

THE HIGH COURT

[2012 No. 10576 P.]

BETWEEN

GILLIAN O'SULLIVAN

PLAINTIFF

AND

DEPUY INTERNATIONAL LIMITED

DEFENDANT

JUDGMENT of Mr. Justice Cross delivered on the 29th day of November, 2016**1. Introduction**

1.1 The plaintiff was born on 26th February, 1964. She has three children born in 1992; 1999; and 2002. As an infant, the plaintiff recalls being under the care of an Orthopaedic Surgeon and being placed in traction on a Spica which is a cast covering the top part of her limb up to her tummy. This is because she suffered from a condition known as bilateral acetabular dysplasia which is a congenital deformity of her hips.

1.2 The plaintiff states and I accept that after her treatment she lived a normal life going to school which she left at sixteen. She worked in a gun shop in Waterford and then travelled around Europe working in London and Amsterdam where she was a "runner" for a hotel, which involved positioning herself in the Central Railway Station and inviting tourists to stay in the hotel she worked for and bringing them back to it. She then returned to Ireland and worked as a school secretary for a number of years and then worked in a public house in Waterford performing all the physical tasks associated with work in a public house apart from lifting beer barrels.

1.3 She was in a steady relationship until approximately 2004 and had three children as stated. The plaintiff agrees that when she was in Amsterdam, in particular, friends and acquaintances referred to as walking like "John Wayne" which I believe means that she had a somewhat rolling gait.

1.4 Up to about 2002, the plaintiff states that she did not have any difficulty with her hips but around that time developed increasing problems due to arthritis.

1.5 She was ultimately referred to Mr. O., a well known Orthopaedic Surgeon.

1.6 In September 2002, Mr. O. first saw the plaintiff, he found her hips had limited movement and he concluded in his letter to her GP that she required both her "knees" (sic) done. The plaintiff's stiffness and incapacity continued and worsened and the left hip was not replaced until 19th October, 2005, the right hip was replaced in May 2006.

1.7 The plaintiff states and I accept that before the surgery she did not use a crutch and her recollection is that she was able to walk at her own pace, manage to go upstairs and everywhere though she agreed that she had "little rheumatisms" in winter time.

1.8 It is accepted that the plaintiff is a honest historian who in no way consciously exaggerated but it is also accepted by all sides that memories of patients tend to combine different events and are not to be trusted entirely especially as to timelines. I find that the plaintiff was more incapacitated prior to her replacement than she recalled.

1.9 Accordingly, I accept that the plaintiff was in need of her hip revision and was in pain and had stiffness and some disability by the time of her first operation in 2005, though I also accept that she managed to get about generally unaided.

2 The First Operation – Left Hip Replacement, October 2005

2.1 Mr. O. was not alone an Orthopaedic Surgeon, he was also on the design team of the defendant company in relation to their innovative Metal on Metal (MOM) hips. He advocated the use of DePuy hips and advised the plaintiff that it was a "once in a lifetime" job and that she would have hips like "Brian O'Driscoll" (this I understand, was, at the time, meant to be suggestive of great future mobility).

2.2 The MOM DePuy product known as ASR and ASR XL promised greater flexibility and greater durability. It contained chromium and cobalt and was characterised by two essential features, a shallower cup and a smaller clearance between the cup and the ball.

2.3 The plaintiff was some ten days in hospital after this procedure and returned home with a walking frame and felt that she had to drag her left leg after her. She then mobilised first with two crutches and after that with one.

2.4 After the first operation, the plaintiff had to sleep downstairs, as she could not readily climb her stairs. Her relationship with her partner had terminated some time in 2004, but after the operation, and up to this day, her partner provided great care and assistance for her working around the house and garden, assisted her in dressing and performing bodily function and doing heavy shopping and the like.

2.5 In the operation, the plaintiff's left leg was lengthened by about 3 to 4cm and the operation itself was a difficult one.

2.6 It is correct that the inference could be drawn from the plaintiff's evidence that the operation was of no assistance to her and that she was just the same after it as she was before. As stated above, it is agreed that she tended to combine different events and her recollection is to timelines may not be satisfactory.

2.7 However, the plaintiff specifically pointed out that her problems did not remain the same but gradually got worse stating that in 2007, she started to get grinding sensation "continuously in both legs" which her children heard especially when she moved and she was particularly sore, a pain which she differentiated from rheumatic or arthritic pain. I accept this evidence in conjunction with the evidence of her medical and doctors notes that she did get relief after the replacement and that her problems gradually got worse.

2.8 The plaintiff's notes from Mr. O. point to an "excellent recovery" and her problems and difficulties, as stated by her, were not recorded to Mr. O. The plaintiff stated that her relationship with Mr. O. broke down and she did not find him an easy person to talk to.

I believe that this breakdown of relationship with Mr. O. probably occurred after the second operation and not after the first. I accept that in the initial two years or so after the operation, the plaintiff did experience relief from her pain. She was, however, required to engage in stretching of her legs and muscle building in order to get a good clinical result and this, of course, was distressing. I also accept her evidence that her mobility did not return to what she had anticipated.

3 The Second Operation – Right Hip, May 2006

3.1 Mr. O. performed a replacement operation on her right hip on 17th May, 2006, and she was discharged after nine days. Complications are not mentioned in her medical notes and up to 2007, Mr. O's records indicates that the plaintiff had returned to a lot of her pre-operation activities of swimming and walking etc. The plaintiff, however, stated, and I accept, that all of these activities were very limited.

3.2 Around 2007 or 2008, some surgeons including Mr. N. who gave evidence on behalf of the plaintiff began to have doubts and suspicions in relation to the efficacy of the defendant's ASR and ASR XL hips and in 2009, the defendant's withdrew their product from Australia and subsequently, there was a worldwide recall of the product.

3.3 The cause of the problem, it is alleged, is the presence of excessive metal ions by reason of the grinding of the prosthesis due, it is believed, to the shallow cup and small clearance between cup and bell. These ions get into the blood supply and then can cause significant damage to the patient including metallosis i.e. metal fibres from the implant and fluid builds up and damage is caused to the bones and possible soft tissue damage which is deemed to be Adverse Reaction to Metal Debris (ARMD) which is sometimes also referred to ALVAL.

3.4 It is alleged that the cause of the problems in relation to the defendant's MOM hips was the peculiar and particular design of these hips but for reasons they would be later explained is not necessary to give any determination on that point.

3.5 In late 2007, the plaintiff attended Mr. O. and complained there was something significantly amiss in relation to her hips. The plaintiff had attempted to contact Mr. O. some period before she managed to get a consultation. He recorded that she was quite symptomatic and stiff and has "a lot of grinding of the left hip and flex to 30 to 40 degrees". The plaintiff in her evidence referred to the grinding as being a noise which her children could hear, being particularly loud when she moved and it was particularly very sore. It was not similar to arthritis or a rheumatoid type of pain but was a pull on her legs and her lower leg felt as if she was wading in water and she was not moving properly. She was very fatigued and tired.

3.6 Mr. O. reassured the plaintiff and advised her that as far as her hips were concerned that the "God of Orthopaedics" had done the operation. I accept that the relationship between the plaintiff and Mr. O. was not good from this time on, she says that she was constantly ringing his clinic but could only secure an appointment when she got a letter in 2010, saying that the DePuy products had been recalled. In the meantime between 2007 and 2010, she was very seriously debilitated and was in pain and was unable to climb steps and her balance was affected.

3.7 The plaintiff attended Mr. O. in January 2011 and tests were carried out. Blood level revealed a cobalt of 131ug/L and chromium of 31.3ug/L and in April 2011, the cobalt was 140ug/L and chromium 31.3ug/L. These levels were described as "fantastically high" by Mr. N. Mr. N. stated that these levels of ion were higher than in any other case he had examined. The normal level for someone with a bilateral metal on metal hip should be between 2 and 3ug/L. The evidence, which I accept, is that not alone is this level "fantastically high" but that it is dangerous as to possible bone and other damage to the plaintiff. With iron levels this high, the risk of poisoning is also real.

4 The Third Operation – Revision of the left hip which had been replaced in October 2005

4.1 On 18th May, 2012, Mr. O. performed a revision surgery on her left hip. The DePuy hip inserted in 2005 was removed and a new hip was installed. Mr. O. filled in a revision hip form supplied by the defendants which read "ALVAL/soft tissue damage ++ with metallosis".

4.2 Mr. N. on behalf of the plaintiff is of opinion that Mr. O. found a hip "which was full of fluid which was metallic looking with metallosis and that when he removed the head from the stem, there was obviously some changes which to him suggested a taper problem". This is disputed by Mr. T.O., the Orthopaedic expert on behalf of the defendant.

4.3 The plaintiff indicates that as soon as she woke from the revision operation on her left hip, she experienced a significant severe pain in her knee which was so bad that she thought that her knee was broken. This incident is not recorded in the notes but the plaintiff was adamant that this significant pain which persisted is related to that incident.

4.4 Mr. N. on behalf of the plaintiff believes that the revision of her left hip resulted in damage to her sciatic nerve and that her symptoms are classic in relation to such damage. Such damage is a normal risk of revision. Mr. T.O. on behalf of the defendant disputes that her symptoms are consistent with sciatic nerve damage and adds that if she did suffer such damage, it was more likely in the initial hip replacement operation in October 2005.

4.5 The plaintiff has significant symptoms which are severely disabling in relation to her knee when both Mr. N. and Mr. T.O. believed that the present position with these symptoms is likely to be permanent.

5 The Fourth Operation – Revision of right hip which had been replaced in 2006

5.1 The right hip manufactured by the defendants and placed in 2006 was revised on 19th February, 2013. A small amount of clear fluid was found but this operation seems to have proceeded with better results than the left hip.

6 Issues

6.1 The plaintiff claims damages for negligence, breach of duty, breach of statutory duty and liability for defective product. A full defence was filed denying liability for injury, loss or damage, denying that any injuries were caused by reason of the bilateral implantation of the defendant's device, denying any defects and pleading that there was no breach of s. 2 of the Liability for Defective Products Act 1991, in relation to the manufacture sale and supply of the product or that the products were defective under that Act.

6.2 By letter of 18th October, 2016, delivered by email on the morning this case was first listed for trial, the defendants wrote as follows:-

"Our client's position is that they have no liability to your client in relation to the claims made by her in these proceedings. Nevertheless, in order to avoid the substantial costs likely to arise during a full trial of the action, our client

hereby agrees to the trial proceeding on the basis that your client will not be required to establish that the DePuy product supplied to her were defective, leading to the necessity for early revision, which offer is made without admission of liability. The claims can therefore proceed as an assessment of compensatory damages only without any admission of liability.

In these circumstances, the only issue required to be dealt with by the court is the issue of the quantification of damages along with any issues of causation in relation to the quantification of damages. For the avoidance of doubt, our client contends that your client's pre-existing medical condition was such that she would in any event have suffered increased difficulties following her surgery and any subsequent revision."

6.3 Counsel for the defendant in making final submissions in this case stated that the issues in this case are "What is the extent of the plaintiff's problems? Would those problems have been present in any event? If they wouldn't have been present what proportion of them would have been present in any event? What special damages were caused by the 2005/2006 implants?"

6.4 It is important to note that it is no part of either side's case to criticise the initial or subsequent surgery of Mr. O. Mr. O. is a experienced and highly reputable surgeon who was, as has been stated, not alone an early advocate of the DePuy MOM hips but was also on the design team. Mr. O. is not a party to these proceedings and was not called as a witness. The plaintiff had lost confidence in Mr. O. and did not call him as a witness. The defendants requested the plaintiff to make Mr. O. available to them for consultation and, as was their right they declined. The defendants, though they had the benefit of Mr. O's notes, did not call Mr. O. to give evidence "sight unseen". In the circumstances, I fully understand why neither party called Mr. O. to give evidence.

6.5 The defendant suggests that I should draw inferences hostile to the plaintiff from the failure of the plaintiff to call Mr. O. but I do not draw any such inferences other than to state, the obvious, that it is for the plaintiff to establish on the balance of probability ever matter that is required to be proved and if, having considered all the evidence, I cannot make up my mind on any point between conflicting evidence then I must conclude that on that point the plaintiff has failed to establish her case.

6.6 The defendant concedes that the plaintiff is entitled to damages in respect of the necessity for the early revision of both hips but the defendant's dispute liability in respect of the plaintiff's nerve damage which affects her knee or as to the general present state of the plaintiff. Indeed, it is fair to say that notwithstanding the letter of 18th October, 2016, virtually ever other matter in this case was in issue and indeed a hotly contested issue.

6.7 The plaintiff now has significant problems and disabilities. She is very disabled in what Mr. N. said (and Mr. T.O. did not disagree) was in an "awful" state.

6.8 She is in significant pain. She has significant limitations of movement. She walks with a very difficult gait. She requires crutches. She is unsteady on her feet. She cannot walk any distance. She cannot perform normal bodily functions such as washing or dressing. She is very limited in the amount of cooking or housework she can do and she is in severe pain. The position of the plaintiff is entirely different from and much worse than any other case, I have seen, involving allegedly defective hips and a need for hip replacements.

6.9 It is likely that this condition is going to be permanent but she will require further revisions.

6.10 The main issue in this case is Causation of what both sides agree to be, the plaintiff's present "awful" state.

6.11 Briefly put, Mr. N. on behalf of the plaintiff is of opinion that 90 to 95% of her current and future problems are due to the defendant's hip which through the raised iron levels caused a significant metallosis and osteolysis involving infection and loosening of the cup and an Adverse Reaction to Metal Debris (ARMD) (also known as ALVAL). Mr. N. believes that 5 to 10% of the plaintiff's problems were caused by the dysplasia which pre-existed, the hip replacements.

6.12 On the other hand, Mr. T.O. on behalf of the defendant said that 90 to 95% of the plaintiff's present and future condition and problems are related to her congenital dysplasia and that only 5 to 10% are related to the defendant's hip.

6.13 That is the stark contrast between the expert evidence which will have to be resolved.

6.14 Notwithstanding the major dispute as to the cause of the plaintiff's problems, Mr. T.O. and Mr. N. are in agreement that had there been no requirement for early revision of the hips as inserted in 2005 and 2006, that the plaintiff could have expected at least 20 years life for those hips to age 61 and 62, when in the normal course of events they would have reasonably had to been revised. Mr. N. subsequently has revised his view given the longevity of replacements hips that the plaintiff could have expected the first revisions to have lasted 25 years.

6.15 Mr. N. believes that Mr. O's initial view that the hips would last the plaintiff's lifetime was based upon a misplaced enthusiasm for the new product and that it would have been unreasonable to have expected such longevity in any event.

6.16 Mr. N. and Mr. T.O. are also of the view that had there not been a problem, the first revision should have lasted to age 61 for the left hip or 62 for the right hip (or 66 and 67 as Mr. N. later revised his opinion), would have to then be replaced by a second revision which would have lasted approximately fifteen years to 76 and 77 (or 81 and 82 if Mr. N's more optimistic view on longevity is accepted).

6.17 In any event, there is no disagreement that were there no problem with the hips, the plaintiff would have had to have two revisions in each hip.

6.18 There is, however, difference between Mr. N. and Mr. T.O. as to what is the present position, given the failure of the hips and their revision in May 2011 and February 2013.

6.19 Mr. N. is of the view that the first revision of the left hip is already showing signs of loosening that it would only last a total of eight years and that in all the plaintiff will require a total of four revisions in her left hip (i.e. two more than she would have needed normally). Mr. T.O. is of opinion that the plaintiff would only require three revisions of her left hip (i.e. one more than she otherwise would have had).

6.20 In relation to the plaintiff's right hip, Mr. N. is of the view that the plaintiff's right hip, had all been well, would in the normal course of events require two revisions and that as things now stand, she will require three.

6.21 Mr. T.O. agrees that the plaintiff would, in the normal course of events, have required two revisions in her right hip and is of opinion that she will still only require two.

6.22 Mr. N. is also of the view that the level of ions present was indicative of the fact that, as a virtual certainty, there was bound to be damage to her bones and that this damage was confirmed on the revision of her left hip in May 2011, when a defect in the bones was disclosed in Mr. O's note of the operation (though referred to as "small") and the fact that it was covered by Allograft. The damage in Mr. N's opinion is confirmed in the Histopathology report as requested by Mr. N. from the sample on the date of the revision which reported "the appearances are of metallosis with mild ALVAL" and it was found that there was "adverse reaction to metal debris, metallosis with mild ALVAL". This histology report was confirmatory of Mr. N's interpretation of the record of the revision operation signed by Mr. O. and presumably requested by DePuy which indicated the presence of ALVAL with metallosis.

6.23 Mr. N., as stated, is also of the opinion that in the operation in 2011, the plaintiff suffered an injury to sciatic nerve consistent with blunt injury to the nerve with interruption of nerve fibres.

6.24 The presence of such an injury was confirmed by Mr. B. McN., Consultant Clinical Neurophysiologist, though Dr. B. McN. Could not say as to when this injury occurred.

6.25 Mr. N. is of the opinion that x-rays of the plaintiff's left hip already shows signs of loosening which is the main reason that he believes further revision is required at an early date.

6.26 Mr. N. is of the view that the plaintiff's injuries and incapacities are likely to persist, that she is likely to get some relief from each of the replacements but that her physical incapacity is likely to be a permanent feature.

6.27 Mr. T.O. on behalf of the defendant, disputes the proposition that the plaintiff suffered an injury to her sciatic nerve in the revision of the left hip in 2011, or at all, and adds that if she did suffer any such injury, it is more likely to have occurred in the original hip replacement in 2005.

6.28 This distinction is not academic as it is not disputed that if there was an injury in the unnecessary replacement operation of 2011, that the defendants have a liability in respect thereof but if it was not caused in this operation but caused, for example, in the initial hip replacement in 2005 that the defendants would not have a liability.

6.29 Mr. T.O. further disputes, as stated above, the frequency of further operations.

6.30 Mr. T.O. also disputes that there is any loosening of the left hip to be seen or that there was any bone damage or evidence of ARMD.

6.31 All of these matters are, of course, relevant to the issue of damages, both general damages and special damages. The plaintiff has a claim for an extensive amount of special damages for future aids and appliances which clearly are not recoverable if the plaintiff's case against the defendant as outlined above cannot be made out.

6.32 Essentially, however, the issue that I will have to determine is whether, as contended by Mr. N., that 90 – 95% of the plaintiff's past, present and future problems are referable to the defendant's hips as implanted and 5 – 10% related to the underlying dysplasia or the direct mirror opposite as contended for by Mr. T.O. that 90 – 95% of her problems are related to the dysplasia and 5 – 10% to the defendant's hip. I have rarely seen two expert witnesses more dramatically opposed both in their general theories and also in almost each specific detail in the case.

7 Experts Witnesses

7.1 When a judge is faced with starkly conflicting expert evidence, each saying the opposite of the other, there may be a tendency to wish that a third or "neutral" expert could be engaged by the court to decide the issue in dispute.

7.2 Such considerations, of course, are fundamentally alien to our system of law which requires cases to be determined by judges and not by experts.

7.3 Such considerations also are alien to the role of experts which is to give expert and unbiased evidence of assistance to the court in determining the issues before it and to avoid slipping into the role of the advocate. In particular, the declarations of experts frequently require them to, *inter alia*, "draw to the attention of the court all matters of which the expert is aware which might adversely affect his opinion".

7.4 A judge, who is a layman in relation to the expertise of the witnesses will have to come to a conclusion as to which evidence he can prefer based upon an overall and particular judgment of the expert and his or her evidence.

7.5 To abdicate a judge's responsibility and suggest that a solution to this dilemma is to be gained from employing a "neutral" expert is, not alone to misjudge the role of the decision maker in litigation but also, I believe is to subscribe to a naive belief that there does exist a witness so knowledgeable and so removed from any subconscious pressures that there will be no element of subjective bias in their evidence.

7.6 The best method of arriving at as close approximation of the truth as is possible is, I have no doubt, from the examination and unfettered cross examination of witnesses and the formation of a judgment as to which witness is more reliable. Any *a priori* limitations on the number of experts or the length of their examination or cross examination is dangerous and could well result in severe injustice.

7.7 Mr. T.O. is an expert Orthopaedic Surgeon with his medical degree in the University of Cardiff in 1986, and post graduate qualifications of FRCS (London) 1990 and FRCS Orthopaedics March 1995 and USMLE September 1995. He has a practising consultant specialising in hip replacement surgery for some nineteen years and has experience in the field and has contributed a number of presentations to learned societies. I formed the view that Mr. T.O. gave his evidence honestly believing same to be true.

7.8 Mr. T.O. was of the opinion that the plaintiff who suffered from a congenital dysplasia, Grade 3 (the most serious dysplasia is Grade 4) could not have reasonably expected to have an excellent result from the surgery and the result that she actually obtained was within the region of what might be expected.

7.9 The views of Mr. T.O., of course, have the advantage in ascribing 90 – 95% of the plaintiff's disabilities to her congenital

dysplasia, of appearing the more instinctively plausible to a lay person. The plaintiff has a pre-operative condition. It is reasonable to assume that she could not have expected a complete recovery notwithstanding Mr. O's enthusiastic views. Of course, a layman's "gut" view of what is the more instinctively probable position is not any basis for my eventual decision which must evidentially based.

7.10 Mr. N. got his medical qualification in Newcastle Medical School in 1988 and his post graduate qualification as FRCS Orthopaedics in 2000 and has been a Consultant Orthopaedic Surgeon in North Tees General Hospital since 2002. Mr. N's specialist interest is in hip and knee replacements and revision and resurfacing.

7.11 Mr. N. implanted over twelve hundred MOM hips and has revised over four hundred MOM hips from different centres around the UK and Ireland. He has been involved in the implanting and indeed the revision of hundreds of the defendant's hips.

7.12 Mr. N. has published extensively in eminent Peer Review Papers and spoken at the most prestigious international and national meetings.

7.13 Of particular significance is that in 2004, the defendants marketed the MOM hip and at that time, Mr. N. was using a rival resurfacing artificial hip known as the "Birmingham hip" but was persuaded by defendant's representatives that their product was far superior in relation to wear rates which they claimed was verified by testing. In particular, it was represented to him that the defendant's hips were superior to the "Birmingham hip" and so impressed was Mr. N. that he became an advocate for the defendant's hips. Accordingly, when DePuy wanted to go to an orthopaedic surgeon in the United Kingdom to advocate their MOM hips, they sought out Mr. N.

7.14 It is clear that in terms of expert experience, Mr. N. is better qualified in relation to hip replacements and revisions than Mr. T.O. Mr. N. has also contributed to more learned Peer Review articles in more prestigious papers and has spoken at and presented papers to more prestigious conferences than Mr. T.O. Mr. N. can, therefore, be regarded as having greater expertise than Mr. T.O. Of course, the fact that one expert is more qualified in his expertise than another is not necessarily determinative of a resolution of the issue in the case.

7.15 In or around 2008, Mr. N. in conjunction with a fellow surgeon, Mr. L. discovered what they claimed to be a failing in the defendant's ASR and ASR XL hips which was initially believed to be a design fault and then a manufacturing problem was discovered as well in that the implants were allegedly not being made to specification.

7.16 The defendants initially advised the plaintiff that the problem was his and his alone as a surgeon and that the defects must have been caused by his poor surgical practice.

7.17 In any event, after publicity, Mr. N. was approached by American attorneys to get involved in what is known as *Qui Tam* litigation.

7.18 *Qui Tam* is, as I understand, a form of public interest litigation in which litigants expose what they believe to be fraudulent practices by companies which have manufactured defective products which have cost the State money and should the litigation be successful, the State is entitled to damages to represent the losses they have incurred in funding these defective products and the litigators, (including Mr. N.) are at the successful conclusion of this litigation entitled to a proportion of the damages recovered.

7.19 *Qui Tam* comes from the Latin phrase *qui tam pro domino rege quam pro se ipso in hac parte sequitur* which means: "he who sues in this matter for the King as well as for himself".

7.20 Mr. N's *Qui Tam* litigation has been dismissed in the courts in the United States and is, at present, under appeal. Mr. N. says that the reason for the dismissal is that due to a restrictive disclosure orders in other cases, he was unable to advance names of individuals who had suffered from the defective hips and as a result of this inability the litigation was dismissed.

7.21 Be that as it may, as a result of this litigation, counsel on behalf of the defendants have sought to impugn Mr. N's independence as an expert witness.

7.22 Counsel for the defendant relied upon the English case of *EXP v. Barker* [2015] EWHC 1289 (Q.B.) and in that case, Parker J. sets out the importance that the expert witness does not have an interest in the case and Parker J. quoted, with approval, the extract from *Phipson on Evidence* in which the principles in relation to expert witnesses are set out:-

"(1) It is always desirable that an expert should have no actual or apparent interest in the outcome of the proceedings.

(2) The existence of such an interest, whether as an employee ... or otherwise, does not automatically render the evidence of the proposed expert inadmissible. It is the nature and extent of the interest or connection which matters, not the mere fact of the interest or connection.

(3) Where the expert has an interest of one kind or another in the outcome of the case, the question of whether he should be permitted to give evidence should be determined as soon as possible in the course of case management.

(4) The decision as to whether an expert should be permitted to give evidence in such circumstances is a matter of fact and degree. The test of apparent bias is not relevant to the question of whether an expert witness should be permitted to give evidence.

(5) The questions which have to be determined are whether:

(a) the person has relevant expertise; and

(b) he is aware of his primary duty to the Court if they give expert evidence, and are willing and able, despite the interest or connection with the litigation or a party thereto, to carry out that duty.

...

(7) If the expert has an interest which is not sufficient to preclude him from giving evidence the interest may

nevertheless affect the weight of his evidence.

Even where the court decides to permit an expert to be called where his independence has been put in issue, the expert may still be cross-examined as to his independence and objectivity."

7.23 Counsel on behalf of the plaintiff objected to the attack on Mr. N. without the defendant objecting prior to his evidence and seeking to exclude him from giving evidence but I find that the defendants are entitled to object to any witness or to submit at the conclusion or at any stage after cross examination that the evidence of that witness should be either ignored or given lesser weight.

7.24 If one examines the supposed "interest" of Mr. N., it is clear that it would indeed have been preferable had Mr. N. not got himself involved in the *Qui Tam* litigation in the United States from the point of view of the smooth running of proceedings in this jurisdiction.

7.25 However, it is also apparent that nothing that could happen in this case, or I suspect in any other litigation against these defendants in this State would be relevant to Mr. N's undoubted financial interest in the *Qui Tam* litigation in the United States of America. The issue in this case is that of Causation and it is entirely independent on whether or not in the United States of America, the defendants have engaged in what is alleged to be *mala fides* to the detriment of the Federal Government or to any State or City Governments in United States.

7.26 Counsel on behalf of the defendant further attacks Mr. N's credibility on the basis that he has allegedly stepped down from his position as an expert because of a "general hostility" to the defendants. In order to substantiate this, counsel has referred to the numerous cases in which Mr. N. has given evidence against the defendants in this jurisdiction and in the United Kingdom and to Mr. N's opinion that the defendants have acted *mala fides*.

7.27 In view of the letter written on the first day of this trial, it will not be part of this decision to make any findings of *mala fides* or indeed negligence against these defendants. Whether or not DePuy are guilty of negligence or major malpractice is a matter to be determined in other proceedings. The fact that Mr. N. clearly believes in the cases that he has been making and indeed has given evidence in these courts to that effect prior to settlement of these cases, is not an argument of general *mala fides* towards the defendant rather it is Mr. N's opinion which, if correct, demands the sort of evidence that Mr. N. has given in those other cases. It would be quite wrong if Mr. N's opinion is reasonable for him in any way to water down his evidence to give a seemingly more nuanced view merely because he is going to be required to give such evidence in many other cases.

7.28 Accordingly, I reject any attack on Mr. N's evidence on the basis that he is a biased witness or that any lesser weight should be put on his evidence given his history.

7.29 I believe that both experts gave their evidence honestly believing what they said to be true.

7.30 The issue remains, however, as to which of the expert's evidence I should prefer.

8 Decision

8.1 For the reasons as set out below, I prefer the evidence of Mr. N. to that of Mr. T.O:-

(a) It is important to note that in a significant area of conflict between Mr. N. and Mr. T.O., Mr. N's evidence was confirmed by the expert evidence of Dr. B. McN., Consultant Neurophysiologist, who confirmed Mr. N's opinion that the plaintiff did indeed sustain an injury to the left posterior tibial division of her sciatic nerve.

(b) Secondly, Mr. N's evidence as to the damage that the very high levels of ion could cause is confirmed by the histology report commissioned from the samples taken in the revision of May 2011 of her left hip.

(c) The third reason I prefer Mr. N's evidence is also related to the level of blood ions. These ions were raised to a level that Mr. N. has never seen before and not alone beyond the stage of concern but they are significantly higher than a Peer Review Paper by Mr. N. had stated would result in ARMD in a hundred percent of cases. The existence of ARMD was confirmed in his operation note by Mr. O. and also was confirmed in histology. I am afraid that Mr. T.O's reaction to the issue of ions was more in the line of a Advocate than an expert in that initially he did not really comment about the significance of the raised ion levels which are clearly set out in the hospital and medical notes and when presented with the histology findings as commissioned by Mr. N., Mr. T.O's reaction was that though the samples were taken on 18th May, 2011, the same day as her left hip revision that this could have been a coincidence and the sample may not have come from her left hip at all. This response stretched credulity.

(d) Furthermore, when shown Mr. O's operation notes which referred to metallosis and his report to DePuy on the procedure which refers to ALVAL as well Mr. T.O. tried to suggest that this document did not say what it clearly did. Mr. O. was confirming that on his revision of the left hip he found the signs of the damage which Mr. N. had predicted were bound to be there.

(e) Similarly in relation to the nerve damage which caused the plaintiff intense pain in her knee and which Mr. N. related to damage during the revision of the left hip, Mr. T.O. disputed that any such pathology of nerve damage was evident. When the fact of nerve damage was confirmed by the other expert Mr. McN., Mr. T.O. responded that if there was nerve damage, as a matter of probability it was caused in the original hip replacement rather than in its revision. In this regard, Mr. T.O. was again more acting as an Advocate saying "prove it" and pleading a "rolled up plea" in the alternative rather than as an expert. Mr. T.O's reason to dispute that the damage was caused in the revision is that there was no note of any complaints at the time. While Mr. T.O. did point out the fact that the plaintiff was under more medication in the original replacement operation than in the revision, there were equally no notes of complaints on that occasion. I accept the evidence of the plaintiff that immediately on waking after the revision, she was aware of significant pain in her knee and I accept the evidence of Mr. N. and Mr. McN. that this pain is due to the nerve damage and I accept the evidence of Mr. N. that as a matter of probability this nerve damage was caused in the revision in May 2012.

(f) I note also that Mr. T.O. in his evidence dismissed the number of post DePuy revisions as due to "hysteria" and "mass panic". This opinion is to ignore the professional opinion of numerous treating surgeons who have performed revisions operations on DePuy hips. I do not subscribe to the view that these operations were conducted for no purpose.

(g) Mr. T.O. disputed the existence of metallosis as found by Mr. N. in the photographs of the hip but, of course, the evidence for metallosis is not just in the photographs. It is reported by Mr. O., as stated above, when he filled in the

defendant's form under the heading "ALVAL/soft tissue reaction", Mr. O. inserted also "++ and metallosis". Mr. T.O. responded to this note and the fact that Mr. O. had to repair some damaged bony structure in the plaintiff with the response that the note undoubtedly referred to this damage as "small" but added that any damage was probably caused in the removal of the hip that had to be replaced. If that were the case, Mr. O. would surely have noted it. Mr. T.O. utterly ignores, disagrees with or denies the findings of Mr. O. post operation of ALVAL/soft tissue damage and metallosis. I have no doubt accordingly that Mr. T.O. is incorrect when he says that there was no evidence of ARMD.

(h) In contrast to Mr. T.O's responses to various difficulties in his theories, Mr. N. was quite prepared to concede points that were against him. In particular, when questioned as to the plaintiff's view that at no stage was there any improvement after any of the operations it was suggested to him that this is inconsistent with his theories, Mr. N. agreed but referred to his belief, which I have accepted that the plaintiff is mistaken in her recollection as to the timeline of various events.

(i) In relation to what I described as a "gut" instinct, it is also important to note that Mr. N. agrees that someone with Grade 3 dysplasia should not expect a perfect result (notwithstanding the optimism of Mr. O.). Mr. N. accepts that the plaintiff would have had to expect some lesser result than an equivalent person without dysplasia but as Mr. N. stated if the plaintiff's outcome was related to dysplasia "we could never operate on dysplastic hips". There must have been a reason for the original replacements. Indeed as agreed by Mr. N. and Mr. T.O. that notwithstanding her current predicament the plaintiff will require a number of further replacements and clearly there is a medical reason for these further replacements to ease the plaintiff's disabilities. Accordingly, my original "gut" instincts prove not to be robust. As stated by Mr. N. if the plaintiff's problems are due to her dysplasia then no dysplastic patient would be given a replacement. Her dysplasia meant that the plaintiff had to have her initial replacement at a younger age than normal due to her arthritis than would be a case in a person without dysplasia but her result and condition cannot be due to the condition that the new hips were designed to alleviate.

8.2 Accordingly, where there is any conflict between the evidence of Mr. N. and Mr. T.O. notwithstanding the view that I accept Mr. T.O's subjective belief in his evidence, I prefer the evidence of Mr. N. who has acted at all stage, in my view, as a fair and impartial expert.

9 Effects

9.1 The plaintiff accordingly, is indeed by agreement between the parties in a very unfortunate position. I find that 90% of her past, present and future problems are, as is the opinion of Mr. N. referable to the defendant's hips.

9.2 I find that the plaintiff has suffered an extraordinary build up of her blood ions which have stabilised since the replacements but have caused damage to her system. Bone damage has occurred and she is suffering from what is known as ARMD.

9.3 I find that the plaintiff will require replacements of her hips as Mr. N. has recounted i.e. she will require total of three extra unnecessary hip replacements throughout her life.

9.4 I find that extra replacements carry with them increased risks of infection which is greater each time. A risk of dislocation which worsens with each revision and the bone is vulnerable in relation to surgery. There is a possible risk of what is known as Girdlestone injury as well as the ordinary risks of operations and anaesthesia.

9.5 I find that these revisions will be necessary as the replaced hips were and would give her some extra mobility but that the plaintiff is likely to continue to be severely disabled, unable to carry out normal domestic chores, unable to carry out normal bodily functions without assistance, unable to walk or engage in any employment and that this is going to last her the rest of her life.

9.6 The plaintiff will also be in significant pain probably for life, relieved somewhat from time to time after her revisions.

9.7 I accept Mr. N's evidence that the plaintiff's x-rays demonstrate there is already loosening in her left hip which will therefore require early revision.

9.8 I do not accept the contention on behalf of the defendants that the next revision will cure the plaintiff or that Mr. N's evidence was to that effect. Mr. N. agreed that the revision will be of benefit to the plaintiff in relation to the loosening he found on x-rays and to instability but I accept the submission of counsel for the plaintiff having read Mr. N's evidence that the more revisions which are necessary, the greater damage would be to the bone and the greater damage to soft tissue and shorter period of relief.

9.9 It follows from the above, that the plaintiff is entitled to damages in respect of her need for future aids and appliances which need will not be solved by any further revision surgery. The plaintiff will, on the contrary, have increasing needs in terms of her disability.

9.10 The appropriate course is, I believe, to assess the plaintiff's damages in full and then to reduce the total by 10% to take into account my finding on dysplasia.

10 Special Damages

10.1 The legal principle best summarises the nature of special damages to be awarded to a plaintiff in respect of care and aids and appliances was outlined by Irvine J. in *Lennon v. HSE* [2014] IEHC 336, when she stated:-

"...the plaintiff ought to have access to sufficient funds to enable her purchase the care required to live as normal a life as is reasonably possible... while the plaintiff should be given a sufficient award to maximise her capabilities... that award must be one which is fair to the defendant in the specific circumstances of this case."

10.2 In my decision in *Russell v. HSE* [2014] IEHC 590, I approved the statements of Gillen J. in *K.D. (A Minor) v. Belfast Social Health and Care Trust* [2013] NIQB 78:-

"What has to be first considered by the court is not whether other treatment is reasonable but whether, given the needs of the plaintiff, the treatment chosen and claimed for by the plaintiff is reasonable."

10.3 Being fair and reasonable is not to take "average" of totals given by experts on behalf of plaintiffs and defendants, to do that is to adopt a paternalistic approach criticised by Pill L.J. in *Sowden v. Lodge* [2005] 1 WLR 2129 at 2144. Rather, I must examine the claim as advanced by the plaintiff in deciding whether that claim is fair and reasonable. In this case, my task is made easier by the

fact that the defendants, for understandable reasons, chose not to call any witnesses on this point.

10.4 The main contention of the defendant was that the sums claimed for special damages for the plaintiff should not be allowed given their view of the plaintiff's case. As I have not accepted the defendant's view of the plaintiff's case, I find that it is reasonable for the plaintiff to make the claims set out below with certain exceptions.

10.5 Counsel on behalf of the defendant submitted that notwithstanding the decision of this Court and of the Court of Appeal in the case of *Russell (A Minor) v. HSE* [2015] IECA 236, that I should determine the real rate of return at 3%. The basis of the defendant's application was that this plaintiff is not in the same catastrophic position as the plaintiff in the *Russell* case and, therefore, can be less risk adverse than *Russell*.

10.6 In my decision in *Russell*, I stated, obiter, that a plaintiff with a claim for future pecuniary confined to loss of earnings might possibly be treated as less risk adverse than a plaintiff who has a claim for cost of future care.

10.7 The Court of Appeal in their decision did not accept my view and whereas counsel for the defendant indicated that that view of the Court of Appeal was, of itself, obiter. I accept the reasoning of Irvine J. in the Court of Appeal when she stated:-

"There appear to be a number of arguments against such a proposition. It would seem to admit of the adoption of a potentially higher real rate of return in the loss of earnings claim on the assumption that the plaintiff can necessarily absorb a greater risk when investing their award to secure their future income. While of course there may be the rare case where a particular plaintiff may not need their earnings to survive on a day-to-day basis and might thus be in a position to take risks in terms of the investment of their award, most plaintiffs do not fall into that category...."

10.8 Counsel for the defendant stated that I should not draw from this any suggestion that plaintiffs who are less catastrophically injured than *Russell* would be entitled to the same real rate of return in respect of claims for future care, aids and appliances.

10.9 I believe that such submission is erroneous. The real rate of return, therefore, should be calculated at 1%.

10.10 While the plaintiff in this case is not making any claim for loss of earnings and all her future claims are for care and aids and appliances, any sum that is found due to the plaintiff is found due because the plaintiff has a right to and a need for that sum as a matter of virtual certainty in order to provide for her the lifestyle for which she is entitled.

10.11 While Ms. O'Sullivan may not die if the level of care that she is entitled to should "run out" due to it not being invested with sufficient caution, should that money run out, she will be deprived for a period of her life without the necessary care or aids and appliances that she is entitled as a matter of law.

10.12 Accordingly, I accept the logic of the decision in the Court of Appeal which by inference I believe covers not just loss of earnings into the future for all but exceptional cases but also for aids and appliances and future care. I regret any lack of rigour that may have resulted from my obiter remarks in the High Court in the *Gill Russell* case.

10.13 I have been assisted with actuary's reports and in accordance with law I use the actuary's figures as a guide.

10.14 The claim for special damages to date consists of a claim for €500 for medical expenses which I think is more properly costs rather than damages and a sum of €516 for travel expenses which I accept together with the sum of €50,540.11 for retrospective care costs in accordance with the report of O'Carroll Kinsella. This, in essence, relates to the extensive care given to the plaintiff to date by her former partner and is reasonable.

10.15 In relation to future, consultants recommend future professional care in support around the time of later replacements in the sum of €5,745.39 and the plaintiffs have claimed on the basis of the total number of future revisions necessary rather than the extra revisions necessitated by the default in the original hips. The plaintiff's actuary estimates the cost of the care for these five revisions at over €22,000. I believe that the plaintiff should be entitled to recover for the five revisions as though there are only three extra ones required, had it not been for the condition of the plaintiff's hip, she would have been entitled to her ongoing revisions free of charge.

10.16 Also, the plaintiff's expert has recommended additional support from age 66 to 76 at €6,174.15 per annum and increasing from 76 to €12,188.29.

10.17 The total of these costs has been actuarialised at €155,361 and I propose to allow the sum of €150,000.

10.18 Furthermore, the plaintiff is entitled to the future cost of the extra revisions themselves which have been calculated at the sum of €41,415. In relation to the home care and aids and appliances. The total of the plaintiff's claims amount to between €319,000 and €320,000 on a 1% basis.

10.19 I believe that the sums set out by Ms. Barnes are generally reasonable and they have not been disputed by any appropriate expert. I do, however, think that the total sum of €46,662 for drugs payment may not arise and in any event I do not find that the plaintiff has proved on the balance of probabilities that it will arise. I note that a sum of €82,532 is claimed for a paid home help including holidays and PRSI. I believe that the plaintiff is likely to continue the present informal arrangement with her former partner who is entitled to be paid for his services but at a reduced rate of say €60,000.

10.20 In addition, the plaintiff has claimed a sum of €72,495, being the cost of an automatic car but I think that the true loss is the difference between an automatic and a manual which is €4,000 per annum and accordingly which has been included in the plaintiffs actuary's figures. The only other item I would disallow is the sum of €14,418 for heavy or gardening tasks.

10.21 I think being fair to the parties approximately €80,000 can be removed from the totals for future aids and appliances and home care leaving a total of €240,000 which I would allow.

Summary of Special Damages

Past care and travel expenses €51,040.11

Future revision and care costs €191,415

Future home care/aids and appliances €240,000

Total €482,455.11

11 General Damages

11.1 It is clear that as had been stated in numerous decisions, minor injuries call for minor damages, moderate injuries for moderate damages and severe injuries call for significant damages.

11.2 Whereas the plaintiff's injuries are clearly not catastrophic they are undoubtedly severe and within the categorisations of the Book of Quantum, they would have to be categorised as "severe and permanent conditions". The injury has caused major disruption to the plaintiff's life in a number of areas and has resulted in serious continuing pain and ongoing permanent medical attention.

11.3 Counsel for the defendant has referred me to the Book of Quantum and in particular to p. 57 of the new Book of Quantum, which deals with injuries and dislocations to hips and gives a range between just short of €60,000 and €94,5000 for severe and permanent conditions which:-

"Will require manipulation of a joint back into normal position may have included more intensive treatment or even surgery to keep the joint in position. These may include ongoing pain and some loss of movement and the joint being more susceptible to future dislocation on the onset of arthritic changes."

11.4 Counsel did concede that the injuries described in the Book of Quantum at p. 57 may not be entirely similar to what the plaintiff has suffered but suggested that I should use this as a guide.

11.5 As I indicated in discussions with counsel, I do have a certain difficulty with the new Book of Quantum in that on its face, the information going into its make up comes not just from court awards or PIAB determinations but also to a significant extent from insurance company files. The difficulty is that those files will, as a matter of virtual certainty, include cases which are compromised due to possible liability factors. If an insurance company has put a value of say €50,000 on a settlement and the files indicates that that case was settled on a 50/50 basis, the insurance company may value the full claim at €100,000. The plaintiff, however, might value the claim at a far greater sum but are concerned that they had a very small chance of success. The reverse is also, of course, possible.

11.6 It is not clear what the portion of the Book of Quantum's figures are in relation to insurance company files but on the face of it, a significant cause to doubt the accuracy of the recent book does present itself.

11.7 Happily, I do not have to concern myself in this case with such considerations as I do not find that the sums quoted in the Book of Quantum for "dislocations" of hips are in any way referable to the pain and suffering that the plaintiff has gone through and will go through as a result of what occurred.

11.8 The plaintiff has not suffered a "dislocation" of her hips rather the hips that were inserted in 2005 and 2006, have resulted in significant damage to the plaintiff, not just to her hips and have had significant life altering results.

11.9 I must in my determination be fair to the plaintiff as well as to the defendant. I think that to be fair and reasonable to both sides bearing in mind the very severe, if not catastrophic nature of her injuries, and reiterating that the plaintiff's injuries are far more severe than any other person whose case has been opened to me in relation to these defendant's hips, I will assess general damages to date in the sum of €200,000 and general damages in the future to €100,000.

12 Aggravated Damages

12.1 The last matter to be considered in this case is a claim for aggravated damages. Counsel for the plaintiff has claimed aggravated damages on the basis that the defendant's criticism of Mr. N. was wholly unfair and that there ought to be consequences.

12.2 Counsel for the plaintiff relied upon the third category suggested by Finlay C.J in *Conway v. INTO* [1991] 2 I.R. 305, namely the conduct of the wrongdoer in the defence of the claim at the trial and in particular, they submit that the attack on Mr. N's character was, in effect, an "assassination".

12.3 As was established in *Phillip v. Ryan* [2004] 4 I.R. 429, aggravated damages are compensatory damages.

12.4 Counsel for the defendant referred the court to the decision of the Supreme Court in *Swaine v. Commissioner for Public Works* [2003] I.R. 521.

12.5 I previously indicated that the issue of aggravated damages may have a roll in cases which the conduct of the defendants is such as (for example, the swearing of an affidavit verifying a defence when there is no real defence to the matter, or the making of any basis or reckless allegations against the plaintiff or a witness) in circumstances in which there is no real other deterrent to a defendant. An award of aggravated damages against a defendant who acts in bad faith, may well be the only deterrent to balance the draconian statutory penalties against a plaintiff who acts in bad faith.

12.6 In this case, however, the complaint is as to the attempted "assassination" of Mr. N.

12.7 Mr. N. is not a party to this litigation and undoubtedly it would benefit the defendant in this and other cases if his credibility could be assailed. I do not, however, think it necessarily unreasonable or reckless for the defendants to assail the credibility of Mr. N. and to have the issue, in particular, of his *Qui Tam* litigation adjudicated upon.

12.8 Accordingly, I do not have to come to a determination as to the role, if any, of aggravated damages in such cases because I do not believe that the conduct of the defendant in criticising Mr. N. comes within the third categorisation of Finlay C.J. in *Conway*.

13 Conclusion

13.1 Accordingly the plaintiff is entitled to succeed. Damages are as follows:-

Special Damages to date and into the future €482,455.11

General Damages to date €200,000

General Damages into the future €100,000

Total €782,455.11

Less 10% €78,245.51

Net Total €704,209.60

13.2 As I am obliged to do, I must consider whether the total sum of general and special damages is fair and reasonable and to compensate the plaintiff and I do so decide and accordingly, the plaintiff is entitled to decree in that sum.