Medical negligence in orthopaedic surgery

A REVIEW OF 130 CONSECUTIVE MEDICAL NEGLIGENCE REPORTS

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Payments by the NHS Litigation Authority continue to rise each year, and reflect an increase in successful claims for negligence against NHS Trusts. Information about the reasons for which Trusts are sued in the field of trauma and orthopaedic surgery is scarce.

We analysed 130 consecutive cases of alleged clinical negligence in which the senior author had been requested to act as an expert witness between 2004 and 2006, and received information on the outcome of 97 concluded cases from the relevant solicitors. None of the 97 cases proceeded to a court hearing. Overall, 55% of cases were abandoned by the claimants’ solicitors, and the remaining 45% were settled out of court. The cases were settled for sums ranging from £4500 to £2.7 million, the median settlement being £45 000. The cases that were settled out of court were usually the result of delay in treatment or diagnosis, or because of substandard surgical technique.

The clinician’s overriding duty is to his or her patient’s safety. The dictum ‘primum non nocere’ often mistakenly attributed to Hippocrates remains a founding principle of the medical profession. However, despite the increasing prevalence of clinical governance and risk management in the ‘modern’ NHS, the number of negligence claims continues to rise. In 2006 to 2007 the NHS Litigation Authority made payments of £424 million in compensation for claims for medical negligence. This represents an increase of almost £40 million on the previous year and reflects the trend noted in the United States. We are, perhaps fortunately, still a little behind them in the evolution of our claims culture.

The increase in costs sustained by the NHS Litigation Authority has occurred despite changes to the Civil Procedure Rules introduced by Lord Woolf in 1999. These changes have been generally well received for several reasons, particularly in making the process of litigation less adversarial. As a result of the establishment of the NHS Litigation Authority in 1995, a large proportion of the legal responsibility for patient care has been taken on by the relevant Trusts, rather than individual doctors. However, the latter are still subject to specific claims, particularly in private practice.

The role of the expert witness has also become more defined, with a primary responsibility to the court rather than to claimant or defendant. Solicitors have become increasingly aware of medical experts who appear to favour one side or the other, and now tend to use clinicians who provide a balanced, fair and reasoned opinion. When there is a difference in opinion between two experts, a meeting is usually requested, either to resolve these differences or to define for the Court why they exist. Ultimately, it may be for the Court to make the final decision. A meeting of experts is often preceded by a case conference if opinion remains polarised, in an attempt to resolve the case before it goes to court. In short, the Woolf reforms have resulted in a high percentage of cases being settled out of court.

Although there are issues of competence and good practice that are common to all aspects of clinical medicine, there are now so many subspecialists that it is worth examining specific aspects of clinical negligence individually. Orthopaedic surgeons comprise almost one third of the surgical community of the United Kingdom. We have reviewed 130 consecutive medical negligence cases related to orthopaedic surgery and musculoskeletal trauma in which the senior author (MDB) was instructed as an expert between 2004 and 2006. We have determined the reasons why these cases were brought, the opinion of the senior author, the outcome of each case, and how the outcome was influenced by the expert report. We also have obtained valuable confidential data on the financial size of settlements.
Materials and Methods

We examined 130 consecutive medical negligence reports written by the senior author, along with the relevant letter of instruction from the instructing solicitors. In each case the report had been written in accordance with the guidelines laid down by the Expert Witness Institute and Civil Justice Council. The patient’s history and the findings on examination had been obtained from the case notes and imaging studies, with a face-to-face consultation to assess the current condition and prognosis. An opinion was then formulated on the two specific issues of liability (the legal responsibility for one’s acts or omissions) and causation (that the act or omissions caused the unsatisfactory result), in reply to the specific points made in the statement of claim. In cases where the senior author and the other experts disagreed, we also had access to the details of any change in stance that may have occurred after a meeting of the experts. The principles of the Bolam test were applied in each case. These state that a doctor is not negligent if he acts in accordance with a practice accepted at the time as proper by a reasonable body of medical opinion, even though other doctors may adopt a different practice.

The reasons for the complaints of the claimant were, inevitably, very varied. However, the reason for which each case was brought was identified and classified into one of the following categories: substandard quality of surgery; undue delay in diagnosis or treatment; substandard peri-operative care; operation was not indicated; adequate consent not obtained or patient not warned of specific risks; and, finally, that defective products/prostheses had been used.

Having assessed the reasons that these cases had been brought, and the opinion of the expert witness on liability and causation, we wrote to the relevant solicitors to determine the outcome of each case. In the past it has been very rare for solicitors to inform an expert that a case has been settled, and for what reason. Until now the senior author has never been directly informed of the amount of the settlement. We wrote to each solicitor assuring them that the data that they supplied would be treated in complete confidence. The data have been stored in an anonymous fashion. In the majority of cases, we were able to find out whether cases had been abandoned, settled out of court or taken to court. We were also informed of the size of the settlement, or, if applicable, the level of damages awarded by the court.

Results

In all, 68 of the 130 cases were related to the management of fractures and injuries, mostly to the lower limb, hip, pelvis or spine. Problems after elective orthopaedic surgery, mostly of the lower limb, accounted for the other 62 cases. This reflects the senior author’s experience in pelvic and orthopaedic trauma as well as his elective interests.

The senior author was instructed by the solicitor of the claimant in 108 cases and by the solicitor of the defendant/ NHS Trust in 22. We received replies from the relevant solicitors in 109 of the 130 cases. In 12 of those 109 cases the case was still ongoing and no result was available. We therefore had complete data on 97 of 130 cases (75%). Most of the 130 were brought for two or more specific reasons, which, it was alleged, demonstrated a failure of duty of care to that patient. The most common reasons for legal action are shown below (Fig. 1).

In 79 cases part of the allegation was related to a substandard quality of surgery. In orthopaedics this is made easier to assess by the availability of post-operative radiographs. The second most common cause for complaint (68 cases) was delay in diagnosis or treatment.

Of the 97 concluded cases for which we had complete data, 53 (55%) had been abandoned and 44 had been settled out of court for sums ranging from £4500 to £2.7 million (median £45 000). The mean settlement was just over £163 000. If the largest settlement of £2.7 million was removed the mean settlement fell to below £100 000. The cases that were settled out of court were usually settled for reasons of delay in treatment or diagnosis and substandard quality of surgery, rather than issues of consent, inappropriate surgery or poor peri-operative care (Fig. 2).

All these cases took many years to process. The shortest time from injury or incident to the expert receiving instructions was nine months. The longest was eight years and
concerned a childhood fracture. Most took between two and four years from the incident to the request for an expert report. There was a difference in the time taken from the expert accepting instructions in cases that were abandoned compared to those that required financial settlement. In settled cases the range was one to 48 months, with nearly half taking under six months. The mean time was nine months. In cases that were abandoned after the report the range was similar (1 to 45 months), but over half took between one and two years, with a mean of 21 months.

The influence of the expert's report. Of the 53 cases that were abandoned with no settlement, the senior author’s liability and causation report actually supported, at least in part, allegations of liability and/or causation in seven cases. In two of these cases it was obvious that there was a significant delay in diagnosis, but that this had not affected the outcome; hence the case was abandoned. In three cases, the expert’s report noted serious concerns about the process of informed consent. However, it was felt both by the expert and the lawyers that the issue of consent had not materially affected the outcome in these cases. All three involved trauma where surgery was necessary. The judgement of the expert and the lawyers would probably have been different if these had been cases of non-urgent or elective surgery. In two further cases the expert’s report supported claims on issues of both liability and causation. One case concerned a primary hip replacement which had been poorly executed. The revision procedure had, however, completely relieved the patient’s symptoms and the solicitors opted to abandon the case. The other case, which concerned a hip replacement with multiple dislocations, was salvaged by a successful revision and the case was abandoned.

In the 44 cases that were settled in favour of the patient, the expert’s report did not find that the orthopaedic treatment fell below acceptable standards in seven cases. One case was settled for £15 000 and was principally concerned with nursing issues and a leg ulcer after orthopaedic treatment. Another more complex case settled for £850 000. Criticism was focused mainly on non-orthopaedic matters (nursing and psychiatric supervision). Included in the claim was a missed wrist fracture that eventually required fusion. A small amount of compensation was built into the £850 000 to recognise the errors in medical management. In two further cases, issues of liability were very evenly balanced, and the lawyers defending the Trust thought it was better to make an offer and settle. Settlements amounted to £15 000 and £50 000, respectively.

Two further cases involved injury, where the residual disability in young patients was very significant. These were felt to be claims of high potential value. Despite a report from the expert supporting the respective Trusts, mediation and settlement seemed to be the best way forward. These two cases were settled for £85 000 and £40 000, respectively.

The final case involved an initial report that was supportive of the Trust. During progression of the case a second opinion was obtained which was not supportive, and a negotiated settlement was made for £30 000.

Four of these seven cases generated reports written on behalf of a Trust. Although in pure terms the cases were lost with a financial settlement, the expert’s report was extremely helpful in limiting the size of this.

None of the cases in this series went to court.

Examples of cases. There were two examples of complex high-energy distal tibial fractures, both in relatively young patients who ended up with an amputation. One case was settled for £555 000 and the second for £200 000. Neither operation was carried out by a consultant. The surgery was delegated to a trainee and an associate specialist, respectively. In each case the timing of the operation was inappropriate and the quality of the reduction and placement of implants was sub-standard. Implants of too great a size were used, and because of wound breakdown a sequence of events followed that terminated in amputation. In one case antibiotics had not been prescribed prophylactically to cover the first operation.

It is clear from these cases that not only was the quality of surgery important, which may be judged from radiographs, but that the timing of surgery was also paramount. Operation slots can be scarce. There is a huge pressure on NHS theatre time. Surgeons should not be rushed into operating on fractures at inappropriate times. When the early window of opportunity is missed it is much better to wait until the condition of the soft tissues has improved. Managers may find that keeping patients in hospital adds considerably to the cost of treatment. However, operating on high-energy fractures at the wrong time and without a sufficiently experienced surgeon, is extremely dangerous. Managers should be aware of this, and clinicians must not allow themselves to be pressurised into making inappropriate decisions for financial reasons.

There were three cases of sciatic nerve injury following total hip replacement. In two of these it was clear that a traction injury had caused the sciatic nerve palsy, but the operation note did not record the identification and protection of the sciatic nerve despite the use of a posterior approach. It is clearly much easier to defend a case if the surgeon records that he or she has actively sought the nerve and protected it. If there is no information in the records, it is very difficult for the court to judge whether or not the surgeon took sufficient care during the operation. In the third case, the operation note once again did not record that the sciatic nerve had been identified and protected. However, there was a partial laceration of the nerve during the course of the procedure. This case was felt to be indefensible. We believe that during any orthopaedic operation the fact that nerves are actively identified and protected at all times should be recorded. This will obviously not eliminate all nerve palsies, but will aid the defence of such cases.
Table I lists some of the aspects of patient management that contributed to cases being lost and resulting in financial settlement.

<table>
<thead>
<tr>
<th>Trauma</th>
<th>Elective</th>
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<tbody>
<tr>
<td>Poor initial history and examination: ‘it is just a sprain’</td>
<td>Inadequate consent and poor explanation and record of reasons for procedure</td>
</tr>
<tr>
<td>No radiographs, or wrong radiographs ordered</td>
<td>No record of identification and protection of nerves in operating note</td>
</tr>
<tr>
<td>Never seen by a consultant (A&amp;E or orthopaedic)</td>
<td>Poor documentation of complications and discussion with patient and relatives</td>
</tr>
<tr>
<td>Poor handover, lack of treatment plan</td>
<td>Poor technique, e.g. malposition of prosthetic components</td>
</tr>
<tr>
<td>Poor timing of surgery</td>
<td>Operation carried out by surgeon who was not part of the local team</td>
</tr>
<tr>
<td>Poor fracture reduction, no on-table films</td>
<td>Operation carried out by inappropriate level of surgeon, leading to substandard surgery</td>
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Table II. Factors that help in defending cases

- A clear record in the pre-operative correspondence outlining the decision making that leads to a patient being put on the list, with special references to potential complications
- Good note keeping. Record management changes, decision processes, and any handover of care
- Clear operation notes with special reference to major soft-tissue structures
- Early identification and treatment of complications. Apologise to the patient and family if appropriate
- Early senior input and recruitment of other teams, e.g. microbiology

Table I lists some of the aspects of patient management that contributed to cases being settled in favour of the claimant. Factors that help to defend a case of alleged negligence are shown in Table II. A common thread is the importance of clear and frank communication with patients.

Discussion

This series of cases represents the case-load undertaken by an experienced expert witness with particular sub-specialist expertise. It cannot be interpreted as representative of all negligence cases within the specialty. It does, however, cover a wide spectrum of trauma and elective cases. Law firms often require the opinion of a ‘general orthopaedic surgeon’ rather than a specific specialist in the field so as to provide a balanced and general opinion, and in order to satisfy the Bolam test. In this series, the percentages of cases settled out of court and abandoned is roughly parallel to the experience of the NHS Litigation Authority at a national level.2

Over half of the claims in this series were abandoned by the claimant as a consequence of the expert’s report. Although the impact of Woolf’s Civil Procedure Rules has yet to be fully determined,7 this finding certainly seems to reflect positively on his reforms. None of the 130 cases has so far resulted in a court case. The 44 in which liability and causation had been accepted were settled out of court, thereby speeding up the process for both claimant and defendant.

The commonest reason for a case being settled in this series was either a delay in diagnosis or treatment, or an operation or procedure not being carried out to a sufficiently high standard. The delays in diagnosis often occurred in A&E, where radiographs were not always requested, the wrong or inadequate views were relied on, or visible fractures were simply missed by junior staff. This supports the findings of previous studies of errors made in emergency departments. These found that 80% of all errors made in A&E involved missed fractures, either because of misinterpretation of the radiographs or because these were not requested.8

The importance of a thorough clinical examination, appropriate and adequate radiography, competence in reading the results, and senior support to aid this process is supported by our findings. In addition, it is essential for A&E departments to have a system in place so that these radiographs are reported and patients whose diagnosis has been missed can be recalled rapidly. This has been found not only to reduce the risk of litigation, but also to be in the patient’s best interests.8 Although it may be argued that a report from an orthopaedic surgeon represents a view from a higher level of expertise than that found in A&E, an orthopaedic opinion is usually required to assess the consequences of the missed or delayed diagnosis. It is also interesting to consider the role of the triage nurses, and how cases in which the diagnosis has been delayed or missed by them are occurring more frequently. They are also more difficult to assess, as there seem to be no obvious standards for A&E triage nurses.

The other main group of cases which settled were those resulting from substandard surgery. Radiographs were often helpful in this regard, as so many orthopaedic procedures use metallic implants. Where complications arose and were the reason for legal action, a lack of clear documentation in the operation note that reasonable
precautions were taken during surgery was also critical in determining liability. Interestingly, in two American studies of claims against orthopaedic surgeons, improper determination of liability was found to be the commonest reason for successful litigation. There is no defence against this outcome other than to ensure excellence in surgical training and the careful documentation of the key steps in the procedure. This should include a record of the identification and protection of specific nerves.

Finally, issues of consent were a cause for complaint in ten cases, but were only found to be legally important in two, both of which were elective procedures. The relevance of inadequate consent was seen to be less important where knowledge of a potential complication was thought to be unlikely to make a difference to a patient giving that consent when the injury or symptoms were severe enough to leave little option but to undergo surgery. This concept is supported by an American review of orthopaedic liability in the acute setting in which the risk of litigation because of inadequate consent was found to be greater in more modest cases of disability and injury. Another study which reviewed cases from two American malpractice insurers over 24 years found no cases of proven inadequate consent in emergency surgery, compared to 24 cases in elective operations. Taking the time to obtain consent in the outpatient clinic, rather than on the ward just before surgery, significantly reduced the risk of litigation over consent. British orthopaedic surgeons and their patients will be helped in this regard by an initiative to provide clinicians with standardised consent forms as recently announced by the British Orthopaedic Association.

It is possible that the number of cases in which consent will be an issue will rise over the next few years, as the result of a key ruling by the House of Lords in 2004 (Chester vs Ashfar). By this ruling the House of Lords has effectively modified the principle of causation. A clinician can no longer claim that a patient who experiences a complication but who was not adequately warned of that complication would have agreed to an operation had they been warned, and that therefore his omission in not adequately consenting the patient did not affect their decision.

The NHS Litigation Authority handles negligence claims under five different schemes. These include the Clinical Negligence Scheme for Trusts (CNST), which is a voluntary risk-building scheme for clinical negligence, with incidents occurring after 1 April 1995 funded out of members’ contributions. Apparently NHS Foundation Trusts and Primary care trusts in England choose to belong to this. The second scheme, called the Existing Liability Scheme, covers negligence arising out of claims that occurred before April 1995. The ExRHA scheme covers any clinical liability that has accrued to the Regional Health Authorities before their abolition in April 1996. The Liability to Insured Parties Schemes covers non-clinical third-party liabilities, and the Property Expenses Scheme covers loss or damage to property. At present, all cases in this series are subject to the CNSCT. In 2005/2006 payments made by the NHS Litigation Authority for claims against the NHS were just over £384 million. In 2006/2007 this rose to just over £424 million. If one focuses on legal costs alone, in 2005/2006 claimants’ costs were £68.5 million, compared to nearly £38.5 million for the defendants. Legal costs alone therefore add up to more than £100 million, approaching almost one-third of the value of the claims.

When a patient goes to a lawyer to mount a claim there are various deals on offer, including a no-win no-fee system. In broad terms, however, the costs of initiating a claim are relatively small, and include an assessment by the solicitors of the details of the claim and, if appropriate, an opening letter of complaint. Experts’ reports may be obtained, but the total cost of this should be no more than £3500. A decision is usually made at this stage on whether to proceed with the claim. It is after this stage, if it is decided to proceed, that costs escalate. Even with such a potentially simple system there are significant delays, which are costly for the country, but also frustrating for the patient and unpleasant for Trusts and physicians. Despite the success of the Woolf reforms in bringing the sides together, further progress needs to be made to accelerate the process of conciliation, with early meetings and an attempt to resolve claims at an early stage.

**Supplementary material**

A table showing further details of the cases that were settled for reasons of delay in diagnosis or treatment, substandard or peri-operative treatment is available with the electronic version of this paper at www.jbjs.org.uk.

No benefits in any form have been received from a commercial party related directly or indirectly to the subject of this article.

**References**


