Claim No: HQ14C04620

Neutral Citation Number: [2017] EWHC 128 (QB)
IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION

Royal Courts of Justice
Strand, London, WC2A 2LL

Judgment handed down at:
Civil Justice Centre,
Manchester M60 9DJ

Date: 01/02/2017

Before:

MR JUSTICE KERR

- -

Between:

MR DESMOND MULLER	**Claimant**
- and –	
KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	**Defendant**

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- -

Robert Kellar (instructed by **Slater & Gordon (UK) LLP**) for the **Claimant**
Tom Gibson (instructed by **Kennedys**) for the **Defendant**

Hearing dates: 13th, 14th, 15th and 16th December 2016

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Judgment

Mr Justice Kerr:

Introduction

1. The claimant (Mr Muller), born on 19 May 1947, lives with his wife in Beckenham, Kent. For most of his life he has been an active and vigorous man. Well into his sixties he would take regular exercise, walking, swimming, playing golf and football. He has twice played the lead role, Tevye, in the incomparable musical, *Fiddler on the Roof*. He used to work full time as a mental health social worker until his retirement in 2007. After that, he worked freelance for local authorities and NHS bodies as a lecturer in mental health law.

2. Mr Muller has also survived cancer. In 2012, he was diagnosed with a malignant melanoma on the sole of his left foot. It was excised by surgery. However, by then it had spread, as demonstrated by a procedure called sentinel lymph node biopsy. Secondary metastases were removed. Fortunately, his six monthly scans have shown him to be clear of cancer since then, and it is now agreed that his life expectancy is normal.

3. He claims that his cancer should have been diagnosed earlier and that, if it had been, he would have been spared pain, suffering and loss of amenity, various expenses and loss of earnings. He claims damages against the defendant (the Trust) as the employer of a histopathologist, Dr Rashida Goderya. She diagnosed a non-malignant ulcer in November 2011, when in fact, as is now agreed, the lump on Mr Muller's left foot was a malignant melanoma.

4. The Trust denies that Dr Goderya's mis-diagnosis was negligent. Alternatively, it denies that Mr Muller sustained any loss or damage, and disputes the quantum of the loss claimed. It argues that if the cancer had been diagnosed in November 2011, the outcome would have been much the same: the cancer had already spread by then; Mr Muller would have accepted advice to have the same operations he later had: a sentinel lymph node biopsy, lymph node dissection and a split skin graft. He would not have avoided those procedures, nor the expense and lost earnings claimed, the Trust argues.

The Facts

5. Mr Muller was on holiday in Cyprus when, on 26 July 2011, he felt that he injured his left foot while bathing in the sea. The injury is variously attributed to stepping on a sea urchin or scraping his foot on a rock. The sea urchin theory later gained the most currency but, in truth, the cause of the injury was not known apart from its possible marine origin. He sought medical advice from a nurse in Cyprus, who advised him to see his General Practitioner (GP) in England if the wound did not heal.

6. When it failed to heal, Mr Muller sought medical advice in this country. He visited an accident and emergency department where pus was expressed from the wound. Then on 1 August 2011, he saw a GP, Dr Linsmaier, who thought the wound was

healing. However it did not, even with antibiotics, though the discharge temporarily stopped. He referred himself to a podiatrist, who treated the wound as an ulcer. The wound then started to discharge again.

7. On 4 November 2011, Mr Muller's GP, Dr Akiri, made a routine referral to a dermatology referral centre, noting "recurring infections and an area of ulceration that has failed to heal", and that an ultrasound scan had found "nil of note". Three days later, a podiatrist, Ms Nicol, faxed Dr Wells, another GP at the practice, mentioning the possible presence of a "foreign body" in Mr Muller's left foot.

8. On 9 November 2011, Mr Muller was seen by a dermatologist at Orpington Hospital, Dr Karen Watson. She took a small punch biopsy for histological examination. This is a very painful procedure which requires an injection deep into the foot. The punch biopsy then came before Dr Goderya for histological examination.

9. She is a consultant histopathologist. Her work at the time involved reporting on specimens of many kinds, including samples of tissue of a gynaecological nature, and specimens comprising skin, breast, gastro-intestine, ear, nose, throat and endocrine (thyroid). She worked normal working hours, according to a rota which required her to report on particular types of specimen on particular shifts.

10. Dr Goderya estimated that she reported on about 3,500 samples each year. When examining specimens under a microscope, she would be looking at the samples on a glass slide, examining cells rather than tissue. Of the specimens she examined, about 700 each year would be skin specimens. She would report on about 25 to 30 samples each working day. Some samples (though not Mr Muller's) would comprise more than one glass slide with tissue on it.

11. The method used was to stick a thin section of cut tissue to an illuminated glass slide. The tissue would be stained to bring out contrasts between nuclei and other structures of the cells. The staining agent is blue. The nuclei (centres) of the cells appear blue, while the cells around them tend to be pink in appearance, to help the reporting histopathologist to differentiate between the two.

12. Most of the preparatory work of preparing and staining tissue for examination is carried out by laboratory technicians. Accompanying the prepared slides would be a written request form with details of the patient, relevant clinical information and a note of the questions raised for the histopathologist to address in her report, made after examining the sample. Mr Muller's single slide was prepared by the technicians and placed before Dr Goderya, who viewed it on 16 November 2011.

13. The slide had several pieces of tissue from the punch biopsy stuck to it. The request form had gone missing by the time of the trial, so I have not seen it. Dr Goderya had it, and recalls that it referred to a sea urchin bite. Her evidence was that she would have viewed the slide first with the naked eye, and then with increasing degrees of magnification under a microscope. The levels of magnification (which are not linear), are denoted by the numbers 4, 10, 20 and 40, in ascending order.

14. Dr Goderya reported in writing the same day. The punch biopsy was described as 5 mm in diameter, 3 mm deep and "[b]isected". A punch biopsy is only a small portion of the lesion from which it is taken. She reported an "ulcer with underlying granulation tissue and scarring. Granulomata are not seen. The features are of an ulcer consistent with the history of trauma". She included in her brief written report everything she considered relevant. The absence of "granulomata" indicated to Dr Goderya, correctly, that certain infections such as tuberculosis were not present and that there was no foreign body.

15. She did not detect a malignant melanoma, though it is agreed that there was one. It was of a type she had never seen, known as an acro-lentinginous melanoma, or "ALM" (also sometimes referred to as an "acral lentinginous melanoma"). "Acro" or "acral" refers to the location being in the skin of the hands and feet. The adjective "lentiniginous" refers to the way in which the abnormal cells are proliferating, dividing in a linear manner at the junction of the dermis (the inner layer of skin) and the epidermis (the outer layer of cells forming the surface, overlaying the dermis).

16. On 22 November 2011, Dr Watson wrote to the Claimant and his GP to notify him of Dr. Goderya's findings in the following terms: "….when the skin was examined under the microscope the features were of an ulcer consistent with a history of trauma. There was no evidence of any other pathology". Mr Muller saw Dr Watson on 4 January 2012, and again on 1 February 2012.

17. At first, Mr Muller thought the wound was at last healing. He was able, with difficulty, to fulfil his contractual commitments as a lecturer, and to drive; although his normal active life had been severely disrupted. However, in March 2012, the wound was deteriorating and very painful. On 9 March, Dr Watson referred him to Mrs Jenny Geh, a plastic surgeon at Orpington Hospital, for consideration of surgery in the form of a "small excision".

18. Mr Muller saw Mr Anirban Mandal, a member of Mrs Geh's plastic surgery team, on 16 May 2012. Mr Mandal recommended excision under general anaesthetic, to be performed at St Thomas' Hospital in London. That operation was performed on 3 July 2012. The immediately affected area of the wound was excised. An "excision biopsy" was taken for histological examination. Mr Muller believed that once he had recovered, he would be free of the problem. He was therefore optimistic about returning to sports after recovery from the operation.

19. During the healing phase, the wound required frequent dressing at St Thomas's Hospital, requiring morning hospital transport for Mr and Mrs Muller from their home in Beckenham to central London, followed by wheelchair transport within the hospital. By the time they got home, this process took up much of the day, until Mrs Muller was able to change the dressings herself at home.

20. The excision was later described as "incomplete" because it did not include a margin of 2 cm around the wound which would have been standard practice if it were known that the affected area was cancerous. The excision biopsy, a fuller and better specimen than a punch biopsy, was received the next day by Dr Catherine

Stefanato, a consultant dermatopathologist at Guys & St Thomas' Hospitals. She reported the dimensions of the biopsy as 47 mm by 10 mm by 4 mm.

21. Dr Stefanato reported on 6 July 2012 that the biopsy showed a malignant melanoma of the ALM type. Although she noted that measurement of the "greatest thickness" (or "Breslow" thickness) of the tumour was difficult due to the presence of the "admixed sclerotic component underlying the ulcer", she concluded that there was enough of the dermis left to measure the greatest thickness as 2.25 mm. She recommended "[c]omplete re-excision", which would include the margin of 2 cm around the wound.

22. Mr Muller was asked to attend a meeting on 25 July 2012, at which the bad news was broken to him that his lesion was a malignant melanoma, i.e. cancer. He said in his witness statement that he met with Dr Watson and her team at Orpington Hospital, but Dr Watson is not mentioned as among those present in the note of the meeting, signed by Dr Ai-Lean Chew, another consultant dermatologist at that hospital.

23. The note of the meeting records that Mr Muller was advised in the following terms, which (it is common ground) was right and proper advice in accordance with good medical practice:

> Melanomas over 1mm in thickness do have a small risk of cancerous cells spreading elsewhere in the body. The most accurate test to detect of cancerous cells [sic] is a sentinel lymph node biopsy which was explained and information leaflet given. Regardless of the thickness of the melanoma 80% of sentinel node biopsies are negative and no further treatment is required but if the test is positive then further treatment usually in trials may be offered. This test can be carried out at the same time as the operation to remove another 2cm of skin around the scar which is the recommended treatment to reduce the risk of melanoma cells growing back in the skin around the scar.

24. Mr Muller was referred immediately back to St Thomas' Hospital for further tests and treatment. The suffering he endured at this time can only inspire the utmost sympathy. It was bad enough to have cancer. That was made worse by being told it had not been diagnosed in November 2011, and worse still by being unaware why it had not been diagnosed then. Furthermore, he had urgent treatment decisions to make, balancing undoubted further suffering against the best chance of saving his life.

25. On 1 August 2012, awaiting an appointment with Dr Natalie Attard, a dermatologist at St Thomas' Hospital the next day, he prepared a document which included a list of unanswered questions. Among them was a reference to the possibility of taking part in a clinical research trial. This had probably been mentioned on 25 July, as the note quoted above indicates. In his witness statement Mr Muller said he would have been interested in taking part in a clinical trial in the USA, at the John Wayne clinic in California.

26. His evidence was to the effect that he was told he had become ineligible for that course through late diagnosis. He was given to understand that in such trials, the decision whether to undergo a sentinel lymph node biopsy, is "randomised", which I take to mean something like the drawing of lots or some other method of

determining whether the procedure is carried out, which takes the decision out of the patient's hands. This point was not explored in cross-examination or by the array of experts, to whose evidence I am coming. In any case, I accept that by July 2012, participation in such a trial was no longer a possibility.

27. Mr Muller accepted the view that he needed to know where he stood and that he should undergo a sentinel lymph node biopsy, intensely painful though that would be, at the same time as the inevitable wide excision. He therefore underwent surgery at St Thomas' on 6 August 2012, in the form of a wide local excision of the left foot and the removal of lymph nodes from the left groin, i.e. a sentinel lymph node biopsy (as well as excision of a benign "naevus" (a birthmark or mole) on his left third toe). The malignant melanoma was fully excised.

28. He still had outstanding a skin graft to repair the loss of tissue in his left foot. This was a separate operation which was fixed for 3 September 2012. Mrs Geh saw Mr Muller at St Thomas' on 16 August 2012. She (or one of her team) told him the cancer had spread to two of the lymph nodes and that a lymph node dissection was required. He was also told that the punch biopsy taken in November 2011 showed signs of malignant melanoma. That was confirmed by Dr Stefanato, who reviewed at least one of the slides Dr Goderya had seen in November 2011 and reported, on 24 August 2012, that they indicated the presence of malignant melanoma.

29. More specifically, Dr Stefanato reported that the greatest (Breslow) thickness of the tumour was at least 1.95 mm and that the melanoma had been in "vertical growth phase". She gave a narrative description of what she saw, which included the presence of "an ulcerated compound melanocytic lesion with severe cytological atypia" and "a junctional component which merges with ulcer slough and reactive epidermal hyperplasia at the edge of the ulcer … formed by lentiginous proliferation of atypical melanocytes ….".

30. Mr Muller was reviewed again on 31 August 2012 by Dr Attard. Reluctantly, he agreed to undergo lymph node dissection of his left groin at the same time as the skin graft operation to repair his left foot. Those operations were both carried out at St Thomas' on 3 September 2012. Mr Muller was discharged a week later, though he had to be readmitted for two further days due to what he called "minor complications" including a rash and swelling near his groin.

31. Dr Goderya was asked to look again and report on the punch biopsy taken in November 2011. She reported on 11 September 2012, agreeing "[i]n retrospect", that "some of these cells may be melanocytic [i.e. cancerous] in nature, which due to the lack of melanin and obvious nesting pattern were misinterpreted as being histiocytes [i.e. benign] in an ulcer".

32. After the third and last of his operations, Mr Muller began the arduous task of recovery. He was at risk of lymphoedema, a long-term or chronic condition that causes swelling in the body's tissues. He had to wear surgical stockings to help prevent this. The healing process was slow and difficult. He has managed to resume some of his sporting activities (notably swimming), but at a much reduced level. He cannot play football anymore. He put on weight, but then managed to lose some as his condition improved.

33. Mr Muller remains at risk of lymphoedema and has some swelling just below his hip, down to his thigh. He has difficulty standing for more than 10 or 15 minutes due to discomfort in the ball of his left foot, where the tumour was excised. He wears shoes with removable soles. He is only able to walk short distances now, before his left foot becomes uncomfortable and sore. He applies a cream to his left foot three or four times a day.

34. Mr Muller now also travels less than previously, partly as a result of reduced earnings. He is able to drive (his wife does not) but is restricted in undertaking household activities, such as cleaning, maintenance, home decorating, shopping and gardening. He also suffered psychologically, experiencing a huge loss of confidence in his physical wellbeing, as well as frustration and disappointment that his cancer was not diagnosed until about eight months after the initial punch biopsy.

35. His work schedule has been severely disrupted by what has happened; he has missed out on a number of contracts that would have been available to him if he had been fit to work at all times since the spring of 2012. His gross post-retirement earnings as a self-employed lecturer (excluding pension) were £19,779 in the 2009-10 tax year, and £23,265 in the 2010-11 tax year. In the tax year 2011-12, they dipped to £11,539, and in the 2012-13 tax year dropped again as low as £4,870.

36. The nature of Mr Muller's work, until it was disrupted, was not rhythmical or cyclical. It depended on one-off opportunities, for example where a client had been let down by another trainer. He was inhibited from tendering for new work from bodies to which he "owed" work, because they had pre-paid him in order to ensure their budgets were appropriately expended before the end of their financial year.

37. Thus, the nature of his self-employed work has never been uniform or predictable. Since his cancer diagnosis and surgery, Mr Muller has adapted as best he could, but was at a disadvantage during the periods of surgery by not knowing when he would be available or unavailable to perform future work, and therefore unable to take on as many commitments as he would have wished.

38. Experts on each side then prepared reports. There were no less than five experts, of whom four were called to give oral evidence. After they had prepared their various reports and after the claim had (on 7 November 2014) been issued, three joint statements were prepared and signed by the experts, of which two remained relevant by the end of the hearing. The third related to Mr Muller's life expectancy, but it became common ground during the hearing that it is, thankfully, normal for a man of his age.

39. There were three main areas of disagreement between the experts: (i) whether the histopathological report prepared by Dr Goderya in November 2011 was a breach of her duty to exercise reasonable skill and care; (ii) whether, at the time of her report, the cancer had already spread to one or more of Mr Muller's lymph nodes; and (iii) whether or not, if Dr Goderya had diagnosed a malignant melanoma in November 2011, Mr Muller would have undergone a sentinel lymph node biopsy procedure in about early January 2012.

40. On 7 October 2016, Professor Sir Nicholas Wright (a consultant histopathologist, instructed by Mr Muller), Dr Paul August (a consultant dermatologist, instructed by Mr Muller) and Dr Stephen Falk (a consultant oncologist, instructed by the Trust) signed a joint statement without agreement on the points (ii) and (iii) above, but stating the following, so far as now material:

(1) They did not agree all elements of the "staging" of the tumour in November 2011 (a conventional system to express consistently the stage of a tumour's growth). Though some elements were agreed, the element which corresponds to whether nodal metastases are present, was not.

(2) On a diagnosis of malignant melanoma, the patient should be advised (as it is agreed he later was) in accordance with the guidelines issued by the National Institute for Clinical Excellence (NICE), on the pros and cons of undergoing a sentinel lymph node biopsy.

(3) The thickening of the tumour from a Breslow thickness of 1.9 mm in November 2011, to 2.25 mm in July 2012, representing a rate of 0.04-0.05 mm per month, compares with a median of 0.12 mm per month. The growth rate was therefore "slow to average, but certainly not rapid".

(4) It is not possible to calculate the growth rate of nodal metastases by reference to the growth rate of the primary tumour; indeed, the small amount of data on the subject (referred to in a paper by Carlson of August 2003) indicates that "metastatic melanoma grows at a faster rate than the primary tumour".

(5) It is not possible to say how fast the nodal metastases were growing and it is notoriously difficult to estimate this; but there was agreement that by 25 July 2012, the tumour had reached the stage which is conventionally described as pT3b N2a M0, i.e. IIIb.

41. On 17 November 2016, Professor Wright and Dr Vipul Foria (a consultant histopathologist instructed by the Trust), signed a joint statement, without agreement on points (i) and (ii) above. There was a good deal of repetition of the earlier joint statement. They agreed, so far as material, on the following:

(1) ALM is a rare type of tumour, encountered in about 2 to 3 per cent of melanomas; while melanomas account for about 1 per cent of all skin cancers. The foot is the commonest site for ALM; 62 per cent of ALMs occurring on the sole of the foot.

(2) There was "no clinical information" in Dr Goderya's written report. The experts went on to note that Dr Goderya had information from Dr Watson referring to an encounter with a sea urchin. Although the joint statement does not mention the point, I note also that Dr Goderya's written report referred to "the history of trauma".

(3) ALMs can be "amelanotic", i.e. not dark coloured or pigmented. ALMs are also associated with "fibrosis", also termed "desmoplasia", i.e. non-

cancerous cells involved in the healing process after a wound is received. The biopsy was fragmented.

(4) An atypical lentiginous junctional proliferation is present on the slides examined by Dr Goderya; the significance of that is that it raises the question of an "acral melanocytic lesion"; a phrase I take to be synonymous, in the present context, with ALM.

(5) Scattered atypical cells in the epidermis, and a proliferation of atypical mainly spindle cells with some epithelioid cells in the dermis, are to be seen on the slides. These features support the diagnosis of ALM, in the "vertical growth" phase.

(6) The "mitotic count" (a measure of how fast cancer cells are dividing and growing) in this case was $2/mm^2$, which is "on the low side". This is evidence of proliferative activity which is seen in malignant melanoma and supports the diagnosis of malignant melanoma.

(7) Subject to caveats in their reports, they agree that the Breslow thickness of the tumour in mid-November 2011 was at least 1.9 mm. Again, they did not agree all elements of the "staging" of the tumour, though some elements were agreed.

(8) While it is hard to say whether the tumour was "slow growing", there was a thickening of the tumour from November 2011 to July 2012, increasing from 1.9 mm to 2.25 mm over that period, a growth rate again described as "slow to average, but certainly not rapid".

(9) Again it was agreed that it is not possible to calculate the growth rate of nodal metastases by reference to the growth rate of the primary tumour; indeed, the small amount of data on the subject, referred to in the August 2003 paper by Carlson, indicates that the former grow faster than the latter.

(10) The experts do not know how fast the nodal metastases were growing, and it is (in agreement with the previously mentioned joint statement) "notoriously difficult to estimate this". The joint statement did not propound any accepted method of estimating the growth rate.

The Issues, Reasoning and Conclusions

The first issue: breach of duty

42. There was a difference between the parties about the applicable law. Mr Gibson, for the Trust, submitted that the question was the standard *Bolam* question: whether Dr Goderya, when diagnosing an ulcer and not a malignant melanoma, was acting in accordance with a practice of competent respected professional opinion, accepted as proper by histopathologists skilled in the art of interpreting and reporting on biopsies by examining them on slides under a microscope.

43. Mr Gibson submitted that Green J's decision in *C. v. North Cumbria University Hospitals NHS Trust* [2014] EWHC 61 (QB) is authority for the application of the unvarnished *Bolam* principle to the reporting carried out by Dr Goderya in this case. He referred to paragraph 25 of the judgment where the judge, impeccably, set out the applicable "principles and considerations which apply to the assessment of … expert evidence in a case such as the present".

44. Mr Gibson relied on Dr Foria's expert opinion that Dr Goderya's misdiagnosis was not negligent, but could easily be made by a histopathologist acting with reasonable competence, i.e. with reasonable skill and care. Mr Gibson submitted that Dr Foria's expert opinion was founded on acceptable reasoning and not outside the bounds of respectable medical opinion.

45. Mr Gibson submitted, therefore, that Professor Wright's contrary view - that Dr Goderya committed a plain breach of duty - should not be preferred; Dr Foria's opinion was sufficient to exonerate Dr Goderya from the charge of negligence. Applying the *Bolam* doctrine, the court should not choose between these opposing experts' views; Dr Foria's view should carry "substantial weight" and should not be rejected unless Professor Wright's evidence cast it in "such an altogether negative light that it should be rejected" (per Green J in *C. v. North Cumbria University Hospitals NHS Trust*, at paragraphs 25(i) and 73).

46. Mr Kellar, for Mr Muller, submitted that the application of the *Bolam* principle did not provide the answer here. He proposed that the governing authority was the Court of Appeal's decision in *Penney v. East Kent Health Authority* [2000] PNLR 323, in which Lord Woolf MR gave the judgment of the court. That case, he pointed out, was like this one a case of interpreting objective data wrongly.

47. He submitted that *Penney* showed that the court must determine the objective facts about what pathological features were there to be seen on the slides - which in the present case is a matter of agreement - and then decide for itself whether, in the light of the differing experts' views, the misdiagnosis was one that must have been made without the use of reasonable skill and care. The court could not abdicate its responsibility to resolve the conflict of expert opinion by resorting to the *Bolam*-derived notion of a respectable body of medical opinion.

48. One might have thought the principles would be settled by now. In my judgment, the difficulty has arisen because, unfortunately, the authorities applying the conventional *Bolam* approach to negligence in this field do not sufficiently differentiate between two types of case.

49. The first type is a case such as the present, where the patient's condition is unknown, and what is alleged to be negligent is a doctor's diagnosis of the condition, in the form of a report, with no decision made or advice given about treatment or further diagnostic procedures. The diagnosis is either right or wrong and, if wrong, either negligently so or not. Such a case could be called a "pure diagnosis" case.

50. At the other end of the spectrum is the second type of case: a "pure treatment" case, where the nature of the patient's condition is known, and the alleged negligence

consists in a decision to treat (or advise treatment of) a condition in a particular manner. The second type of case is the paradigm for application of the *Bolam* principle.

51. It is its application to the first type of case which has led to some difficulty and confusion in the development of the law. A report setting out a diagnosis without any recommendation for treatment or any further diagnostic procedure, is surely far from what McNair J had in mind when he directed the jury in *Bolam v. Friern Barnet Hospital Management Committee* [1957] 1 WLR 582, 587, that the question was:

> whether the defendants, in *acting in the way they did*, were acting in accordance with a practice of competent respected professional opinion …. in accordance with a practice accepted as proper by a responsible body of medical men skilled in that particular art [my italics].

52. Mindful that in the law context is everything, I remind myself how McNair J's celebrated direction to the jury came to be given. In *Hunter v. Hanley* [1955] SLT 213, the pursuer alleged that she had suffered injury through a negligently administered injection, causing the hypodermic needle to break. It was held that a direction given to the jury that there had to be "gross negligence", was wrong and that the jury's verdict therefore could not stand. There was no element of wrong diagnosis in the case.

53. Lord Clyde, the Lord President, in the Inner House of the Court of Session, said however at 204-5 [my italics]:

> 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, nor because he has displayed less skill or knowledge than others would have shown. 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* ….

54. The issue for the jury in *Bolam* was whether a doctor had been negligent in administering electro-convulsive therapy, without the use of relaxant drugs or some form of physical restraint to protect the patient from injury arising from the convulsions. McNair J quoted the words of the Lord President (above) from *Hunter v. Hanley* before giving his direction to the jury, also quoted above. The context was that there was agreement between the experts at trial that a firm body of medical opinion opposed the use of relaxant drugs; and that some experts believed that the less physical restraint was exerted, the lower the risk of injury to the patient.

55. Thus, both *Hunter v. Hanley* and *Bolam* were pure treatment cases. There was no element of alleged misdiagnosis. The next case is *Maynard v. West Midlands Regional Health Authority* [1984] 1 WLR 634. It establishes that the *Bolam* test applies to a decision in the exercise of clinical judgment to perform a risky diagnostic procedure instead of making a firm diagnosis. The issue was not (as in

the present case) whether the doctors had negligently and incorrectly diagnosed the patient's condition; their decision was to "hedge their bets" on the issue of diagnosis and to perform an exploratory procedure, after weighing up the risks and potential benefits of doing so.

56. The issue was whether it was negligent to make the clinical judgment that a diagnostic procedure should be undertaken in the light of competing possible diagnoses, one of which (tuberculosis, which turned out to be correct) they had already recognised was a strong possibility. The Court of Appeal's majority decision to overturn the judge's finding of negligence, was unanimously upheld. The leading speech in the House of Lords (with which the other four of their Lordships agreed) was given by Lord Scarman who, at the very start, stated the issue thus (at 636):

> … the question in this appeal is whether a physician and a surgeon, working together in the treatment of their patient, were guilty of an error of professional judgment of such a character as to constitute a breach of their duty of care towards her. The negligence alleged against each, or one or other, of them is that contrary to the strong medical indications which should have led them to diagnose tuberculosis they held back from a firm diagnosis and decided that she should undergo the diagnostic operation, mediastinoscopy.

57. Lord Scarman, at page 638, quoted both McNair J's direction to the jury in *Bolam* and Lord Clyde's earlier words (quoted above in this judgment) in *Hunter v. Hanley*. At 639, Lord Scarman stated the following words subsequently quoted in Lord Browne-Wilkinson's leading speech in *Bolitho v. City and Hackney Health Authority* [1998] AC 232, at 238G-H:

> …a judge's 'preference' for one body of distinguished professional opinion to another … is not sufficient to establish negligence in a practitioner *whose actions* [my italics] have received the seal of approval of those whose opinions, truthfully expressed, honestly held, were not preferred. … For in the realm of *diagnosis and treatment* [my italics] negligence is not established by preferring one *respectable* [Lord Browne-Wilkinson's italics] body of professional opinion to another. Failure to exercise the ordinary skill of a doctor (in the appropriate speciality, if he be a specialist) is necessary."

58. I have already observed that in *Maynard*, while the facts included a history of deliberately delayed diagnosis, the gist of the negligence alleged was a clinical decision to perform an operation on the patient. In *Bolitho*, negligence through failure to attend a child with respiratory difficulties was established. The issue was one of causation: whether, if the negligent doctor had attended the child, she would have performed a certain procedure ("intubation"). The House of Lords upheld the decision of the Hutchison J and the majority of the Court of Appeal, that the defendant was not liable.

59. The reasoning was that, applying the *Bolam* test to that issue of causation, it would have been reasonable and not negligent to decide not to intubate the child; and intubation would not in fact have been decided upon, had the doctor attended the child as she should have done. Lord Browne-Wilkinson (with whom all the other

Law Lords agreed) held that while the *Bolam* test was irrelevant to the question what treatment would have been given as a matter of fact, it was relevant to the subsequent question whether the treatment that would have been given would have been negligent (see at 240B-G).

60. Once again, the issue on which the court had to focus was a treatment decision (or decision not to treat) that would have been made, in the exercise of clinical judgment. As such, it was eminently suitable for the application of the *Bolam* principle. Lord Browne-Wilkinson took the opportunity (at 241F-242B) to introduce his well-known caveat that where respectable expert opinion is relied upon, it must have "a logical basis" and in cases "involving … the weighing of risks against benefits", the experts "must have directed their minds to the question of comparative risks and benefits and have reached a defensible conclusion on the matter".

61. At 243A-E, he did refer to that proposition as one that should be applied in "cases of diagnosis and treatment"; but he emphasised that it would be rarely justifiable to invoke it "[i]n particular, where there are questions of assessment of the relative risks and benefits of adopting a particular medical practice", where necessarily, "the relative risks and benefits have been weighed by the experts in forming their opinions".

62. Of the cases cited to me by counsel, it is not until we get to *Penney v. East Kent Health Authority* [2000] PNLR 323, that we encounter a pure diagnosis case featuring facts that are close to those of the present case. In such a case, there is no weighing of risks against benefits and no decision to treat or not to treat; just a diagnostic (or in *Penney*, pre-diagnostic) decision which is either right or wrong, and either negligent or not negligent. In none of the cases just mentioned was that the factual position.

63. In *Penney*, it was. Screeners of cervical smear tests, who were qualified biomedical scientists involved at the pre-diagnostic stage, pronounced the claimants' smears negative. The claimants went on to develop cancer of the cervix. HHJ Peppitt QC found that the screeners were negligent in that a screener exercising reasonable skill and care would have detected possible signs of cancer. The Court of Appeal upheld his conclusion. After citing *Bolam*, *Maynard*, *Hunter* and *Bolitho*, Lord Woolf MR, giving the judgment of the court, agreed with both parties that the approach in those cases should be followed.

64. However, he added (at 330-1) that "the *Bolam* test has no application where what the judge is required to do is make findings of fact … even where those findings of fact are the subject of conflicting expert evidence". He went on to say that the case raised three questions: (i) what was to be seen in the slides? (ii) at the relevant time could a screener exercising reasonable care fail to see what was on the slides? (iii) could a reasonably competent screener, aware of what a screener exercising reasonable care would observe on the slide, treat the slide as negative?

65. Lord Woolf was clearly treating question (i) as one of fact. Yet, by "what was to be seen in the slides", he must have meant not merely what images the screener would physically see (a question of fact in the ordinary sense of the word), but also what

interpretation should be placed on what was to be seen on the slides, i.e. whether, objectively, there was any indication of possible cancer. His reference to expert evidence being required to determine question (i) otherwise does not make sense. He held that the court had to decide this question without reference to the *Bolam* test.

66. He went on to say that the issues raised in questions (ii) and (iii) (which I regard as in substance the same question) "involved both questions of fact and questions of opinion as to the standards of care which the screeners should have exercised". The reference to the "standard of care" must be to whether the fixed standard of care required by law (that of objective reasonableness) was breached or not. It cannot mean that it was for the experts to determine the legal content of the duty of care. That is a matter of law.

67. Lord Woolf went on to consider a case, not of assistance here, in which the frontier between fact and opinion had been addressed in the context of causation. What is clear is that (at 332), he noted the agreement of both parties that the judge below had asked the right question when he asked: "[h]ow a reasonably competent cytoscreener at the relevant time should have reported her slide?" This is of considerable comfort in the present case; I will ask myself the same question, substituting Dr Goderya for the cytoscreeners.

68. There was then a disagreement between the parties in *Penney* about whether the *Bolam* test applied for the purpose of answering that question. HHJ Peppitt QC had preferred the evidence of the claimants' experts that "the abnormality was there to be seen" on Mrs Penney's slide and the screener should have recorded it. It was not the screener's role to diagnose, unlike in this case. The judge commented that he found the *Bolam* principle "ill-fitting to the facts …" (cited at 334).

69. The reasoning of Judge Peppitt QC in *Penney* was that there was no issue as to whether a particular course of professional conduct was acceptable professional practice. Everyone agreed that the screener had got the answer wrong. The issue, said the judge, to which the experts' opinions were directed, was "whether the cytoscreener's conduct though wrong, was *excusable*" [Lord Woolf's italics], an issue he said fell outside the *Bolam* principle. In case he was wrong about that, he found that the defence experts' evidence should be rejected applying Lord Browne-Wilkinson's *Bolitho* exception, because it did not stand up to logical analysis.

70. Lord Woolf (at 335) found "difficult to understand" the judge's reference to whether the cytoscreener's conduct was "excusable". For my part, I think it is clear that he was referring unremarkably to the ordinary concept of error falling short of actionable negligence; or as put by Lord Clyde in *Huntley* at 204-5, the trite proposition that "one man clearly is not negligent merely because … he has displayed less skill or knowledge than others would have shown".

71. Lord Woolf went on to hold that the judge's decision should be upheld on the ground that he had correctly applied the *Bolitho* exception to the facts of the case and the expert evidence. He was "entitled to prefer the evidence of the claimants' experts that there were abnormalities on Mrs Penney's slide which were there to be

seen" (see at 338). The judge's conclusion was therefore upheld and the appeal dismissed.

72. Unfortunately, the Court of Appeal did not expressly endorse the judge's proposition that the *Bolam* principle did not apply because there was no issue of whether a particular course of conduct was acceptable medical practice. However, the Court of Appeal did allow a liberal invocation of Lord Browne-Wilkinson's *Bolitho* exception, no doubt because this was, in Lord Browne-Wilkinson's words, not a case where there was any "weighing of risks and benefits", which should attract particular deference to the views of the experts, whether or not unanimous.

73. I have had to review that case law in some detail in order to draw from it, with some regret, the conclusion that even in a pure diagnosis case such as this, the exercise of preferring one expert to another must be viewed through the prism of the *Bolitho* exception, rather than, as would be preferable, by rejecting the very notion that the *Bolam* principle can apply where no "*Bolam*-appropriate" issue arises. I respectfully agree with Judge Peppitt QC that the latter approach is more coherent, and I return to my starting point: that McNair J did not have a pure diagnosis case such as this in mind when he gave his direction to the jury.

74. If in this case the question is formulated in *Bolam* terms as "whether the practice of the professional making the diagnosis accorded with a respectable body of opinion within the profession", that question is indistinguishable in practice from the question whether the error was one which would be made by a professional exercising reasonable skill and care; the very test propounded by Lord Clyde in *Huntley*.

75. In a case involving advice, treatment or both, opposed expert opinions may in a sense both be "right", in that each represents a respectable body of professional opinion. The same is not true of a pure diagnosis case such as the present, where there is no weighing of risks and benefits, only misreporting which may or may not be negligent. The experts expressing opposing views on that issue cannot both be right. And the issue is, *par excellence* a matter for the decision of the court, which should not, as a matter of constitutional propriety, be delegated to the experts.

76. Against that background, I return to Green J's decision in the tragic case of *C. v. North Cumbria University Hospitals NHS Trust* [2014] WHC 61 (QB), heavily relied on by Mr Gibson for the Trust. A cursory examination of the facts shows that it is a classic *Bolam* case, where the actions of the midwife whom the judge exonerated, involved a decision in the exercise of clinical judgment to administer a particular form of treatment to a distressed mother in the course of giving birth.

77. It was in that context that, in paragraph 25, Green J summarised the applicable "principles and considerations [which] apply to the assessment of … expert evidence *in a case such as the present*" [my italics]. He was not dealing with a case of simple mis-diagnosis like the present case. He therefore did not, as I do, have to address the conceptual and practical difficulties of applying the *Bolam* test to a situation it was not intended to cover.

78. In conclusion, I reject the submission of Mr Gibson that the *ipse dixit* of Dr Foria is necessarily sufficient to exonerate Dr Goderya; I accept the submission of Mr Kellar that the case most closely analogous to the present case is *Penney v. East Kent Health Authority*; and I regard *Penney* as authority permitting the court to choose between competing expert opinion on the issue the court has to decide: whether the act or omission of the defendant's employee fell below the standard reasonably to be expected of her.

79. However, I am bound by the law as it currently stands, to approach that issue by reference to a possible invocation of the *Bolitho* exception. I must not, therefore, reject Dr Foria's view unless I am persuaded that it does not hold water, in the senses discussed in Lord Browne-Wilkinson's speech in *Bolitho* and developed in other cases: that is to say, if it is untenable in logic or otherwise flawed in some manner rendering its conclusion indefensible and impermissible.

80. I turn, finally, to consider the question of breach of duty on the facts. Dr Goderya and Dr Foria both accepted that the slides Dr Goderya examined in November 2011 showed signs of malignant melanoma. But they did not accept that the diagnosis of an ulcer was negligent. In their view, the slides also displayed features that were consistent with what Dr Goderya reported; the error was only apparent using hindsight and it was all too easy for the claimants' case to allege negligence once it was already known that Mr Muller had a malignant melanoma.

81. Mr Muller's case was that the signs of malignant melanoma were plain to see in November 2011, that the point of the report on the punch biopsy was to identify any serious condition such as a melanoma and that it was plainly negligent not to do so. In this, they were supported by the opinion of Professor Wright, and relied also on the joint statement which included recognition by Dr Foria as well as Professor Wright that the signs of a malignant melanoma were there to be seen on the slides.

82. Mr Kellar's starting point was the agreement in the joint statement of Professor Wright and Dr Foria, that the signs of melanoma were easily visible on the slides, which were produced at the request of the court and examined by the experts when giving their evidence. Those features were (i) an atypical lentiginous junctional proliferation (ii) atypical melanocytic cells in the epidermis (iii) atypical spindle and epithelioid cells with some epithelioid cells in the dermis (iv) mitotic activity of $2/mm^2$ (v) non-pigmented cells (vi) ulceration (vii) inflammation and (viii) fibrosis, or desmoplasia.

83. Mr Kellar submitted that Dr Goderya accepted in evidence that she had seen those features, but had interpreted them differently, having been misled by the clinical history of trauma. He also pointed out that Dr Foria accepted in cross-examination that those features would be noticed by any experienced consultant pathologist looking carefully at the slides with appropriate degrees of magnification. The view of Dr Foria that the misinterpretation was not negligent, submitted Mr Kellar, did not fit with his acceptance that the features on the slides should have at least raised the question of malignant melanoma, a possibility that did not occur to Dr Goderya.

84. The fact that some of the features (non-pigmented cells, spindle cells, ulceration, inflammation and fibrosis (desmoplasia)) were also consistent with a non-cancerous

lesion, did not justify the diagnosis, Mr Kellar submitted. Others (the first three listed above) were not. A competent pathologist would and should have understood that features consistent with both diagnoses should lead her to point to at least the possibility that the lesion was cancerous. It was impossible to disagree with Professor Wright's conclusion that the breach of duty was plain.

85. The Trust submitted, through Mr Gibson, that Dr Goderya's report was not negligent. He submitted that Dr Foria's view was respectable and formed in good faith; that Professor Wright's view was over-academic and informed by hindsight; that he had placed too much weight on the histopathological features and too little on the clinical history of trauma, as supplied to Dr Goderya at the time; and that his view was expressed in dogmatic language and without regard to Dr Goderya's statement, which he did not mention in his report except to say that it was available to him.

86. Mr Gibson also pointed out that ALM was a rarity, such that Dr Goderya had never seen one in over nine years of practice; although it was common ground that ALMs are usually located on the foot and are not always pigmented, they are usually pigmented. He noted the literature produced by Dr Goderya showing that ALMs often display strikingly similar characteristics to benign lesions, to such an extent that one 1999 paper by Koch et al. referred to "amelanotic" (i.e. non-pigmented) melanoma as "The Great Masquerader".

87. The rarity of amelanotic ALMs such as this one meant that they were especially easy to miss, particularly where only a punch biopsy is examined, rather than a full specimen of the lesion; and especially in a busy NHS district general hospital where 25 to 30 specimens a day, or 72 to 80 slides a day, were habitually examined by Dr Goderya. Mr Gibson urged the court to take account of her workload, and contrasted the constant flow of her examination and reporting work, with the leisure of the experts to look at one biopsy over and over again during years of litigation.

88. Dr Foria in his report accepted that his review of the slides "confirmed the presence of an [ALM]", in a "fragmented biopsy showing dermal fibrosis and inflammation". He went on to opine that "[g]iven the clinical history of trauma and the site of the biopsy it is easy to see why the melanocytic lesion has been missed in the biopsy". He drew attention to the "unusual site" of the melanoma, the absence of pigmenting, the ulceration, dermal fibrosis and inflammation; all of which, he said, "were likely to have been attributed to the given history of trauma".

89. He stated that "[i]n retrospect, knowing the history and sequence of events it is easier to spot the lesion amongst the background fibrosis". He pointed out the rarity of ALM and the consequent documented high incidence of mis-diagnosis, ALM commonly being mistaken for non-cancerous conditions such as warts, tinea pedis, ulceration, infection, ganglions and blisters. Taking all the factors mentioned into account, he did "not believe that there was a breach of duty of care relating to the reporting of this specimen".

90. I have to consider those rival submissions and contrasting expert opinions. In my judgment, the starting point must be the agreement between the experts and between the parties that signs of melanoma were present on the slides, and visible.

Dr Goderya herself accepted that. Professor Wright's view is that those signs were such that a histopathologist acting competently had to diagnose melanoma. Dr Foria's view was that a histopathlogist acting competently would not, or not necessarily, treat the signs as signs of melanoma and report accordingly.

91. It seems to me that Dr Foria's view amounts to the proposition that Dr Goederya made an error of judgment which was not negligent, but one that a pathologist acting competently could properly make; the error, though made, was pardonable. I accept that there can be errors of judgment that fall short of negligence. Lord Clyde said as much in *Huntley*. I have to decide whether this was such a case. As Judge Peppitt QC did in *Penney*, I bear in mind that "the fact that with the benefit of hindsight that judgment was exercised wrongly is not itself proof of negligence" (cited at 329 in the Court of Appeal's judgment).

92. I do not entirely agree with Professor Wright's view that the rarity of ALM is "neither here nor there", as he put it in his report. The rarer a condition, the more plausible the proposition that a competent pathologist might mistake it without negligence. On the other hand, Professor Wright is correct to observe that the main point of the punch biopsy examination was to find out whether Mr Muller's foot injury was malignant; and that a pathologist acting competently would therefore be on the lookout for malignant conditions, even if rare.

93. I find myself impelled to reach the conclusion that there was a breach of duty by Dr Goderya. I cannot overlook the crucial point that in the joint statement Dr Foria and Professor Wright agreed that the slides showed, among other more equivocal features, the following features which were not consistent with diagnosis of a benign ulcer: (i) an atypical lentiginous junctional proliferation; (ii) atypical melanocytic cells in the epidermis; and (iii) atypical spindle and epithelioid cells with some epithelioid cells in the dermis.

94. I accept that the absence of pigmentation, the limitations of a punch biopsy specimen and the presence of fibrosis, made Dr Goderya's mistake an easy one to make. I take on board Dr Foria's point that "over-diagnosis" can have bad consequences for a patient – in particular, unnecessary surgery – just as "under-diagnosis" can. And I shared some of Mr Gibson's concerns about the manner in which Professor Wright's evidence was given; he used the verb "submit" and referred to his "argument" when giving his oral evidence.

95. Despite those features of the case, I am satisfied that Professor Wright's evidence on this issue is to be preferred to Dr Foria's. The signs of malignant melanoma were plain to see on the slides. Dr Foria's view that failing to see them at the time was not negligent, was a view formed in good faith, honestly and sincerely. He is, in my judgment, right to say that a pathologist who is, in general, competent, might have missed the malignant melanoma; but he is not right to say that a normally competent pathologist would be acting competently on this particular occasion, if she missed it.

96. In expressing that view, he was not giving evidence about a body of opinion within the medical profession; he was expressing his own view that the error was excusable. I consider that he has formed that view by applying too lax a standard to

the exercise Dr Goderya had to perform. The standard is the objective one of reasonable skill and care, fixed by law. It is my unenviable task to decide whether it was breached, i.e. whether Dr Goderya's failure to spot the malignant melanoma fell below the standard reasonably to be expected of her.

97. In my judgment, it did. I consider that Dr Foria's contrary view proceeds from an application of a lesser standard than that of reasonable skill and care which the law imposes. This is, therefore, a case where the conclusion of Dr Foria is underpinned by applying the wrong legal test and, as such, his reasoning and conclusion are not defensible and fall within the *Bolitho* exception.

98. I therefore decide the issue of liability in favour of Mr Muller. I should stress that in doing so, I do not thereby intend to cast doubt on Dr Goderya's general competence as a histopathologist. I note that she has given many years of excellent and, I do not doubt, competent service to the NHS. It is only on this single occasion that, I find, her performance fell below the required standard.

The second issue: causation; lymph node involvement in 2011?

99. Mr Muller's schedule of loss down to the trial date claims losses totalling £108,958.80. The Trust denies those losses, apart from accepting that if liability is established, a modest award for pain and suffering and loss of amenity should be made. It is therefore necessary to make findings of fact relevant to causation of loss and quantum. The first and important issue of causation is whether or not in November 2011, Mr Muller's cancer had already spread to his lymph nodes. Mr Muller submits that it had not; the Trust, that it had. All four experts gave evidence on this issue.

100. Professor Wright in his report of January 2016, on comparing the observed features of the tumour in, respectively, July to September 2012, and November 2011, concluded that "the lesions in the two nodes excised in August 2012 are very small and thus have arrived in the nodes quite recently, and were certainly not present in November 2011" (page 9, repeated at page 11). He opined (at page 12) that "the nodal deposits at this time [July 2012] were 1 mm and 0.3 mm in diameter and at this time and [sic] are thus very small and have arrived in the nodes quite recently, and were not present in November 2011 on the balance of probabilities".

101. Earlier in the same report, he referred (page 9) to the "Melanoma Nodal Status Calculator", a reputable prediction tool based on a strong statistical database, which according to Professor Wright, gave Mr Muller only a 13 per cent chance of nodal involvement in November 2011. He treated the Breslow thickness in November 2011 as 1.7 mm, according to the usual method of measuring from the ulcer base (see page 10). However, in the joint statement of himself and Dr Foria, the acknowledged change of thickness from November 2011 to July 2012 was from 1.9 mm to 2.25 mm, those measurements being derived from Dr Stefanato's work.

102. In his report (page 12), he disagreed with the proposition that the tumour was "slow growing"; while in the second joint statement he agreed to a rate of growth described as "slow to average, but certainly not rapid". Professor Wright concluded

(page 9) that "[i]f the lesion had been diagnosed and removed *in toto* in November 2011", the cancer would not have spread to Mr Muller's lymph nodes.

103. Dr August, in his second report of 14 March 2016, supported Professor Wright's view that the cancer had not already spread to the lymph nodes by November 2011. Basing himself on Professor Wright's measurement that the primary lesion was 1.7 mm thick (not 1.9 mm) in November 2011, Dr August opined that "a sentinel node biopsy at this stage would have been negative" (page 6). He too referred to the Melanoma Nodal Status Calculator (the Calculator).

104. It was common ground that, using the available data and feeding it into the Calculator, Mr Muller would have had a statistical 20 per cent chance of lymph node involvement in November 2011 (based on a Breslow thickness of 1.9 mm), rising to a 23 per chance thereof in July 2012 (based on a Breslow thickness of 2.25 mm). It was also common ground that in July 2012 Mr Muller was, however, among the unlucky 23 per cent whose cancer had spread, defying the statistical odds. In oral evidence, a disagreement arose as to whether, given Mr Muller's position in the statistical minority as at July 2012, the Calculator result, using November 2011 data, had any probative value. I shall return to this point.

105. Dr Foria based himself on a change of Breslow thickness from 1.9 mm in November 2011 to 2.25 mm in July 2012. This corresponds to what was subsequently accepted in his joint statement with Professor Wright. He noted in his report of 16 February 2016 that research pointed to lengthy periods between the patient noticing a lesion, to a diagnosis that it was cancerous; in oral evidence he pointed to a 2008 paper (by Bristow and Acland), which had found an average time from the point of recognition by the patient of a lesion, to the lesion being correctly diagnosed, of 13.5 months.

106. Dr Foria believed it was more likely than not that the cancer had already spread to at least one of the lymph nodes by November 2011. He reviewed various articles in the available research literature. In cross-examination, he accepted that these did not, individually, statistically support a percentage chance of lymph node involvement in November 2011, in this case, as high as 50 per cent; even in the case of ALM, which everyone agrees is more dangerous than other types of tumour as regards its propensity to metastasise.

107. He regarded the articles, however, as evidence that meant it was not implausible to hypothesise lymph node involvement in November 2011. Looking at the evidence in this particular case, Dr Foria noted (page 10 of his report) that in the November 2011 specimen, "most of the above adverse factors that are associated with a positive SLN [sentinel lymph node] were present, viz. Breslow thickness >1mm, ulceration, mitotic activity, ALM histological subtype, Clark level >III. The "Clark level" is a measure of the degree of invasion of malignant cells through the layers of the epidermis.

108. In cross-examination, he said he disagreed with Professor Wright's view because the adverse indicators that were present in 2012 were, mainly, present in 2011 also; because not one but two nodes were affected by July 2012; the growth rate and mitotic rate of the tumour was slow, so it was not particularly aggressive; the

tumour was not new in November 2011 but had probably been present for a long time, in view of the average time from detection to diagnosis of 13.5 months, and because it was already quite thick (1.9 mm) in November 2011.

109. Dr Falk is a Bristol based oncologist who has treated many thousands of cancer patients. He shared Dr Foria's view on this issue. He specialises in non-surgical management of cancer and its treatment by chemotherapy and radiotherapy. He prepared a report dated 21 January 2016. He noted that due to ethical constraints there is "little useful information in the literature as to the rate of growth of melanoma clinically" (para 4.6). He noted the measured rate of growth here of 0.325 mm in eight months, from 1.9 mm to 2.25 mm in thickness.

110. He then noted (para 4.8) the maximum size, 0.3 mm and 1 mm, of the two lymph nodes containing microscopic foci of cancer (metastases) in July 2012. Taking the same growth rate for the metastases and calculating backwards, the metastases would have been, respectively, 0.25 mm and 0.84 mm in size as at November 2011, he calculated. He expressed the view that "on the balance of probabilities at least one of the lymph glands would have contained tumour 8 months earlier that would have been detectable …. and treatment would have been identical".

111. In cross-examination, Dr Falk was challenged on his use of the same assumed growth rate for the metastases as for the primary tumour. It was put to him that the only paper on the subject (Carlson, August 2003) indicated, if anything, that the metastases grow more quickly than the primary tumour, not less. His response was that one had to base the calculation on something; and that the tumour could be expected to behave, and to metastasise, in a coherent manner. He also said that the Calculator, while generally useful for clinical purposes, was not helpful in this case because it got the answer wrong for Mr Muller in 2012; that this tumour was already quite thick in November 2011, was not then new and had probably been present and growing for a long time, long enough to metastasise.

112. In re-examination, he added that he based his opinion on his knowledge of the biology of a tumour and his long experience of examining the genetic changes that take place in tumours. He commented that every cancer is different: some tumours are quite large but do not readily spread; others are very small, but with multiple and quickly evolving metastases. He considered that one millimetre of thickness represents a large number of cancer cells and is quite late in the evolution of the biology of a tumour, indicating the presence of cancer well before November 2011. He maintained his view that, on balance, metastases would have been detectable in at least one node in November 2011.

113. Dr Falk also explained in cross-examination, in unchallenged evidence, the timescale that would have applied to Mr Muller if he had been diagnosed with malignant melanoma in November 2011. It was not disputed that, according to the then normal NHS practice, the malignant melanoma would have been removed in a wide excision operation that would have been carried out in about early January 2012. It is common ground that if Mr Muller had been diagnosed in November 2011, and if (a further area of dispute to which I am coming) he had elected to undergo a lymph node biopsy, that would have been performed in about early January 2012, at the same time as the wide excision operation.

114. The parties' respective submissions on this issue comprised an invitation to prefer the view of the experts supporting their respective causes. Mr Kellar stressed the utility of the Calculator as a predictive tool of proven worth and used to advise patients on treatment. He said it did not matter that the predictor produced the wrong answer in 2012; its statistical predictive power for November 2011 was not thereby diminished. He invited me to prefer the evidence of Professor Wright, supported by Dr August, that the nodes found in 2012 were too small to have been there in 2011.

115. Mr Gibson relied on the evidence of Drs Foria and Falk, particularly the latter who, he pointed out, was of unrivalled experience in observing the behaviour of tumours in cancer patients, and was the only expert oncologist in the case. He submitted that Professor Wright's use in his report of the word "certainly" to describe the likelihood of an absence of any lymph node involvement in 2011, went beyond mere unfortunate use of language and indicated a rigid and dogmatic approach to the issue which should lead the court to be cautious about accepting his evidence. The Calculator, Mr Gibson submitted, was not suitable for retrospective use and was demonstrably wrong in 2012 when applied to the same patient using the same data, apart from the increased Breslow thickness.

116. On this issue, I have come to the conclusion that the expert evidence called by the Trust is to be preferred. I noted that Professor Wright professed a high degree of confidence in his view, which was initially based on a Breslow thickness of 1.7 mm in November 2011 and that his confidence was unshaken by subsequent agreement in the joint statement that it was legitimate to use a higher starting point of 1.9 mm. Professor Wright was also initially sceptical about the proposition that the tumour was slow growing, but later accepted in a joint statement that the growth rate was "slow to average".

117. Professor Wright's and Dr August's evidence on this issue was less convincing than that of Drs Foria and Falk. I found Dr Foria's evidence cogent and convincing on this issue. He did not claim that the scientific literature he relied upon itself amounted to irrefutable evidential support for his view. His point was that it was part of a body of evidence that gave plausibility to that view, formed mainly on the basis of the features of this particular case, which I have already mentioned. In particular, I accept the probative force of his observations that the tumour had probably already been present for quite a long time in November 2011; that it was slow growing; and that two nodes not one were affected by July 2012.

118. I found Dr Falk's evidence convincing. He has unrivalled experience of examining tumours and observing their evolution. I do not accept Mr Kellar's criticism that his use of an assumed growth rate derived from that of the primary tumour showed a lack of impartiality. I accept that his view, though illustrated by a calculation made on that basis, was based on his long experience; and I found it the most authoritative among the experts. The paper by Carlson was based on a sample of cases that was too small to be statistically significant, and Dr Falk did not rely on it in support of his view.

119. As I have said, there was an issue as to whether the statistical evidence produced by the Calculator was useful, and whether it was significant that Mr Muller had been in a statistical minority of 23 per cent in July 2012. Dr August sought to illustrate his view that the Calculator evidence was useful and the statistical minority point had no significance, by drawing an analogy with the incidence of burglaries in a given neighbourhood.

120. He said that if a person lives in that neighbourhood, and was burgled last year, that fact logically has no impact on the probability that the same person will be burgled next year. Applying the same reasoning, he opined that Mr Muller's statistically unlikely development of metastases by July 2012 did not make more likely the proposition that he would have fallen within the statistical minority (a slightly smaller minority at 20 per cent not 23 per cent) some eight months earlier. It was, therefore, not relevant that the Calculator had produced the "wrong" answer in 2012.

121. On the same issue, Dr Falk drew a different analogy. Suppose, he said, that 10 persons order coffee and three of the 10 put sugar in their coffee. If one supposes that the same 10 persons order coffee a year later and three of the 10 put sugar in their coffee, each of the three who does so is more likely to be among the three who did so a year earlier, than not to be among those three. This analogy illustrates the probative value of constitutional factors particular to an individual, such as a sweet tooth.

122. I find that reasoning more persuasive than Dr August's, based on the burglary analogy mentioned above. An individual's property may be a more likely target than most in two successive years, if that property has characteristics making it a good target from the burglar's point of view; for example, because it looks easy to break into, or contains high value goods visible from outside. I consider, by similar reasoning supported by Dr Falk's evidence, that the July 2012 Calculator result is of considerable probative value because it relates to the same individual whose condition in 2011 is being considered, and with some (though not all) the same data.

123. For all those reasons, I find that on the balance of probabilities, Mr Muller's malignant melanoma had already metastasised to a detectable extent by the time of his diagnosis by Dr Goderya in mid-November 2011. It follows that if Dr Goderya had diagnosed a malignant melanoma, Mr Muller would have undergone a wide excision in about early January 2012, rather than on 6 August 2012, when that operation was performed at St Thomas' Hospital.

The third issue: causation; a sentinel lymph node biopsy in about January 2012?

124. As I have related above, when that wide excision operation was carried out, Mr Muller also agreed to undergo a sentinel lymph node biopsy at the same time. His evidence is that, if he had been diagnosed with malignant melanoma in November 2011, he would not have agreed to undergo a sentinel lymph node biopsy shortly thereafter, in January 2012, together with the wide excision that he would have undergone.

125. His reasoning is that he would have been reluctant to undergo such an invasive and painful diagnostic procedure which had no demonstrable medical advantage; and, unlike in July 2012 when the tumour was eight months older, he would not have been advised in such unequivocal terms that a sentinel lymph node biopsy was necessary. He was well aware in November 2011 of the importance of early intervention in cases of cancer because it can spread to other parts of the body. His written evidence was that he would have sought to participate in a research trial at the John Wayne clinic in California, which would have meant not having to decide whether to undergo the "randomised" procedure.

126. In oral evidence, this possibility was not explored. I have no expert evidence about the likelihood that Mr Muller would have been accepted at the John Wayne clinic; nor about the probability of a sentinel lymph node biopsy being performed on him if he had been. I am therefore not in a position to make a finding that he would have attended at that clinic, nor that on the balance of probabilities he would have undergone a sentinel lymph biopsy if he had attended it. I approach this issue on the footing that either he would have decided to undergo the biopsy procedure, or he would have decided not to. His evidence, challenged in cross-examination, was that he would not have done.

127. It is agreed by the three experts who were parties to the first joint statement that, had Mr Muller been diagnosed with malignant melanoma in November 2011, he would and should have been given detailed verbal and written information in accordance with the NICE guidelines, which point to a balance of possible advantages against possible disadvantages of the diagnostic procedure. It is not disputed that respectable medical opinion in late 2011 was divided between those who favoured the procedure, and those who did not. But everyone agrees that it was for the patient to make the decision on the basis of the balanced information contained in the NICE guidelines.

128. Briefly, the advantages are these. The procedure is better at detecting whether cancer has spread to the lymph nodes than other procedures such as ultrasound. It can help predict chances of survival. And it can render eligible patients not otherwise eligible to take part in certain clinical trials of new treatments. NICE might have added, though it is perhaps too obvious to need saying, that it can help to determine whether further surgery other treatment is necessary. These advantages inform the strand of medical opinion favourable to the procedure.

129. The disadvantages are the following. The procedure does not cure the cancer. Nor is there good evidence that those who undergo it live longer, in general, than those who do not. The result must be interpreted with caution, since three per cent of those who undergo the procedure with negative result, will subsequently develop a recurrence of the cancer in the same group of lymph nodes. A general anaesthetic is needed for the operation (though in this case it would be needed anyway, to perform the wide excision). Complications arise in the case of between four and 10 per cent of those who undergo the procedure. The guidelines might have included also the point that the procedure may be very painful.

130. It is common ground that in November 2011 the tumour was less than 2 mm thick. Above that threshold, patients are generally advised that the procedure is necessary.

That is what Mr Muller was advised in July 2012, by which time the width of the tumour had, in accordance with the agreed statements (and notwithstanding the caveats on this issue in the reports), exceeded the 2 mm width threshold. In November 2011, it did not exceed that threshold though it was close to it.

131. The note of the meeting of 25 July 2012 records that Mr Muller was told that the "small risk of cancerous cells spreading elsewhere in the body" applies to "[m]elanomas over 1mm in thickness", a margin already comfortably exceeded by November 2011. It is common ground that the information given in July 2012, in line with the NICE guidelines, would and should also have been given in November 2011. But the advice to undergo the procedure would, in my judgment, have been less firm in late 2011 than it was when given in July 2012.

132. Dr Falk was inclined to reason that the patient would have accepted the advice given if it had been given in 2011, just as he had in 2012; it would have been the same medical team advising the same patient. There are two difficulties with that reasoning. The first is that Mr Muller would have been, in his phrase, "in a different place" in November 2011. He would have been less worn down by worry and anguish and more robust, as he explained. He said he would probably have opted to take his chances. Secondly, an expert cannot give opinion evidence where the issue is properly one of pure fact. The Trust did not call factual evidence about what advice would have been given in 2011, nor about who would have given it.

133. Dr Falk's expert evidence was that he would have advised Mr Muller in accordance with his usual practice: that given the "staging" of the tumour in November 2011, Mr Muller's life expectancy was a 77 to 79 per cent of survival for five years; that if no lymph node biopsy was done, it was to be hoped that Mr Muller would be cured but it was not possible to say for sure; that if the cancer were to return, it would be most likely to do so in the period of two to three years after excision surgery; and that after three years without any recurrence, it would be more likely than not that the cancer was cured, though still one could not be certain; some cancers recur many years after first showing.

134. I think it is reasonable to infer that Mr Muller would have been given advice in those terms or similar terms. I do not accept that he would have been leaned on and persuaded. That would not have been right, as everyone agrees. The balance of advantage and disadvantage found in the NICE guidelines would have been communicated to him, along with the 77 to 79 per cent chance of survival for five years. On the basis of that evidence, and Mr Muller's own evidence, I accept that he would probably have declined the offer of a sentinel lymph node biopsy in early January 2012, at the same time as the wide excision he would have undergone.

135. After the wide excision that would have been done in about early January 2012, Mr Muller would have had a skin graft operation, requiring another general anaesthetic, probably a few weeks later, as happened in 2012. Dr August and Dr Falk both thought that would have been a separate operation, not one done at the same time as the wide local excision. The surgeon would have wanted to check that the excision operation had been successful before transferring skin tissue taken from another part of Mr Muller's body to Mr Muller's left foot. After those two procedures, Mr

Muller would have started the recovery phase at some point in around February 2012, and probably have returned to work gradually from about April or May 2012.

The fourth issue: quantum of any loss and damage suffered

136. In view of my finding that on the balance of probabilities, the melanoma had already metastasised by November 2011, the cancer would have reasserted itself at some point, and I must accept the Trust's argument that Mr Muller would have had to undergo a sentinel lymph node biopsy and a lymph node dissection at some point, with all the attendant pain and suffering, and approximately the same level of pain, discomfort and disruption, as well as expense and lost earnings, during the recovery phase.

137. It is not possible to make precise findings about the exact surgical procedures that would have been carried out, nor exactly when. But broadly, the interventions would have been similar to those performed in 2012, though later, perhaps in 2013 or 2014 rather than 2012. The narrow local excision carried out on 3 July 2012 would not have been carried out. Mr Muller would have been spared much of the pain and suffering, and disruption and discomfort, which he endured from January and then from July 2012 while recovering from that operation; and he would have been spared the anguish and horror of the discovery that he had been wrongly diagnosed.

138. The late diagnosis may, perversely, have been a blessing in disguise, as it exposed the need for the sentinel lymph node biopsy which, according to my finding that the cancer had metastasised by November 2011, was needed but would not, as I find and on Mr Muller's own evidence, have been taken in January 2012. The late diagnosis may even conceivably have saved him, though I stress I make no finding to that effect on the balance of probabilities.

139. Mr Muller is entitled to damages for the pain, suffering and loss of amenity caused by the unnecessary narrow excision operation. He suffered from January to July 2012 while recovering from the operation. He is also entitled to damages for the mental anguish and suffering he endured after being told of the misdiagnosis, through having to come to terms with it and make life-changing difficult decisions against a loss of confidence in the medical services he had received, and increased uncertainty about his survival prospects. I must bear in mind that the latter factor would have had to be faced anyway, but without the loss of confidence occasioned by knowledge of the misdiagnosis.

140. What sum should I award in the light of those findings? I was referred to four quantum case reports with Lawtel references, where the facts were as close to this case as counsel could find from their researches. One (*Edwards v. Shore* (2002), AM0502993) was an award by a recorder in the Telford County Court. The other three (*P v. Royal Devon & Exeter Healthcare NHS Trust* (2005), AM0200971; *LC v. Dr S Gittens* (2015), AM0202771; and *LB v. Guy's & St Thomas' NHS Foundation Trust* (2016), AM0202997) were out of court settlements, not all with admissions of liability. Doing the best I can with the benefit of that guidance, and recognising that in this difficult area every case is different, I consider that the

correct amount to award is the sum of £12,000 for pain, suffering and loss of amenity.

141. The claims for the cost of care, past and future, for decorator expenses, for future medical and other equipment, and for past and future miscellaneous expenses, are not made out on the basis of my findings; similar expense would have been incurred, though at different times, if the misdiagnosis had not occurred. From January to July 2012, Mr Muller would have been recovering from a wide excision and skin graft operation, instead of unwittingly awaiting one. The best I can do is make a broad brush award of £500, representing my attempt to estimate as best I can, in the light of the evidence about actual expense incurred, the additional expense that would probably have been incurred in consequence of recovery from the unnecessary narrow excision operation.

142. That brings me to loss of earnings. Mr Muller is entitled to damages for any proved loss of earnings caused by the unnecessary operation, or by the burden he had to bear of having been told he had been misdiagnosed. As Mr Kellar accepted, he must give credit for any *gained* earnings arising from the timing of what actually happened, set against the timing of what would have happened. It is not possible, on the evidence I have heard, to say exactly when Mr Muller would have undergone a sentinel lymph node biopsy and lymph node dissection; perhaps, in 2013 or 2014 as I have surmised (without making a finding, lacking the evidence to do so).

143. As Mr Kellar pointed out, it is open to the court to make an award in the form of a broad estimate of loss, where loss of earnings, in the court's judgment, has occurred, or will occur, but defies precise calculation using the conventional multiplier and multiplicand method (see *Blamire v. South Cumbria Health Authority* [1993] PIQR Q1, CA). I think what is called for here is a slightly different approach. I consider the most just way of assessing loss of earnings here is to award three months' worth of earnings at a rate which is broadly representative of Mr Muller's pre-2012 earnings; the three months being the recovery period after the unnecessary operation that was performed on 3 July 2012.

144. I therefore take Mr Muller's annual gross average earnings during the two previous tax years: £19,779 in the tax year 2009-10; and £23,265 in the tax year 2010-11. The annual average over those two tax years is £21,522. I divide that amount by four to represent three months of gross earnings. The resulting figure is £5,380. I reduce that to £4,000 to take account of statutory deductions for tax and national insurance. I therefore award loss of earnings in the round sum of £4,000.

145. It follows that the total award of damages is £16,500. I will hear counsel (or entertain brief written submissions) on the question of interest, if it is not agreed. I invite counsel to agree a draft order in the usual way, and I conclude by expressing my gratitude to counsel for guiding me with their helpful submissions in this difficult case.