flow rate nor his post-voiding urine volume were measured. A presumptive diagnosis of a urethral stricture was made. No urethrogram was done in order to confirm this suspicion. The patient was admitted for cystourethroscopy under general anaesthetic, the plan being to divide any stricture, if found, with an optical urethrotome. The nature of this procedure was explained to the patient
in a brief note. No specific complications or outcomes of the procedure were recorded.

At cystoscopy the surgeon noted ‘a very high bladder neck’. He therefore performed a formal resection of the bladder neck, removing about 3 g of what he described as ‘obstructing’ tissue. The patient made an uncomplicated recovery following the operation.

The patient’s urinary flow had improved, subjectively, following the bladder neck resection. His frequency and nocturia were unchanged. He developed retrograde ejaculation, about which he had not been warned prior to the operation. Twelve months after the original operation he developed a diminution of his urinary flow. He went to a different urologist. Urinary flow rate measurement showed a maximum flow rate of 10 ml/s for a voided volume of 350 ml and the flow pattern suggested a urethral stricture. This was confirmed at a repeat cystourethroscopy where a stricture of the bladder neck was identified and divided using a Colling’s knife. His flow rate improved following this procedure. However, his frequency and nocturia did not and he continued to have retrograde ejaculation.

The patient sued the first urologist claiming that (a) he had not been warned that surgery might not cure his increased frequency of micturition, (b) that he had not been offered the alternative option of drug treatment, (c) that he had not been warned about the potential for stricture formation after surgery and (d) that he had not be warned about the possible development of retrograde ejaculation. The case was settled in his favour.

Case 3: Learning points

Inadequate investigation and consent

This case is a glaring example of how not to do it! The diagnosis was no more than speculation as the investigation had been non-existent. With a speculative diagnosis consent needed to be even more wide-ranging than with a clear diagnosis.

Without any imaging, radiological or ultrasonic, the urologist had made no assessment of this patient’s urinary tract – there might have been only one kidney, there might have been upper tract dilatation, the bladder might have had a stone in it, etc. The list of possibilities is endless. The view that an intravenous urogram is necessary to investigate such a patient is no longer valid, but ultrasound scanning is simple, non-invasive and reasonably accurate in good hands. It enables you to have a good idea of the anatomy of the urinary tract upon which you are about to operate. In this case the urologist arranged no tests of function, so he did not know if there was really a reduced flow rate or whether the bladder did not empty and his speculative diagnosis was just that – pure speculation.

There is some debate about whether one should or should not measure urinary flow rate prior to surgery on the bladder outlet (be it transurethral resection of the prostate or bladder neck incision). Thus, measurement of flow rate is regarded as an optional test by the AUA,9 recommended by the Fourth International Consultation on BPH10 and the EAU BPH Guidelines state that it is obligatory prior to undertaking surgical treatment.11 The American viewpoint is
based on the fact that uroflowmetry alone cannot distinguish between low flow due to bladder outlet obstruction and that due to a poorly contractile bladder and on the fact that flow rate could not predict the likelihood of a good symptomatic outcome after TURP\textsuperscript{12}. Thus, the recommendations are at variance. However, measurement of flow rate is such a simple test to do and it does allow some objective measure of the effect of surgery, so it seems unnecessary not to measure it in any patient who is going to undergo a BNI or TURP.

In any patient it behoves one to try to be as comprehensive as possible in your discussion about the likely outcomes and complications of a procedure. Give the patient a realistic idea of what symptoms they can expect to improve. Some patients may expect all of their symptoms to improve so you must be clear about the likelihood that any given symptom will or will not improve. Hesitancy and poor flow, symptoms we used to describe as being ‘obstructive’, are more likely to improve after outlet surgery than are the symptoms we used to describe as ‘irritative’ – frequency, urgency and nocturia.

It is, of course, difficult to consent someone when the pre-operative assessment of the patient has been so limited such that no proper diagnosis had been established. It would have been sensible for the urologist to confirm the diagnosis of a stricture with a urethrogram, for urethral stricture is just one of several possible causes of lower urinary tract symptoms in a 55-year-old man. If you really don’t know precisely what operation is going to be needed you will need to discuss a much broader range of possible complications and outcomes. Perhaps the bottom line is to try to anticipate the unexpected.

**Alternative treatment options**

No alternative options were discussed. The British Association of Urological Surgeons (BAUS) procedure specific consent forms\textsuperscript{13} state that alternative management options should be discussed with the patient. These include watchful waiting and medical therapy such as an alpha blocker. Of course the urologist involved in this case thought he was dealing with a urethral stricture, for which BPH medical treatment would not be appropriate.

There is a perception amongst some surgeons that all this talk about alternatives and about complications takes up valuable time in busy outpatient clinics. We do not dispute the fact that outpatient clinics are busy, and of course one of the quickest ways of getting a patient out of your clinic so you can see the next patient is to prescribe a tablet or to recommend an operation. Patients still do, on the whole, trust their surgeons, so if you say that a patient needs an operation then many patients will think that they do really need an operation. Talking to patients about options, outcomes and risks does of course take time, but so does defending a legal case arising from a decision based on a limited discussion of the options available to the patient. Investing a bit more time in your outpatient clinic may actually pay dividends, both for the patient and for you.

**Clinical practice guidelines for BPH and LUTS**

It is a sensible idea for any urologist who sees patients with lower urinary tract symptoms thought to be due to benign prostatic hypertrophy to be familiar
with the various clinical practice guidelines that have been published. These are the basis upon which diagnosis and treatment of men presenting with symptoms suggestive of BPH are founded.\(^{14}\) Using guidelines in your practice is not obligatory, but with the ever-present threat of litigation you need to be able to defend a decision not to use them. They thus provide a certain amount of protection from litigation, quite apart from helping day to day management decisions.

**Complications of bladder neck incision and transurethral resection of the prostate (Figure 9.1)**

**Strictures.** The BAUS procedure specific consent forms for TURP and BNI describe this as ‘Injury to urethra causing delayed scar formation’. Thus, it is thought to be common enough to warrant a specific warning.

**Sexual dysfunction.** This is a common problem after BNI or TURP. Forty per cent of men in the National Prostatectomy Audit were unhappy with their post-operative sexual function.\(^ {15}\) It is therefore worth reviewing the published data on this problem, so that you can discuss these matters with patients who are thinking about undergoing this form of surgery. There are three separate elements to sexual dissatisfaction after transurethral surgery.

The first is retrograde ejaculation, about which urologists have been aware for many years and must routinely warn all their patients since it occurs in about

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**Common**
- Temporary mild burning, bleeding and frequency of urination after procedure
- No semen is produced during an orgasm in approx 20% if incision or 75% if resection
- May not relieve all prostatic symptoms

**Occasional**
- Poor erections possible (impotence in approx 5–10%)
- Infection of bladder or kidney requiring antibiotics
- Bleeding requiring return to theatre and/or blood transfusion
- Possible need to repeat treatment later due to re-obstruction (approx 10%)
- May need self-catheterisation to empty bladder fully if bladder weak
- Failure to pass urine after surgery requiring a new catheter

**Rare**
- Finding unsuspected cancer in the removed tissue and this may need further treatment
- Injury to urethra causing delayed scar formation
- Loss of urinary control (incontinence), temporary or permanent
- Absorption of irrigating fluids causing confusion, heart failure (TUR syndrome)
- Very rarely, perforation of the bladder requiring a temporary urinary catheter or open surgical repair

**Alternative therapy:** drugs, use of a catheter or stent, observation or open operation.

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**Figure 9.1**
BAUS procedure specific consent forms for TURP.
two out of three men.\textsuperscript{15} It is caused by the removal of the bladder neck, which normally closes during ejaculation and is necessarily removed along with the obstructing adenoma.

The second component is erectile impotence. For many years this was given little thought, but some 70\% of men are still sexually active in their 70s, and of these 10 to 30\% will be rendered impotent afterwards.\textsuperscript{16–19} Erectile function can improve after TURP. Indeed, 20\% of men in the UK National Prostatectomy Audit reported an improvement in erectile function after TURP.\textsuperscript{15}

There is a third component, namely the lack of the sensation of orgasm. This may relate to a deficiency in contraction of muscular tissue in the prostate and seminal vesicles. In the National Prostatectomy Audit, 52\% of men described absent or altered sensation of orgasm. Dunsmuir and Emberton\textsuperscript{15} found a strong association between the presence of retrograde ejaculation and sensation of impaired orgasm. Sixty per cent of men with retrograde ejaculation reported impaired orgasm, compared with only 16\% of men who retained antegrade ejaculation after TURP. The occurrence of retrograde ejaculation after TURP implies that a more extensive resection has taken place than in men where no retrograde ejaculation occurs. It is conceivable that a more extensive resection, particularly if capsular perforation occurs, could damage the cavernous nerves and arteries which are located in the periprostatic tissues. Most urologists probably do not warn about the possibility of anorgasmia after TURP or BNI, but it could potentially lead the patient to litigation. Though you might ‘get off’ because most urologists may not warn about it, you will have expended some extra heart beats in worrying over the case. So, think about adding this potential complication to your list of things to discuss with the patient.

For the surgeon the crucial thing is that these matters are discussed with the patient before the operation. This is vital in the younger patient who may not have completed his family, but is also important in the older patient who may still be sexually active. It was disturbing to find in one large audit that a note had been made to the effect that these matters had been discussed with the patient at the time of getting consent in less than 30\% of records.\textsuperscript{20}

\textbf{Doing things during an operation for which the patient is not consented}

Though no urethral stricture was found in this case, the surgeon did note that the patient had what appeared – at least visually – to be an obstructing bladder neck. Should he have proceeded to resect this? As stated above, every urologist knows that a bladder neck incision or resection can lead to sexual dysfunction and it is probable that every urologist knows that failure to warn about these complications has, in the past, been a source of litigation for some surgeons. To proceed with a bladder neck incision in this situation was asking for trouble and demonstrates remarkable arrogance on the part of the surgeon. It would have been more sensible to let the patient recover from the procedure and, in the cold light of day, to discuss the options and complications of alpha blockers or BNI.
CASE 4: INCONTINENCE AFTER TRANSURETHRAL RESECTION OF THE PROSTATE

A 70-year-old underwent a TURP for bothersome lower urinary tract symptoms, his symptoms having failed to improve following a period of watchful waiting and subsequent treatment with an alpha blocker. He experienced an improvement in his flow rate and a reduction in the number of his night-time voids.

He remained symptom free for about 2 years. His urinary flow then started to decline and his day- and night-time voiding frequency started to increase. Urodynamics were carried out. These showed a stable bladder with evidence of bladder outlet obstruction. He was offered and accepted a revision TURP. This was duly done. The operation note was short, by any standards, recording simply ‘TURP. Revision TUR done’. That was it! The name of the operating surgeon was not recorded, nor were any other details. Following this operation he was incontinent of urine and despite empirical anti-cholinergic treatment and pelvic floor exercises he remained so.

He was referred to a unit specialising in video-urodynamics and reconstructive surgery. Although a flexible cystoscopy showed an apparently visually intact urethral sphincter, repeat urodynamics showed a very low urethral pressure profile and, on standing, urine was seen to leak past the external urethral sphincter. The patient underwent insertion of an artificial urinary sphincter which has reduced the degree of leakage of urine.

The patient sued the original urologist claiming failure to exercise due care during the second TURP to ensure that his external sphincter was not damaged.

Case 4: Learning points

Every urological surgeon knows that the external sphincter mechanism is at risk during TURP. It is in all the books and it is taught and learned during training. The sphincter is at greater risk during a second TURP, especially if the veru montanum was resected the first time. So with a second TURP especial care is needed and you may have to prove that you did exercise proper care.

The operation note from the second TURP in this case is perhaps the shortest we have ever seen, certainly for a TURP. Precisely what the operating surgeon did is impossible to establish. What precautions he took, if any, to ensure that he kept well upstream of the veru montanum and therefore of the external sphincter were not recorded. He said in his legal statement that he had taken such precautions. He may well have made frequent visual reference to the position of the veru montanum, in an attempt to avoid damage to the external sphincter during the course of the resection. However, he did not record that fact and therefore was unable to provide any evidence on his own behalf to suggest that he had exercised due care during the operation. The case came to court 2 years after the event. Not surprisingly the surgeon could not remember what precautions he had taken during the operation to avoid damaging the sphincter and he was therefore unable to convince anyone that he had taken any precautions.
The defendants tried to use the fact that the external sphincter appeared to be visually intact at flexible cystoscopy as evidence that it was functioning adequately. This was clutching at straws. The video-urodynamics had shown obvious sphincter weakness, so although the sphincter was working to some extent, the pressure it was able to generate was not adequate for continence.

CASE 5: ANOTHER UNNECESSARY BLADDER NECK INCISION

A 59-year-old man with lower urinary tract symptoms was referred to a urologist. The record of the outpatient consultation was brief. He was not examined. As with Case 3, no imaging or uroflowmetry was done and there was no formal urodynamic assessment. It was recommended that he undergo a bladder neck incision. He was not offered a trial of watchful waiting or of an alpha blocker. He was warned about a ‘very small risk of retrograde ejaculation’. No other risks were mentioned. He made an uncomplicated recovery from a BNI.

He developed retrograde ejaculation and loss of erections together with slight leakage of urine. Not surprisingly, he sued the urologist.

Case 5: Learning points

Believe it or not this case really did happen—within the last 5 years! What can one say! All of the points discussed in Case 3 above are, of course, relevant to this case. Invest a bit of time. Discuss the options! Discuss the risks! Do the patient and yourself a favour!

REFERENCES

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In our experience the urethra seems to come off relatively lightly as a field for potential litigation. The treatment of stricture is the offender. We have seen a large number of cases involving urethral stricture and we will discuss one example as it embraced all the problems we have seen as the cause of potential litigation in the management of this condition.

**SUMMARY**

- A case of recurrent urethral stricture

**CASE 1: A CASE OF RECURRENT URETHRAL STRicture**

A 25-year-old man was referred by his GP to a urologist with a 12 month history of a diminishing urinary stream and two episodes of urinary tract infection, confirmed on urine culture. A urine flow was performed and this demonstrated a peak flow rate of just 10 ml/s for a voided volume of 450 ml. The flow pattern was 'plateau' in appearance, suggesting the possibility of a urethral stricture. The patient saw a registrar in clinic who recommended that he undergo optical urethrotomy. No further investigations were done. There was no recorded discussion about the long term success rate of optical urethrotomy and no discussion about potential complications.

The patient proceeded to optical urethrotomy. What was estimated to be a 1 cm bulbar urethral stricture was divided and a urethral catheter left in situ for 48 hours. The patient voided satisfactorily on catheter removal.

However, on review in the outpatient clinic 6 months later his flow rate had diminished. It was suggested that he undergo a repeat optical urethrotomy. Again, no further investigations were done. Again, there was no discussion about the long term success rate of optical urethrotomy.

Despite this second urethrotomy the patient developed a recurrent stricture. It was suggested that he undergo a third optical urethrotomy. Again, no further
investigations were done to assess the urinary tract, not even a urethrogram to assess the length of the stricture. Again, there was no discussion about the long-term success rate of optical urethrotomy and the potential complications of urethrotomy were not discussed.

At this third urethroscopy a dense stricture was seen in the bulbar urethra. The operative note was short. It stated ‘difficult urethrotomy. 14 Ch catheter inserted’. No pre-operative urine culture had been done and it subsequently transpired that no antibiotic prophylaxis had been given. On the first post-operative day the nursing notes recorded that the patient had marked swelling of his scrotum. There was no note made by his medical team on this day. The following day the patient had spiked a temperature of 39°C and felt unwell. A note in the medical records refers to the scrotal swelling and the fever. Intravenous antibiotic treatment was commenced. On the third post-operative day the patient’s temperature continued to spike up to 39°C. A scrotal ultrasound demonstrated a large, loculated fluid filled collection in the scrotum. The patient was taken to theatre where the scrotum was incised in several places, allowing release of offensive smelling, turbid fluid. Areas of scrotal skin and underlying fascia had become necrotic and these were excised. A large corrugated drain was inserted. Culture of the fluid revealed profuse growth of an enterococcus.

The patient remained in hospital for a further 2 weeks, requiring wound care and intravenous antibiotics. A urethrogram 3 months later demonstrated a bulbar urethral stricture measuring 2 cm in length, with a further area of stricturening in the proximal penile urethra measuring 1 cm in length.

The patient took legal action against the urologist claiming that (i) the third urethrotomy was done without due care, (ii) consideration should have been given to urethroplasty for the recurrent urethral stricture, given that one optical urethrotomy had failed to adequately treat the stricture, and (iii) urine culture had not been done and appropriate antibiotic prophylaxis had not been given.

**Case 1: Learning points**

**No pre-operative imaging**

It is hard to justify operating on a young man for a possible urethral stricture without knowing anything about his urinary tract at all. Ultrasound is a simple, non-invasive investigation and can offer the reassurance that there is no unexpected abnormality in the urinary tract. A urethrogram provides accurate information about the site and length of the suspected stricture.

**Alternative options**

While an optical urethrotomy might be considered to be a reasonable way of managing a recurrent stricture in a 25-year-old man, there are some who would argue that at this point the option of a urethroplasty should at least have been discussed with the patient (figure 10.1). Certainly, once a urethrotomy has failed, many urologists would be giving serious consideration to an alternative such as urethroplasty. There can be very few urologists who would proceed with
a third attempt at urethrotomy in a 25-year-old man where two had already failed. There was no discussion about alternative treatments in this case and still no information was available about the rest of his urinary tract.

The pre-operative assessment of this patient had been limited to a urine flow rate. Before the appropriate treatment is decided on, the location and length of the stricture should be determined by a combination of urethrography and urethroscopy. This assessment should be combined with a discussion between the patient and the urologist with regard to the goal of treatment. Some patients may opt for stricture management and therefore may choose to have periodic dilatations or urethrotomies, rather than undergo the more complex option of open reconstructive surgery. This would be a reasonable option for the elderly man with co-morbidity. For others, such as the younger patient, cure will be the goal. Such patients may therefore opt for reconstructive surgery which can offer success rates in the order of 90% depending on the nature of the stricture. The reconstructive ladder, where the simplest procedure is attempted first (urethral dilatation or optical urethrotomy), and sometimes repeated after failure, before moving on to more complex approaches is, as Gerry Jordan has stated, ‘considered archaic in modern urethral reconstruction’ and is simply not appropriate for the younger man.

Santucci and McAninch showed the curative success rate for optical urethrotomy to be 20%, a figure which is not dissimilar to that achieved by Pansadoro and Emiliozzi, who reported a curative success rate of approximately 30%. Pansadoro and Emiliozzi showed that there is virtually no increase in success rate with a second optical urethrotomy. Short (<1.5 cm in length) bulbar urethral strictures without deep spongiofibrosis can be managed with optical urethrotomy with a 74% long term success rate. It would have been sensible, therefore, to discuss the option of anterior urethral reconstruction.
with the patient described in this case. This would have given him the best chance of genuine, long term cure.

**No antibiotic prophylaxis**
The patient developed a severe infective complication. It is difficult to defend such a case where no attempt was made to culture the urine in a patient with several previously documented urinary infections and where the cause of those infections was the underlying problem that the surgeon was trying to correct. Urethral dilatation causes bacteraemia in 25% of patients (and presumably urethrotomy does so in a similar proportion of cases). Thus, not only can it lead to local infective problems, but systemic infection (septicaemia) is also a well recognised complication of urethral surgery.

**Surgical technique of optical urethrotomy**
During the third optical urethrotomy there must have been extravasation of infected fluid from the urethra into the scrotum and this led to the development of a scrotal abscess. This is a rare complication of urethrotomy. Could it have been avoided? It is possible that insertion of a guidewire across the stricture could have made identification of the lumen of the urethra easier, and this could have prevented the surgeon losing his way in the filmy material that sometimes appears in front of one's eyes as a urethral stricture is incised. It is all too easy to lose one's way in such a situation. It appeared from the short operation note that the surgeon had made no attempt to do this. Perhaps extravasation of fluid into the scrotum would still have occurred even if he had used a guidewire, but at least had he done so he could have argued that he had taken precautions to avoid this problem from occurring. It was therefore not too difficult to argue that he had not exercised due care in undertaking the optical urethrotomy.

Sadly, the option of a straightforward anastomotic urethroplasty had been missed in this case. The three optical urethrotomies had led to lengthening of the original stricture and development of another stricture more distally, in the penile urethra. The patient was therefore left with the prospect of more complex reconstructive surgery than might otherwise have been necessary.

**Complications**
The most common complication of optical urethrotomy is stricture recurrence. Bleeding is a common occurrence. Extravasation of large quantities of irrigation fluid into the peri-spongiosal tissues and thence into the scrotum is rare, but the development of this complication suggests a fairly aggressive optical urethrotomy has been performed. A deep incision in the urethra will enter the corpora cavernosa and erectile problems can occur, secondary to local cavernosal veno-occlusive dysfunction. None of these complications or outcomes was discussed with the patient.
REFERENCES


Problems arising after vasectomy provide a fertile (!) field for litigation. It behoves the would-be vasectomist to read widely on the issues of vasectomy before embarking on the actual operation. In fact urologists perform relatively few vasectomies in the UK, most of these procedures being done by general practitioners. However, urologists who do vasectomies should be aware of the potential litigious problems that can be encountered. We have been involved with a large number of cases of post-vasectomy complications and the two cases discussed below provide examples of common themes – the development of post-operative haematomas, failure of the procedure to result in azoospermia and the development of chronic scrotal pain after vasectomy. Common to all of the cases of vasectomy problems which lead to litigation is the failure to warn the patient that such events can happen. These cases are perhaps all the more remarkable because they are contemporary, having taken place at a time when the potential complications and outcomes of vasectomy are so well known. Vasectomy is a very good example of a ‘minor’ operation which can give rise to major problems.

SUMMARY

- A failed vasectomy and development of a post-vasectomy haematoma
- Chronic scrotal pain after vasectomy
- The evolution of counselling for vasectomy.

CASE 1: A FAILED VASECTOMY AND DEVELOPMENT OF A POST-VASECTOMY HAEMATOMA

A 40-year-old man was referred by his GP to a urologist for a vasectomy. He was seen in an outpatient clinic by a urology registrar. The notes recorded that the patient was informed that the vasectomy could not be reversed. There was no other outpatient record of discussion of possible outcomes or complications.
On the day of admission the patient signed a consent form. Again, there was no record of any specific risks or outcomes having been discussed.

The operation was done under local anaesthetic. The operating surgeon did not record his/her name or grade. A note in the operative record was made querying the possibility of two vasa on the right. Despite this possibility, the surgeon stated that he only excised a single segment of vas from either side. The segments were sent for histological examination. On post-operative review the patient was noted to have ‘some scrotal swelling’ on the right side. He was discharged, the plan being to review him in outpatients in 3 months time. He was warned to use alternative contraceptive measures until two consecutive semen analyses had shown no spermatozoa.

Later that evening he presented to the Emergency Department of the hospital where the vasectomy had been performed with a large scrotal haematoma on the right side. He was admitted for observation and the following day was reviewed by a urology registrar. There was no record in the clinical notes of this review, though the fact that it took place was recorded in the nursing records. The policy of observation was continued and as the haematoma on the right side was not enlarging, the patient was discharged the following day. He was subsequently reviewed 2 weeks later in outpatients when the swelling was noted to have shrunk substantially.

The histology report confirmed the presence of a segment of vas from the left side. From the right side the report read ‘fibrous tissue and nerve bundles; NO vas identified’. Not surprisingly the semen analyses done 10 and 12 weeks later showed large numbers of viable spermatozoa. The consultant in charge of the case informed the patient that he was still fertile. A second vasectomy was later performed and this resulted in azoospermia.

The patient sued the urologist, firstly for having failed to warn him about the possibility of a post-operative haematoma, and secondly for having failed to warn him that the procedure could fail to render him azoospermic. The surgeon was unable to mount a defence.

**CASE 2: CHRONIC SCROTAL PAIN AFTER VASECTOMY**

A 37-year-old man requested vasectomy and this was carried out under general anaesthesia as a day case procedure by a urologist. The patient had signed a consent form which, amongst other outcomes and complications, mentioned the possibility that he might develop chronic pain in the scrotum.

The operative note was clearly written and detailed that the vasectomy was carried out through a single midline incision, with two segments of vas measuring 1 cm in length being excised from each side. The ends were tied off with an absorbable suture and were buried in different fascial layers. Local anaesthetic was instilled into the wound for post-operative pain relief and the patient was discharged with analgesia.
The patient experienced some scrotal bruising and swelling post-operatively. This resolved over the course of the next 2 weeks. Four months later he consulted his GP because he had developed chronic pain in one side of the scrotum. This failed to respond to oral analgesics and a referral to the pain control department of his local hospital was made. Local anaesthetic infiltration of the wound, a variety of oral analgesics and injections of steroids into the wound had no effect on the pain.

The patient sued his urologist claiming that the occurrence of chronic scrotal pain after a vasectomy indicated that the procedure had been carried out negligently. The suit failed because there was clear evidence that he had been warned of the possibility.

**CASES 1 AND 2: LEARNING POINTS**

These two cases highlight just some of the problems that can occur after vasectomy. There is an extensive literature on the outcomes and complications of this procedure and any urologist who undertakes vasectomy would do well to familiarise himself or herself with this information. Consent – or rather inadequate consent – for vasectomy is a rich source of litigation and much of this centres around an inadequate explanation of the post-operative course that a patient can expect and of some of the complications, all of which are well recorded in the surgical literature.

**Case 1**

This case and the subsequent legal action took place within the period 2003/4. One would therefore expect the level of consent to be up to a standard of contemporary practice. The BAUS procedure specific consent form is shown in Figure 11.1.

Post-operative haematoma is a fact of life. We have the impression that its incidence is inversely related to the experience of the surgeon. Certainly it seems to be a more common occurrence for surgeons who do a low number of vasectomies every year, being approximately 5% for those performing 1–10 vasectomies annually and approximately 2% for those performing 11–50 each year.\(^1\) Every surgeon will, from time to time, perform a vasectomy only for a haematoma to occur. This may be alarming, as the discolouration may spread along tissue compartments in a spectacular fashion. The average incidence of haematoma after vasectomy is approximately 2% (range 0.09–29%),\(^1\) so to get a haematoma after a vasectomy is an acknowledged problem. In this case the management of the haematoma was acceptable. Failure to warn that it could occur is not.

Primary failure of vasectomy (early failure) is where spermatozoa are still present in the post-operative semen analyses. There may have been a history of a haematoma or sperm granuloma into which epithelial channels have grown and then re-united. This is so-called re-canalisation. Primary failure of
vasectomy may be due to a failure to identify and divide one of the vasa (as in this case), or because a vas is reduplicated (a rare congenital anomaly, which is usually only present within the abdominal cavity). The vas has a characteristic appearance and feel and its cut surface also has a characteristic appearance. The failure of the surgeon to identify the vas correctly was interpreted by the court in this case as evidence that he was not operating within the level of his competence.

Case 2

We were spoilt for choice when selecting a case of chronic scrotal pain after vasectomy. In our experience this problem has led to litigation in many cases. The BAUS procedure specific consent form on vasectomy quotes an incidence of chronic scrotal pain of 5%. In a series of 172 patients from Glasgow, 33% of men reported chronic testicular discomfort after vasectomy. This was bothersome in 15%, but only 2% regretted having had the vasectomy because of the pain. At least in some cases it is due to congestion of the epididymis. In the case described here the patient was warned about this risk and there was no evidence that the vasectomy had been carried out other than in an entirely standard fashion. The surgeon’s clear operative note, which detailed each step that he had followed, was evidence that the procedure had been carried out with due care and attention.

The lesson then is to make every effort to explain this possible outcome. Emphasise the possibility of chronic scrotal pain several times during the consultation and document that you have done so. Be explicit in your

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**Figure 11.1**

The BAUS procedure specific consent form for vasectomy.

Common or serious complications include:

**Common**
- Irreversible procedure
- Small amount of scrotal bruising
- Two semen samples required before unprotected intercourse with absence of live sperms

**Occasional**
- Bleeding requiring further surgery or bruising

**Rare**
- Rarely, inflammation or infection of testes or epididymis requiring antibiotics
- Re-joining of vas ends resulting in fertility and pregnancy (1 in 2000)
- Chronic testicular pain (5%) or sperm granuloma

**Alternative treatment**: other forms of contraception, male or female
explanation and your record of this. Tell the patient that the pain can be disabling to the extent that it has stopped men from carrying out some day to day activities. Explain that many patients with this problem often end up trying a raft of analgesics and other methods of pain relief, but to no avail. It is reasonable to end your explanation with the clear message that its incidence is low – 5%. The majority of patients will still proceed with vasectomy knowing that there is a chance that they may get chronic scrotal pain afterwards. Rarely some patients may decide against vasectomy having made an informed decision based on the information you have given them. A consideration of chronic scrotal pain syndrome is included in Chapter 12, p 172.

OTHER POTENTIAL PROBLEMS ASSOCIATED WITH VASECTOMY

These include the following:

**Infection.** The average rate of wound infection is 3%, although the range in the various reports is from 12 to 38%.³⁻⁵

**Sperm granulomas.** These form when sperm leak from the testicular end of the vas. Sperm are highly antigenic, and an intense inflammatory reaction occurs when they escape outside the reproductive epithelium. Sperm granulomas occur in 1–10% of men post-vasectomy,⁶⁻⁷ but are only occasionally symptomatic, other than the fact that they cause a lump in the scrotum. They may be associated with early re-canalisation and may be the site of chronic scrotal pain.

**Late failure causing pregnancy.** This is defined as a pregnancy in the partner of a vasectomised man where the initial two post-vasectomy semen samples were azoospermic, but subsequent samples at the time of pregnancy were positive. The incidence is very small, but this is a prime example of a very low incidence risk which achieves its significance because of the serious nature of its outcome.

Much of our knowledge about the long term outcomes of vasectomy and risk of subsequent pregnancy comes from the work of David Cranston and his team at The Churchill Hospital in Oxford, who have published extensively on this subject. We know from the Oxford data that the risk of rejoining of the ends of the vas, which then subsequently leads to a pregnancy, is in the order of 1 in 3000 (9 pregnancies in over 30,000 vasectomies done between 1970 and 1999).⁸⁻¹⁰ The BAUS procedure specific consent form quotes a late pregnancy rate of 1 in 2000 and this figure is based on the work of Tim Philp (also an earlier Oxford publication).¹¹ In men who develop positive semen analyses after two negative ones, histological examination of the resected vas at repeat
vasectomy has shown granulomata with epithelial lined channels containing spermatozoa. Transitory appearance of spermatozoa following initial azospermia at semen analysis 16 and 18 weeks post-vasectomy occurs in 0.6% of men (6 in 1000), but this translates into a pregnancy rate of 1 in 2900 (0.03%) according to the Oxford data.\(^8\)

**Bruising and scrotal swelling.** These problems might seem to be such a common occurrence and so minor that the surgeon may attach little importance to explaining that they may occur. However, it is not the surgeon who is having the operation and some patients (perhaps the majority) may find the bruising and swelling alarming unless they have been given a decent explanation of what can occur. As with all things in life, if you explain to the patient that the swelling and bruising can be striking, they will tend to be less alarmed when your predictions come true. Alternatively they may be pleasantly surprised that the bruising and swelling were not half as bad as they had been led to believe. We are not suggesting that you should go out of your way to embellish your description with lurid details. A sensitive, but nonetheless honest explanation that ‘sometimes the bruising and swelling can really be quite bad, but will almost always resolve spontaneously given a few weeks’ can save the patient a lot of anxiety and you a lot of trouble.

Be sure to warn the patient that alternative contraceptive measures must be used until you have informed them that two consecutive semen analyses have revealed no sperm present. Make a written note that you have told them that failure to heed this advice could lead to an unwanted pregnancy. If you have not emphasised this point very clearly the patient may not take the matter sufficiently seriously, hard though this is to believe. Make sure the man understands that if he hears nothing he must ask for the results, as no news is not necessarily good news. There are many examples of conceptions which have occurred because the couple has assumed that no news meant no spermatozoa in the semen sample.

Again, vasectomy is a very good example of a ‘minor’ procedure where consent must be disproportionately detailed. Remember also, that in their anxiety many patients forget what you told them and the only record that you did so will be the contemporaneous record that you made in the notes.

One final point. Some patients find vasectomy done under local anaesthetic a painful experience. It may be stating the obvious, but use plenty of anaesthetic (within safe limits of course) and wait for it to work! We have been involved in at least one case where the patient stated that the surgeon proceeded to make the skin incision as soon as the local anaesthetic had been injected. The patient developed some post-operative problems, amongst them chronic scrotal pain. The patient found the whole experience of the operation very upsetting and we believe that the fact that the vasectomy was started before the anaesthetic had had time to work was the factor which triggered the patient's decision to pursue legal action for all his subsequent problems.
THE EVOLUTION OF COUNSELLING FOR VASECTOMY

Vasectomy provides a good example of an operation where consent has evolved over many years.

Vasectomy with the express intent to produce infertility is an operation of very many years’ standing. We have not been able to establish precisely when it was first performed for this reason, but O’Conor noted, in a paper published in 1948, the details of a patient undergoing vasectomy in 1911 with the intention of producing sterility. For many years vasectomy was carried out as a routine in men undergoing open prostatectomy to prevent the complication of infection of the testicles and epididymes in the days before antibiotic therapy. Open prostatectomy has been performed around the world since the 1920s, so it would seem reasonable to assume that vasectomy is an operation of a similar vintage.

Prior to 1960 it was generally believed by British doctors that it was illegal to perform male sterilisation for reasons other than to protect a man’s physical or mental health. In fact this was a misconception, but the operation was definitely discouraged by the medical defence associations. In the 1961 Annual Report of the Medical Defence Union (on page 13) a change of attitude was indicated and by 1965 the Annual Report (on page 10) contained a form of consent to voluntary male sterilisation. This formed the basis for consenting to vasectomy and the operation gained popularity, with most surgeons adhering to the safeguards suggested by the defence associations at the time. These safeguards made no mention of the risks of late recanalisation, nor of the need to warn patients of that possibility.

Before 1966 the subject of voluntary male sterilisation received no discussion as far as we can detect in the British journals. In 1966 Blacker published on the subject in the Lancet. At that time any reports which appeared dealt with the psychological and sociological aspects of the operation, but offered very little about the clinical results. A few papers contained passing references to clinical problems, but they were in journals which the average British surgeon would not read regularly, and might have had difficulty in obtaining, even if they knew of their existence.

The first authoritative article in a widely read British journal which touched on the clinical problems of vasectomy was written by Howard Hanley, then Dean of the Institute of Urology in London, in the Lancet in 1968. In this paper Hanley referred to the possibility that a divided vas could rejoin spontaneously, citing his own experience and American sources as far back as 1948 and 1954. He set out operative technique designed to prevent early recanalisation, but implied clearly in the Lancet and, next year, in the British Journal of Urology that adherence to these precautions would prevent this unwanted consequence of vasectomy. In that paper in the British Journal of Urology in 1969 Hanley suggested that the risk of recanalisation ‘needs to be discussed fully with both the husband and the wife’ and the need for semen analyses in
the post-operative period is stressed. Hanley, however, did not suggest that recanalisation is a serious possibility after two semen analyses have proved negative and no question of introducing this possibility into consulting procedures was raised by the defence associations at this time.

Wallace and Riddle discussed vasectomy at length in a British Medical Journal special article in 1971. They mentioned the known risk of early recanalisation and described methods to prevent it, but made no reference to warning patients of the risk of this happening.

A comprehensive survey on sterilisation by the Population Report series from the Department of Medical and Public Affairs of the George Washington University published in 1975 examined the clinical complications and social problems of vasectomy. In this paper the incidence of recanalisation is discussed, but the categorical statement is made ‘that separation of the treated vas ends with a barrier of fascia is an effective means of preventing vasectomy failure’. The survey pointed out that ‘the vasectomy candidate should understand that a small possibility of failure exists’, quoting articles in the Gazeta Medica de Mexico (1972), the American Journal of Obstetrics and Gynecology (1973), and the Acta Urologica Japonica (1971) to support this view. So, the idea that vasectomy might have a late failure rate was around as long ago as the early 1970s, but not in literature easily available in the United Kingdom. Even the survey from George Washington University failed to include a warning of late failure in its summary of counselling advice.

In 1976 a paper in the American journal of Surgery, Gynecology and Obstetrics examined the ‘Morbidity of vasectomy’. Among a large number of other matters this paper discussed techniques designed to prevent recanalisation and emphasised the importance of semen analyses to prove infertility. The authors suggested that it is important to discuss the causes of morbidity after vasectomy with patients seeking this method of contraception, but it did not pick out recanalisation as needing greater or more specific emphasis than other complications of the procedure.

In the years from 1972 to 1976 the English language literature abounded with papers reviewing vasectomy and its consequences, with ways of avoiding its complications, but there was no suggestion that patients should be warned of the possibility of late failure of the operation. The defence associations remained silent on the matter.

In 1977 a paper from New York suggested that the possibility of early recanalisation should be mentioned to men seeking vasectomy. By the end of 1978 it was well established that a small, but definite, early recanalisation rate followed vasectomy, but that surgical techniques which interposed a layer of fascia between the divided ends of the vasa reduced the recanalisation rate to zero. No definition existed of when early recanalisation became late failure. All the literature at this time implied early recanalisation to be associated with a failure of the sperm count to become and remain negative within 3 to 4 months of surgery. Late recanalisation was not recognised except as a rare occurrence associated with the formation of sperm granuloma. It was not pursued as a
serious problem and we can find no reference to advice to mention this possibility in the context of pre-operative counselling.

In the ‘Contemporary Surgery’ series in the British Journal of Hospital Medicine in 1979 Professor JP Blandy discussed the incidence of spontaneous recanalisation of the vas after vasectomy. He quoted from the literature a numerical incidence ranging from 3.3 to 0 per cent and concluded that about 1% of men have recanalisation after vasectomy. The implication was that this 1% incidence of recanalisation was in the early category, late recanalisation not being recognised as a specific entity at that time. He stated ‘Surgeon, patient and lawyer should understand that spontaneous reunion is to be blamed on life force, not the surgeon, that it is inherent in the operation of vasectomy, and that no operation can be relied upon to have 100% certain results’. He did not recommend warning the patient of the possibility of later return of fertility, although he did spend several paragraphs discussing pre-operative counselling. The conclusion to be drawn from this authoritative article by an acknowledged expert was that spontaneous recanalisation was a possibility, but that it was minimised by careful surgical technique.

The November 1983 Population Reports (Series D, No 4) published by the Johns Hopkins University in America reviewed all aspects of vasectomy under the title ‘Vasectomy – safe and simple’. This paper is a comprehensive overview of worldwide experience of vasectomy. It contains clear advice on pre-operative counselling which recommended, among many other points, a discussion on the failure rate of vasectomy. However, this failure rate referred to technical failures, failures to take adequate contraceptive measures before azoospermia had been proven, congenital reduplication of the vasa and spontaneous recanalisation associated with the formation of sperm granuloma. No mention was made of any risk of a late return of fertility, i.e. late recanalisation, nor of any necessity to warn patients of this possibility before offering vasectomy.

The first warnings that there was a significant risk of a late return of fertility after vasectomy appeared in the British literature in 1984. Two papers by Philp, Guillebaud and Budd appeared, one in July in the British Medical Journal and one in the British Journal of Urology in December. A short paper, describing eight cases, appeared in the British Journal of Surgery in the same year. For the first time the risk of late return of fertility in men previously thought to be sterile following two consecutive azoospermic semen analyses after vasectomy was reported and the clear warning was sounded that the rare possibility of late failure of vasectomy should be taken into account during pre-operative counselling. This view was reflected in a leading article in the Lancet in September 1984, although the author is not as definite as Philp et al that pre-operative counselling should include a warning that the possibility of late failure of vasectomy existed. It was not until April of 1985 that another leading article in the Lancet suggested definitely that ‘it is now prudent that reference should be made to the small, but real, risk of late return of fertility’ in the form of consent to vasectomy. The defence associations published a modified form of
consent to vasectomy in 1985, which included a warning that late return of fertility was a possibility, even with two clear post-operative sperm counts.

Recanalisation of the vas has been known as a surgical curiosity for more than 50 years and the literature contains sporadic reports of this rare event, but until 1984 it had never achieved any more significance than a curiosity. No real distinction was made between early recanalisation, where the recently divided vas joined up again soon after vasectomy, and late recanalisation, which took place months or years after all the sperm had long since disappeared from the semen. Up to 1984 no surgeons warned their patients regularly of this late risk. The position is expressed well in the (then) standard urological textbook: ‘Although cases have been reported where reunion took place apparently months after negative semen examination, one would expect the great majority of spontaneous reunions to occur by the end of the first eight weeks’.27

In retrospect, however, it is clear that although the two types of recanalisation had been recognised, the significance with regard to the consequence of an unwanted return of fertility was not generally recognised, and was certainly not spelled out in the English language literature until 1984 and 1985.22–26

The Medical Protection Society produced a limited edition of a document entitled ‘Consent and Confidentiality’ in April/May 1985, only 500 copies, which was available upon request, i.e. it was not disseminated widely within the medical profession. As a result of demand a second printing of 2500 copies was undertaken in November of 1985. The Medical Defence Union revised their consent form in mid-1985, but this was only made available to individual members of the medical profession on request. The formal widespread issue of their revised form of consent to vasectomy was not published until 1986.

Before the end of 1984 it would have been extremely unlikely that any warning of the possibility of a late return of fertility would have been given to patients about to undergo vasectomy designed to render them sterile. By the end of 1985 the risk of late return of fertility after vasectomy was available as information for doctors undertaking vasectomy operations if they happened to read the Lancet, but the details of a modified form of consent would only have been available in a strictly limited way as a result of the advice published by the Medical Protection Society in April/May 1985. It probably took until the middle or end of 1986 for it to have become widespread practice for counselling and consent to vasectomy to include a warning to patients that a late, spontaneous, return of fertility was a possibility, even after the semen had been shown to be free of sperm post-operatively. This change of practice, from not offering a warning concerning the possibility of late return of fertility, to providing such a warning, and including it in the formal pre-operative consent documentation, must have been a gradual one, probably taking many months, or even years, to become widespread, as no formal direction was ever offered to the medical profession as a whole at any particular time. It therefore would be extremely difficult to state that after a particular date an individual would be falling short of the standard a patient might reasonably expect by not providing a warning, but before that date he or she would be achieving that standard.
By the mid-1980s the most common practice in vasectomy counselling would have been to warn of the small risk of late recanalisation, and not to warn should be regarded as falling short of the counsellor’s duty. However, Mr Justice Mantell, in the case of Newell and Another v Goldenberg, stated that such a duty to warn existed as early as September 1985. In his judgement he went on to say that a surgeon whose usual practice was to warn, but who due to oversight omitted to do so, could not call in aid the protection afforded by the test of professional negligence set out in Bolam v Friern Hospital Management Committee.

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The testicle provides yet another set of pitfalls for the unwary urological surgeon. The diagnosis of malignant disease, its treatment and the management of testicular torsion form, in our experience, the vast majority of cases where litigation has occurred. We offer some examples for consideration.

**SUMMARY OF CASES**

- Orchidectomy for a suspected testicular tumour, but benign histology
- A missed testicular tumour mimicking epididymo-orchitis
- Testicular torsion: delayed and missed diagnosis
- Chronic scrotal pain syndrome

**CASE 1: ORCHIDECTOMY. SUSPECTED TESTICULAR TUMOUR – BENIGN HISTOLOGY**

A 21-year-old man was referred by his GP to a urologist with a complaint of a swollen right testicle. He had first noticed this following a blow to the testicle 2 weeks earlier during a rugby game. The GP had organised an ultrasound scan and the radiologist reported this as showing a 3 cm mass in the upper pole of the testis with 'solid and cystic components – ?testicular tumour'. The GP stated in his referral letter that the patient had been aware of some swelling of the testicle prior to the injury. The patient was rather vague as to how long he felt the testicle had been enlarged. He thought this could have been several months and the degree of enlargement was modest at most.

The urologist's written notes of the consultation recorded the history of testicular swelling prior to the episode of trauma. He explained the ultrasound findings to the patient and stated that these 'show you have a solid lump in your testicle which is a cancer'. He recommended an orchidectomy. The notes recorded the possibility of post-operative bruising, a scrotal haematoma
requiring later surgical evacuation, wound infection and numbness around the site of the incision in the groin. Pre-operative tumour markers and a chest X-ray were normal.

The patient underwent a right orchidectomy 2 days later. His post-operative recovery was uneventful.

A pathologist reported on the histological findings. On inspection he noted a solid and cystic mass within the upper pole of the testis, measuring 2.5 cm in diameter. Examination under the microscope revealed areas of haemorrhage within the testicle, with surrounding inflammation and areas of atrophy of seminiferous tubules. There was no evidence of cancer. Immunohistochemical staining for testicular cancer was negative. The conclusion was that the mass represented an area of haemorrhagic infarct.

When the patient was reviewed he was very angry that he had lost a testicle ‘unnecessarily’. He took legal action against the urologist claiming negligence.

CASE 2: SUSPECTED TESTICULAR TUMOUR – BENIGN HISTOLOGY

A 32-year-old man presented to his GP with swelling of the right testicle following a blow to the scrotum. He was given analgesics and a scrotal support and was reviewed in clinic one week later. The right testis was noted to have enlarged somewhat and an ultrasound scan was therefore arranged. This was reported as showing a 2.5 cm hypoechoic mass in the lower pole of the right testis. The radiologist thought this was traumatic in origin, but stated that it could possibly represent a testicular tumour. The patient was therefore referred to a urologist.

The urologist told the patient that the ultrasound scan suggested the possibility of a testicular cancer and he recommended a radical orchidectomy. This was done a few days later.

Histology of the testicle revealed the ‘tumour’ to be an area of necrosis measuring 2 cm in diameter.

The patient sued the urologist, claiming that he had lost a testicle unnecessarily.

CASES 1 AND 2: LEARNING POINTS

Delay in diagnosis of malignant testicular tumours is a concern, for these are rapidly growing cancers that metastasize to regional lymph nodes early in their natural history. Delay leads to more advanced tumour stage and advanced stage is associated with a worse prognosis. Delay in diagnosis remains a real issue, even in contemporary practice. Moull noted a mean duration of symptoms of 26 weeks before diagnosis in a review of 4948 testicular cancer patients. It is thus understandable why the two urologists in the cases described here
proceeded with orchidectomy so quickly. Many if not most urologists would do the same and in this respect their management cannot be criticised.

Although most testicular tumours present with painless enlargement of a testicle, as many as one in five patients report a history of minor trauma to the testis in the days or weeks preceding the onset of symptoms. Though this is not causally related to the development of the tumour it does draw the attention of the patient to the presence of an abnormality in the testicle. In both cases described above, there was a preceding history of trauma to the testis. Again, it was not unreasonable for each urologist to assume that he was dealing with one of the 20% of cases that present with a history of preceding trauma. They may well have been aware of cases where the examining doctor had assumed that the swelling was due to the trauma, only to delay the diagnosis of a previously covert testicular cancer.

The ultrasound appearances in both cases showed hypoechoic areas. Richie and Steele have stated that ‘Any hypoechoic area within the tunica albuginea is markedly suspicious for testicular cancer’. Once again, then, the urologists acted according to an acceptable standard.

In fact, the urologists in both cases described above managed these cases appropriately in virtually every respect save for the fact that they failed to warn the patients that the masses seen on ultrasound could, possibly, be due to a benign process. The BAUS procedure specific consent form for radical orchidectomy (Figure 12.1) state that the patient should be warned that a cancer may not be found on histological examination of the testis.

Both patients described here had normal contralateral testes, but one does from time to time see a patient with a solitary testis. This always presents a dilemma in management. Where the contralateral testis has previously been removed for a cancer, the finding of a mass in the one remaining testis is of great concern, and many urologists will proceed straight to orchidectomy. Where there is no such history a short period of watchful waiting with repeat scanning to see if there has been an interval change in the appearance of the ‘tumour’ can be considered. The patient in such cases is clearly concerned that he will lose all functioning testicular tissue and might be prepared to wait a little longer.

What about biopsy of the lesion? Richie and Steele state specifically that ‘Trans-scrotal biopsy is to be condemned’. Sampling error may lead to failure to identify malignant tissue in the particular area of the tumour that is biopsied, the pathologist may not be able to give a definitive diagnosis based on the small amount of tissue he receives and of course the tumour may be seeded into the scrotal skin and may therefore subsequently spread to inguinal lymph nodes. This may commit the patient to the need for additional treatment such as chemotherapy or radiotherapy where, without the biopsy and subsequent seeding, the tumour might otherwise have been cured by orchidectomy alone. Share these potential problems with the patient. It is not unreasonable for an informed member of the general public to ask why you would not consider the possibility of a biopsy. Biopsy of other organs is commonplace so do not dismiss these ideas out of hand. Explain why biopsy is not considered to be a sensible approach.
It is possible that both patients might still have taken legal action against their urologists, even had the latter explained the possibility of a benign process being found. However, had the urologists spent just a few minutes more explaining the possibility of benign pathology, the difficulty of knowing this prior to orchidectomy, the potentially disastrous consequences of delay in diagnosis and treatment of a malignant tumour, and the problems associated with testicular biopsy, the patient may well have thanked them for their time and trouble, rather than taking them to court. An extra 10 minutes in the clinic can save many hours spent in defending a case. Once again, it boils down to communication, or rather the lack of it.

One final point. Stephen described 20 cases where injury was a factor which led the patient identifying a testicular swelling, which then subsequently turned out to be a testicular cancer. He made an interesting observation that can sometimes point the urologist in the right direction. This was that the ‘lack of sickening pain at the moment of injury due to previous destruction or partial destruction of the testis is a most important point to elicit in the history’. In the age of high tech body scanners it is all too easy to forget that sometimes just listening to people – or at least asking the correct questions – can go a long way in helping you establish a diagnosis. Please let us remember that we are clinicians, not just technicians.
CASE 3: A MISSED TESTICULAR TUMOUR

A 25-year-old man presented to his local Accident and Emergency Department with pain in his testicle. The pain had started in the morning and by early afternoon it was severe. He was seen by an Accident and Emergency Department senior house officer who recorded his findings. There was no history of urinary symptoms and in particular no dysuria. On examination he noted a ‘firm, swollen tender testicle and epididymis’. The patient was pyrexial with a temperature of 38ºC. Dipstick testing of his urine was completely normal (and subsequent urine culture revealed no growth of bacteria).

The patient was admitted under the care of the urologists who made a diagnosis of epididymo-orchitis and commenced intravenous cefuroxime. His temperature and the pain settled over the next 48 hours. An ultrasound scan was reported as showing multiple areas of mixed echogenicity throughout the testis with enlargement of the epididymis ‘epididymo-orchitis’. He was discharged home on a course of ciprofloxacin and doxycycline for 2 weeks. No follow-up appointment was made to review him.

Four months later he presented to his GP with malaise, a mass in his neck which had rapidly increased in size over the preceding 2 weeks and back pain. He was admitted under the care of the physicians. A CT scan showed a large mass of retroperitoneal nodes, multiple chest metastases and large volume cervical lymphadenopathy. Biopsy of one of the nodes showed a malignant teratoma and subsequent orchidectomy confirmed a testicular teratoma. The patient underwent multiple courses of chemotherapy, but unfortunately ultimately relapsed from his disease and died.

The patient’s family sued the urologist for failing to diagnose his testicular tumour at a potentially curable stage.

Case 3: Learning points

The case reported here is just one amongst several such examples that we could have chosen. It highlights the fact that testicular tumours sometimes present with symptoms that mimic those of benign conditions such as infection (epididymo-orchitis). Indeed, in Bosl’s review of the mode of presentation of testicular cancer, in 37% of 335 cancers a benign condition was suspected on the initial clinical assessment.5 The classic presentation of a testicular cancer as a painless testicular swelling may be less frequent than is commonly thought. Many testicular cancers present with a degree of pain that mimics epididymo-orchitis, but the symptoms fail to abate with antibiotics.6 Sandeman noted that pain occurred in 47% of patients7 and Bosl5 noted pain as a presenting symptom in 45% of men with testicular cancer. The pain of malignant testicular tumours can sometimes be so severe that it may mimic that of acute epididymo-orchitis. Stephen4 noted that 13 of 92 cases of testicular tumour presented with a combination of acute swelling and pain from the outset, to a degree that an acute epididymo-orchitis was the initial, erroneous diagnosis.
Stephen used the rather nice description of ‘wolves in sheep’s clothing’ to describe these so-called ‘pseudo-inflamatory neoplasms’. Many of the tumours in these cases showed evidence of haemorrhage on pathological examination. Presumably the haemorrhage leads to sudden swelling and pain. Subsequent absorption of the haematoma may lead to a reduction in testicular swelling. This may occur within days of commencement of antibiotics for what is presumed to be a diagnosis of infective epididymo-orchitis, and the reduction in swelling coinciding with the antibiotic treatment may reinforce the erroneous diagnosis of an infective process.

The lesson to be learnt then is always arrange to review the ‘epididymo-orchitis’ patient so that you may re-examine the testis once the pain and tenderness have resolved. Have a low threshold for checking tumour markers. If the testis still feels abnormal on palpation, arrange a repeat ultrasound scan.

CASE 4: TESTICULAR TORSION: DELAYED AND MISSED DIAGNOSIS

Sadly, even in contemporary practice, testicular torsion continues to be misdiagnosed as epididymo-orchitis, groin strain, a pulled muscle, a ‘haematoma’ (in the absence of any history of trauma!) or what have you. The cases we have been asked to comment on are usually pretty straightforward in terms of the presentation and there seems little point in outlining these in any detail. Once again, we have seen many such cases.

The patients have ranged in age from 10 to 30 (although, of course, torsion can occur well outside this age range). The presentation has usually been one of testicular pain and swelling of sudden onset, sometimes with constitutional symptoms such as nausea or vomiting, so severe is the pain. From time to time the pain starts in the abdomen, loin or groin (the pain being referred as the testicle’s nerve supply is derived from the lumbar plexus – it is originally an intra-abdominal organ) and it may remain most prominent in these sites. In such cases the patient only admits to pain in the testis on direct questioning. One of the authors remembers a case of a young man presenting with loin pain which was so severe that it was thought to be due to a ureteric stone. The diagnosis of a testicular torsion was made on the CT urogram! This is unfortunate, for simple clinical examination might have made the diagnosis earlier and the patient would have been spared a dose of radiation.

A low grade fever is not infrequently present and this, perhaps, gives the erroneous impression that the pathology is one of infection, rather than torsion. Similarly, the white blood count, where this is done, is often elevated.

In many of the cases we have been asked to comment on, the doctors involved have simply failed to examine the scrotal contents – even nowadays, and even when the patient has specifically complained of scrotal pain! This is a recurring theme, the only (slight) consolation for us being that none of the
cases involved urologists. Why getting the patient to drop his trousers is such an effort for some remains a mystery. Others examine the scrotum and assume that the symptoms and signs must represent infection. Perhaps they simply do not contemplate the possibility that they are dealing with a case of testicular torsion. One cannot help thinking that the drastic reduction in junior doctors’ working hours has led to a reduction in exposure of the medical student, house officer and senior house officer to the common surgical emergencies. For many ‘their’ first case of torsion may be when they are the doctor (the only doctor) in the front line – the doctor upon whom the diagnosis and subsequent management depends. Perhaps we are just grumpy old men!

There are still potential pitfalls for the urologist. We cannot stress too highly the importance of acting promptly where you suspect a diagnosis of testicular torsion. From the moment the patient develops testicular pain, the clock is ticking inexorably towards testicular infarction. In most cases the torsion must be present for some 8 to 10 hours before the risk of infarction is great, but testicular infarction has been recorded in as little as 6 hours after the onset of symptoms. Record when you see the patient and when you start the scrotal exploration. These times can be critical in allowing you to defend yourself if legal action is subsequently taken. We have seen a case where a patient had waited for some hours before attending hospital, but then subsequently sued the urologist claiming that the delay between his arrival at hospital and the subsequent scrotal exploration led to testicular infarction necessitating orchidectomy. The urologist involved clearly recorded the time when he was first called by the Emergency Department, the time when he saw the patient (15 minutes later – and this involved driving from another hospital!) and the time of scrotal exploration (50 minutes after this). His expeditious approach combined with his good note-keeping allowed a successful defence of the case.

We have been in the situation where the emergency anaesthetist is already in the middle of another operation and will not be available for some hours. In such a situation inform the anaesthetist that you have a case of suspected testicular torsion and that you need to explore the scrotum as a matter of great urgency since the testicle may otherwise infarct. You should specifically request that a second anaesthetist be called and a second operating theatre be opened. Document all of this in the notes. If you explain the reason for your request to the theatre staff and anaesthetist, they too will appreciate the urgency of the situation. Don’t accept the excuse (which has certainly been given to us) that the theatre team will not be free for another 4 hours and that you’ll just have to wait your turn! Do your utmost to get that second theatre opened and document your efforts.

We do not believe that every single case of acute scrotal pain should be explored. This would clearly be inappropriate. A carefully taken history and a carefully conducted examination can allow one to distinguish between epididymo-orchitis and torsion. However, if in doubt about the diagnosis, it is safer to explore the scrotum.
OTHER CASES

Both epididymal cyst removal and hydrocele are associated with the risk of development of a scrotal haematoma. Most haematomas can be managed conservatively, but some require surgical exploration and evacuation. It is a sensible idea to warn patients about this possibility.

CHRONIC SCROTAL PAIN SYNDROME

The chronic scrotal pain syndrome is an uncommon condition, but is a recurring cause of litigation. It may occur at any age, most commonly in younger men, although it may occur in the elderly. There may be a history of previous trauma, either surgical or accidental, or infection to the scrotum or the scrotal contents, but there may be no known previous problem. There is commonly a history of complaints of pain in various sites, often the back, which have been the reasons for many visits to the doctor. Investigation is usually negative.

The pain may range in different patients from an extremely severe pain, producing total disability and analgesic addiction, to a mild intermittent ache. In an individual patient it is usually of a fairly constant level. Most commonly the pain is low grade and might be better termed discomfort, but the discomfort may be present all the time and provide a significant problem for the patient. Analgesia may be necessary, often with strong analgesics if the pain is severe, and very occasionally the patient may be severely disabled by severe pain. In some men the symptoms are intermittent.

Chronic scrotal pain may occur after any form of surgery to the scrotal contents or inguinal canal. Epididymitis (inflammation of the epididymis associated with bacterial infection) may be the precursor of chronic scrotal pain, as may orchitis (inflammation of the testicle). Similarly blunt trauma to the testicles or the epididymes may be followed by chronic scrotal pain. Very occasionally a testicular tumour may present as chronic scrotal pain. Scrotal pain may follow the surgical repair of inguinal hernias, a vasectomy or any surgery to the testicle or its adnexae.

Although chronic scrotal pain may follow any of these events the huge majority of men experiencing any or all of them do not suffer chronic scrotal pain afterwards and it is difficult or impossible to understand why the men who do get pain actually do so. In the past it would not be standard practice for a surgeon to warn patients undergoing surgery for inguinal hernias or intrascrotal pathology of the possibility of chronic scrotal pain as a post-operative complication. Bilateral vasectomy is an exception, where it has become common practice to warn of this possibility. However, with the changing philosophy of consent for surgery it must become the norm to warn all men about to undergo operations on the inguinal region or the scrotum of this possibility.

The exact cause of the pain may be impossible to elucidate. Clearly, if pathology is present in the scrotum this should be eliminated by appropriate treatment.
or surgery, but in many men no significant lesion can be found which could be deemed responsible for the pain.

Some men suffer chronic scrotal pain without any preceding intrascrotal or inguinal event and they have no obvious physical abnormality. These can be a completely baffling group of men for the clinician to manage and treatment may be extremely difficult and unrewarding.

The plan of management for a man presenting with scrotal pain is to take a careful history to see if there has been any previous problem or disease affecting the scrotal contents, followed by a careful physical examination to detect any inguinal or intrascrotal pathology. This physical examination is commonly backed up with an ultrasound scan of the scrotal contents to confirm the findings of the physical examination and to examine the internal anatomy of the testicle and epididymis, thus eliminating the unusual possibility of malignancy being the cause of the pain.

If pathology is detected the clinician must decide whether that pathology is likely to be the cause of the pain. If it is thought to be the cause, treatment aimed at elimination of the pathology should be instituted. However, pathology such as benign cysts of the scrotal contents, or an idiopathic hydrocele, may well not be a cause of pain and the clinician must be cautious in recommending surgery for these conditions in a man with long-standing scrotal pain. Far too many such men continue to get pain even after these simple lesions have been eliminated. A varicocele may cause chronic scrotal pain and it may be reasonable to treat this lesion surgically if the pain can be localised clearly to that side of the scrotum.

It is commonplace for men with scrotal pain to be found to have tenderness, often of the epididymis. This may lead to an incorrect diagnosis of epididymitis being made and antibiotic treatment being instituted. This is unlikely to be effective.

If physical examination and ultrasound investigation reveal no underlying pathology as a possible cause of the chronic pain the clinician may be in considerable difficulty in offering a logical treatment. Be very cautious about recommending epididymectomy, as it probably will not relieve the pain. There are also many examples of epididymectomy not only failing to improve the pain, but also producing ischaemia of the testicle by interfering with its blood supply during an injudicious operation. A good rule then is to do nothing – to confine one's management to reassurance that no sinister underlying pathology has been detected, a change of underwear from supportive to loose, or the reverse, and reassurance that no harm will come in the long term. Surgery may well not be helpful and there are well documented cases of men in whom ablative surgery to the nerves of the cord and testicle, excision of the epididymis or even removal of the testicle with all its adnexae has not relieved the pain.

This condition is notoriously difficult to manage. The problem is that the actual cause of the pain cannot be elucidated. Investigation often proves useless. Very often these patients have seen numerous doctors: each doctor assesses the previous diagnosis and treatments: since the patient still has
symptoms, they must have been wrong: more tests get done, some of them inappropriate: a new diagnosis is assigned: a new treatment is instituted: symptoms persist: the patient becomes increasingly dissatisfied with his medical care. It is a depressing scenario for patient and physician alike. There is little evidence that any specific treatment of this condition is more effective than another. Antibiotics give inconsistent results. A wide variety of pharmacological agents have been used to provide symptomatic relief, but no well designed studies have examined the use of these medications and it is difficult therefore to recommend their use. The surgeon is tempted to intervene, but each intervention is liable to fail.

Men with chronic scrotal pain may have loss of libido and associated psychosexual problems. These problems should be recognised and managed by referral to an appropriate psychosexual counsellor or psychiatrist. Similarly other psychiatric problems can occur such as chronic anxiety states or depressive illness, which may be factors in the development of chronic scrotal pain or may arise as a result of the pain. These men need psychiatric help, not surgical treatment.

REFERENCES


FURTHER READING

The penis is usually an unobtrusive organ, but it has changed the course of history and is capable of causing many problems for the unwary urological surgeon. That very common 'minor' operation of circumcision leads the pack. We have no experience with the litigation problems offered by reconstructive surgery of the penis, but know that they are manifold.

SUMMARY

- Circumcision
- Rare causes of erectile dysfunction – delay in diagnosis of spinal tumour in a man presenting with erectile problems
- Problems related to Peyronie's disease.

CIRCUMCISION

We will not discuss any specific cases of circumcision because there is nothing particularly remarkable about each individual case, just a wealth of variations on a general theme. However, circumcision is a procedure that sometimes leads to problems and it is worth considering these problems in greater detail. The majority of such cases centre around the patient's disgruntlement with the cosmetic outcome of the operation or its effect on sexual function.

Circumcision can lead to problems out of all proportion to the complexity of the surgery involved in this seemingly minor procedure. In a Medical Defence Union analysis of settled claims in private sector urology over a 12 year period, circumcision resulted in the single biggest settlement of just over £1m, for a man who suffered severe damage to his penis from ischaemia and infection following the procedure.

This is clearly an extreme example, but litigious problems can arise as a consequence of a disparity between what the surgeon and the patient interpret as acceptable outcomes. Circumcision provides a good example for those
who argue that consent for minor procedures needs to be at least as detailed and lengthy as for major operations. The argument is that both surgeons and patients realise that problems may develop after major surgery, particularly where the patient is sick to begin with. The patient and their relatives may therefore be more accepting when such complications develop. Patients do not, however, expect complications to occur after minor surgery, even though every competent surgeon knows that such complications certainly can and do occur. The patient may interpret the development of complications as indicating sub-standard treatment. This is why it is so important to counsel patients and their relatives about the likely outcomes and complications of even minor procedures. You can save yourself an enormous amount of time, trouble and anxiety by remembering this.

Remember, the BAUS procedure specific consent forms are a baseline. Of course, as long as you stick to this baseline you will be able to defend yourself. However, you might wish to expand the level of detail in the way you consent patients by discussing additional potential problems that may occur after circumcision. Give the patient a realistic view of what they can expect following circumcision. Explain that the cosmetic appearance is not always perfect. This is particularly the case where the underlying pathology is balanitis xerotica obliterans. The marked fibrous reaction in this condition can lead to the development of dense adhesions between the foreskin and glans penis. This can make surgery technically difficult and can lead to a poor cosmetic result afterwards. Patients often think that the penis is going to be a thing of beauty after a circumcision. Warn the patient that this may not be the case.

The immediate post-operative period following circumcision can be unpleasant. In some cases post-operative discomfort or pain can be considerable. Warn the patient that this may be the case. Warn them also that bruising and swelling of the penis are common, and that these may get worse before they get better. It is much easier to reassure a patient that what they are experiencing is a normal post-operative event if you have already predicted the possible occurrence of that event.

Warn about post-operative complications such as bleeding. Many surgeons have had to take a patient back to the operating theatre after a ‘routine’ circumcision for post-operative bleeding.

Loss of sensation in the penis can lead to reduced enjoyment of sex. Some men, conversely, experience heightened sensation in the end of the penis, which can lead to increased sensitivity. This can make sexual intercourse uncomfortable. Fink and colleagues reviewed the effect of circumcision on erectile function, penile sensitivity and sexual activity and satisfaction in 123 circumcised adults. Two thirds of the men underwent circumcision for phimosis, 20% for balanitis and approximately 10% each for redundant foreskin, condyloma and elective circumcision. A number of scoring systems were used to quantify changes in erectile function, penile sensitivity and sexual activity and satisfaction. A statistically significant, slight reduction in erectile function was found together with a slight increase in sexual satisfaction. Some men
perceived loss of sensation in the glans as a problem, whereas others regarded this as beneficial because it prolonged intercourse. The decreased sensitivity may be due to cornification of the epithelium of the circumcised glans leading to desensitisation of sensory receptors. Overall just 62% of the patients were satisfied with having been circumcised. That means that 38% were not happy, perceiving a problem or difficulty as a result of the procedure. One patient stated that ‘I had been warned that I would lose sensitivity, but overall, I feel that I was not completely informed’. It seems that some individuals still don’t think you informed them adequately no matter how much you tell them. You can’t win them all!

The old aphorism that there is no such thing as minor surgery, only minor surgeons, may be trite, but it is apposite in the example of circumcision. Take the trouble and time to go through your list of possible outcomes, putting them into perspective, and then record the fact that you have done so. Then you can sleep easy!

ERECTILE DYSFUNCTION

We now report two cases of litigation, one related to erectile dysfunction and the other to the correction of Peyronie’s disease.

Case 1: Delay in diagnosis of a spinal tumour in man presenting with erectile dysfunction

A 45-year-old man presented to his GP with mid-thoracic back pain. He also reported some weakness in his right knee, such that this gave way at unexpected times. A musculoskeletal cause for the back pain was ascribed and analgesia and physiotherapy were given.

Over the course of the next few months the back pain became worse. He noticed that his legs started to ‘jump’. He developed pins and needles below the level of his nipples. Walking became more difficult. He noticed difficulty in achieving an erection. He also noticed a reduction in the force of his urinary flow and increasing constipation. The patient again consulted his GP. The problems with his legs was said to be ‘musculoskeletal’ in origin. No specific investigative or treatment recommendations were made.

The patient again consulted his GP 6 months after the onset of his back pain. He reported worsening erectile function, some incontinence of urine and some faecal incontinence. He was referred to a urologist.

He was seen by the urologist 2 months later. The patient remembers being kept waiting in what was obviously a busy urology outpatient clinic for 2 hours. The consultation, with a urology registrar, was brief. The patient remembered reporting all of the aforementioned symptoms. He stated that the urologist didn’t seem to take much notice of these symptoms. No examination
was performed. The urologist recommended sildenafil and organised urodynamic to assess the incontinence.

One month later he went into acute urinary retention. He was seen in his local Emergency Department, from where he was admitted under the care of the neurosurgeons. An MRI scan was done that same day and this demonstrated an extradural spinal tumour at T4. An emergency laminectomy was performed that evening and the tumour was excised. Histology revealed a meningioma.

The patient has been left with back pain. He suffers with constipation and has no sensation of bladder filling or fullness. He voids only very small volumes of urine and has to perform intermittent self-catheterisation six times a day in order to empty his bladder. He is unable to achieve a spontaneous erection. He achieves some degree of erection with sildenafil, but this is not adequate for penetrative intercourse.

The patient sued his GP and the urologist for failing to identify the cause of his problems as being due to a spinal tumour.

**Case 1: Learning points**

It is all too easy, in the context of a busy outpatient department with a long queue of patients waiting to be seen, to try to 'get through' the patients as quickly as possible. It is easy to assume that a case of erectile dysfunction is due to one of the straightforward, non-serious causes. It is easy to assume that a young man with urinary incontinence is a simple case of bladder overactivity. Clearly, however, one must be wary of making such assumptions. From time to time amongst the many cases of straightforward erectile dysfunction, a more serious cause is identified, just as from time to time in the ocean of lower tract urinary symptoms thought to be due to benign prostatic hypertrophy or simple bladder overactivity, a serious cause is found such as carcinoma in situ. Remember, erection is a neurovascular event, and therefore any disease or dysfunction affecting the brain, spinal cord, cavernosal and pudendal nerves can lead to loss of or impaired erections. Rare causes of erectile dysfunction and lower urinary tract symptoms include spinal cord tumour and intracerebral tumours. The courts will tend to take a dim view of the specialist who is ignorant of these rare, but important causes of serious pathology.

These rare causes of erectile dysfunction, particularly those with a neurogenic basis, usually present with additional symptoms such as back or buttock pain, pins and needles in the legs or buttocks and disorders of gait and weakness in the lower limbs (see Chapter 14). Patients may report very bizarre symptoms – loss of the sensation of orgasm, 'burning' sensations in the penis and perineum – and these bizarre symptoms have, in the past, been dismissed as those of the mad-man. In this respect it is worth reading the sad case reported by a patient in the *British Medical Journal* a few years ago, entitled 'Why a massive tumour went undetected'.

The patient reported in this case had a full house of symptoms. He even told his GP and the urologist that he had a sensory level (manifested in the presence of pins and needles below the level of his nipples), the symptom/sign
par excellence of spinal cord compression. One can only assume that the doctors involved were ignorant of the significance of this symptom and of the possibility of neurological causes of erectile dysfunction.

Case 2: Problems related to Peyronie’s disease

A 45-year-old man was referred to a urologist with a 12 month history of a bend in his penis on erection. A fibrous plaque was noted on the dorsum of the penis and a diagnosis of Peyronie’s disease was made. At review 6 months later the bend had become progressively worse such that it interfered with intercourse. The patient requested surgical correction. He underwent a Nesbit’s procedure 6 months later. At the time of the operation the surgeon produced an artificial erection in order to assess the degree of curvature. He also made a record in the operative note of the length of the penis, both prior to and after correction of the bend. The degree of shortening was approximately 0.5 cm.

The patient was reviewed in clinic 3 months later and he reported that his erections were now straight and that intercourse was satisfactory. However, over the course of the next 18 months the curvature in his erect penis recurred, although it was not as severe as previously, nor did it interfere with intercourse. The patient also complained of some loss of rigidity of erections, first noticing this approximately 9 months after the Nesbit’s procedure.

The patient subsequently sued the urologist, making a number of claims. He stated that the original procedure had not worked, that it had caused his penis to shorten by 3 inches and that it had caused him to become impotent.

Case 2. Learning points

Patients may have what you may regard as very curious expectations from an operation. This seems to be especially common with operations on the penis and to be particularly the case with operations for Peyronie’s disease. Be very clear what the operation is designed to do, and be equally clear what it will not do. Make sure that the patient understands that the operation is designed solely to correct the bend in the erect penis, thereby to make intercourse easier. Ensure that you make it clear that the straightening may not be perfect. Explain that the operation is not designed to improve the quality of erections, nor will it enhance penile sensation. Make sure you emphasise that it will involve some shortening of the erect penis. Record carefully what you tell the patient about the likely outcomes and complications of a procedure. It is not adequate to write ‘risks and complications explained’. You must be explicit in recording precisely what you said. In our experience of cases of surgical correction for Peyronie’s disease that have led to litigation, common allegations include failure to warn about reduction in penile length, problems with loss of sensation and loss of ability to get an erection, to ejaculate or to experience orgasm. You should specifically question the patient about any pre-existing problems with erection, ejaculation and orgasm and carefully document the answers to these questions.
Equally important is to record what the patient reports and what you observe on examination in the aftermath of the operation. Patients sometimes make fanciful allegations such as ‘the bend was worse after the operation than before’ or ‘it has stopped me being able to ejaculate’ or any number and variety of other weird and wonderful problems. Others state that the operation has completely ruined their sex life. The patient sometimes makes a decision to take legal action only some years after the operation has been done and before this time they may actually report that all is well, that they are able to achieve satisfactory intercourse and that they have no specific problems. Record all of this, for you may well be able to defend yourself against later allegations on the basis of your written records. In the case described here, when the patient was reviewed in clinic 3 months after the operation he reported that his erection was straight. Fortunately the doctor who reviewed him made a clear record that the patient had said this, so that when the patient denied that there had ever been any improvement in his penile curvature, there was clear evidence that this was not so. The doctor who reviewed the patient in clinic also made a note that he was having erections of normal strength. This record allowed the surgeon to defend himself against the allegation that the Nesbit’s operation had led to impotence, as did the operative note regarding the degree of shortening that had been created at the time of the operation.

The BAUS procedure specific consent form provides a useful summary of the important features that should be covered during the process of consent (Figure 13.1).

<table>
<thead>
<tr>
<th>Common</th>
</tr>
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<tbody>
<tr>
<td>● There is some shortening of penis</td>
</tr>
<tr>
<td>● Possible dissatisfaction with cosmetic or functional result</td>
</tr>
<tr>
<td>● Temporary swelling and bruising of penis and scrotum</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Occasional</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Circumcision is sometimes required as part of procedure</td>
</tr>
<tr>
<td>● No guarantee of total correction of bending</td>
</tr>
<tr>
<td>● Recurrence of curve at later time</td>
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<td>● Bleeding or infection requiring further treatment</td>
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<table>
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<tr>
<th>Rare</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Impotence or difficulty maintaining erections can occur afterwards</td>
</tr>
<tr>
<td>● Nerve injury with temporary or permanent numbness of penis</td>
</tr>
</tbody>
</table>

Alternative treatment: observation, drugs and other surgical approaches

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**Figure 13.1**

BAUS procedure specific consent form for Nesbit’s procedure.
REFERENCES


Cauda equina syndrome, that is the symptoms and signs of cauda equina compression, does not often present to the urological surgeon. However, when it does it may present a major problem in diagnosis and management, simply because the average urological surgeon may never have seen one before.

SUMMARY

- A case of cauda equina syndrome presenting to a urologist
- Cauda equina syndrome – anatomy, aetiology, pathophysiology, presentation and management
- Distinguishing neurological causes of lower urinary tract symptoms
- What to do next if you suspect cauda equina compression.

LOWER URINARY TRACT SYMPTOMS AND URINARY RETENTION DUE TO CAUDA EQUINA COMPRESSION

Cauda equina compression is a disproportionately common source of litigation when one considers that it is a relatively uncommon clinical problem. For example, of the incidents involving cauda equina compression notified to the Medical Defence Union, 65% have progressed to claims. This is more than 2.5 times the proportion of all UK cases which develop into claims. Furthermore, of those cases of cauda equina syndrome that have been finalised, almost 50% have resulted in payment of damages. This compares with about a third of all other UK claims resulting in payment of damages. The awards of damages for such cases also tend to be very high – in the order of £300,000. Add to this the monetary cost of the case, and the deficit for the medical defence organisation is substantial.

It is therefore worth knowing something about this condition, not only because of the financial implications, but, more importantly, because of the
severe disability the patient is left with if the problem is not diagnosed and treated promptly. We discuss this problem because, although rare, it provides many problems for the urological surgeon. A patient with cauda equina compression presents to the urologist with an acute onset of urinary symptoms. There is usually a concomitant history of back pain and constipation, but the urinary symptoms usually predominate and the other problems may get faded into the background. However, if the urologist recognises the combination of symptoms and acts in a timely and appropriate fashion the patient can be rescued from a devastating outcome of permanent urinary and faecal incontinence and, if the patient is a man, impotence.

In our experience (and in the experience of the MDU) most cases of cauda equina compression have involved orthopaedic surgeons or GPs as the primary defendants. The cases tend to centre round delayed or incorrect diagnosis. However, patients with cauda equina compression do occasionally present to urologists masquerading as a ‘simple’ case of lower urinary tract symptoms and they get missed.

CASE REPORT

A 40-year-old man was referred by his GP to a urologist with a history of difficulty in initiation of urination and a poor urinary flow. In his referral letter the GP specifically mentioned the recent onset of constipation and of back pain, commenting that this had become increasingly severe over the last 3 months. No neurological history was taken by the urologist, nor was a neurological examination performed. The post-void residual urine volume was noted to be 400 ml. Urodynamic studies showed slightly reduced bladder compliance. The patient was unable to void during the study. He was listed for a bladder neck incision. No other treatment options were offered.

Three weeks later the patient presented in acute urinary retention. He reported particularly severe back pain over the preceding fortnight, accompanied by shooting pains down both legs. The back pain was made worse by lying down. The patient reported worsening constipation. The clinical notes revealed that several members of the urology team were aware of this history of severe back pain and of constipation. Reference was made in the notes to the patient being ‘grossly neurologically normal’ on examination, but the nature and extent of this examination was not recorded in the notes. It was impossible to tell whether an attempt had been made to assess the presence or absence of a sensory level, nor to determine whether sacral sensation was present.

The patient was catheterised and underwent a bladder neck incision and TURP 2 days later. Less than 5 g of benign prostatic tissue was resected. The patient voided successfully after the catheter was removed.

Two weeks later the patient presented to the neurosurgeons with cauda equina compression. He underwent a lower thoracic and upper lumbar
laminectomy, and a large tumour, extending downwards from the conus and compressing the nerve roots of the cauda equina, was excised. He experienced post-operative urinary retention combined with dribbling incontinence. Urodynamic studies showed an areflexic bladder and as a consequence the patient was unable to void. A degree of sphincter weakness was also demonstrated. The patient was able to perform intermittent self-catheterisation to empty his bladder, but because of inter-catheter leakage he needed to wear a condom sheath. It was obvious from his urodynamics that the TURP had led to bladder neck incompetence.

The consultant urologist was subsequently sued by the patient and was found to have been negligent in failing to diagnose a case of cauda equina syndrome.

**Learning points from this case**

This case demonstrates a number of ‘errors’ which led to misdiagnosis and therefore mismanagement of a relatively young man presenting with lower urinary tract symptoms due to a cauda equina compression.

1. **A fundamental lack of knowledge of possible neurological causes of lower urinary tract symptoms**

Several doctors noted the symptoms of severe back pain and of constipation, and yet not one of them contemplated the possibility of a neurological basis for the patient’s urinary symptoms. The majority of patients we see have common conditions, which present in common ways. However, from time to time, rare conditions present with symptoms and signs which are wrongly attributed to a common condition. Quite obviously, if you do not know that cauda equina compression can lead to impairment of bladder and bowel function, you assume that these symptoms are due to some other condition. You develop an incorrect mental model that ‘explains’ the cause of a patient’s symptoms or signs. Experts in medical error would call such errors knowledge based failures – simply not knowing some fact that is relevant to making a diagnosis.

There is, of course, no substitute for knowledge and experience. Few urologists are walking textbooks of urological knowledge and none of us can hope to know all of the unusual presentations of every condition. However, we can try to develop a questioning approach to diagnosis – one which does not always assume that common symptoms are due to common conditions. Remember that you are a clinician, not a technician. If the patient’s symptoms and signs seem strange or unusual, be suspicious, look for other possible causes. Lack of knowledge is not a disaster, but failing to recognise that lack may be. Do not be afraid or embarrassed to ask for advice, or to discuss the case with colleagues. One of them may be the fountain of knowledge of the weird and the wonderful. You might even ask a physician!
2. Failure to take an adequate history and perform an adequate examination

Of course, in the absence of any knowledge of cauda equina syndrome, it is difficult to ask the correct questions and perform the appropriate examination that would lead to a diagnosis. However, there might have been some defence in this case if the nature and findings of the neurological examination had been recorded in the notes by the one doctor who did (or at least said he did) a neurological examination, when the patient presented with acute retention. If that doctor had noted that there was no sensory level and that perineal sensation was normal, then defence of the case might have been easier. But he did not. Precisely what ‘grossly normal neurologically’ means is open to interpretation, and clearly in this case the court felt that the evidence was that the examination had been inadequate.

3. Failure to pick up on clues in the GP referral letter

In this case, the GP specifically mentioned the patient’s symptoms of constipation and back pain – the information was, sadly, staring the urologists in the face! The GP had, presumably, attached some relevance to this. Although he too was uncertain of the significance of the constipation and back pain, the symptoms were clearly a prominent enough aspect of the patient’s history for them to be communicated in the referral letter.

CAUDA EQUINA SYNDROME – ANATOMY, AETIOLOGY, PATHOPHYSIOLOGY, PRESENTATION AND MANAGEMENT

We provide below a summary of cauda equina syndrome for those who are interested. This may seem a rather long winded description, but as missed cauda equina syndrome is an important source of litigation, and because it is not really covered that well in standard urology texts, we think that it is appropriate in a book of this type to include an in depth description of its aetiology, pathophysiology, presenting symptoms, signs and subsequent management.

**Anatomy.** During development, the spinal cord and vertebral column grow at disproportionate rates, the vertebral column growing more rapidly than the spinal cord. Spinal nerves exit the vertebral column at progressively more oblique angles due to the increasing distance between the spinal cord segments and the corresponding vertebrae. Lumbar and sacral nerves travel nearly vertically down the spinal canal to reach their exiting foramen. The spinal cord tapers to an end near the first lumbar vertebra, and this conical, tapered end is called the conus medullaris (or simply the conus). The fibrous distal extension of the cord is known as the filum terminale. The bundle of nerve roots in the subarachnoid space distal to the conus medullaris is known as the cauda equina.
Pathophysiology. Cauda equina syndrome refers to the simultaneous compression of multiple lumbar nerve roots below the level of the conus medullaris, resulting in a characteristic pattern of neuromuscular, urogenital and rectal symptoms. It may be due to traumatic injury, intervertebral disc herniation, spinal stenosis, spinal neoplasm, schwannomas, ependymomas, inflammatory conditions, infectious conditions, and iatrogenic causes.

Definition. Cauda equina syndrome is defined as the syndrome of low back pain, sciatica (unilateral or bilateral pains which shoot downwards in the distribution of the sciatic nerve), saddle anaesthesia, motor weakness in the legs leading ultimately to paraplegia, with rectal and urinary incontinence and loss of sexual function.

Cauda equina compression thus leads to a disturbance of locomotor, sensory, urinary and rectal function. The time of onset of the syndrome is generally taken to be the time of onset of symptoms and/or signs of disturbed urinary and rectal function. Thus, the patient with a prolapsed intervertebral disc with back pain, sciatica, numbness and tingling and weakness in the distribution of various roots of the sciatic nerve does not have a cauda equina syndrome until he develops urinary or rectal symptoms.

These symptoms include:

- Altered urethral sensation (ask the patient if they can feel urine passing down the urethra and if not ask them when they know they have stopped micturating – the answer will be ‘when I hear the urine flow stop’)
- Loss of desire to void
- Hesitancy and poor urinary flow
- Loss of sensation of bladder fullness (do you know when your bladder is full)
- Feeling of retention or incomplete voiding
- Need to strain to void
- Perirectal numbness
- Loss of rectal control
- Inability to differentiate between faeces and flatus (due to altered anal sensitivity)
- Loss of ability to achieve or maintain an erection
- Loss of sensation of orgasm.

Only 2% of people with prolapsed (herniated) intervertebral discs develop cauda equina syndrome, so it is a rare problem. Of those herniated discs that do lead to cauda equina syndrome, 70% occur in patients with a history of chronic low back pain and 30% develop cauda equina syndrome as the first symptom of lumbar disc herniation. Males in the fourth and fifth decades of life are most prone to cauda equina syndrome secondary to disc herniation. Cauda equina syndrome can also be caused by primary or metastatic spinal neoplasms, in men most commonly the prostate, and the great majority of such cases usually have a history of severe back pain.
Spinal cord and cauda equina compression caused by a tumour or a large central disc prolapse are uncommon secondary causes of bladder neck obstruction. Poor urinary flow and subsequent urinary retention occur as a consequence of detrusor areflexia (due to damage to the parasympathetic innervation of the detrusor) and increased urethral resistance (due to unimpeded sympathetic innervation of the bladder neck, producing a competent, non-relaxing bladder neck which leads to bladder neck obstruction). Continence is retained because of the maintenance of bladder neck innervation.2,3

Clearly, the great majority of men with lower urinary tract symptoms have an underlying benign cause, such as benign prostatic hypertrophy. However, for the reasons stated in the preceding paragraph, lower urinary tract symptoms can occur in spinal cord and cauda equina compression caused by a tumour or large central disc prolapse. For this reason urologists need to be aware of the clinical entity of cauda equina syndrome.

DISTINGUISHING NEUROLOGICAL CAUSES OF LOWER URINARY TRACT SYMPTOMS

What clues suggest a possible neurological cause of lower urinary tract symptoms? How can a neurological cause be identified in an ‘ocean of benign prostatic hyperplasia’.

History

Age
The patient in this case was young. This goes very much against a diagnosis of benign prostatic hyperplasia, though the symptoms could have been due to bladder neck obstruction.

Bladder neck obstruction as a cause of urinary retention
Bladder neck obstruction can certainly cause lower urinary tract symptoms in younger men, but it only very rarely leads to urinary retention. Urinary retention in young men, and in particular in young women, suggests an unusual cause. Think neurological in such cases.

Back pain, sciatica, constipation
Spinal cord and cauda equina compression caused by a tumour or large central disc prolapse are usually associated with back pain (often superimposed on a background of chronic or recurrent episodes of pain), sciatica and constipation. Radiation of pain to the legs (sciatica) is usually, but not always,
bilateral. The pain may be described as 'shooting' down the legs, as 'sharp' or may be accompanied by 'pins and needles' in the legs. Pain of this nature (so-called 'radicular' pain, i.e. pain which is in a dermatomal distribution) is very suggestive of nerve root compression or epidural irritation by a space occupying lesion, such as a tumour or prolapsed disc.\(^4\)

The nature of the back pain sometimes suggests a possible neurological cause. Pain which is worse on lying down and relieved by sitting in a chair or pacing around the room is said to be characteristic of spinal ependymomas.\(^5\),\(^6\) The back pain often becomes very severe as the cauda equina compression is reaching a critical stage. However, beware also the patient whose back pain seems to improve with bed rest and analgesics. The pain may subside as pain nerve fibres die (due to compression by a herniated disc or tumour, for example), but all the while the bladder and bowel may be undergoing progressive denervation. Ask specifically about altered perineal sensation (saddle anaesthesia, pins and needles). If such symptoms are still present, this is an indication that cauda equina compression is still present.

The Agency for Healthcare Research and Quality (formerly known as The Agency for Health Care Policy and Research) in the United States has published recommendations for the assessment of acute low back problems in adults.\(^7\) So-called ‘red flag’ symptoms and signs should raise the suspicion of serious underlying spinal conditions (Table 14.1). It is worthwhile for the urologist to know of such red flags, for lower urinary tract symptoms and back pain often co-exist. Knowledge of the ‘red flags’ allows the serious and unusual causes of lower urinary tract symptoms in a patient with back pain to be distinguished from those without serious causes.

### Table 14.1 The Agency for Healthcare Research and Quality: Recommendations for the assessment of acute low back problems in adults. ‘Red flags’ on history taking in patients with back pain.\(^7\)

- Saddle anaesthesia
- Recent onset of bladder dysfunction, such as urinary retention, increased frequency or overflow incontinence
- Severe or progressive neurological deficit in the lower extremity
- Age over 50 or under 20
- History of cancer
- Major trauma, such as vehicle accident or fall from height
- Minor trauma or even strenuous lifting in older or potentially osteoporotic patient
- Constitutional symptoms, such as recent fever or chills or unexplained weight loss
- Risk factors for spinal infection: recent bacterial infection (e.g. urinary tract infection), IV drug abuse or immune suppression (from steroids, transplant or HIV)
- Pain that worsens when supine; severe night-time pain
Other associated symptoms suggestive of a neurological cause for lower urinary tract symptoms

Leg weakness or sensory disturbance in the legs often occurs in cauda equina syndrome, but it may be completely absent. Decreased urethral sensation; ‘burning’ or ‘tingling’ sensations in the genital or perineal region; loss of the sensation of orgasm. Such symptoms are, on the face of it, so bizarre that they may be dismissed as the ‘psychosomatic’ symptoms of the madman.

Make the diagnosis at the symptomatic stage

In spinal cord and cauda equina compression caused by a tumour or large central disc prolapse, symptoms precede signs, often by weeks or months. Only late in the day is bladder and bowel function affected to such a degree that urinary retention and absolute constipation occur. It is at this purely symptomatic stage (when the patient has lower urinary tract symptoms, back pain and constipation, but is not in absolute retention or absolute constipation) that the patient has the greatest chance of making a full neurological recovery after laminectomy and decompression. There is, therefore, a window of opportunity (of weeks or months) during which the diagnosis may be made and successful treatment given. By the time the patient presents with urinary retention and absolute constipation, nerve function has reached a critical point and within 48 hours it will be irreversibly impaired.

Examination

Again it takes just a few minutes to perform a focused neurological examination in patients with lower urinary tract symptoms. Clearly, where there is a history of back pain, sciatica or constipation, your suspicions will have been aroused. Remember, however, that a normal neurological examination does not exclude a cauda equina compression.

Your neurological examination should focus on:

- The presence/absence of a sensory level (run your finger from the toes up to the xiphisternum and enquire for altered sensation)
- The presence/absence of sensation in the region of skin overlying the coccyx (pericoccygeal and perineal sensation are subserved by spinal nerve roots S2–4 and their absence is described as ‘saddle anaesthesia’). Altered perineal sensation in cauda equina compression is usually, but not always, bilateral and may manifest as perineal pins and needles or full blown saddle anaesthesia
- The presence/absence of the bulbocavernosus reflex. This can be tested by squeezing the glans penis while performing a rectal examination. Contraction of the anus indicates an intact (positive) bulbocavernosus reflex and is an indication that the patient has an intact neural pathway from the sensory roots of S2–4, via the spinal cord and to the ventral (motor) roots.
For a patient with severe back pain, particularly where they are confined to bed, the movement involved during a neurological examination of the limbs and perineal region can be distressing. The compassionate doctor will naturally try to avoid hurting the patient and may, as a consequence, abstain from carrying out a full neurological examination. Remember, however, if you fail to diagnose a cauda equina syndrome because of an incomplete neurological examination, and the patient subsequently has permanent bladder, bowel and erectile dysfunction, they may not reciprocate your compassion and may well decide to sue you for damages!

WHAT TO DO NEXT IF YOU SUSPECT CAUDA EQUINA COMPRESSION

Arrange an MRI scan as a matter of urgency, by which we mean immediately. Not tomorrow. Today! Full neurological recovery becomes far less likely where decompression takes place beyond 48 hours of the onset of symptoms or signs of cauda equina syndrome. There is recent evidence that the prognosis is better with decompression within 24 hours of the onset of symptoms when compared with 24–48 hours after onset of symptoms of cauda equina syndrome.

Ideally the consultant urologist should communicate directly with the consultant radiologist. Be specific in your requests. Explain to your radiologist that you have a case of suspected cauda equina syndrome. We have a radiological on-call rota for the investigation of suspected cauda equina compression – an indication of the urgency with which such cases should be scanned. Avoid delegating the task of the radiology request to the house officer on the first day of his or her job, who may not appreciate the urgency of the situation and whose requests for a scan may not carry the same weight as you, the consultant.

Make contact with your neurosurgical team earlier rather than later (again consultant to consultant communication is always more effective). Forewarn the neurosurgeons that you may have a patient with a cauda equina syndrome who may require emergency laminectomy. In the cases we have reviewed, the neurosurgeons have always taken these requests seriously and have operated on the patient within a matter of 24 hours or so.

Remember that often a substantial amount of time within this 48 hour window of opportunity – from the onset of symptoms to definitive surgical treatment – is taken up by the time taken to get to hospital, to undergo clinical assessment, for an MRI scan to be arranged and for an anaesthetist and neurosurgeon to be in a position to operate.

Inevitably you will end up doing the occasional unnecessary MRI scan, but every now and again you will pick up a spinal tumour or a large central disc prolapse, and both the patient and you will be eternally grateful for your caution. It is better to do too many MRIs, than to do too few and miss a case of cauda equina compression.
REFERENCES

In this chapter we discuss a variety of problems that are related to general complications of surgery in general, which are related here to urological surgery in particular. These include post-operative infection, thromboembolic problems and complications related to patient positioning (such as compartment syndromes) and the use of retractors (such as femoral neuropathy). Ulnar nerve palsy due to pressure on the ulnar nerve during surgery is a regular cause of litigation, albeit usually against anaesthetists. Make sure your anaesthetist takes care to prevent this unnecessary injury.

**SUMMARY**

- Complications related to patient positioning and the use of retractors – femoral neuropathy due to use of a self-retaining retractor; compartment syndrome
- Death due to a pulmonary embolus; pulmonary embolism after ‘minor’ surgery
- Infective problems leading to litigation – infective endocarditis following transurethral resection of the prostate
- Retained bits of instruments, catheters and drains
- Failure of endoscopic instruments during use.

**COMPLICATIONS RELATED TO PATIENT POSITIONING AND THE USE OF RETRACTORS**

**A case of femoral neuropathy due to use of a self-retaining retractor**

A 64-year-old man underwent a cystectomy for muscle invasive transitional cell carcinoma of the bladder. The procedure was carried out through a long
midline incision. A self-retaining retractor was used throughout the operation to maintain access to the pelvis and abdominal contents. On waking the patient complained of marked paraesthesia involving the anterior aspects of both thighs. On examination he had numbness over the anterior aspect of both thighs, marked weakness of hip flexion and knee extension and his patellar reflexes was absent bilaterally. He was unable to stand – and therefore could not mobilise – for 2 weeks post-operatively. It took 6 months for him to regain full power and to lose the sensation of pins and needles in his legs.

**Learning points**

This relatively uncommon problem can be a source of litigation, and a completely avoidable one at that. There is nothing particularly exciting about the cases themselves. The surgery seems to proceed without event. The surgeon performs a technically sound procedure, but the patient cannot walk afterwards!

Such cases are very difficult to defend. The complication is uncommon, but the literature is full of examples of its occurrence. Femoral neuropathy has been described after a range of procedures including hysterectomy, renal transplantation, cystectomy, vascular procedures, abdominal rectopexy and colorectal surgery. Direct pressure on the femoral nerve (or its blood supply) as it exits from the body of psoas major is the mechanism of injury. The nerve can be compressed against the bone of the lateral pelvic side-wall and this results in a neuropraxia. Recovery usually occurs, though this may take many months.

The surgeon in such cases tends to react to being sued with hurt indignation. ‘I wasn’t aware that this complication could occur with this type of retractor’ is the usual excuse. But as any lawyer will tell you, not being aware that something is illegal, doesn’t make it legal. The complication thus arises out of ignorance.

It can be avoided by careful positioning of the blades of the retractor, which of course requires a knowledge of the location of the femoral nerve in the retroperitoneum and on the pelvic side-wall.

**Figure 15.1** demonstrates the course of the femoral nerve. Its nerve roots (L2, 3, 4) join together to form the femoral nerve, which emerges from the anterolateral aspect of psoas major, just below the level of the false pelvic brim. It descends in the groove between iliacus and psoas major, deep to the iliacus fascia, and then passes beneath the inguinal ligament and into the thigh. As Hall et al. have stated, ‘It is important for urologists to be aware of the cause and preventative measures for this complication. Careful placement of the self-retaining retractor blades is the key factor for prevention’. Burnett and Brendler state that ‘after positioning of a self-retaining retractor, the surgeon should insert the fingers beneath the retractor blades bilaterally to be sure that there is clearance between the ends of the retractor and the psoas muscle. The spermatic cords should not be retracted and should be visualized below the lateral edges of the retractor, further ensuring that the psoas muscles and underlying femoral nerves are not being compressed’. Thus, femoral neuropathy can be avoided by simply lifting the retractor blades off the psoas muscles.
Figure 15.1
The course of the femoral nerve.
Remember that there are other structures that may be injured or compressed by the blades of your retractor. Much easier than damaging the femoral nerve with the blades of the self-retaining retractor is to compress the external iliac vein against the pelvic side-wall. If you are lucky enough not to tear the vein, the patient may be unlucky enough to develop a DVT. Just be careful when placing the blades of the retractor.

While on the subject of nerve damage, other nerves may be damaged within the abdomen during urological procedures (Figure 15.2). Remember the course of the lateral (femoral) cutaneous nerve of the thigh, which supplies an area of skin over the upper, outer aspect of the thigh. It is vulnerable to damage from the blades of retractors as it courses around the inner surface of the ilium on its ways towards the inguinal ligament at the latter's origin from the anterior superior iliac spine.

The genitofemoral nerve may be damaged during a psoas hitch procedure, since it lies on the belly of psoas major. If the nerve is caught within one of the hitch stitches the patient may complain either of loss of sensation in the skin overlying the hemi-scrotum or labia or may develop chronic pain in this location. The femoral nerve may also be damaged by placement of hitch stitches deep into the psoas major (if the psoas minor tendon, the usual site for the stitches, is absent). For the patient undergoing the psoas hitch due to an

![Figure 15.2](image)

*Figure 15.2*
Some of the ‘at risk’ nerves during urological surgical procedures.
iatrogenic ureteric injury, damaging the femoral or genitofemoral nerve really would be a double whammy!

Acute flexion of the thigh against the abdomen can lead to obturator nerve compression, with paralysis of thigh abduction. Similarly, acute flexion of the thigh can compress the femoral nerve against the pubic ramus. Positioning a patient in what one might call a ‘deep’ lithotomy position carries these risks. Take care to avoid pressure on the saphenous nerve against leg supports and of the common peroneal nerve as its loops around the head of the fibula.

Be aware also of the possibility of nerve palsies in the upper limb related to patient positioning. These can occur when the arm is abducted by as little as 90° for a lengthy procedure (Figure 15.3). We have certainly seen an ulnar nerve palsy in a patient following a cystectomy, whose arm was in 90° of abduction for approximately 4 hours. The patient awoke with severe pain and pins and needles in his little and ring fingers and hypothenar eminence, and for the following 2 weeks of his post-operative recovery this was his major

Figure 15.3
The ulnar nerve is vulnerable to a traction injury even with relatively limited abduction of the arm.
concern. We took the problem seriously. We explained why we thought it had occurred, apologised (on numerous occasions) for his discomfort, arranged a neurosurgical review and responded sympathetically to this unpleasant problem. We believe this approach prevented litigation. The neurosurgeons suggested that spontaneous resolution would occur and thankfully his symptoms did resolve, but it took 2 years for a full recovery.

COMPARTMENT SYNDROME

Fortunately we have not been involved with any cases of compartment syndrome that have led to litigation. However, it is worth discussing this condition because it is relatively rare and because failure to appreciate the significance of the symptoms and signs with which it is associated can have a devastating effect. Though rare, compartment syndrome certainly does occur in the context of urological surgery. Indeed, one of our colleagues told us of such a case that developed after a cystectomy, which because of his knowledge of the condition was very promptly diagnosed and treated by fasciotomy, so averting litigation.

Acute limb compartment syndrome is characterised by raised pressure within an unyielding osteofascial compartment, which, if sustained, reduces capillary perfusion below a level necessary for tissue viability, and as a consequence leads to irreversible muscle and nerve damage. Prompt decompression of the affected compartment(s) by fasciotomy is necessary in order to prevent irreversible ischaemic necrosis of the muscles and nerves of the compartment. It is classically caused by trauma to a limb, revascularisation after a period of ischaemia, burns or exercise, but it is also well described in the leg in association with the lithotomy position. For this reason, urologists should be aware of its existence, clinical presentation and treatment, and of course should know how to avoid it in the first place.

Any factor which induces ischaemia in the leg can lead to a compartment syndrome. Ischaemia disrupts the integrity of the vascular endothelium, leading to fluid shifts into the extracellular tissue space with a consequent rise in tissue pressure. Lower limb compartment syndrome occurs with a frequency in the order of 1 in 3500 in association with the lithotomy position.\(^9\) The lithotomy position causes ischaemia in the leg by the following mechanisms:

1. Reduction in hydrostatic perfusion pressure. Every 1 cm elevation of the limb above the heart reduces mean arteriolar pressure by 1 mmHg and causes a measurable reduction in ankle–brachial pressure index. This reduction in perfusion pressure is compounded by the head down/legs up position (a combination of the lithotomy and Trendelenburg positions).\(^10\)
2. Compression of the calf against leg rests. This can occlude both venous drainage and arterial flow.
3. Knee and hip flexion can compress blood vessels.
4. Dorsiflexion of the foot places the muscles in the posterior compartments under tension, and this causes an increase in pressure within the calf.

As compartment pressure rises, the lumen of arterioles is eventually occluded. A vicious cycle of ischaemia sets in. When the limb is returned to the supine position, a reperfusion injury can cause a further rise in compartment pressure.

**Presentation and treatment**

The classic presentation is with pain and paraesthesia in the leg. The pain is typically out of all proportion to the injury and to the physical signs. Passive stretching of the affected muscles exacerbates the pain. In the case mentioned above following a cystectomy, the patient did not complain of any pain in his abdomen or perineum, despite the fact that he had just had his bladder and urethra removed via a long midline abdominal and a perineal incision. He did however report very severe pain in his leg, which neither an epidural anaesthetic nor large doses of intravenous opiates were able to control.

Sensory loss in the distribution of the nerves traversing the affected compartments may be a useful early sign.

The skin may be pink and peripheral pulses may still be present. It is possible to measure compartment pressures, but the equipment for doing this and expertise in recording and interpreting the pressures so measured are not always readily available. A high index of suspicion is therefore required to make a clinical diagnosis.

The mainstay of treatment is decompression of the affected compartment by a fasciotomy. Ideally such a procedure should be carried out by an expert (orthopaedic, vascular or plastic surgeon). However, if this is not available at short notice, the urologist will have to proceed with fasciotomy, relying on his anatomical knowledge to avoid damage to structures such as the common peroneal nerve. A two incision technique, endorsed by the British Association of Plastic Surgeons and the British Orthopaedic Association, should be used. The longitudinal incisions are located on either side of the subcutaneous border of the tibia (Figure 15.4). A medial longitudinal skin incision 1–2 cm posterior to the medial border of the tibia is used to decompress the superficial and deep posterior compartments (beware the posterior tibial neurovascular bundle which lies just deep to the investing fascia of the deep posterior compartment). A second longitudinal incision 2 cm lateral to the anterior tibial border is used to decompress the anterior and peroneal compartments (ensure that the peroneal tendons are not exposed by extending the incision too far distally).

**Prevention**

So, try to avoid the conditions that predispose to compartment syndrome. If the patient is placed in the lithotomy position, try to use a low lithotomy as opposed to a high or exaggerated one. This minimises the reduction in hydrostatic perfusion pressure that occurs with elevation of the limb above the
heart. Similarly, try to avoid the Trendelenburg position (head down), again because this reduces perfusion pressure to the limb. Allen stirrups are said to cause less elevation of calf pressure than calf supports. Avoid dorsiflexion of the ankle (this elevates calf compartment pressure). Ensure that the anaesthetist maintains normovolaemia and blood pressure. The major factor determining the likelihood of development of a lower limb compartment syndrome is time spent in the lithotomy position. For long procedures (>4 hours) consider lowering the legs from the elevated position for a short while, to enhance tissue perfusion. If you plan to do a urethrectomy during a cystectomy, keep the patient’s legs flat until you are at the stage of doing the urethrectomy. Place the legs up only at this stage and lower them as soon as the perineal wound is closed and dressed. Record that you did this in the operative note.

**PULMONARY EMBOLISM**

**Case 1: Death due to pulmonary embolus**

A 75-year-old man was admitted for a percutaneous nephrolithotomy for a staghorn calculus. He had a history of mild heart failure and was moderately
obese. He was fitted with above knee thromboembolic prevention stockings. The majority of the stone was removed via a single lower pole access track and it was decided to treat the residual fragments by ESWL. A 24 Ch Malecot catheter was inserted at the end of the operation.

At the end of the operation it became apparent that there was considerable bleeding through the nephrostomy tube. This was clamped and the patient was sent to the recovery room. He remained tachycardic. His blood pressure started to fall and he therefore proceeded to an emergency CT scan which showed a very large retroperitoneal haematoma. An emergency angiogram was performed and showed an arteriovenous fistula which communicated with the retroperitoneal haematoma. The artery feeding into the AV fistula was embolised with metal coils. The patient's pulse came down and his blood pressure normalised.

Post-operatively he returned to the ward where he was slow to mobilise. It was decided to avoid the use of subcutaneous heparin because of the episode of haemorrhage. Ten days later he was discharged.

Within a few days of returning home he developed breathlessness. His wife called the urology ward from where he had been recently discharged. She was told that the breathlessness was unlikely to be related to his recent surgery and that she should contact her husband's GP for advice. The GP visited and heard some basal consolidation on one side. He prescribed antibiotics. The breathlessness worsened. The patient's wife again called the urology ward and was again told by a specialist nurse that the problem was unlikely to be due to the recent surgery. Again she was told to call the GP.

Two days later the patient was admitted to the Accident and Emergency Department. He died within an hour of admission. A post-mortem revealed a massive pulmonary embolus.

The patient's wife sued the urologist claiming that inadequate DVT prophylaxis had been used post-operatively and that the urology team had failed to act upon the symptom of breathlessness.

**Case 1: Learning points**

1. **DVT prophylaxis.**

A House of Commons Select Committee with the brief to examine prevention of venous thromboembolism was convened in 2005. It has estimated that deep venous thrombosis occurring in hospitalised patients and leading to pulmonary embolus accounts for approximately 25,000 deaths per year in the UK (more than the combined deaths from breast cancer, AIDS and road traffic accidents). Many of these patients have non-surgical conditions, but many have recently undergone major surgery. Eight out of every 1000 patients undergoing major surgery die as a consequence of pulmonary embolus. Seven of these eight deaths could be prevented by the use of low dose heparin. This report, which can be accessed online, is well worth reading. The prevention of deep venous thrombosis and pulmonary embolism in patients following major surgery should be a subject of great interest to surgeons.
The National Institute for Clinical Excellence (NICE) in the UK has been commissioned by The Department of Health to produce a set of guidelines designed to prevent VTE and these preventative measures are due to be published in May 2007. In the meantime there are excellent guidelines on antithrombotic and thrombolytic therapy produced by The American College of Chest Physicians (ACCP). These are currently the most comprehensive evidence based review of all aspects of thromboembolic disease prevention and treatment. The seventh guidelines were published in September 2004. For urological surgery the guidelines have not changed in any substantial way from the time when the case described above occurred. It would be difficult to criticise any surgeon who based his or her DVT and pulmonary embolus prevention policy on these guidelines.

Minor surgery is defined by these guidelines as any procedure taking less than 30 minutes and major surgery as any procedure taking more than 30 minutes. The ACCP guidelines categorise patients into three groups according to their risk of venous thromboembolic disease and make recommendations on the required degree of DVT prophylaxis (Table 15.1).

The patient described was aged 75, undergoing major surgery (surgery lasting >30 minutes), had mild heart failure and was moderately obese. He thus fell into the high risk category for risk of DVT and pulmonary embolus according to the ACCP guidelines. He was appropriately fitted with elastic thromboembolism stockings. His doctors understandably wished to avoid the use of subcutaneous heparin given his problems with bleeding at the time of the PCNL. Given his high risk status it would have been sensible to have considered the use of intermittent pneumatic compression stockings, which at least could have been applied until he was well enough to mobilise around the ward. He might still have developed a DVT and pulmonary embolus, even despite the use of intermittent pneumatic compression stockings, but it would have been difficult to criticise a DVT prevention strategy that included both elastic thromboembolism stockings and intermittent pneumatic compression stockings.

2. Take patient's concerns seriously
We all know that surgery is associated with a risk of deep venous thrombosis and pulmonary embolus. We all know that elderly patients who have just undergone major surgery and who are slow to mobilise post-operatively are at increased risk of venous thromboembolic disease, when compared with young patients undergoing minor surgery who mobilise early. We all know that pulmonary embolus is a potentially fatal condition. And we all know that one of the symptoms of a pulmonary embolus is breathlessness.

So, was it possible that this patient's post-operative breathlessness could conceivably have been due to a pulmonary embolus? Yes, of course, and the post-mortem confirmed that this was so. Was it reasonable to tell the patient's wife that his post-operative breathlessness was unlikely to be related to his recent surgery? No, it was not reasonable. Could more effort have been made to help the patient and his wife? Was the patient's wife given any indication of the potential seriousness of post-operative breathlessness? Most of us would
regard the possibility of a pulmonary embolus as a very serious problem, a life-threatening problem. A suspected pulmonary embolus warrants timely investigation with a CT pulmonary angiogram (CTPA) and, while the diagnosis is being confirmed or refuted, anti-coagulant therapy in the form of intravenous heparin or a high dose, low molecular weight heparin. When a patient complains of breathlessness post-operatively it is not appropriate to get a CTPA next week. Organise a CTPA that day. Do not wait to start treatment – assume the patient has a pulmonary embolus and start treatment until the result of the CTPA is known.

If a patient telephones the ward after discharge because of a problem, the problem may in some cases be completely unrelated to the surgery you have recently carried out on them. However, on the balance of probabilities, the problem is probably related to that operation. The best people for sorting this problem out are those who deal with post-operative problems on a regular basis – that’s you! Do not fob the patient off. Do not bury your head in the

<table>
<thead>
<tr>
<th>Table 15.1 Recommended DVT prophylaxis relative to risk category for patients undergoing surgical procedures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk category</strong></td>
<td><strong>Recommended DVT prophylaxis</strong></td>
</tr>
<tr>
<td>Low risk – minor* surgery, (&lt;40) years old, no additional risk factors#</td>
<td>No specific measures for endoscopic procedures, e.g. cystoscopy, JJ stent insertion Elastic thromboembolism stockings for minor open surgery, e.g. scrotal surgery (e.g. orchidopexy, hydrocele repair), penile surgery (e.g. circumcision)</td>
</tr>
<tr>
<td>Moderate risk – minor or major* surgery in patients aged (40-60) years with no additional risk factors or major surgery, (&lt;40) years old with no additional risk factors or minor surgery in those with additional risk factors</td>
<td>Elastic thromboembolism stockings or subcutaneous unfractionated heparin 5000 units bd started 2 hours preoperatively or intermittent pneumatic compression stockings</td>
</tr>
<tr>
<td>High risk – major surgery in patients (&gt;60) years old or major surgery in patients aged (40-60) with additional risk factors</td>
<td>Elastic thromboembolism stockings + subcutaneous unfractionated heparin 5000 units tds started 2 hours preoperatively or intermittent pneumatic compression stockings</td>
</tr>
</tbody>
</table>

*Minor surgery is defined by these guidelines as any procedure taking less than 30 minutes and major surgery as any procedure taking more than 30 minutes.

#Additional risk factors include any of the following – diagnosis of cancer, previous DVT or PE, obesity, varicose veins, heart failure, oestrogen use (including HRT), hypercoagulable states.
sand. Get the patient to return to the ward. Examine them. Reassure them if there is nothing untoward, but if they could have a serious problem, sort it out for them. Your obvious concern may be all that is needed to avoid the possibility of litigation. Record this examination and its conclusions in the records.

It is possible that the patient might have died from a pulmonary embolus even if this had been diagnosed and treated in a timely fashion. However, had the patient been readmitted, investigated appropriately and commenced on treatment the urology team would have demonstrated to the patient and his wife an appropriate level of concern. This alone might have been all that was necessary to avoid the case ending up in the hands of the lawyers.

**Case 2: Pulmonary embolism after ‘minor’ surgery**

A 45-year-old man was admitted for a vasectomy reversal. This was done under general anaesthetic. The total operation time, recorded on the anaesthetic chart, was just under 2 hours. No TED stockings were fitted. No subcutaneous heparin was administered and intermittent pneumatic compression boots were not applied during the operation. The patient was discharged from hospital the following day.

Ten days later the patient developed a cough, pleuritic chest pain and had an episode of haemoptysis. By chance he was due to see the surgeon who had operated on him the following day. At this consultation he mentioned the above symptoms. The surgeon prescribed some antibiotics, having made a presumptive diagnosis of a chest infection. His clinical note was brief and included no examination of the patient.

The pleuritic chest pain, the cough and the haemoptysis became worse over the next few days. He then collapsed at home and was admitted to a local hospital with tachycardia and hypotension. A CTPA demonstrated a pulmonary embolus. The patient required supportive treatment on ITU for 1 week. He was anti-coagulated with warfarin for 6 months.

He sued the urologist, claiming firstly that he had received no venous thromboembolic prophylaxis, secondly that the urologist had failed to investigate his symptoms, which were suggestive of a pulmonary embolus, and thirdly that this had led to the ITU admission which would not have been necessary had appropriate anti-coagulant therapy been started earlier.

**Case 2: Learning points**

By definition an operation lasting 2 hours is not a minor procedure. We doubt that anyone can perform a bilateral vasectomy reversal in less than 30 minutes so this procedure must be regarded as a major procedure for the purposes of DVT prophylaxis. According to the ACCP guidelines a 45-year-old patient undergoing a procedure lasting 2 hours is in a moderate risk category for the development of a venous thromboembolic event. At the very least he
should have been fitted with elastic thromboembolism stockings or given subcutaneous unfractionated heparin 5000 units twice daily, commencing 2 hours pre-operatively. An alternative would have been the use of intermittent pneumatic compression stockings. To use no DVT prophylaxis in such a case was clearly inappropriate and this therefore makes defence of such a case difficult.

What of the failure of the urologist to act upon the chest pain, the cough and the haemoptysis? Of course these symptoms could have been due to a chest infection, but they were at least as likely to be due to a pulmonary embolism. Indeed this is the classic triad of symptoms of a pulmonary embolus. Pulmonary embolus is a potentially fatal event and the final massive, fatal embolus is often preceded by a smaller embolus. One therefore has a window of opportunity during which it is possible to diagnose and treat the small pulmonary embolus, and thus avoid the fatal massive embolus. The correct management of pulmonary embolus is emergency admission, full anti-coagulation with intravenous heparin and appropriate investigation in the form of a CTPA.

Should the patient have been warned that he might develop a pulmonary embolus? A reasonable body of medical opinion would not have done so, because pulmonary embolus after this type of surgery in a young man is rare (the Bolitho modification of the Bolam defence). However, a move towards a Rogers and Whittaker ‘reasonable patient’ test in cases involving consent may remove this line of defence. Watch this space!

INFECTIVE PROBLEMS LEADING TO LITIGATION

Infected endocarditis following transurethral resection of the prostate

A 70-year-old man was admitted under the care of a urologist with acute retention of urine. The retention volume was 800 ml. He was otherwise fit and well with no history of cardiac disease. He was on no medication. Auscultation of his heart revealed a systolic murmur. As it was anticipated that he might require a TURP, an echocardiogram was carried out. This showed good ventricular function and mild mitral regurgitation. The patient failed to void on catheter removal and was recatheterised, a residual volume of 1 litre being drained from his bladder. No antibiotic prophylaxis was given either on removal of the catheter or on its re-insertion.

Since he had failed to void after two attempts at catheter removal, plans were made for a TURP. Urine culture revealed a mixed growth of organisms. The patient proceeded to TURP. A single dose of 120 mg of intravenous gentamicin was given as prophylaxis. The TURP proceeded without event and he voided successfully on catheter removal 3 days later. No antibiotic prophylaxis was given at the time of catheter removal.
Ten days later he visited his GP with a history of a fever of 3 days' duration. He was noted to have a fever of 38°C, a rash over his legs, painful swelling of his fingers and splinter haemorrhages under his fingernails. The patient was admitted as an emergency to a local hospital where a diagnosis of bacterial endocarditis of his mitral valve was made. An enterococcus (Streptococcus faecalis) was isolated in blood cultures. This was treated by antibiotics and a mitral valve replacement.

The patient sued his urologist claiming that the failure to give appropriate antibiotic prophylaxis at the various catheter removals and at the TURP, in the presence of a diseased mitral valve, was negligent.

**Learning points**

**Antibiotics.** It is worth reviewing the appropriate use of antibiotics for urological procedures, and TURP in particular, for post-operative infective problems (particularly septicaemia) can lead to litigation.

Positive blood cultures and the risk of septicaemia seem to be reduced by routine prophylaxis. A large and well designed randomised placebo controlled study of over 750 men showed that in men with sterile urine prior to TURP, septicaemia occurred in 1.5% of patients receiving no antibiotic prophylaxis, but did not occur in those receiving a single dose or a short course of intravenous ceftazidime. It could be argued that routine antibiotic prophylaxis is expensive, but the cost of avoiding the need to treat septicaemia – which often requires a period in the Intensive Care Unit – will more than offset the costs of a policy of routine prophylaxis. This study also showed that the post-operative UTI rate was substantially lower for those who received antibiotic prophylaxis. Again, this is likely to off-set the costs of a policy of routine prophylaxis.

The optimum antibiotic prophylaxis prior to TURP has not been established. It is wise to seek the advice of your local microbiology department with regard to the local bacterial flora and patterns of antibiotic resistance, and to base your policy on their advice. It is our current practice to give antibiotic prophylaxis for all patients undergoing TURP. Our choice of antibiotic is based on urine culture results done some weeks before surgery (a mid-stream specimen in those not in retention and a catheter specimen in those who presented with urinary retention). If an organism is grown which is sensitive to a specific antibiotic, we start treatment with this antibiotic 48 hours before operation and continue for a total of 10 days (which for the majority of patients with an organism cultured before surgery means a short course of antibiotics continued after discharge). If the urine is sterile, we still give antibiotic prophylaxis in the form of oral nitrofurantoin 1 hour before the patient is called to the operating theatre, with a dose of intravenous gentamicin (1.5 mg/kg of weight) at induction of anaesthesia. When the catheter is removed a few days after surgery, again we administer a prophylactic dose of 100 mg of oral nitrofurantoin, again 1 hour before the catheter is removed. This policy is based on advice from our microbiology department, which routinely audits the organisms grown on urine culture, and appropriate antibiotic sensitivities.
Giving every patient antibiotics raises the chance of breeding multi-resistant organisms and also runs the risk of antibiotic associated complications such as allergic reactions and anaphylaxis. However, in practice if the prophylactic antibiotics are restricted to either a single dose or a 24 hour course, antibiotic resistance will either not occur or will be of no consequence. The risk of antibiotic resistance and of allergic reactions must be balanced by the risk of post-operative urinary tract infection and of septicaemia.

What about antibiotic prophylaxis in patients with heart murmurs and artificial heart valves? There are recommendations both from the UK and the United States. The British National Formulary, a joint publication of the British Medical Association and the Royal Pharmaceutical Society of Great Britain, is widely used in the UK as a reference for indications for drug treatments. For patients with heart murmurs and those with prosthetic heart valves it recommends that 1g of iv amoxycillin with 120 mg of gentamicin should be given at induction of anaesthesia, with an additional dose of oral amoxycillin 500 mg 6 hours later (substituting vancomycin 1 g for those who are penicillin allergic). The American Heart Association recommends that antibiotic prophylaxis be given to individuals who are at higher risk of developing endocarditis. Such individuals are stratified into high, moderate and low risk categories (Table 15.2).

<table>
<thead>
<tr>
<th>High risk – prophylaxis recommended</th>
<th>Moderate risk – prophylaxis recommended</th>
<th>Low risk – prophylaxis not recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosthetic heart valves</td>
<td>Most other congenital cardiac malformations</td>
<td>Isolated secundum atrial septal defect</td>
</tr>
<tr>
<td>Previous bacterial endocarditis</td>
<td>Acquired valvular dysfunction, e.g. rheumatic heart disease</td>
<td>Surgical repair of atrial septal defect, ventricular septal defect or patent ductus arteriosus</td>
</tr>
<tr>
<td>Complex cyanotic congenital heart disease</td>
<td>Hypertrophic cardiomyopathy</td>
<td>Previous coronary artery bypass graft</td>
</tr>
<tr>
<td>Surgically constructed systemic pulmonary shunts or conduits</td>
<td>Mitral valve prolapse with regurgitation</td>
<td>Mitral valve prolapse but no regurgitation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physiological heart murmur</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Previous rheumatic fever but no valvular dysfunction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cardiac pacemaker and implanted defibrillators</td>
</tr>
</tbody>
</table>

Table 15.2 American Heart Association recommendations for antibiotic prophylaxis to prevent bacterial endocarditis
The American Heart Association emphasises the following:

- The genitourinary tract is second only to the oral cavity as a portal of entry for organisms that cause endocarditis, and procedures involving the urethra and prostate are associated with high rates of bacteraemia (one study reported rates of bacteraemia of 30% after TURP, 25% after urethral dilatation, almost 20% after cystoscopy and 10% after urethral catheterisation).

- The rate of bacteraemia following urinary tract procedures is high in the presence of urinary tract infection.

- Sterilisation of the urinary tract with antibiotics should be attempted prior to elective procedures.

- The choice of antibiotic should be based on pre-procedure urine culture.

- Endocarditis prophylaxis is recommended for prostatic surgery, cystoscopy and urethral dilatation.

In the last case described above, it was thought likely that a bacteraemia occurring at the time of TURP led to the subsequent development of bacterial endocarditis. This was based on the short time interval between the TURP and the onset of symptoms suggestive of bacterial endocarditis and the isolation of *Streptococcus faecalis* (a common urinary pathogen) from blood cultures. Had the incubation period between the TURP and the onset of symptoms been longer than 2 weeks, then it would have been less likely that this was the event leading to the endocarditis.

We emphasise again that if antibiotic cover is appropriate for the operation it is appropriate for catheter removal or re-insertion.

**Antibiotic prophylaxis for patients with joint replacements**

Although we have not been involved in any cases of joint replacement infections following urological procedures, such an event is a possibility and it is therefore worth considering antibiotic prophylaxis briefly in this situation.

The American Academy of Orthopaedic Surgeons (AAOS) and the American Urological Association (AUA) have issued joint advice on antibiotic prophylaxis in such patients. Their advice is that antibiotic prophylaxis is not indicated for urological patients who have pins, plates or screws, nor for most patients with total joint replacements. They did, however, recommend that antibiotics be given to the following categories of patients:

- All patients undergoing urological procedures, including TURP, within 2 years of a prosthetic joint replacement
- Those who are immunocompromised (e.g. rheumatoid patients, those with systemic lupus erythematosus, those with drug induced immunosuppression including steroids)
Those with co-morbidities including a history of previous joint infection, haemophilia, HIV infection, diabetes and malignancy.

The antibiotic regime that has been recommended is a single dose of a quinolone, such as 500 mg of ciprofloxacin, 1–2 hours pre-operatively, plus ampicillin 2 g iv and gentamicin 1.5 mg/kg 30–60 minutes pre-operatively (substituting vancomycin 1 g iv for penicillin allergic patients). It is obviously sensible to culture the patient’s urine pre-operatively and use alternative drugs if a specific organism is grown.

However, in the UK a Working Party of the British Society for Antimicrobial Chemotherapy has stated that ‘patients with prosthetic joint implants (including total hip replacements) do not require antibiotic prophylaxis….’. The Working Party considers that it is unacceptable to expose patients to the adverse effects of antibiotics when there is no evidence that such prophylaxis is of any benefit’. This advice is based on the rationale that joint infections are caused by skin organisms that get onto the prosthesis at the time of the operation and that the role of bacteraemia as a cause of seeding, outside the immediate post-operative period, has never been established.

Our policy is to use the same antibiotic prophylaxis as for patients without joint prostheses. Clearly those surgeons who work in the United States are likely to follow the advice of the AUA.

RETAINED BITS OF INSTRUMENTS, CATHETERS AND DRAINS

We have been involved in several cases where bits of surgical instruments or parts of catheters or drains have been left inside the patient inadvertently. Examples include bits of resectoscope sheaths (the insulating tip), parts of urethrotome blades and fragments of stone baskets. Such things happen from time to time. The only way of ensuring that you don’t leave something behind that you might later regret is to inspect any surgical instrument you insert into a patient after it has been withdrawn. Check that the loop of the resectoscope is intact and that the blade of the urethrotome has not broken in half. If something is missing, scope the patient then and there, find it and retrieve it. You might like to argue that the checking process is the responsibility of the scrub nurse, and so it is, but it is no bad thing to get into the habit of routinely checking the instruments yourself. After all, you will be the first person the patient blames! It is a golden rule to be on good working terms with your scrub nurse.

FAILURE OF ENDOSCOPIC INSTRUMENTS DURING USE

Very occasionally the endoscopic instrument you are using will break and jam inside the patient. The first rule is to be gentle, do not push or pull the
instrument and risk damaging the organ you are trying to examine. See if you can take it to pieces and extract the pieces separately (it is worth knowing how to do this). Document your efforts carefully. If it will not come out, even in pieces, you will have to resort to open surgery there and then – occasionally a jammed stone basket may free itself if left in situ for 48 hours and then manipulated gently, but a complete instrument should not be left in situ. When you have removed the instrument keep all the parts carefully. Call the appropriate instrument firm representative to collect it and get a report from the dealer or manufacturer. Document each step of your actions with care and explain them carefully to the patient and the relatives. We have one case in which the surgeon was sued because the instrument firm blamed the surgeon for damaging the instrument by using excessive force. In fact they had no evidence to justify such an allegation and in our opinion it was more likely to have been a failure of the instrument, albeit an unprecedented one.

REFERENCES

1. Cheney F. The American Society of Anesthesiologists Closed Claims Project: what we have learned, how it has affected practice, and how it will affect practice in the future. Anesthesiology 1999;91:552–6.


The medical expert witness

How can one become a medical expert witness? The short answer is with impartiality and with training.

SUMMARY

- Definition
- Requirements
- Instruction
- Terms and Conditions of Engagement
- The report
- Meetings of experts
- The single joint expert
- Training.

Being a witness means simply that you examine a case and give an opinion. Very few medico-legal cases reach court, so the risk of being cross-examined by an aggressive barrister is minimal. All the witness has to do is give an opinion in writing and be able to justify that opinion to a barrister instructed by the solicitor who instructed you. That barrister may still be aggressive, but at least is on your side and any demonstration of one’s shortcomings takes place in private. The objective in most medico-legal cases is to achieve a reasonable out of court settlement, or to have the case abandoned, depending on the perspective of the problem. The medical expert witness helps this decision to be reached by interpreting medical matters for the lawyers and the court. As a medical expert one is being asked to give an opinion in language understandable to a lawyer, backed up by similar opinions from the literature and from your colleagues, on the standard of care provided. This opinion must include whether the defendant has provided a standard of care which the claimant might reasonably have expected. The medical expert is not being asked to say whether the treatment has been negligent; that is a matter for the court.

In a case of alleged medical negligence the expert witness must be someone who is experienced and knowledgeable in his or her subject. He/she must be
prepared to accept instructions from a solicitor to examine a case and then write a report in which his/her opinions are given on the rights and wrongs of what has transpired. So one might reasonably expect a medical expert witness to be a doctor experienced in the particular speciality involved, who has been in a senior post in that speciality for 10 to 15 years.

The prime characteristic essential for a good medical expert witness is an ability to stand back from the problem presented and give an impartial opinion, even if that opinion may not be to the liking of the person instructing you. There have been experts in the past who were clearly not impartial, defending the case to the last ditch and providing slanted and selected evidence. What might be termed an intransigent defence has been a significant cause of the escalating costs of medical negligence cases and is the province of the ‘hired gun’. The new Civil Procedure Rules (CPR), introduced by Lord Woolf in 1999, have gone a long way to eliminate ‘hired guns’, although a few dinosaurs still growl from the undergrowth! The CPR has been fairly successful in Lord Woolf’s aim to speed up the process of civil litigation, but less so in reducing the cost.

In the past there has been a mistaken feeling that giving an opinion for the defence in a case of alleged medical negligence is honourable. To defend a colleague is the ‘act of an officer and a gentleman’, whereas to give an opinion on behalf of the claimant is not quite nice. Nothing could be further from the truth. The prime responsibility of the medical expert witness has always been to examine the case, take account of the allegations, perhaps examine the claimant, and then to give an honest and impartial opinion about the case. That expression of opinion must be the same whether given on behalf of the claimant or the defendant. The medical expert witness is not an advocate for either party, unlike the barrister, but the servant of the court, hired to establish the facts. The CPR simply underline and clarify this duty, which has always existed. The CPR have gone on to make it very clear that the expert’s responsibility is to the court, not to the party instructing him. Experts are obliged to include their recognition of that responsibility in each written report.

How does it all work? What is the anatomy of an allegation of medical negligence, as seen from the perspective of an expert witness?

The process commences when a solicitor acting for a defendant or a claimant approaches an expert asking whether he/she would be prepared to accept instruction in a particular case. The solicitor will usually provide a short summary of the allegation to be investigated. The expert must then decide that the case falls within his or her area of expertise before agreeing to proceed. This is important; an expert is going to be tested on the opinion given. If that opinion concerns matters with which the expert is less than completely familiar, the testing can be at the least embarrassing or at the worst disastrous for the case. It is also sensible not to accept cases involving a friend or immediate colleague.

The instructing solicitor will ask for an estimate of possible costs and the time it will take to produce a report. Clearly that will depend on the nature of the case and the number of copied records you are expected to have to read.
It is wise, therefore, for you as the expert to respond with a standard letter setting out your Terms and Conditions of Engagement for the solicitor to agree formally by signing and returning a copy as a ‘contract’. These Terms and Conditions should include the following points:

- Your hourly rate of charge for work done (keep a time sheet)
- Your fee for seeing the client in consultation if required
- Your fee for a report (which will be the hours worked). This is best provided as a minimum and maximum fee, perhaps 3 hours minimum and 8 hours maximum, with an undertaking to discuss the situation if it looks as if the job will take longer
- How long it will take to provide the report
- Your daily fee for attending court
- A suitable form of words which makes it clear that the responsibility for the fees rests with the instructing solicitors, with a time limit within which the fee must be paid – perhaps 60 days. This should make it clear that payment of the fee does not depend on who is ultimately paying for the services of the expert (such as the client or the insurance) – the instructing solicitor is responsible, no one else!

Some points arise:

- Some solicitors do not like agreeing to a range of minimum to maximum fee and will attempt to demand exact estimates, but it is better not to surrender. You cannot tell how long a report will take from the number of pieces of paper provided, because information may emerge from a small bundle of papers which may unexpectedly take a long time to sort out. On the other hand, if you are given seven thick ring-binders you probably can be sure that it will be pretty time consuming!
- It is important to produce the goods within the timescale provided if you expect that solicitor to instruct you again
- You should include a note with regard to court appearance fees to point out that a contingency sum will be payable if the court hearing is cancelled at short notice, equating to a resultant loss of earnings. This is just in case the case is settled a day or so before the court appearance.

Most solicitors are meticulous in paying your fee, although not usually very promptly, but a few will try to avoid doing so. By refusing to do any work until your Terms and Conditions of Engagement have been agreed, by the instructing solicitor returning a copy, which they have signed and dated, you will avoid bad debts.

The Law Society takes the firm view that experts should not accept payment for services contingent upon the outcome of the case. No win no fee cases are not for the expert. The expert should be wary of cases in which the instructing solicitor is less than forthcoming about the fees or whose letter includes clauses
about limitation of fees by insurers. If the expert chooses to accept a fixed fee, that is the expert’s own decision.

Having received the agreement of the expert to accept instruction, with his/her Terms and Conditions of Engagement, the instructing solicitor must decide whether or not to proceed with the instructions. Do not expect a rapid response. Do not be surprised if you hear absolutely nothing from a lawyer who does not intend to proceed. However, keep the original letter and your reply for 6 months or more, as sometimes a bundle of copied records appears out of the blue. Never start work until you have the signed copy of your Terms and Conditions of Engagement in your hand.

If the solicitor decides to proceed he/she will usually send a more detailed letter of instruction. This may be couched in general terms, but oftentimes contains quite specific questions to be addressed in the report. There will usually be a Witness Statement by the defendant or the claimant, setting out the explanations or allegations of the case respectively. Try to insist on receiving such a statement, as you need to know exactly what the problem is. The solicitor will also provide a bundle of photocopied records relevant to the case. Sometimes the solicitor will select the records provided in the interests of brevity, but more usually the bundle consists of all the available records. This may be daunting, but it is always preferable to have all the records, as there may be information that is crucial to the case in the most surprising places. The full GP records are often very revealing, assuming they are legible. Computerised GP records are something of a mystery, but the correspondence file is always worth reading.

Good solicitors ensure that the bundle of records has been sorted chronologically, paginated and indexed before they send it to the expert. This is good sense as it actually saves costs by reducing the amount of time the expert needs to spend in constructing the report. A muddled, unindexed and unpaginated set of records may add the cost of two or three hour’s work to the expert’s fee – paying a suitable sorter to do the job will cost a lot less.

Having accepted the instructions, and received the signed copy of the Terms and Conditions of Engagement back from the instructing solicitor, it is now up to the expert to work systematically through the case papers. They may be boring, but you never know what you may find – the nursing records may contain remarkable revelations. The expert should keep a time sheet and see the patient if necessary; if any investigations are necessary consent should be obtained from the solicitor that they should be carried out and paid for.

The format of the report requires careful thought. The expert is charging for his/her services, so it is only reasonable to provide a well-presented package. It is best written in double spacing on one side of the page, with numbered pages and sequential numbering of each paragraph. Each page should have a reference title on every page, perhaps the expert’s name, the client’s name and the year of the report, as a header or footer. Write in plain English and explain any technical terms, or, where appropriate, provide a glossary. Identify the client carefully and fully. There should be a short section summarising the expert’s qualifications and experience. Indicate the source of the instructions, the
nature of the documents referred to and/or any evidence upon which the report
is based. The CPR require that each report must include a statement concerned
with the expert's responsibilities and a formal statement of truth. Make it clear
which part of the report is factual and which is opinion. It is a good plan to set
out the facts taken from the records first, giving full dates (day, month and
year) for every happening each time it is referred to. Follow this with the
inferences which have been drawn from those facts, with opinions as to the
standard of care where appropriate. The report should conclude with a clear
summary of the expert's opinion. Finally provide an index to help the lawyers
find their way around. Try to keep the report succinct – some experts seem to
need to use five words where one would do. There is no virtue in unnecessary
length.

Remember that the expert is not being asked to judge negligence; that is up
to the court. The expert is being asked to state whether the treatment given was
up to the standard which the claimant might reasonably have expected from
his or her medical attendants at the relevant time. The 'relevant time' means
that it is necessary to examine the management in the context of the date when
it was provided; for example the management of renal stone in 1970 would not
include lithotripsy. The assessment must also take into account the level of
expected expertise of the doctor in question. Thus a pre-registration doctor will
not be expected to provide treatment to the standard a consultant would need
to provide. Similarly a gynaecologist might not be expected to achieve the
standard of urological management to which any urologist would aspire.

Experts will be expected to provide copies of any papers or sections of text-
books referred to in the report. They should not be surprised if the solicitor
or barrister requests changes in the report, designed to expand or improve its
clarity, but the expert should resist amendments designed to support the case
which run counter to the expressed opinion. Similarly, experts should not
agree to omit facts which they think are relevant to the case, even if they do not
support the claimant's argument. It is far better to demolish a case at the start
than to have to admit to the other side's expert that your point is weak or
invalid, or you did not mention something because it spoiled the argument,
many costly months later. Be careful to stay within your own field of expertise.
If an expert thinks a particular matter needs to be clarified, but is outside their
area of expertise, he/she should indicate that matter and suggest what sort of
expert should be invited to comment. In urology, for instance, the nephrologist
will be able to give much better opinions on matters of progressive loss of renal
function than the urologist.

Conferences are called regularly, involving the claimant/defendant, the
expert, the solicitor and the barrister. Conferences are an excellent way of
ensuring that the lawyers really understand the expert and vice versa, so that
all parties know exactly what the others are saying and will say it in court if
necessary. These conferences are usually conducted by the barrister and may
take the form of a 'rehearsal' of how the case will be conducted if it reaches
court. Sometimes they are a way of explaining to a claimant that there is no
future in pursuing the allegations any further. They can be quite testing. Sometimes the expert may find that his/her original opinion is flawed, or needs radical revision, in the light of what the lawyers say. This can be embarrassing, but it is better to have this problem exposed in conference in private rather than in open court! Experts should agree their costs for these conferences with the instructing solicitor before it takes place – usually the agreed hourly rate plus travelling and subsistence costs.

Once the report has been agreed between the client (defendant or claimant), the lawyers and the expert, the lawyers will have to decide what they are going to do, perhaps exchanging expert reports, and the claimant's solicitor must decide whether or not to proceed with the case. In many cases a clearly stated opinion from an expert for the claimant that the standard of treatment was not substandard ends the matter immediately. Similarly if the defence expert is clear that there is no defence to the allegations made, the case can be settled by negotiation there and then. The matter may go to the judge for a final decision on the merits of the case, but it is uncommon for medico-legal cases to reach the court. Occasionally the instructing solicitor will remember to inform the expert of the outcome of the case.

To help it reach a decision the court may direct a meeting of the experts from each side. This does not need to be a physical meeting, a telephone discussion is often all that is necessary. It is far preferable not to have any lawyer present at this meeting, although, strictly speaking, they are allowed to be present. However, experience has shown that experts meeting in private are much more likely to feel able to step back from a prepared position if no lawyers are present. Before the meeting the experts must ensure that an agenda of appropriate questions is agreed between the solicitors acting for defendant and claimant. Do not be fobbed off by the solicitors, you are entirely within your right to insist that the questions make medical sense. The questions need to be relevant and preferably closed, so that the answers are ‘yes’ or ‘no’. Open questions make for muddle and long circuitous discussions which achieve little. Crisp closed questions can be agreed or disagreed without lengthy debate. If the experts disagree on an answer they must say why. Between them the two experts must produce an agreed set of answers, which they are both prepared to sign and give to each instructing solicitor. The experts agree between them who is going to write the statement and it can then be checked and, if necessary, modified by the other.

If it seems likely that the case will go to court, the instructing solicitor will try to agree a mutually suitable set of dates with the expert. Since the implementation of the new CPR the court will take a dim view of an expert making too many difficulties about dates. It takes the not unreasonable view that if a doctor sets him/herself up as an expert he/she must be prepared to set aside time to appear in court. However, judges usually respect arranged holidays, conference speaking commitments, etc. If dates cannot be agreed the solicitor is entitled to issue a subpoena to a recalcitrant expert, compelling him/her to attend court. Some solicitors like to agree dates and then issue a subpoena, with the agreement of the expert, to protect themselves.
Having agreed the court dates, the expert must keep those dates free, even if
the likelihood of a case settling is high. If the court appearance is cancelled at
the eleventh hour the expert is entitled to operate the penalty clause he/she has
made sure is in the original Terms and Conditions of Engagement. He/she may
be expected to demonstrate loss of earnings incurred because no substitute
work can be organised at the time of the cancellation. The solicitor should not
resist this unreasonably!

One of the avowed aims of the new CPR is to reduce costs, particularly on
expert witness opinions. With that in mind the concept of the single joint
expert (SJE) has been created. Here the claimant and defendant agree to use the
same expert. This individual should then ‘contract’ his/her services to the two
sets of instructing solicitors as he/she would if acting for one side or the other.
It is essential to ensure that you know who is responsible for the fee as an SJE.
Usually solicitors are happy to split the cost 50/50. Otherwise the process of
creating the report is the same and the opinions necessarily impartial. The
report needs to be copied to each set of instructing solicitors. Some experts are
not very happy to act as single joint experts as they feel that they are somehow
acting as the judge. Clearly lawyers have similar reservations as few SJE
appointments are made in medico-legal cases.

If the matter does reach court the experts will be prepared for their appear-
ance by their barrister. If the case has an SJE usually no court appearance by
the expert is necessary, as the lawyers have agreed the expert evidence.

The expert witness should dress appropriately for the witness box. Sober
professional garb is the order of the day. In the witness box the expert must be
aware that the evidence he/she will be giving should be spoken directly to the
judge, not counsel, even though it is counsel asking the questions. The answers
should be directed to ‘His Lordship’. The expert should watch the judge’s pen
and, if he is writing, go slowly, or wait until he stops before continuing, as it is
the expert’s words which are being noted. The witness should speak clearly,
take his/her time, and answer the question asked, no more. A good rule is
never to expand on an answer, as it is easy to fall into a trap laid by an experi-
enced cross-examiner. If the expert does not understand a question he/she
should ask for it to be repeated – this is also a tactic which can be used to pro-
vide thinking time, but should be used with discretion. If an expert feels that
counsel is creating a seriously wrong impression it is reasonable to expand an
answer to try and correct this impression, but be careful and beware of traps.
If it is the expert’s own counsel doing this, bear in mind that counsel may be
developing a plan of attack and for the expert to demolish it prematurely may
not be appreciated. Most importantly the expert must not change his/her
evidence from the written opinion without an extremely good reason, as the
challenge will be swift and merciless.

With the increasing amount of medical litigation there is an increasing need
for competent medical expert witnesses. It is an interesting job, which keeps
the expert abreast of the literature, hones writing and speaking skills, pays
reasonably well and occasionally produces unpleasant surprises. Disgruntled
claimants or defendants have reported more than one expert to the General Medical Council, as the much publicised cases of Sir Roy Meadow and Professor David Southall have shown. It is sensible that the medical expert should be in active medical practice. The long retired expert can come to grief. For an expert who has retired from active practice it is a good rule not to take on cases in which the allegedly negligent act took place after his/her retirement.

Urological surgeons with a yen to involve themselves in the fascinating world of medico-legal work must be prepared to take appropriate steps to train themselves, work hard and be reliable – missing deadlines with lawyers will guarantee no further instruction. There are three bodies who have set themselves up to provide information, training courses and lists of experts – the Academy of Experts, the Society of Expert Witnesses and the Expert Witness Institute. They offer courses, lasting usually for a day or a half day at a time, on the necessary techniques of report writing, the rules of the game and courtroom skills. Anyone becoming a member of the Academy of Experts and the Expert Witness Institute is entitled to use the letters MAE or MEWI respectively after their qualifications. This has absolutely no significance other than demonstrating that the would be expert has taken the trouble to join, pay an annual subscription and has perhaps done the appropriate training. There is talk of introducing some form of accreditation for experts, but no suitable mechanism has yet been found to do this. The Law Society also produces a list of experts, but no training. (There is an annual charge for getting your name into the Law Society list.) Having joined some or all the above bodies to get your name on their published list and taken some basic training all you can do is wait and see if any solicitor approaches you with instructions. A charitable foundation called AvMA (Action versus Medical Accidents) will also supply names of experts to lawyers on request, so it would be sensible to contact that body as well.

USEFUL INFORMATION

Action versus Medical Accidents (AvMA): 44, High Street, Croydon, CR0 1YB.
Academy of Experts: 3 Gray’s Inn Square, London, WC1R 5AH.
Expert Witness Institute: 1st floor, 7 Warwick Court, London, WCIR 5DJ.

Society of Expert Witnesses: PO Box 345, Newmarket, CB8 7TU.
The Lord Chancellor’s Department, Selbourne House, 54–60 Victoria Street, London, SW1E 6QW.
The wrong kidney

We now set out the story of a recent case which has received much publicity throughout the United Kingdom. We do not do this in condemnation of the individuals involved, but because there is an awful lesson for us all in this disaster. There but for the grace of God go we all.

In 2000 a man of 69 had his only functioning kidney removed in error. He died shortly afterwards as a direct result of this error. The police subsequently investigated the case and the Crown Prosecution Service brought an accusation of manslaughter against the two surgeons involved. At trial the judge dismissed the case, but the General Medical Council subsequently found the two surgeons guilty of serious professional misconduct. This case is worth examining as it carries a series of lessons for all health professionals.

Mr X developed a cold blue toe. He was a man of 69 years and had been a heavy smoker for most of his life, but he was otherwise asymptomatic and gave no history of any previous illness. He showed his toe to his GP who referred him promptly to a vascular surgeon. An arteriogram showed a superficial femoral artery occlusion, but a well-established collateral circulation. Conservative management was instituted. As an incidental finding the arteriogram demonstrated no circulation in the right kidney, with occlusion of the right renal artery near its source. A large opacity that could have been a stone in the renal pelvis was also shown. The left renal circulation was normal. The vascular surgeon sent the patient for a urological opinion. In the clinic, where he saw a staff grade urologist, Mr X gave a history that he had never had any symptoms referable to his urinary tract. Further investigation was instituted. An ultrasound scan of the abdominal viscera showed a large right-sided hydronephrosis with a stone in the region of the pelvi-ureteric junction. A subsequent IVU showed no more than a faint, delayed nephrogram on the right side with a probable stone in the area of the renal pelvis, but showed a normal left kidney. No formal assessment of the function of the abnormal kidney was made. Right percutaneous nephrolithotomy was advised, in spite of the apparent poor function of the affected kidney and the complete absence of symptoms. This procedure failed as the radiologist could not gain access to the collecting system. The patient was advised to come in for right nephrectomy.
In due course Mr X was admitted for right nephrectomy. He was examined by the house surgeon and consent obtained for a right nephrectomy, but, as there was no ITU bed available, the procedure was postponed and the patient was sent home. The urological senior house officer then filled in a new admission card, but wrote left nephrectomy, not right nephrectomy.

When Mr X was re-admitted on a Sunday for operation on Monday morning's list the pre-registration house officer, who had admitted the patient on his previous admission, recognised that the side of the nephrectomy had been changed on the admission card. The house surgeon consented him again for right nephrectomy, the correct side. However, the incorrect left nephrectomy was in the hospital system and the operating list showed left nephrectomy. The house surgeon did nothing to correct the posted operating list. A consultant anaesthetist also saw Mr X pre-operatively. He filled out a ‘pre-operative questionnaire’ of his own devising, which did not include any reference to the nature of the proposed operation or its side.

On the morning of the operation Mr X was seen on the routine ward round by the urological firm, including the staff grade urologist, but not the consultant. The patient was already pre-medicated and was drowsy, so no discussion about the proposed operation took place with the patient. Mr X was taken to theatre by a nurse from his ward, armed with the consent form indicating a right nephrectomy. The handover to a recovery nurse involved confirmation of the consent form and a right nephrectomy, but apparently no reference to the posted operating list, which stated left nephrectomy. No one checked the consent form in the anaesthetic room before Mr X was anaesthetised.

The consultant arrived in theatre just before Mr X was wheeled unconscious into the theatre. When the consultant said ‘this is a right side isn’t it?’ the theatre sister, the scrub nurse and the auxiliary nurse responded that the list stated left nephrectomy. The consultant commented that the answer would be in the records and went into the anaesthetic room. There he apparently checked the notes and concluded that left nephrectomy was correct. He supervised the positioning of the patient on the incorrect side, asking the staff grade urologist to proceed. The staff grade urologist did not check the consent form, the notes or the X-rays and went on to remove the wrong kidney en bloc with its perinephric fat. While he was doing this the consultant taught a medical student on the case, using the patient’s X-rays, presumably back to front. The error was discovered when Mr X failed to produce urine in the Recovery Unit. He died about 3 weeks later.

Subsequently the Crown Prosecution Service brought a case for manslaughter against the consultant and the staff grade urologist, which was stopped by the judge during the trial. Both consultant and staff grade urologist were subsequently found guilty of Serious Professional Misconduct by a general medical council inquiry and suspended from the medical register for a period of 12 months.
Whether it was appropriate for a case of manslaughter to be brought is open to question. By legal definition the medical negligence leading to the death must be ‘gross’ to warrant a charge of manslaughter. Presumably the judge thought it was not a suitable charge. However, this case raises a number of questions and shows a number of serious deficits in the handling of Mr X.

To start with, three simple clinical questions arise:

- Was it appropriate to offer any treatment at all to a 69-year-old arteriopath with an incidental finding of a non-functioning kidney who had no symptoms referable to his urinary tract?
- If any treatment was indicated, was percutaneous nephrolithotomy an appropriate treatment in a man with a virtually non-functioning kidney?
- Was nephrectomy necessary in an asymptomatic arteriopath of 69 when percutaneous nephrolithotomy failed?

The answers to questions of this nature must be up to the clinicians involved and must be based upon the particular circumstances of the patient and the experience of those clinicians. There is no correct answer, but a doubt must exist in this case that any form of surgical treatment was a sensible course to pursue in a 69-year-old arteriopath with an asymptomatic and effectively functionless kidney.

Then, having made the decision to proceed to nephrectomy, a series of avoidable errors followed:

- When the original planned operation could not be done, and the patient was sent home, the SHO filled in the re-admission form incorrectly, substituting left for right
- When the patient was re-admitted the house surgeon recognised that error, but did no more than ensure that the consent form was correct
- The anaesthetist took no steps to check that the proposed operation was to be done on the correct side
- When delivering the patient to theatre the ward nurse handed over the patient to a recovery nurse, checking the consent form and the side she knew was correct, but neither made any reference to the posted operating list, which gave the incorrect side
- No one checked the consent form in the anaesthetic room. Not the theatre staff, not the operating surgeon, not the consultant in charge, not the anaesthetist, not the ODA
- Having expected a right nephrectomy and being told it was listed as a left nephrectomy the consultant failed to check the clinical records or the consent form, both of which indicated a right nephrectomy
- The consultant delegated the case to the staff grade surgeon, who did not check the clinical records, the X-rays or the consent form before proceeding to operate
The staff grade surgeon had dealt with this patient from clinic to ward, but had failed to read the records, look at the X-rays or to check the consent form – or even to remember the patient – before removing a kidney.

The consultant helped position the patient for a left nephrectomy.

The consultant then taught a student on the X-rays – presumably back to front.

The operating surgeon excised the perinephric fat with the kidney and did not expose the normal kidney he was removing. He stated that he felt a stone, which patently was incorrect. He clamped and divided a pulsating renal artery when the artery to the abnormal kidney was known to be occluded.

In this case a concatenation of errors occurred which led to the death of the patient. At each step the situation was redeemable. The perpetrator of the original error, the SHO who changed right for left on the admission card, was not charged by the police nor examined by the GMC. His was the basic error, but the subsequent failures to correct that error seem to have taken the basic blame away from that doctor.

The admitting house surgeon detected the error, but did not think beyond his own immediate patch of responsibility for ensuring that the clinical records and the consent form were correct. He did not attempt to correct the operating list and did not discuss the error he had found with his colleagues on the pre-operative ward round. If he had done either of these simple things the error could have been corrected.

The anaesthetist took no interest in the operation being done, or the side of the operation. Expert anaesthetic witnesses have stated with some authority that the nature and side of an operation are not the anaesthetist's responsibility. This may be so in theory, but an anaesthetist is part of the patient care team and must surely have at least a token concern that the patient for whom he/she is providing the anaesthetic gets the correct operation. It seems unreal to divorce oneself from the clinical situation to the extent of not being concerned what operation is to be done, or on which side. This seems to be setting oneself on the level of a technician, albeit a highly skilled one.

Failure to check the consent form against the posted operating list is a fundamental error. Such a check must be part of the formal handover of a patient from ward to theatre care. In this case there were multiple failures to check the consent form against the posted list and with the conscious patient. The operating surgeon had an absolute duty to do so. In most operating theatres it is held a duty of the theatre staff to do so. It is good practice for the anaesthetic room staff to do so and it is common sense for the anaesthetist to do so. Is it really acceptable for an anaesthetist to
take no account of the nature or side of the operation he/she is about to anaesthetise a patient for?

- Having been under the impression that the proposed nephrectomy was on the right side, which was correct, the consultant in charge failed to check the medical records properly and he failed to read the consent form when the theatre staff suggested that he was wrong. This was a basic breach of the duty of care as it led him on to position the patient incorrectly for the correct operation, to instruct his staff grade surgeon to proceed and finally to demonstrate the patient’s X-rays to a student back to front. In this case the orientation of each of the films was labelled with stick-on labels, which could not be read if the film was viewed from the incorrect side.

- The staff grade surgeon carried a significant part of the responsibility for the error in this case. He had dealt with the patient in the clinic, organising his investigations, and on the ward after his admission. It might have been expected that he would have some memory of the clinical details, but the fundamental breach of duty was a failure to check the consent form, the medical records or the X-rays before proceeding to the nephrectomy. During the nephrectomy he failed to realise that he was removing a normal sized kidney, when he should have been removing a very large hydronephrosis, and he ligated a pulsating renal artery, when he should have been ligating a thrombosed vessel.

What can we learn from this sad case and how can we avoid a similar disaster?

- In the first place make sure that junior staff understand that they are an important part of the clinical team and that their opinion matters. They must feel able to offer their views on each case.
- Ensure that the pre-operative ward round involves a proper check on all the patient’s details, preferably by being present yourself.
- Engender a sense of personal involvement by the anaesthetist in the clinical situation of the patients being treated. Do not accept an authoritarian anaesthetist who bans clinicians and theatre staff from the sanctum of the anaesthetic room.
- Make sure that the ward staff and the operating suite staff operate a proper check system involving the clinical records, the consent form, the posted operating list and the agreement of the patient before all operations.
- Meet and identify the patient in the anaesthetic room and check the consent form yourself.
- Ensure that there is a system in your theatre for staff for checking the published operating list against the actual records and the consent form when the patient arrives in the anaesthetic room.
- Never operate on a patient without the X-rays being available for inspection before you start.
Inspect the X-rays before you start!
Negotiate with your Radiology Department to ensure that the method of marking X-rays is visible from both sides of the film – i.e. ban stickers.
If a case is to be delegated to a junior member of the surgical team ensure that the individual understands that he or she carries a personal responsibility to carry out the same identity, side and consent form checks that is the responsibility of the consultant surgeon. This check should be undertaken even if the consultant is present.

This is all blindingly obvious. The professional lives of the two surgeons involved in the case of Mr X were blighted. Make sure it cannot happen to you.
Medico-legal Glossary

Adverse health event. An event or omission during clinical care and causing physical or psychological injury to a patient.

Bolam test. The legal standard for establishing liability for medical negligence. The test affords a defence to a doctor ‘if he has acted in accordance with a practice accepted as proper by a responsible body of medical men skilled in that particular art’.

Civil Procedure Rules 1998. The rules governing the procedural aspects of any action in the High Court and in County Courts.

Claim. A request for remedies following a perceived adverse outcome which includes an explicit claim for financial compensation.

Claimant. The party bringing the claim. Formerly known as the plaintiff.

Claim value. The latest estimate of the sum that would be paid if the defence against the claim were unsuccessful. Usually provided for the NHS by defence solicitors.

Clinical Negligence Scheme for Trusts. Introduced in 1995 as a voluntary scheme to limit the liability of member Trusts for clinical negligence claims where the incident occurred after March 1995. Trusts fund the scheme by paying the equivalent of premiums and in return receive assistance with the costs of cases above a certain amount – their ‘excess’.

Conditional fee agreement (‘no win, no fee agreement’). Where a lawyer agrees to work without a fee if the case is lost. If the case is won, the lawyer may claim a success fee in addition to the normal fee. Expert witnesses are not permitted to take on conditional fee agreements.

Defendant. The party against whom the claimant/plaintiff brings the claim.

Disclosure. The procedural term governing the production of and subsequent exchange of relevant documents.

Expert evidence. The evidence provided by an expert witness.

Expert witness. A witness who gives evidence based on his opinion (as opposed to a witness of fact). A single joint expert who is instructed (by the court) to give his opinion to both the claimant’s and the defendant’s parties.
Injunction. A court order which prevents someone from doing something.

Judgement. The decision of the court after a hearing and the reasons for it.

Letter of claim. The letter by which a claimant indicates to a defendant that he has grounds for bringing a claim.

Litigation. The process of commencing, prosecuting and resolving legal proceedings.

Measure of damages. The legal principle by which an award of damages is calculated.

Negligence. Literally lack of proper care or attention. In order to prove that a defendant is negligent, the claimant must establish that the defendant (a) owed him or her a duty of care, (b) was in breach of that duty of care, and (c) this breach caused the injury of which the claimant complains. The decision that a particular act was negligent is one for the court, not the expert witness.

NHS Litigation Authority. The single central authority that deals with all NHS litigation, established in 1995.

Offer to settle. Offer by a claimant to settle his claim following payment by the defendant of a certain sum of money.

Particulars of a claim. This refers to the document in which a claimant explains why the defendant is liable.

Plaintiff. The party bringing the claim. Now known as the claimant.

Pleadings. The documents in which the parties set out the nature of and basis for their case.

Quantum. The value of the claim.

Settlement. The final resolution of the claim. If a claim is successful the settlement refers to the payment of damages to the claimant.

Sue. To commence legal proceedings.

Tort. The area of civil law governing the relationship between people who do not have a contractual relationship. Despite the absence of a contract, one person may owe a duty of care to another. The main category of the law of tort is negligence.

Trial. The Court hearing during which the claimant and the defendant put their cases to the judge, the judge makes his or her findings and determines whether the claimant has succeeded or not.
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