



Neutral Citation Number: [2019] EWHC 487 (QB)

Case No: HQ16XC03083

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 5th March 2019

Before :

UPPER TRIBUNAL JUDGE MARKUS QC
(Sitting as a Judge of the High Court)

Between :

STEVEN EDWARD CORKE
- and -
THE PRINCESS ALEXANDRA HOSPITAL
NHS TRUST

Claimant

Defendant

Mr Giles Mooney (instructed by **T G Baynes Solicitors**) for the **claimant**
Ms Claire Toogood (instructed by **Hill Dickinson LLP**) for the **defendant**

Hearing dates: 29, 30, 31 January 2019

Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

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Upper Tribunal Judge Markus QC:

1. On the morning of Sunday the 9th December 2012 the claimant, who was at that time 64 years old, fell off the back of a lorry when working. He was taken to the Princess Alexandra Hospital in Harlow, Essex, where it was found that he had sustained an unstable displaced subtrochanteric fracture of the right proximal femur (ie at the top of his right thigh bone). The original plan had been to fix the fracture by inserting an implant called an intramedullary ('IM') nail and the claimant gave his consent to that procedure. However at some point prior to the operation the consent form was amended to add the option of using a different type of implant, the dynamic hip screw ('DHS').
2. The claimant underwent surgery later that day performed by the on-call consultant, Mr Alex Watson, Consultant Orthopaedic Surgeon, and assisted by Mr Qasim Ajmi, Specialist Registrar in Orthopaedics. Mr Watson fixed the fracture with the DHS.
3. The fixing subsequently failed and the fracture reopened. It is not known when it failed but that it did so can be seen clearly on the first x-rays taken after the 9th December, which were taken on 12th December. Those x-rays were not viewed by any clinician until the 17th December and so it was not known before then that the fixing had failed. Until the 17th December, some attempts were made to mobilise the claimant in accordance with Mr Watson's post-operative advice.
4. Once it became known on the 17th December that the surgery had failed, a decision was made to perform further surgery. It took place on the 20th December, when the fracture was fixed with another type of fixing, a proximal femoral plate. The claimant subsequently developed infection in his hip and leg, there were further complications and over the following 18 months he underwent further treatment but ultimately the leg could not be saved. On the 3rd July 2014 the claimant's leg was amputated at the hip.
5. The claimant's case is that the fracture should have been fixed with an IM nail. The DHS was bound to fail and should not have been used. It was negligent to use the DHS without first attempting to use the nail, which was the optimal device and given the high risk of failure of the DHS. The decision not to use the nail was made by Mr Watson prior to the operation, without attempting to use it. If Mr Watson had attempted to use the nail, he would have been able to do so on the occasion of the operation. Alternatively, if he found that he was unable to use the nail, he should have postponed the operation so that another surgeon could have inserted the nail. But for the defendant's negligence, an IM nail would have been used, the fracture would not have displaced subsequently and the claimant would not have lost his leg.
6. It is also claimed that the fracture was inadequately stabilised for the purposes of the DHS fixation, but the Particulars of Claim do not plead any loss consequent on that alleged negligence. I return to that later in this judgment.
7. Finally it is also claimed that it was negligent of the defendant not to have looked at the x-rays of the 12th December until the 17th December, causing the claimant pain and suffering by reason of being required to weight bear during that period.

8. The defendant agrees that the IM nail was the optimal device for this fracture, if it was possible to use it. The DHS was not bound to fail but the risk of failure was higher than that of the nail. However the claimant was obese and his hip was arthritic, as a result of which both devices carried high risks. The decision to use the DHS was made because, due to the claimant's obesity and arthritic hip, the nail could not be used. Mr Watson had attempted to reduce the fracture so as to insert a nail but had been unable to do so. It was reasonable to use the DHS. The fracture was adequately reduced and the DHS fixing appeared to be strong. It was not an option to do nothing. Delaying would have created risks to the patient and was contrary to NICE guidance. In any event Mr Watson was an experienced consultant orthopaedic surgeon and there was no reason for him to think that anyone else would have greater success with a nail than he had had.
9. The defendant admits that there was delay in viewing the x-rays but avers that the delay did not cause any pain and suffering or, if there was any pain and injury resulting from the delay, it was trivial and *de minimis*.
10. No complaint is made about the defendant's treatment of the claimant after the 17th December.

The law

11. It is common ground that whether Mr Watson was negligent in using a DHS involves application of the well known principles established in *Bolam v. Friern Hospital Management Committee* [1957] 1 WLR 583 as further explained in *Bolitho v City and Hackney Health Authority* [1998] AC 232.
12. The core test for medical negligence was stated by McNair J in *Bolam* at page 587:

“[a doctor] is not guilty of negligence if he has acted in accordance with a practice accepted as proper by a responsible body of medical men skilled in that particular art...Putting it the other way round, a man is not negligent, if he is acting in accordance with such a practice, merely because there is a body of opinion who would take a contrary view.”
13. In *Maynard v West Midlands Regional Health Authority* [1984] 1 WLR 634 at 638E Lord Scarman explained the approach when the Court is faced with competing practices:

“A case which is based on an allegation that a fully considered decision of two consultants in the field of their specialist skill was negligent clearly presents certain difficulties of proof. It is not enough to show that there is a body of competent professional opinion which considers that theirs was a wrong decision, if there also exists a body of professional opinion, equally competent, which supports the decision as reasonable in the circumstances. It is not enough to show that subsequent events show the operation never need have been performed, if at the time the decision to operate was taken it was reasonable in the sense that a responsible body of medical opinion would

have accepted it as proper. I do not think the words of Lord President Clyde in *Hunter v Hanley* 155 SLT 213, 217 can be bettered:

“in the realm of diagnosis and treatment there is ample scope for genuine difference of opinion, and one man clearly is not negligent merely because his conclusion differs from that of other professional men... The true test for establishing negligence in diagnosis or treatment on the part of a doctor is whether he has been proved to be guilty of such failure as no doctor of ordinary skill would be guilty of if acting with ordinary care.”

14. In *Bolitho*, Lord Browne-Wilkinson explained at page 243:

“...in cases of diagnosis and treatment there are cases where, despite a body of professional opinion sanctioning the defendant's conduct, the defendant can properly be held liable for negligence.... In my judgment that is because, in some cases, it cannot be demonstrated to the judge's satisfaction that the body of opinion relied upon is reasonable or responsible. In the vast majority of cases the fact that distinguished experts in the field are of a particular opinion will demonstrate the reasonableness of that opinion. In particular, where there are questions of assessment of the relative risks and benefits of adopting a particular medical practice, a reasonable view necessarily presupposes that the relative risks and benefits have been weighed by the experts in forming their opinions. But if, in a rare case, it can be demonstrated that the professional opinion is not capable of withstanding logical analysis, the judge is entitled to hold that the body of opinion is not reasonable or responsible.

I emphasise that in my view it will very seldom be right for a judge to reach the conclusion that views genuinely held by a competent medical expert are unreasonable. The assessment of medical risks and benefits is a matter of clinical judgment which a judge would not normally be able to make without expert evidence. As the quotation from Lord Scarman makes clear, it would be wrong to allow such assessment to deteriorate into seeking to persuade the judge to prefer one of two views both of which are capable of being logically supported. It is only where a judge can be satisfied that the body of expert opinion cannot be logically supported at all that such opinion will not provide the benchmark by reference to which the defendant's conduct falls to be assessed.”

15. In summary, therefore, I must decide whether Mr Watson's choice of implant (or, if and to the extent that it arises in this claim, manner of inserting it) was one which no orthopaedic surgeon of ordinary skill would have made. It is not enough for the claimant to produce an expert opinion that Mr Watson acted contrary to competent

professional opinion, if there is another body of professional opinion, equally competent, which supports the decision as reasonable in the circumstances. Equally it is not enough for the defendant to adduce an expert opinion in support of the treatment given. That opinion must be capable of withstanding logical analysis.

The technical issues

16. Before turning to the evidence, I give some brief explanation of what I describe as “technical issues”: the type of fracture which was suffered by the claimant, and a brief description of the fixing devices which are in issue in this case. I have as far as possible avoided using specialist medical terminology so that this judgment may be understood more easily by a lay reader.
17. The fracture in this case occurred in the proximal femur, which is the upper part of the femur. It occurred below the trochanter which forms part of the anatomy of the proximal femur. The trochanter comprises two parts: the greater and lesser trochanters. The medial buttress is part of the structure of the proximal femur. The head of the femur is connected, by way of the neck, to the shaft of the femur. The Court was shown a classification of subtrochanteric fractures. In this case, the proximal femur fractured into three main fragments but did not conform precisely to any of the fractures. However, it was agreed that it was closest to a grade 3a fracture which was a three part fracture, the third fragment of which was the lesser trochanter.
18. The intramedullary nail is a metal rod which is inserted through the hollow centre of the femoral shaft. It is fixed in place by way of a screw which is inserted in a transverse direction through the femur and nail and into the femoral neck. The dynamic hip screw comprises a long plate which is fixed by way of a series of screws to the outside of the femur, and is then fixed by way of a sliding screw which penetrates into the neck of the femur. A guide wire is used to assist in the insertion of both devices, and is removed at the end of the procedure.
19. In order to use either of these implants it is necessary first to “reduce” the fracture, ie to align the fragments to their normal position. There was not complete agreement in this case as to whether a precise anatomical alignment was required. Closed reduction is achieved without surgically opening the fracture site. Open reduction takes place once the fracture site is opened surgically.

The witnesses

20. The claimant did not give oral evidence. He had provided a witness statement but, in so far as it comprised evidence relevant to liability, it was not disputed.
21. The two surgeons who performed the operation on 9th December 2012, Mr Watson and Mr Ajmi, each gave evidence by way of a written witness statement about the decisions made and treatment given to the claimant. Mr Watson expanded on aspects of his statement in his evidence-in-chief and was cross-examined by Mr Mooney.
22. The witness statement of Mr Ajmi, the Specialist Registrar who had assisted Mr Watson with the operation, was agreed on behalf of the claimant. Mr Ajmi confirmed the truth of the statement on oath. He corrected and clarified some aspects of his statement, but not in any respect material to the issues which I must determine.

23. There were two expert witnesses. Mr Martin Bircher, Consultant Orthopaedic Surgeon at Ashted Hospital was instructed on behalf of claimant. Mr Andrew Thomas, Consultant Orthopaedic Surgeon at the Royal Orthopaedic Hospital, Birmingham, and Consultant Trauma and Orthopaedic Surgeon at the University Hospital, Birmingham, was instructed on behalf of the defendant. They had each prepared written expert reports and they also provided a joint note following discussion on issues set out in an agreed agenda. They both gave evidence in chief and were cross-examined.

The facts

24. Much of the material facts in this case are undisputed. There is one substantial factual dispute, as to when Mr Watson decided to use a DHS rather than an IM nail and, directly linked to this, what if any attempts Mr Watson made in theatre to use the IM nail before abandoning it. I return to the factual dispute in my findings of fact below. There is no material dispute as to the nature of the fracture nor the presentation of the claimant. There is some disagreement as to whether, when it failed, the screw cut out of the femoral neck. There is no material disagreement as to what occurred after the operation on the 9th December.
25. I make my findings of fact principally on the basis of the written and oral evidence of Mr Watson, the written evidence of Mr Ajmi, and the clinical records. I also refer to evidence of the experts where that has assisted me in making findings of fact.
26. Mr Watson has been a consultant orthopaedic surgeon since November 2006 and was employed in that capacity at the Princess Alexandra Hospital between November 2006 and January 2017. On the 9th December 2012 he was the on-call consultant. He had some recollection of the events of 9th December 2012 but, given the passage of time, this was imperfect and he also relied on the contemporaneous clinical records. He had worked in the Trust for the whole time that the claimant had been an inpatient and, because the outcome was, as he described it, “so dreadful”, he recollected events better than he would normally. He remembered that the operation had been extremely difficult. Indeed he said that he had never performed such a difficult proximal femur reduction.
27. Although Mr Watson had no actual recollection of it, it was not disputed that a multi-disciplinary team (MDT) meeting was held that morning (as was the practice each day) at which the claimant’s case would have been discussed. Mr Watson had not seen the claimant prior to the MDT, and he believed that by then the claimant had already signed the consent form for the IM nail. At the MDT it became clear from the review of the x-rays of the claimant’s hip that there may be significant difficulties as a result of his obesity and severely osteoarthritic right hip. He recalled that there was a discussion of the pros and cons of IM nailing and plating (the DHS). Mr Ajmi’s evidence was consistent with this and I am satisfied that the discussion took place.
28. Mr Watson was aware that the National Institute for Clinical Excellence (‘NICE’) recommended use of an IM Nail for the treatment of subtrochanteric fractures. The guidance produced by the manufacturer of the DHS was that the DHS was indicated for stable fractures and for unstable fractures in which a stable medial buttress could be constructed.

29. The aim would be, if possible, to achieve a closed reduction to align the displaced bones. Mr Watson's view was that a perfect anatomical alignment was not required as he believed the fixing device would hold the fracture once reduced. The advantage of doing the reduction closed was that in most cases the IM nail could then be inserted using a relatively small incision without fully opening the site whereas the fracture site must be fully opened to plate the fracture with a DHS.
30. Mr Watson had used an IM nail on around eighty or ninety times during his career. He preferred to use the nail rather than a DHS. The IM nail was the optimal implant and he found that operation "more enjoyable". It was necessary to reduce the fracture and to rotate the claimant's leg into the correct position for inserting an IM nail. He considered that this may not have been possible due to the limited movement resulting from the arthritis in the claimant's hip. In any event, Mr Watson's opinion was that, given the thickness of the fat layer surrounding the claimant's hip and the limited movement in the hip, the nail could only be used if he were to insert the guide wire at a higher point on the side of his body than would have been done on a thinner patient.
31. Mr Watson said that a decision was made that, while the ideal management of the fracture was by way of IM nailing, that could prove difficult if not impossible, and so there should be an option to use a plate (the DHS) if necessary. This was not the ideal option. Mr Watson realised on viewing the x-rays that it would be difficult to stabilise the medial buttress, although it could have worked. In addition, the claimant's obesity and arthritis would have made it more likely that any implant, including the DHS, would fail because of the forces and stress that they would place on an implant.
32. As a result of the anticipated difficulties, it was decided to amend the consent form to add the option of using a DHS. The amended consent form was signed by the claimant following discussion with an SHO. The consent form did not mention further discussion with the claimant about the risks of using a DHS. Although it is likely that Mr Watson would also have seen the claimant after the MDT and prior to the operation, he could not recall having done so.
33. The kits for both the IM nail and the DHS were made available in the operating theatre, unopened.
34. The above facts are not materially in dispute save for one issue: Mr Watson's evidence was that, despite the anticipated difficulties in using the IM nail, prior to the operation he had not dismissed the possibility of using it. For the claimant, it is asserted that Mr Watson made up his mind not to use the IM nail prior to the commencement of the operation. The evidence of what occurred in theatre is relevant to resolving this factual dispute.
35. In his first witness statement Mr Watson said that he spent "much of the operating time" trying to position the claimant and to reduce the fracture closed but that the claimant was simply too large to access the greater trochanter and introduce a nail, and so it was necessary to perform an open procedure. Due to the size of the claimant's thigh, the wound was extended adding to blood loss and time in surgery. Even open, the fracture was difficult to reduce because of lack of movement of the hip joint. In his second witness statement, prepared around seven months after the first, he said "It is my recollection that it became apparent almost immediately as the surgery

commenced that a closed reduction would be impossible given this patient's particular presentation".

36. Under cross-examination Mr Watson said that he spent a "great deal of time", which he estimated at around 30 minutes, attempting a closed reduction, positioning and changing the angle of the leg. When the apparent inconsistency between the two statements was put to him he said that, while it may have become apparent almost immediately that a closed reduction would be impossible, he may still have attempted some reduction.
37. Mr Watson explained the requisite position of the hip for use of an IM nail, and that this could not be achieved due to the limited leg movement. Due to the amount of fat and the position of the entry point, the guide wire and IM nail could not be inserted in the minimally invasive way that might be used on a thinner patient. Mr Watson said that it would be impossible to tell what tissue the wire was passing through. The liver and bowel were not far away. He did not think it would have been possible to move and hold that quantity of belly fat with tape.
38. He said that, once he realised he could not achieve a closed reduction, he thought that the chance of using an IM nail had decreased but it was not until the fracture site was opened and he saw the fragments that he realised that he could not insert the nail. He said that he did not know at what point he ruled out using an IM nail, but he was clear that it was after the operation started. A little later he said that he made the decision after he opened the fracture site when he realised that he could not insert the nail.
39. In his witness statement Mr Ajmi said that he had a distinct recollection of the claimant because he had remained an inpatient for months after the first operation and because ultimately his leg was amputated. However, he did not have a "particularly precise recollection" of the operation on 9th December and relied on the content of the medical records including the operation notes which he completed. He had no recollection of the MDT before the operation but said that each patient would have been discussed. He continued:

"16. A determination was made by Mr Watson before operation to proceed to attempt to reduce the subtrochanteric fracture using a dynamic hip screw. An intramedullary nail was also considered, but my recollection is that we preferred DHS as its aids in open reduction. On call team anticipated difficulty in reducing the fracture due to the size of the patient and the nature of the fracture itself with IM nailing."
40. Mr Mooney submitted that the Court must accept the evidence of Mr Ajmi, or at least should be very slow not to do so. He said this was evidence adduced by the defendant and was agreed. The defendant did not need to adduce it. In over a year since Mr Ajmi made his witness statement, there had been no attempt to clarify or explain it and Mr Ajmi did not seek to do so when called during the trial, despite hearing the rigorous cross-examination of Mr Watson on this factual issue.
41. I reject Mr Mooney's approach to Mr Ajmi's evidence. It is my task to decide what weight to give to the evidence presented to the Court, taking into account all relevant matters. The defendant offered two witnesses of fact. The fact that one was agreed by

the claimant does not of itself mean that that witness' evidence must carry more weight than the other. Mr Ajmi's statement was agreed because it supported the claimant's case. In any event, as I explain below, I do not consider that Mr Ajmi's statement is as clear on this issue as is contended by Mr Mooney.

42. On the evidence I find on balance of probabilities that Mr Watson did not rule out using an IM nail prior to going into theatre, and that he attempted to position the claimant's leg and achieve a closed reduction so as to be able to use the nail. I make this finding for the following reasons:
- i) I have no doubt that Mr Watson did his best to recollect events and to explain his actions. There are obvious difficulties in remembering so far back. I accept that Mr Watson would be likely to have recollected this particular operation more clearly than others, for the reasons which he gave. However, as he properly accepted, his recollection was incomplete. Although there were occasions in cross-examination when he appeared to be agitated, this was an understandable response to having his professional judgment attacked and his reaction did not cast doubt on the reliability of his evidence. In saying this, I do not in any way criticise the cross-examination which was entirely proper and apt. In the light of the concessions readily made by Mr Watson (for instance as to using the DHS against manufacturers guidelines and NICE recommendations, and that the DHS was a sub-optimal choice, as to which more below), I do not find him to have been an unusually defensive witness.
 - ii) Mr Ajmi's recollection was also incomplete and his evidence was principally based on the medical records. Although when read alone paragraph 16 of his witness statement might suggest that he actually recollected all the matters referred to there, in the context of the statement as a whole I have concluded that he did not actually recollect those matters. That paragraph refers to what occurred in the MDT or trauma meeting, but at paragraph 14 he said he could not recall the MDT and at paragraph 15 he said that he could not recall the trauma meeting before surgery.
 - iii) Given Mr Watson's considerable experience in using an IM nail, his knowledge that it was the preferred fixation, and his personal preference for using it if possible, it is not likely that he would have used the DHS simply because it was easier to do so.
 - iv) The inconsistency between Mr Watson's witness statements is not as significant as is contended by Mr Mooney. Both statements were prepared a considerable time after the events in question and it is probable that in either or both he has mistaken some of the detail, including the timing of what occurred at the start of the operation. However the two statements are consistent in the following two important respects: first, that prior to the operation Mr Watson's preference was to use an IM nail but he recognised that it may be impossible to do so; and second that Mr Watson realised once in theatre that a closed reduction was impossible. Moreover, it is significant that the second witness statement was prepared in order to address a new allegation in the Amended Particulars of Claim that the fracture was inadequately stabilised. The second witness statement therefore focusses on that matter rather than the timing of or reasons for the decision not to use the IM nail.

- v) When tested in cross-examination Mr Watson was emphatic about the effort he had made to perform the procedures in question. Despite his being unable to recall some of the detail, the thrust of his oral evidence on this issue was coherent and internally consistent and was also consistent with the detailed explanation of what he did which is in the first statement.
 - vi) The operation notes, written up by Mr Ajmi after the operation, described the DHS fixation which was undertaken. They did not mention an attempt to achieve a closed reduction or to position the hip so that an IM nail could be used, nor that a decision was made to use a DHS rather than a nail. Mr Watson acknowledged that the choice of implant was a big decision but said that it was unnecessary to record it in the operating notes as these provide a record of the operation actually performed. He did not agree that the failed attempt to use the IM nail was a complication which should have been recorded in the notes. Both experts disagreed with Mr Watson's opinion of what should have been included in the operating notes, and I accept their opinions on this matter. I also take into account that the notes in this case were completed by Mr Ajmi and he was not asked about the omission. It could have been a reflection of his understanding of what should be included in the notes rather than signifying that there was no attempt to use the IM nail. If the operating notes had recorded the attempt or the decision made it would have put matters beyond doubt, but I do not infer from the failure to mention it that the decision was not made in theatre.
 - vii) On the other hand there is very clear documentary evidence supporting Mr Watson's account: the IM nail was retained as an option on the consent form, and the equipment for both the IM nail and the DHS was made available in the operating theatre. Neither of these matters is consistent with a decision having been made prior to going into theatre. Mr Thomas also directed me to the anaesthetic record which, in the light of the recorded timing of blood loss and when the first blood was given, is consistent with Mr Watson's account.
43. In the light of my finding, it is not likely that Mr Watson would have abandoned the use of an IM nail unless and until he decided that it was impossible to use it. Accordingly I find that, when he opened the fracture site, he was still considering whether it was possible to use the IM nail although, as Mr Watson said, the possibility of doing so was less. Mr Watson's assessment was that it would not have been an option to halt the surgery before opening the site. The fracture needed to be fixed as soon as possible. He was one of the most experienced surgeons in the hospital, and so there was no point in delaying the operation.
44. Having opened the fracture site, Mr Watson cleared the soft tissue from around the fracture. He did not know the extent of the difficulty in using the nail until he opened the site. He found that the lack of rotation of the hip made open reduction very difficult. He decided that he could not insert the IM nail without extending the incision by around a further 12 inches, which would have prolonged the surgery (which in any event lasted three hours) and would have caused increased blood loss (which in any event was 3500 mls). He considered that doing this could have jeopardised the claimant's life.

45. Mr Watson performed the DHS fixation. He was aware that using the DHS was high risk in this case, due to the excessive forces exerted as a result of the claimant's weight and restricted hip movement. He said that, even if he had been able to use an IM nail, that too was at risk of failing for similar reasons. His judgment was that it was not possible to use an IM nail, the DHS was capable of fixing the fracture, and doing nothing was not an option.
46. The fracture was reduced, but not perfectly. Mr Watson's view was that it did not need to be perfectly reduced in order to fix the DHS. He was unable to stabilise the medial buttress and he was aware that, as a result, the DHS was being used contrary to the manufacturer's instructions. The plate was fixed with four screws below the fracture. Another screw broke. The plate spanned a length of unsupported fractured femur shaft and, above or at the top of the fracture, was fixed by the large screw inserted through the neck of the femur and into the head.
47. Mr Watson's judgment at the time was that the reduction of the fracture was adequate and that the fixation of the DHS plate was firm. The bone was very strong, the fixation felt firm, and the imaging at the time showed a firm fixing. It was not likely that the proximal screw would rotate as it was a square screw fitting into a square hole. Mr Ajmi, who had performed part of the operation before asking Mr Watson to help, also considered that the fixation was firm. It was put to Mr Watson that he should have used cerclage wires around the fracture in order to hold it firmly. He said that this was unnecessary and he did not wish to extend an already long the operation. The claimant had lost a large amount of blood (3500 mls) and he felt that the claimant could have died if he had extended the operation.
48. The post-operative plan was for the claimant to mobilise with partial weight bearing after the operation. It was appreciated that there was a risk of the DHS failing but some mobilisation was necessary in order to reduce the risk of a DVT and other post-operative complications, particularly because he was obese and diabetic. He had already had breathing difficulties lying in bed.
49. Mr Watson did not know why the x-rays taken on 12th December were not drawn to the attention of either his team or the claimant's orthopaedic team until 17th December. The x-rays show clearly that at some point between the 9th and 12th December the hip had rotated by almost 90 degrees. As I have mentioned there was disagreement between Mr Bircher on the one hand and Mr Thomas and Mr Watson on the other as to whether the top of the screw had cut out of the head of the femur or whether the rotation was due solely to the DHS itself rotating.
50. The clinical records show that attempts were made to mobilise the claimant between the date of the operation and the 17th December, although these were largely unsuccessful. I discuss this in more detail under the heading "Conclusion on negligence: delay in viewing the x-rays".

The expert evidence

51. There is no doubt as to the expert witnesses' standing and competence as orthopaedic surgeons. Their CVs attest to this, and I give a flavour of them here.

52. Mr Bircher has been a consultant orthopaedic surgeon since 1989. He has a major interest in trauma and particularly acetabular and pelvic surgery. His elective interests lie in all aspects of lower limb surgery. His active clinical practice includes both trauma surgery and elective lower limb surgery. He has an impressive record of specialism in these fields and is on the Council of Management and Editorial Board of the Bone and Joint Journal. He is an experienced expert witness in medical negligence and personal injury cases.
53. Mr Thomas has over twenty years experience as a consultant orthopaedic surgeon whose specialities include lower limb joint replacement. He is the former Medical Director of the Royal Orthopaedic Hospital NHS Foundation Trust and is a member of the Professional Practice Committee of the British Orthopaedic Association. He has a busy medico-legal private practice and is an experienced expert witness.
54. Both expert witnesses had prepared expert reports. They had subsequently met to discuss an agreed agenda and produced a joint note although there remained significant disagreement between them.
55. The following is the common ground between the experts:
 - i) The IM nail was the optimal device for this fracture.
 - ii) The fracture was difficult to reduce closed.
 - iii) There was a risk of failure of the IM nail, but a higher risk of the DHS.
 - iv) The fixation that Mr Watson performed with the DHS appeared to be firm at the time of surgery but failed because of the weight and lack of movement of the leg was too much for it. The experts agreed that the leg had rotated around 90 degrees, although they disagreed as to whether the proximal screw had cut out of the femoral neck.

Mr Bircher

56. Mr Bircher's written opinion was:

“to treat this sub-trochanteric fracture with a dynamic hip screw even with a long plate does fall below an acceptable clinical standard. It is well known that these fractures have a high failure rate and to span the fracture with a dynamic hip screw with only four screws below the fracture and just the proximal screw is a misinterpretation of the clinical and biomechanical scenario and represents a breach of duty.”
57. Mr Bircher's written opinion was that the IM nail was the correct operation and, although the “slightly stiff hip” may have caused some difficulties, he could not see any reason to change the treatment plan. In oral evidence Mr Bircher agreed that the fracture in this case was difficult to reduce closed. He would not have expected to be able to do so. His opinion was that Mr Watson should have achieved the best position that he could before opening the site. He disagreed with Mr Watson's claim that the fat could not have been taped and said that the patient could have been positioned so

as to achieve a more posterior entry point so that, with the correct radiographs, the guide wire could have been inserted without causing any risk to the abdominal viscera. As an alternative to inserting the guide wire through the abdomen above the femur, it would have been possible to insert it retrograde, ie from below.

58. Mr Bircher's written opinion was that the insertion of the DHS in this fracture was "bound to lead to failure". The way in which the hip screw was fixed, with the fracture unreduced and spanned as it was, with only four screws below the fracture and the proximal screw, put too much force on the constructions and that "early failure was the only possible outcome here". The DHS should not have been used because the fracture had not been reduced completely.
59. In his oral evidence Mr Bircher explained that when the medial buttress is reduced it can take some load. Failure to reduce it courts failure. The head, shaft and medial buttress must all be reduced as accurately as possible. In this case the DHS failed because the claimant's bone was very strong. This gave a very good short term hold on the distal screws but meant that the weight of the leg caused it to rotate and the fracture came adrift. He said the way in which it failed highlighted how doomed it was from the start to use the DHS. The fracture should not have been spanned in such a high load area. If the fracture had been supported then that would have improved, but would not have guaranteed, the chance of success. He said that an IM nail would not have held the medial fragment but would have reduced the rotation of the femur.
60. In his report Mr Bircher reviewed Mr Watson's first witness statement and agreed that the fracture needed to be open, but said that an IM nail could still have been used. In oral evidence he said that he would have got the best positioning of the claimant that he could before opening the site. He would have used tapes and bandages to move the fat out of the way. He would have been able to insert the guide wire with the assistance of x-rays to see where it was going. He would have inserted the wire (preceded by the advance reamer) from the bottom up. With the hip flexed, the entry point would have been much more posterior and would not have risked the abdominal viscera.
61. In his report Summary Mr Bircher said that in the past a DHS with a long plate was accepted practice but that the weight of evidence from clinical studies shows that the IM nail offers a lower failure rate. He referred to the manufacturer's guidance for use of the DHS. He also referred to an academic paper, "Intermedullary Versus Extramedullary Fixation for Subtrochanteric Femur Fractures" in the Journal of Orthopaedic Trauma (2009) in support of his opinion, which he said showed a lower failure rate for the IM nail than the DHS. He commented in his report that "Most people in this situation would attempt to do a nailing". He continued that, if a plate is going to be used, then it is widely accepted that a different device, the dynamic condylar hip screw, rather than the DHS is the device of choice. He said that the dynamic condylar screw would have been acceptable but that the ideal implant would have been the IM nail.

Mr Thomas

62. In his written report Mr Thomas gave his opinion based on the medical records. He noted that the claimant was extremely medically unfit: extreme obesity, poorly controlled diabetes, and previous recurrent episodes of cellulitis in the right leg. The

CT scan showed severe osteoarthritis of the right hip, which would significantly restrict the movement in the hip joint and make reduction of the fracture and positioning for a femoral nailing extremely difficult. This hip was a protrusio type, which will often flex or bend upwards reasonably well but will typically have very limited rotation or inward or outward movements of the hip joint. Moreover, the restricted hip movement would be an underlying risk factor for the fracture.

63. The claimant would have been consented initially for an IM nail, in compliance with the relevant NICE guidance. He said that on viewing the x-rays the senior members of the team would have understood how much difficulty the arthritis was likely to cause for an IM nail fixation and also the very significant difficulty in carrying out an IM fixation on a patient of this weight and size because it would have been very difficult to position the patient, to locate the entry point for a nail, and to undertake the necessary manipulation. Mr Thomas depicted graphically, superimposed on a CT scan of the claimant's hip taken prior to the fracture, how far the femur would need to move in order to pass a nail down the shaft and which also showed the extreme fat depth which would need to be opened in order to stand any chance of inserting a nail. If the hip joint could not move due to stiffness, that might be an insuperable problem. Later in the report, commenting on Mr Bircher's statement that IM nailing was recommended for this type of fracture, Mr Thomas said:

“...it would have been extremely difficult because of the patient's size and also it would have been very difficult to properly control the position of the proximal fragment during the surgery because of the pre-existing osteo-arthritis.”

64. Mr Thomas said that it was unfortunate that the operation note did not record the reasoning for using the DHS fixation but that it would not be unusual in a trauma department for that type of decision to be made and agreed verbally. He concluded:

“Based on the records, therefore, I would say that the initial assessment and treatment here was reasonable and in accordance with normal surgical practice in December 2012.”

65. In his report Mr Thomas considered Mr Watson's witness statement. He found Mr Watson's comments to be “much as I would expect”. He agreed with Mr Watson's assessment in the MDT meeting that undertaking an IM nailing in this case “might well be next to impossible”. He referred to Mr Watson's explanation of the unsuccessful attempt to reduce the fracture closed and position the claimant for use of an IM nailing system, commented that it was “a shame” that this had not been recorded, but said that

“provided the Court accepts Mr Watson's description, I think the decision to proceed to an open reduction and DHS type fixation was reasonable, it may not have been the optimum fixation method, almost certainly it wasn't, but it is what a significant proportion of orthopaedic surgeons would have done at the time.”

66. Mr Thomas said that the use of the DHS was “in accordance with a reasonable and responsible body of orthopaedic surgeons”. The DHS failed not because of negligence

on the part of the surgical team but because the arthritic hip and the claimant's excessive weight meant that the fixation device was subject to excessive force.

67. In his oral evidence Mr Thomas said that the IM nail was the treatment of choice for this type of fracture. If it had been reasonably possible to use the IM nail, it would have been a breach of duty not to do so. However, on any basis this type of fracture was a very high risk to treat and, in the claimant's case, even more so given the weight of the leg (estimated by him to be between 20 and 25 kilograms) in combination with the stiff arthritic hip.
68. Mr Thomas agreed that, as it had not been possible to stabilise the medial buttress, use of the DHS was suboptimal. It would have been clear, therefore, that there was a high risk of failure and that a surgeon would have worried considerably about it even if he felt that he had a good fixation.
69. He explained that the choice of using a DHS rather than an IM nail was not a simple one. Mr Watson had to establish to his satisfaction that he could not use the IM nail and Mr Thomas did not doubt that he could not do so. He had to do something, in the knowledge that it was high risk. He said that plenty of screws are used in less than ideal situations and do not fail. Mr Watson had to balance the risks.
70. Mr Thomas could not give a precise figure for the risk of failure of either fixation. For illustration purposes, he put the relative risks of failure at 40% for the IM nail and 60% for the DHS. However, a 60% risk of failure did not mean the operation should not have gone ahead. All surgeons perform operations with a high failure rate, including sometimes where they are likely to fail. He said "you rack your brains for what to do, do your best, but know it may well not work". It was not illogical to do this. Mr Watson was faced with a very difficult problem and what he did was not illogical. He had been unable to use an IM nail. Doing nothing carried high risks of the claimant developing pressure sores, and he had other health problems.
71. Mr Thomas commented on Mr Bircher's suggestion, made for the first time in his oral evidence, for inserting the guide wire from below. Mr Thomas had not seen this procedure being done, and could not say that it was "absolutely fine", although he did not doubt that Mr Bircher had done it. In Mr Thomas' view this would not have solved the problem in this case because insertion of the IM nail required use of a targeting device to ensure that the screw which passed through the nail into the neck of the femur was properly placed. The targeting device fits on top of the nail and provides alignment for the screw to pass from the entry point on the patient's body through the femur and into the nail. In a thin patient, this can be positioned with minimal incision. In a patient the size of the claimant, such a device would need to be very large. Mr Thomas did not know whether such a large device would have been available at the hospital on that day but, even if it was, the size of the device would have involved cutting through a large section of abdominal fat and would have required a long incision as one arm of the device is inserted inside the body. It was much stouter than a guide wire and so would have involved "a big stab". A targeting device is required for any IM nail fixing, whether it is done open or closed and regardless of the direction of insertion of the guide wire.
72. Mr Thomas agreed that in recent years there had been a trend towards IM fixation, which was reflected in the National Hip Fracture Database ('NHFD'), but said that "it

is far from the fact that this is universally the case”. The NHFD repeats the NICE guidance that subtrochanteric fractures are generally best treated with an IM nail. In 2014 it stated that hospitals should review practice if fewer than 70% of subtrochanteric fracture were treated with an IM nail, indicating that there would be concern if a large proportion of such fractures were not treated with the IM nail. The NHFD shows that the percentage of patients treated with an IM nail in normal hospital practice had increased from 70% in 2011 to 79% in 2015. On a national basis, almost 25% of subtrochanteric fractures were treated with a DHS at the time of the claimant’s operation. It was put to Mr Thomas in cross-examination that, as the NHFD did not state what type of fractures had been treated with a DHS, it was possible that they may all have been undisplaced simple fractures. Mr Thomas accepted that it is likely that these would have accounted for some of the DHS cases but said that it was unlikely to be all of them in the light of the significant variation in the rates of use between hospitals. Some units used the screw in more than 50% of subtrochanteric fractures. Mr Thomas did not know what the most likely type of subtrochanteric fracture would be but the figures showed wide use of the DHS and he did not agree that in a large proportion of those case the medial buttress would have been restored. Moreover, Mr Thomas did not agree that one could conclude that the DHS would not have been used contrary to the manufacturer’s instructions. Those instructions are conservatively drawn and are not always followed. For instance, he pointed out that both he and Mr Bircher use the proximal femoral plate contrary to manufacturer’s instructions.

73. Mr Thomas commented in his report on the paper in the Journal of Orthopaedic Trauma referred to by Mr Bircher. Mr Thomas pointed out that the paper did not show a significant difference in risk in use of the devices, and the paper concluded that further studies were required to show clear superiority of the IM implant for this fracture which should distinguish between patients with different bone quality. The paper made no reference to patients with osteoarthritis combined with extreme obesity. The claimant had very high quality bone and the paper did not show that it was essential to use an IM fixation in such a case.
74. In Mr Thomas’ opinion the DHS appeared to be well placed on the 9th December but he thought that the x-rays of 12th December showed that the sliding screw had come out of the femoral neck. He agreed with Mr Bircher as to what had occurred save that in his opinion the rotation of the leg had caused the screw to cut out.
75. Mr Thomas was satisfied that the operation performed in this case was supported by a reasonable and responsible body of orthopaedic surgeons. The DHS failed “not because of any negligence by the surgical team but because the arthritic hip meant that the fixation device was subjected to excessive force, in addition to the patient’s arthritic hip.”

Joint report

76. Mr Bircher and Mr Thomas produced an agreed note of their discussion of specified issues. Much of what they said there has been covered in my summary of their evidence above, and I summarise the main additional points here:

- i) NICE recommended an IM nail for the treatment of subtrochanteric fractures. Mr Thomas noted that the guidance said nothing about patients with pre-existing osteoarthritis or the problems caused by extreme obesity.
- ii) They agreed that the IM nail was the optimum treatment. Mr Bircher said it was never reasonable to treat a subtrochanteric fracture with a DHS. Mr Thomas said it was reasonable to have done so in this particular situation.
- iii) Mr Bircher said that the DHS was bound to fail in someone as heavy and immobile as the claimant. Mr Thomas said the IM nail and the DHS were both at very high risk of failure in this case.
- iv) The experts broadly agreed on the difficulties presented by this patient and that it was reasonable and necessary to open the fracture site.
- v) Mr Bircher estimated the fixation failure rate as around 10% for the nail and 100% for the DHS. Mr Thomas said normally the failure rate of a nail would be 5.3% to 7.7% and around 20% for a DHS but both risks would have been much higher in this case.
- vi) Mr Bircher said that if a surgeon was not confident in using an IM nail, someone with the appropriate skills should have been found and/or to obtain a better fixing device (a proximal femoral plate). Mr Thomas said that it was unrealistic to suggest that Mr Watson could have found someone with appropriate skills in a normal general district hospital and there were significant risks in transferring to a specialist unit and delaying surgery. The team would have had no idea how long it would take to obtain a proximal femoral plate, although that was probably mechanically better than the DHS.
- vii) Mr Bircher said that, if Mr Watson had been unable to reduce the fracture closed and position the claimant so as to use the IM nail, he should have attempted to use the IM nail following an open reduction. It would have increased the chances of the fracture satisfactorily healing but with a small increased risk of infection. Mr Thomas said that any attempt to use the IM nailing procedure which subsequently proved impossible would unnecessarily have prolonged anaesthetic time in a high risk patient and would have damaged the proximal femur by making a large hole and so increased the risk of failure. It would have required a major extension of the wound with consequent additional soft tissue trauma and blood loss.
- viii) Mr Bircher said that it would have been a breach of duty if Mr Watson had not tried to use the IM nail but had decided prior to surgery to use the DHS. Mr Thomas did not answer that question but instead expressed concerns about the way Mr Ajmi was described in the question.
- ix) Mr Bircher said that the single sliding screw in the proximal fragment plus the long unsupported medial calcar (due to the sub-standard reduction and stabilisation of the fracture) meant that the construct was far too weak to resist even simple load and this led to the failure of the fixation. Mr Thomas agreed that the long length of unsupported bone was a problem but said it would have applied if an IM nail had been used because the IM nail also gets a grip in the

femoral neck and head using a similar screw. There was a theoretical advantage of the nail because it has some fixation in the greater trochanter region. However, the intensifier images taken in surgery showed that the fracture was reduced into quite a good position and the DHS screw was reasonably positioned in the lower part of the femoral head.

Conclusion on negligence: use of the DHS rather than the IM nail

77. Mr Mooney submitted that there were two matters which were fatal to the defendant's case: a) Mr Watson did not try to use the IM nail, and so it cannot be said that it was not reasonably possible to use it; b) Mr Thomas conceded that the DHS had a 60% chance of success and so both experts agreed that, on balance of probabilities, the DHS operation was doomed. I address each of these.

a) Submission that Mr Watson did not try to use the IM nail

78. Mr Mooney's submission is that Mr Watson had made up his mind before the operation started to use the DHS and not the IM nail, and so it follows that he did not attempt to use the nail and so the defendant cannot show that it was not reasonably possible to use it. Mr Mooney relies on Mr Thomas' statement in his report that Mr Watson's decision to use the DHS was reasonable "provided the Court accepts Mr Watson's description". Thus, Mr Mooney submits, Mr Thomas' opinion that it was not negligent to use the DHS was conditional on the Court accepting Mr Watson's account including his claim that he did not rule out using the nail before the start of the operation and had attempted to use it.
79. I have found as a fact, above, that Mr Watson did not make up his mind prior to the operation and that he did attempt to use the nail. Therefore the factual premise of this submission fails and so does the submission.
80. For completeness, however, I add that I do not agree with Mr Mooney's underlying approach that this factual issue is critical to the success of the defence. Whether or not Mr Watson attempted to use an IM nail in theatre is not determinative of the question whether it was reasonably possible to use an IM nail. What he did is relevant evidence but it is not the only evidence in that regard. There is the evidence of the claimant's physical condition and his medical history, the clinical observations of him and assessment of the appropriate procedure made prior to surgery, and the expert evidence. If Mr Watson's judgment that it was not reasonably possible to use the IM nail was a reasonable one, whenever it was made, it would not become negligent if I rejected his account of the stage at which the decision was made.
81. Moreover Mr Thomas' opinion that the decision to use the DHS was reasonable "provided the Court accepts Mr Watson's description" does not mean that his opinion depended on the Court accepting Mr Watson's evidence as to the timing of the decision. Mr Thomas' original and clearly reasoned written opinion was based on the records alone and in the acknowledged absence of a record of the detailed reasoning for using the DHS rather than the IM nail. He separately commented on Mr Watson's statement and set out the conclusions he reached on that basis, but that did not qualify his original opinion. Mr Watson's description to which Mr Thomas referred was of the difficulty of reducing the fracture closed and positioning the claimant so as to be able to use the IM nail, a difficulty which Mr Thomas had already observed could be

an insuperable problem. Mr Thomas had also stated that he agreed with Mr Watson's comment that using an IM nail in this case was "might well be next to impossible" based on Mr Thomas' observations of the CT scan. It is clear from the written report, and additionally from his oral evidence, that Mr Thomas' opinion as to the reasonableness of using the DHS was based not only or necessarily on the correctness of Mr Watson's account of when and how the decision was made in surgery, but on the basis of all the evidence including significantly the very obvious difficulties in and risks of using an IM nail in this particular case.

82. In any event, in this part of his report Mr Thomas was commenting on the decision "to proceed to an open reduction and DHS fixation". This is important because both experts agreed that it was reasonable to proceed to an open reduction in this case. Mr Bircher said in oral evidence that from the start he would not have expected to reduce the fracture closed. Mr Watson's explanation that an IM nail could not be introduced when the site was open was supported by Mr Thomas who also explained the risk of attempting and failing to do so. The difficulties and the risks identified here were based on his observations of the claimant which had been derived from the clinical records and were not dependent on a finding that Mr Watson had in fact tried to use an IM nail.

b) The approach to the experts' assessment of risk of failure of the DHS

83. Mr Mooney submits that as both experts assessed the risks of failure of the DHS as being over 50%, the Court should conclude that the experts agreed that, on balance of probability, the operation was doomed. The submission is misconceived. Experts do not assess treatment risks on the legal test of balance of probability. They provide their expert assessment of risk and, where appropriate, factor this into their opinions. In the present case, Mr Thomas' opinion was that it was reasonable to perform the operation in question even though there was a high risk of failure. He was very clear that in his opinion the operation was not "doomed".

c) Negligence

84. I start by reminding myself that it is for the claimant to establish that the defendant's use of the DHS and not the IM nail was negligent. The defendant has presented evidence from Mr Thomas to the effect that a significant proportion of reasonable and responsible orthopaedic surgeons would have supported the operation carried out by Mr Watson. Therefore the claim will fail unless I am satisfied on balance that Mr Thomas' opinion cannot be logically supported.
85. Both Mr Thomas and Mr Bircher agreed that, in this particular case, it would have been almost impossible to achieve a closed reduction. The opinions of both experts are consistent with Mr Watson's concerns about achieving a closed reduction prior to the operation and the difficulties which he experienced when he attempted a closed reduction. Given the common ground on this aspect of the case, I am entirely satisfied that Mr Watson's failure to achieve a closed reduction was not negligent. A closed reduction simply could not have been achieved in this case.
86. I am also satisfied that it was reasonable for Mr Watson to open the fracture site surgically. Whichever implant he used he would have needed to open the site to attempt to reduce the fracture as much as possible, given the impossibility of

achieving a closed reduction. Mr Bircher would have opened the site and, indeed, from the start would not have expected to do otherwise.

87. The critical issue in this case is whether it was reasonable to decide not to use the IM nail and, instead, to use the DHS.
88. Mr Thomas was very clear that it was not negligent to use the DHS in this case despite the high risk of failure. He explained the basis of his opinion, taking into account: the claimant's medical history and physical presentation; the scans showing the extent of the claimant's osteoarthritis; the image intensifier pictures taken during surgery; the difficulties described in positioning the claimant, locating the entry point and manipulating the femur; Mr Watson's statement; the NHTD report and the information from the manufacturer of the DHS implant.
89. Mr Thomas gave clear and consistent evidence, which I have summarised. His firm opinion was that this was a very difficult fracture to deal with and that, for the reasons given, Mr Watson's assessment that the IM nail could not be used was a reasonable one.
90. Mr Bircher also agreed that, even with the site open, it would not have been possible to use an IM nail unless the leg could be positioned correctly. He was not present at the operation and so was not able to comment on the difficulty positioning the leg. Indeed Mr Bircher's expert report somewhat underplayed the degree of osteoarthritis in the hip even though, as Mr Thomas observed, this was apparent from the medical records. Mr Thomas said that Mr Watson's evidence about the difficulties in doing so was consistent with the nature and extent of protrusio arthritis visible on the CT scan.
91. Mr Thomas' evidence also clearly supported Mr Watson's explanation of other difficulties in using the nail given the claimant's size including the difficulty in positioning the leg, locating the entry point for the nail and using the targeting device. Even if Mr Bircher was correct in his criticism of Mr Watson's concern about penetrating the abdominal viscera, that does not undermine the overall rationale for deciding not to use the nail.
92. Mr Bircher's introduction in oral evidence of an entirely novel approach reinforces how difficult it was to perform the procedure. In any event, tackling the implant in this way would not have solved other problems in this case, as explained by Mr Thomas. Mr Thomas did not consider that a different implant (the proximal femoral plate) would have presented a lower risk of failure than the DHS and, moreover, a proximal femoral plate was not available.
93. As Mr Thomas explained there were high risks in attempting to insert the nail and failing, in particular increasing the risk that any other device would then fail.
94. I am satisfied that there is logical force to Mr Thomas' opinion, supporting that of Mr Watson, that delay was not an option. First, he has explained clearly and cogently that there would have been risks of serious complications in delaying. The importance of avoiding delay is reflected in NICE guidance requiring hip surgery to be performed within 36 hours, and hospitals can be penalised financially for breach. Second, at the time of making the decision it would not have been possible to predict the length of any delay, which was dependent on the availability of alternative

equipment or transfer to a specialist unit. Third, Mr Watson was an experienced orthopaedic surgeon. There was no reason to suppose that another surgeon would have been able to do what Mr Watson found himself unable to do. Mr Bircher asserted that the operation could have been delayed but did not cogently refute the above rationale for proceeding on the day. Moreover he did not raise the possibility of delay until the experts' meeting, which indicates that this suggestion is likely to have been made with the benefit of hindsight.

95. I reject Mr Mooney's submission that it cannot be logical to use an implant with a very high risk of failure. Those risks had to be balanced against the risks of not proceeding. There was no reasonable basis for Mr Watson to have thought that the difficulties which he experienced in using the IM nail would not have been faced by another surgeon. As Mr Watson pointed out, he was experienced in using the IM nail, there was no more experienced surgeon on hand, and there was no other more suitable implant available. In any event, the claimant's case is that the IM nail was the only implant that could reasonably have been used.
96. Ms Toogood is correct to observe that, although causation is not in dispute, the risks of using the IM nail are relevant to breach of duty. All three surgeons agreed that the IM nail carried a risk of failure. Mr Bircher agreed that the IM nail would not have held the medial fragment. The experts agreed that the claimant's weight and osteoarthritis increased the risk. Mr Watson considered that there were considerable risks of attempting an open nailing, due to increased operation time and blood loss. There were also considerable risks in postponing surgery. He had to balance those risks against the benefit of nailing which itself had a significant risk of failure.
97. Extraneous materials also support Mr Thomas' opinion as being one held by a body of competent professional opinion, or at least do not undermine it.
98. The NICE guidelines recommended use of an IM nail but did not rule out alternative fixings.
99. The DHS manufacturer's guidance is not mandatory and in certain circumstances clinical judgment may override it. In cross-examination Mr Bircher's criticism of using the DHS contrary to manufacturer's guidelines was largely directed at the failure to note what had been done rather than the reasons given for doing so. He said that he had performed surgery contrary to the guidance, but had recorded the fact and told the patient. His suggestion of inserting the guidewire for the IM nail from bottom to top does not appear in the manufacturer's guidance.
100. The National Hip Data Base figures show that the DHS or similar device was used at that time in around one quarter of cases on average. Mr Bircher agreed, when it was pointed out to him, that the Princess Alexandra Hospital had submitted its figures and that it had used the DHS in 21% of cases in 2012. Other hospitals used it for many more (60% in St George's). Mr Bircher said the rate of use worried him, but of course that is of itself not relevant to the application of the *Bolam* test. On balance of probabilities, given the variable rates of use of the DHS between different hospitals, it is unlikely that the cases in which the DHS was used were all simple and/or stabilised fractures. Indeed, as an IM nail is the optimal device, it is likely that it would be used where possible which would include simple fractures. The most likely explanation for

it not being used in some cases is that it was not possible to use the IM nail. This is consistent with the DHS being used for complex fractures.

101. Mr Ajmi's statement as to the reasons for using the DHS rather than the nail and his view that the DHS fixation was secure can only mean that he considered that using the DHS was acceptable in this case. It is consistent with there being a body of competent opinion that supports the procedure used.
102. Mr Bircher's evidence does not get close to showing that Mr Thomas' expert opinion does not stand up to logical analysis. In particular:
 - i) Mr Bircher made a number of inconsistent statements about the use of an IM nail and the DHS. In his written report at page 442 he said that the fracture required fixation with an IM nail. In his oral evidence he confirmed that this passage meant that an IM nail was the only reasonable option. However, in the Summary at the end of his report he accepted that a different sort of plate (the dynamic condylar hip screw) would have been acceptable but that the IM nail was "the ideal implant". These latter opinions are inconsistent with what he said earlier and do not support the claimant's case that use of the IM nail was mandatory.
 - ii) In the experts' joint note Mr Bircher said that use of a DHS on a subtrochanteric fracture was never reasonable. In oral evidence he said that it would not always be negligent to use a DHS on certain subtrochanteric fractures and that "personally I don't think it is reasonable but other surgeons do". He said that his answer in the joint note was his personal opinion, which is plainly not the correct legal test.
 - iii) Mr Bircher's statements in his expert report that "I personally would not have chosen [the DHS] and would have carried out an intramedullary nailing", and that that "most people" in this situation (ie faced with a sub-trochanteric fracture) would have attempted to do a nailing, do not address the *Bolam* test. He did not say that every reasonable doctor would have performed a nailing.
 - iv) Mr Bircher's explanation of the novel technique he would have used was not in his report or the joint statement and was not put to Mr Watson. It cannot be said to have been negligent for Mr Watson not to have used a technique that Mr Bircher admitted was unusual, was not indicated in the manufacture's guidance and which Mr Thomas had never heard of.
 - v) The fact that Mr Bircher came up with different solutions, including for the first time at the hearing, undermined his opinion that there was only one reasonable solution and underlined the difficult judgments that Mr Watson had to make at the time.
 - vi) The academic paper relied on by Mr Bircher did not state or support the view that the IM nail was the best device for this sort of fracture. Indeed Mr Bircher agreed in cross-examination that the paper showed what a difficult area it was. As Mr Thomas said, the paper did not give a clear answer because the studies did not reach statistical significance and the conclusion in the paper was that

larger studies were required. The paper did not discuss the correct fixation in a case such as that of the claimant.

- vii) Mr Bircher's view that the DHS was bound to fail was heavily influenced by hindsight. He said that he had thought for a long time about why the DHS failed, and that the rotation of the leg "was not to be expected". Even when he denied that he had applied hindsight in concluding that the fixing was bound to fail, Mr Bircher followed up by saying that he had formed that view by looking at the way in which the fixation had failed.
 - viii) In his expert report Mr Bircher did not address Mr Watson's explanation contained in his first witness statement for deciding to use the DHS rather than IM nail. He said that he could see no explanation for the change of treatment plan, and yet failed to mention Mr Watson's statement in that context. Mr Bircher mentioned the content of that statement under the heading "Causation", and appears to have misunderstood it in that he thought that Mr Watson had attempted an open nailing. Mr Bircher added that an IM nail could have been used, but did not address the detailed reasons given by Mr Watson for having been unable to do so. He said nothing about Mr Watson's evidence that he could not position the claimant appropriately.
 - ix) Mr Bircher agreed that the IM nail fixation would have been very difficult for the reasons already rehearsed. He said that someone with the necessary skills could have done it but he admitted that he did not know how much movement was in the claimant's leg because he had not been there and it was not recorded in the notes. It is difficult to understand on what basis Mr Bircher could be so firm in his view that it would have been possible to use an IM nail.
 - x) Mr Bircher did not address the risks of attempting to use an IM nail which were identified by Mr Thomas: prolonged anaesthetic time, the major extension of the wound and the risk of weakening the proximal fragment.
 - xi) Mr Bircher said that rather than using the DHS Mr Watson should have postponed surgery, but he also said that it was not unreasonable for Mr Watson to have attempted an open reduction. Indeed, in his witness statement Mr Bircher said that the fracture clearly did need to be open. He did not offer a convincing explanation as to how, once the site was opened, Mr Watson could reasonably have decided not to proceed given the risks to the claimant.
 - xii) Mr Bircher's suggestion that the operation be postponed (whether before or after opening the site) was made for the first time in the joint statement. It did not feature in his report, was not part of the claimant's pleaded case, and would have risked breaching the NICE Guidance requiring surgery within 36 hours.
103. Mr Bircher is an experienced orthopaedic surgeon. However, for the above reasons, his evidence does not get close to persuading me that Mr Thomas' expert opinion does not stand up to logical analysis.

Conclusion on negligence: Manner of insertion of DHS.

104. The claimant has pleaded negligence in that Mr Watson “failed to adequately stabilise the fracture in that an area was left unreduced and spanned in a manner which put too much force on all constructions.” It is not clear what is meant by “all constructions” but it is clear from the claimant’s skeleton argument and Mr Bircher’s evidence that the criticism is of the way in which the DHS was inserted.
105. In my judgment this aspect of the claim is bound to fail because there is no pleading of injury caused by the alleged negligence. The pleaded causation relates solely to the failure to use the IM nail and the delay in reviewing the x-rays.
106. Moreover the claimant’s pleaded case (see in particular the Replies) and Mr Bircher’s opinion was that, in this case, the DHS should not have been used, it was illogical to do so and the IM nail was mandatory. The claimant’s case that the DHS was bound to fail is inconsistent with the claimed negligence in the way in which the DHS was inserted.
107. In any event, the evidence does not show that the way in which the DHS was inserted was negligent. Mr Bircher was not critical of the fixing of the plate below the fracture, nor of the fixing of the proximal screw into the neck of the femur. The problem which he identified was the failure to stabilise the medial buttress with the consequence that too great a length of the femur was unsupported. I reject his claim that this was negligent because:
- i) For reasons which I have already explained, I find that Mr Watson’s inability to completely reduce the fracture was not negligent. Mr Thomas agreed with Mr Watson that it was not possible to stabilise the medial buttress in meaningful mechanical way.
 - ii) Mr Watson made a judgment that it was unnecessary to use cerclage wires and using them would have added to the risks to the claimant. On the other hand, the benefits of the cerclage wires were uncertain. In oral evidence Mr Bircher said that using cerclage wires would have reduced the risk of failure but would not have guaranteed its success. The uncertain benefits were a relevant factor in deciding whether to use them in the light of the risks.
 - iii) The claimant’s evidence did not show that the only reasonable option was to use cerclage wires, in the light of those risks. Mr Bircher did not suggest the use of cerclage wires in his original report. Mr Thomas said that cerclage wires would not have turned the grade 3a fracture into the simpler grade 2 fracture.
 - iv) The fixing appeared strong and satisfactory at the time.
 - v) Mr Bircher would not have expected the fixing to fail as it did. His opinion as to the inadequacy of the fixing is significantly informed by hindsight.

Conclusion on negligence: delay in viewing the x-rays

108. It is claimed that, as a result of the failure to consider the x-rays of 12th December until the 17th December, the claimant suffered from pain and suffering in being required to weight bear. The defendant admits delay in reviewing the x-rays but contends that it did not give rise to actionable damage. Any damage caused was minimal and does not sound in tort.
109. The claimant does not claim loss of amenity. Clearly there was none as he would have been in hospital during that period in any event.
110. In his witness statement the claimant says he was in a lot of pain after the operation. As for the period before the x-rays were viewed, he simply says that the nurses tried to make him stand up and weight bear but that he was unable to move the leg or apply pressure. He says he was in pain.
111. The clinical records note some pain from 12th December onwards. The pain relief was changed at times. He was able to sit out of bed and refused help to move. He was given pain relief and, 60 minutes afterwards, some mobilising was attempted but it appears was largely unsuccessful. The physio noted that there was no complaint of pain. There is a note of painkillers being given overnight on 12th December “with good effect” and that he slept well. There is a note of some exercise having been attempted on 13th December, and that it was unsuccessful but this note does not record pain. Another note on the same date stated that there was no complaint of acute pain. On 14th December it was recorded that he “seems unwilling to weight bear”, and the plan was recorded as “mobilise and weight bear”. There is a record of the claimant mobilising. On 15th December there is a recorded complaint of pain and pain relief was given. On 16th December the claimant refused to stand due to pain and on 17th December it was recorded that he continued to express pain and was given analgesia. However, the record also noted that the claimant said the pain was getting better. There is some record of pain between the 17th and the operation on the 20th December and the claimant continued to receive analgesia.
112. The evidence does not show on balance of probabilities that during this period the claimant suffered pain over and above that which would have been expected. There were limited attempts to mobilise the claimant and the records indicate little if any pain due to such attempts as were made. There are few recorded reports of pain and he was given pain relief as required. Indeed, by the 17th December the pain was reducing.
113. It is surprising that the claimant did not say more in his witness statement about the pain that he had suffered during the period in question if it was anything other than normal for this surgery.
114. The claimant has not established on balance of probability that the delay in reviewing the x-rays has given rise to any or more than minimal pain as a result of attempting to weight bear.

Outcome

115. I therefore dismiss the claim.