



Neutral Citation Number: [2019] EWHC 3577 (QB)

Case No: HQ 17CO2725

**IN THE HIGH COURT OF JUSTICE**  
**QUEEN'S BENCH DIVISION**

Royal Courts of Justice  
Strand, London, WC2A 2LL

Date: 20 December 2019

**Before :**

**HHJ COE QC**  
**SITTING AS A JUDGE OF THE HIGH COURT**

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**Between :**

**Nicholas Collyer**

**Claimant**

**- and -**

**Mid Essex Hospital Services NHS Trust**

**Defendant**

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Mr W Edis QC (instructed by Gadsby Wicks Solicitors) for the **Claimant**

Mr R Cumming (instructed by Kennedys law LLP) for the **Defendant**

Hearing dates: 18th, 19th, 20th and 21st November 2019

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**APPROVED JUDGMENT**

## **HHJ Coe QC :**

### The Claim

1. This is the claimant's claim for damages for personal injury arising out of alleged clinical negligence. I am told that quantum has now been agreed subject to liability and therefore I am concerned with liability only.
2. Having been admitted to hospital on 26th February 2014 Mr Collyer underwent a laryngectomy on 27 February 2014 to treat his recurrent laryngeal cancer. Laryngectomy is the removal of the larynx (voice box).
3. There is no issue about the appropriateness of or the need for the laryngectomy. Mr Collyer had been treated with radiotherapy for laryngeal cancer in 2013. The cancer recurred and so surgery became the only appropriate option.
4. If this surgery goes well and the patient heals well the plan would be to fit a valve in a further minor procedure to enable speech to be restored.
5. In recurrence of cancer, laryngectomy is lifesaving surgery. In that sense, the surgery achieved its aim and Mr Collyer has been cancer free since 2014.
6. However, Mr Collyer now has almost no movement in his tongue. This is as a result, it is agreed, of significant and permanent damage to both hypoglossal (12th cranial) nerves. These nerves are motor nerves and each innervates one side of the tongue producing movement/motor control. The damage to Mr Collyer's hypoglossal nerves means that the movement of his tongue is limited to a small amount of protrusion, that is, he can poke his tongue out to about a centimetre beyond his lips. He has no horizontal or vertical or other movement. Without tongue movement a person is unable to form words and unable to speak. Mr Collyer has not spoken a word since the surgery and will never be able to so. The almost complete lack of movement in his tongue also means that he finds it very difficult to swallow. He communicates with mouthing, gestures and signs and an App on his iPad into which he can type words.
7. Without doubt therefore, the consequences for Mr Collyer have been catastrophic and have had a significantly adverse effect on his physical and mental well-being, lifestyle and relationships. He and his former partner are no longer together. His mother who is 83 devotes her time to assisting and caring for him.

### The parties' positions

8. It is right to say that the parties' positions have evolved somewhat in the course of the trial and that some pieces of evidence only emerged in the course of the trial.
9. It seems that both parties' experts have interrogated the world literature and found that there are no reports of non-negligent bilateral, near total, permanent nerve palsy of the hypoglossal nerves following laryngectomy. It is not a reported, let alone, recognised complication of laryngectomy in the literature.
10. Equally, there are no reports of this damage being caused negligently. Of course, it is accepted that it would be possible for a surgeon to cause such damage negligently.
11. If it were a recognised complication, a patient would need to be warned about the risk. Mr Stafford says that he would have warned of "nerve damage" but not specifically about hypoglossal nerve injury. He would not warn of it because it is not a recognised complication.

The defendant's expert, Professor Homer, has established there is one reference to giving such a warning in a leaflet provided in Iowa, but nowhere else in the world it seems. Professor Homer does not himself warn of a risk of hypoglossal nerve injury. The claimant's expert, Mr Gooder, sets out in his report (p.196) that hypoglossal nerve injury is not listed in the standard text book (*Stell and Maran*) as a complication of laryngectomy.

12. The claimant relies on the fact of the total absence of reports of such damage occurring to argue that since it is not a potential non-negligent complication it must have been caused negligently and suggested initially that it gives rise to a "presumption of negligence".
13. It is the claimant's case that I can be satisfied that on the balance of probability that the injury was caused by negligence on the part of Mr Stafford in that either: – (a) he inappropriately manipulated or "partially transected" the nerves i.e. there was direct contact with the nerves; or (b) he incorporated the nerves into the suture line.
14. The defendant denies negligence. "Partial transection" upon which the claimant must rely rather than "total transection" (because Mr Collyer has some movement in his tongue) would mean that Mr Stafford went "off the bone" when dissecting the suprahyoid muscles by a great distance. Further he must have done so twice. Yet further he must have managed to inflict the same amount of damage to each nerve. He must moreover have been unaware of it in particular not noticing the muscle "twitching" when the nerves were damaged, again not noticing two such "twitches". Secondly, on behalf the defendant is said that there is no evidence that Mr Stafford incorporated one let alone both hypoglossal nerves in the closing sutures and that such a suggestion is implausible and has never been heard of before.
15. Although of course pointing out that the burden of proof is on the claimant to establish that Mr Stafford was negligent, it is suggested that there are plausible alternative explanations for the injury. The defendant says that the probable cause is pressure from retraction, inevitable in the course of the operation, on already vulnerable hypoglossal nerves. The pre-existing vulnerability, it is argued, arises from the effects of the previous radiotherapy and/or existing diabetes. Alternatively, the damage may have been caused by external pressure on the nerves through oedema/haematoma or intubation during anaesthesia/table positioning.
16. These points are raised by the defendant in light of Mr Collyer's pre-existing (and indeed ongoing) medical issues. Firstly, he is diabetic. He has insulin-dependent Type I diabetes. This diabetes has caused him to suffer renal failure resulting in a kidney transplant (his former partner Ms Thame from whom I heard donated a kidney). The diabetes has caused retinopathy (damage to the eyesight). He has suffered a deep vein thrombosis and has a valve in situ which he told me is due to a lack of blood thinners being administered when he underwent dialysis. He suffers from obesity, hypertension and sleep apnoea. As indicated, he underwent radiotherapy in 2013 when the laryngeal cancer was first diagnosed.

### The Surgery

17. The experts have each set out what this surgery involves. At paragraphs 28 to 32 of his statement Mr Stafford sets out how he performs the surgery. I find that the correct procedure for performing laryngectomy is not in dispute in this case. I do not intend to repeat it in full. Briefly, following a vertical incision between the chin and the sternal notch, the layers and structures are cut through, divided and retracted until the larynx is reached and it is then effectively separated from the surrounding structures and tissues on each side above and below so that it can be removed. In accordance with the photographs produced by the defendant, dissection of the top of the larynx involves cutting the suprahyoid muscles following along the line of the hyoid bone which is a shallow crescent shape. At the back of each end of the bone, the hypoglossal nerves are located about a centimetre above the bone.

18. The hypoglossal nerves can be seen in these photographs but would not always be visualised without neck dissection. There was no neck dissection in Mr Collyer's case and Mr Stafford states that the hypoglossal nerves were not visualised.
19. In the course of surgery whenever a cut is to be made traction/counter traction is applied in order to create some tautness so that the cut/dissection is straight and "clean".
20. It is at the stage of dissection of the suprahyoid muscles that there is most risk to the hypoglossal nerves. Nonetheless, it is agreed that the 1 cm gap is a significant distance in the context of head and neck surgery. In the course of this part of the surgery the tongue will be retracted and the hyoid bone will be drawn downwards and each of these procedures gives rise to the risk of some pressure/tension being exerted on the hypoglossal nerves which are within the structures identified.
21. After the larynx is removed, the hole in the pharynx is repaired and the wound is closed. In this case the neo-pharynx was closed in three layers, Haemostasis is then ensured, drains are put in place and the skin is closed in two layers.
22. The operation usually lasts 4 to 5 hours.

#### Lay Evidence

23. I heard from Mr Collyer himself who confirmed his statement and signature at page 23 in the bundle. He gave his answers by typing them into his iPad on which there is an App which translates the words into speech. Although slow, and I am sure very frustrating for Mr Collyer, the system works well and the sound was loud and clear.
24. Mr Collyer sets out his medical history and the events leading up to the laryngectomy. At paragraph 12 he says that he underwent the surgery and then was transferred immediately to the High Dependency Unit ("HDU") where he remained for one day. As soon as he woke up from the anaesthetic, he says he was aware that he could not move his tongue and wrote it on his patient board for the medical staff to see. Obviously, he could not speak. Miss Thame was with him at the time. He describes how his tongue stuck to the roof of his mouth and it fell down "through gravity". Mr Collyer says that the nursing staff commented that there was a slight improvement in consequence of this movement although he is clear that this was not the case. He recalls that this comment caused Miss Thame to be anxious that the original record should be deleted since there had in fact been no independent movement. He describes being an inpatient for a month, being discharged when he was able to swallow pureed food.
25. In his outpatient follow-up with Mr Stafford he says he was told it might take 6 months for his tongue to return to normal then he was told 12 months and then 18 months to 2 years. It is Mr Collyer's case that on 12 March 2015 Mr Stafford "admitted" that he had damaged the nerve to his tongue during the operation.
26. In his oral evidence the claimant confirmed that when he was in HDU he was in a very difficult situation with the stoma in his neck and he was in pain and drains were in situ. He said that he felt as if he had a solid lump in his mouth immediately after he woke up and that it was his main concern. He felt as if he could not swallow and he was scared that he would swallow his tongue. He says that he told the nurse that he could not move his tongue at all. He said that he told a young female nurse and a male nurse on the day and the night shift and therefore he reported it on two occasions. He said that his mother and Miss Thame were also present. They told the male nurse. He confirmed that when he opened his mouth his tongue fell down and that was recorded as tongue movement. He said that he had not in fact moved his tongue and that Miss Thame asked for the note to be removed but the nurse said that they

had seen a movement. He said that the nurses made handwritten notes although they were typed up later.

27. Mr Collyer confirmed that he said that he could not move his tongue at all and he was told it was probably due to the anaesthetic. He says that his main concern was his inability to move his tongue and that he wanted to see a doctor rather than a nurse. He said that he cannot remember seeing a particular doctor on HDU and said that if he had seen one, he would have mentioned the lack of tongue movement to him/her. He thinks that he must have seen a doctor in HDU but he cannot recall it. He says that he spoke to a doctor when he was transferred to the main ward.
28. When he was challenged about the fact that there are two records in the notes which are inconsistent with his account, he said that he told three people he could not move his tongue and he would have expected that it would have been recorded. He repeated that he had reported it and so had his family. He acknowledged that he was on Oramorph which “really knocked him” out. He said that it may be that he told somebody but they did not write it down.
29. He said that he reported the inability to move his tongue to the Speech and Language Therapist. He says that he only had a little movement thereafter and after the swelling had gone down, he could poke his tongue out a little bit. He denies telling the speech and language therapist, Miss Hawkins (now Mrs Hodgson) that he had been able to move his tongue immediately after the surgery. He said he would have no reason to say that because he could not. He went on to say that he never said that he could not move it forward a touch, but that he could not move it at all when he first came around from the anaesthetic. He said that after the swelling subsided, he could move it forward a bit. He said that he could stick it out after the first 24 to 48 hours. He therefore said that the entry which reads "nil tongue protrusion" (made by Miss Hawkins) is wrong. He was adamant that his recollection is correct. He said it was a very important and “big thing” for him. He said that the first day after surgery he could not even poke it out. He agreed that he could move it further forward during the course of 2014 and so it came out a bit further forward from no movement to about 1 cm beyond his lips. He denied he has ever had any lateral movement in his tongue.
30. He repeated that Mr Stafford had said he was very sorry, that he had never seen it happen in 33 years and that he had “just nicked the nerve”, but that the movement might come back in six months, after which Mr Collyer was told it might take longer periods of time. He confirmed in re-examination that he never been able to move his tongue sideways or up and down since the operation but that he could protrude his tongue a little now and had been able to since about three days after the operation.
31. I heard from his former partner Christine Thame whose statement is at page 36. Miss Thame describes the build-up to the operation and how she was at the hospital when the operation was performed. She saw the claimant in HDU. She says that he was drowsy but able to mouth words. She says he also had a white board. She says that he mouthed/wrote on the whiteboard "I can't move my tongue". She says that Mr Collyer demonstrated, opening his mouth and she saw his tongue fall to the bottom of his mouth but he was not able to move it. She reported this to a nurse who again saw this consequence of gravity as Miss Thame describes it and declared that Mr Collyer's tongue was moving. The nurse asked the claimant to move his tongue from side to side which he could not do. The nurse was apparently going to find somebody else to come and see Mr Collyer but this never happened. Miss Thame confirms that she was not happy about a medical record which reported that there was slight movement of his tongue. Her concerns thereafter were overtaken by issues with the claimant's blood sugar levels (and the consequent risk to his new kidney). In particular this seems to have been because of his difficulty swallowing and therefore difficulties with his diet.

32. She describes Mr Stafford at the first post-operative outpatient appointment saying that this had never happened to him in all his career and it was "terrible". She also says that Mr Stafford said it had been very difficult to work on the claimant's throat because "it was very tight down there". She says that Mr Stafford said that he could have "nicked" a nerve during the process.
33. In her oral evidence Miss Thame confirmed that basically the first thing Mr Collyer did when he woke up was to write "I can't move my tongue". She said that she was aware that he was panicking and she herself was upset and panicking as well. Having reported it as described in her statement she said that she thought someone was dealing with "the tongue issue" and she was, thereafter, concerned about Mr Collyer's blood sugar levels particularly in light of the risk to his new kidney. She says that she saw for herself that he had no tongue movement. She confirmed the account of the outpatient follow-up with Mr Stafford.
34. I heard from Mrs Edna Collyer, the claimant's mother whose statement is at page 43. She says that, with Miss Thame, she saw the claimant in HDU after the operation. She says that it was apparent that he was anxious although he looked well and that he wrote on his board "I can't move my tongue". Mrs Collyer says that she told a male nurse about that and he in turn told another female nurse. The female nurse said it was due to the effects of the anaesthetic.
35. She was adamant that there was no tongue movement and denied misremembering. Mr Collyer could not move his tongue. She said that she was absolutely sure of that because she was clearly worried about her son who had just had surgery for cancer and she was not expecting him not to be able to move his tongue which is why her recollection is so clear.
36. It is apparent from the statements of Miss Thame and Mrs Collyer that the claimant has gone from a man who was upbeat and sociable despite his significant medical issues to somebody who is angry, frustrated and becoming more reclusive. Mr Collyer and his witnesses have obviously been deeply affected by the catastrophic injury which Mr Collyer has suffered and its consequences for him.
37. Mr Stafford's statement is at page 47. He is an ENT surgeon, consultant otolaryngologist and a head and neck surgeon. He specialises in head and neck cancer surgery, skull base surgery, head and neck neoplasms and salivary gland diseases. He has been a consultant since 1989. He sets out his career details and professional details at the beginning of his statement. It is apparent that he is a very experienced consultant and the surgery he performed on Mr Collyer was surgery he performed often as part of his particular area of specialism.
38. He describes how having performed over a hundred laryngectomies at the time of Mr Collyer's surgery he has not once caused a hypoglossal nerve injury. He says that he is upset and disappointed by the surgical outcome. He had only once before seen/been aware of an incident of damage to a hypoglossal nerve, when he was a trainee.
39. He identified Mr Collyer as being a difficult case because of the multiple comorbidities but also due to his short neck, quite densely scarred soft tissues with fixation of the tissues and loss of the normal tissue planes.
40. In his statement Mr Stafford sets out some additional details of the history of the matter. Post-radiotherapy Mr Collyer's larynx looked extremely unhealthy and Mr Stafford considered he was suffering from necrosis, gross oedema and incompetence of his larynx causing aspiration and lung damage. He considered that this might be due to the radiotherapy or to an infection. Treatment with antibiotics improved the situation and the symptoms settled. When the cancer recurred, there was additional necrosis.

41. Before surgery, the risks which Mr Stafford would have warned the claimant about would be death, nerve damage and non-healing in the immediate post-operative period. Mr Collyer's comorbidities meant that there were increased risks particularly in respect of deep-vein thrombosis and destabilised diabetic control.
42. Although not directly relevant to the issues I have to decide, Mr Stafford disputes that he would have told the claimant that the second valve fitting operation would have returned his speech. He would have outlined the options for making such an attempt but would never have suggested that it would be straightforward.
43. Mr Stafford says he recalls that the surgery was complex but went well. He says that there was dense fibrosis following the radiotherapy treatment. He says that whilst he would have taken great care around the site of the hypoglossal nerves he would not have dissected further to identify/locate the nerves because of the risk of causing damage. Mr Stafford says that he took extreme care in this area because he was aware of the potential risk to hypoglossal nerves.
44. He was taken through the various stages of the surgery and confirmed that there is no risk to the hypoglossal nerves at most of the stages. He agreed that when dividing the suprahyoid muscles which are above the hyoid bone there is about a centimetre gap between the bone and the nerves and so one must stay "on the bone". He agreed that if one dissected higher than that the nerves would be at risk. He said that he does not use cutting diathermy. He uses fine micro dissection scissors. He said that when the muscles are cut the hyoid bone is pulled down and therefore away from the hypoglossal nerves.
45. He says that staying on the hyoid bone is a very obvious plane of dissection. Once the hyoid bone is mobilised, it drops down quite a long way and is being moved away from the hypoglossal nerve. He confirmed that one would be able to see both the muscles of the tongue and the hyoid bone before moving the hyoid away.
46. After this dissection of the muscles, he said that there is no other stage that puts the hypoglossal nerves at risk. When suturing even at the closest point, the surgeon would be working about 2 cm away from the hypoglossal nerves and it would not be possible to incorporate them into the suture line. The sutures are, he said, tiny.
47. He confirmed that when he was separating the bone, the surgical assistants would be holding the skin and muscles away. The muscles above have to be retracted. They are the muscles of the tongue in which the hypoglossal nerves run. The whole tongue is lifted forwards so the surgeon can access the pharynx. There would also be traction on the hyoid bone which is pulled down.
48. He told me that the consequences of radiation are that it can affect healing, that one loses the tissue planes and that the blood supply to the Schwann cells in nerves can be affected. He said that post-radiotherapy tissue changes are normal patients like Mr Collyer and such changes would not be recorded in the operation note unless they were outside the usual range.
49. Mr Stafford initially hoped that the paralysis of Mr Collyer's tongue would be temporary and due to neuropraxia. He did not think that the damage was the result of any direct injury to the nerve because there was nothing during the course of the procedure to suggest the same. He sets out at paragraph 35 of his statement that in his opinion and experience, a direct injury to a major motor nerve will always cause a spasm of the affected muscle group. Had the nerves been cut, touched or damaged there would have been an inevitable observable reaction of the tongue. Mr Stafford confirms that he has experience of this muscle reaction because sometimes it is necessary deliberately to cut nerves, for example dividing the accessory nerve when performing surgery for a tumour in the neck. This would have been obvious each time

any nerve was touched, manipulated or cut. If this occurred, it would have been noted during the operation and Mr Stafford says that he would immediately have identified the affected nerve. He says, "this is doubly true if both hypoglossal nerves had been damaged consecutively".

50. When Mr Stafford saw Mr Collyer as an outpatient in May it seemed that there was some recovery and although there was some improvement in August it was apparent that the progression was not as good as Mr Stafford hoped.
51. Mr Stafford says that he thinks it is likely that he told Mr Collyer that the nerve palsy was a complication of the surgery but since he does not think that the bilateral injury was due to cutting the nerve or directly traumatising it in some way, he doubts if he would have said that he had permanently damaged Mr Collyer's tongue during the operation.
52. The letter to Mr Collyer's GP dated 22 March 2014 states that Mr Collyer "was also noted postop to have a tongue paraesthesia. Unable to stick out but able to move it sideways slightly. Sensation is preserved".
53. In the letter of 25 April 2014 Mr Stafford says "I am sad to say that Mr Collyer has developed a persistent bilateral hypoglossal nerve paralysis which is certainly related to the surgery. Hopefully this will be due to neuropraxia rather than bilateral nerve resection and recovery is possible although it may take some months." Mr Stafford had clearly given considerable thought to what had happened and had some self-doubt and he did consider whether or not there had been surgical error. He said he had no wish to be defensive. In setting out in particular the two options (neuropraxia/resection) in the letter at page 745 he said he was considering what he thought were the possible options. He agreed that the letter at page 745 to the GP sets out his theories that it could have been neuropraxia or bilateral nerve damage. He says he was not sure what had happened but obviously considered it was possible that he had done something to cause it. He said that the complication is so rare it is unheard of. He agreed that despite the radionecrosis/diabetes Mr Collyer's surgical wound healed well and did not break down. He confirmed that there was no compromised tongue function before the surgery.
54. Mr Stafford confirmed that whilst laryngectomy is major surgery with significant complications it has been performed since 1873. Laryngeal cancer is quite common. He was asked about the incident he had heard of as a very junior doctor. He said he did not know if the palsy was permanent in that case. He thought it was bilateral and he did not know the extent of the defunctioning. He does not recall if he saw the patient. It would have been in about 1984.
55. He was taken to the two entries made by Dr Navaratnam and Miss Hawkins at pp 402 and 403 in the bundle and agrees that they do not say how much Mr Collyer was able to move his tongue post operatively, simply that he was able to. He says that he was very concerned when he was told about the palsy because he was aware that if that was permanent, it was "catastrophic".
56. He agreed that it is apparent from the records that Mr Collyer suffered from significant neck swelling post operatively, sufficient for a doctor to be summoned to consider it.
57. He confirmed that he would have seen Mr Collyer post operatively but that would not necessarily be recorded because it would not be part of a ward round. He might not have been a consultant on a ward round during Mr Collyer's inpatient stay.
58. He defines neuropraxia as a non-surgical palsy. "Resection" (cutting through) would be surgical. He said that if a nerve had been cut through completely there would be no chance of



recovery and there would be no movement at all. If there was neuropraxia caused by inflammation then there was a reasonable chance of recovery. Whilst a nerve may recover from "partial resection", the probability is that that it would not.

59. He confirmed that Mr Collyer had never told him that he could move his tongue sideways and he had never seen any lateral movement. However, there is some movement in the sense that Mr Collyer can protrude his tongue and because he can swallow, he must have some retrograde movement, too.
60. As is apparent from his statement and from his oral evidence Mr Stafford is both upset and disappointed that Mr Collyer has had this poor outcome.
61. The defendant called Dr Navaratnam whose statement is at page 157. He reviewed the medical records before making his statement but has no actual recollection of Mr Collyer or the surgery. Nonetheless he confirms from the records that he was assisting Mr Stafford with the operation which would typically involve him holding retractor(s) during the operation. He cannot recall that there was anything unusual about this particular procedure. He was the doctor who saw Mr Collyer at about 11 a.m. on 3 March 2014. He had been informed by the nursing staff that Mr Collyer was having difficulty moving his tongue and Mr Collyer himself reported a two-day history of inability to move his tongue. He says that he has recorded that Mr Collyer said that initially post operatively he could move his tongue. Examination showed Mr Collyer was unable to move his tongue in any direction. His tongue was soft with decreased tone. Again, from the records it was his impression at the time (3rd March) that Mr Collyer may have had pressure on his hypoglossal nerves bilaterally from swelling and he therefore he intended to talk to Mr Stafford about it which he did. Dr Navaratnam's note reads. "Patient reports two-day history of inability to move tongue. He could move the tongue initially post operatively but now can't. Unable to move tongue in any direction. Tongue soft with decreased tone".
62. When he gave his oral evidence, Dr Navaratnam confirmed these details. He said that he was called to the ward on 3 March in response to a nurse reporting a problem. He agreed that Mr Collyer would have been communicating via a whiteboard. He would have reviewed the notes since this was not an emergency call. It would be his practice to take a history. He confirmed that decreased tone is usually associated with nerve pathology. He said that from his note he cannot infer the degree of movement which Mr Collyer was reporting immediately post operatively. However, he said that if the note says that he cannot move his tongue, one cannot infer that there was minimal movement. He does not recall the discussion with Mr Stafford.
63. I then heard from Dr Nair whose statement is at page 150. He confirms preparing his statement having reviewed the records. He has no recollection of the claimant. His involvement was reconfirming the consent form with Mr Collyer on the morning of the surgery. He then assisted the surgery providing exposure of the operating field by retracting tissues, aiding in control of any bleeding and handing instruments as required. Importantly, he also wrote the operation note. He says there was nothing unusual about the procedure and he cannot recall any evidence of nerve injury. In particular he cannot recall any immediate spasm or contraction of the muscle group of the tongue.
64. When he gave his evidence, Dr Nair confirmed that he remembered nothing in particular about the operation and said that if there had been anything difficult about it, it would have been mentioned in his note. He said that having made the note it would be "run past" Mr Stafford. He said that if there had been sufficient radionecrosis worth mentioning he would have mentioned it especially if it was enough to restrict the view at operation. He confirmed his view that any instrumentation of a nerve would initiate a muscle reaction and similarly if a nerve was cut there would be a muscle movement. He confirmed however that he had never

cut a hypoglossal nerve or seen one cut. He agreed, having reviewed the records, that there is no mention of Mr Collyer's tongue function in any of the nursing notes.

65. In the bundle at p.170 is a statement from Mrs Hodgson (nee Hawkins), the Speech and Language Therapist who saw Mr Collyer on 3<sup>rd</sup> March. The defendant filed a hearsay notice (p.169) dated 14<sup>th</sup> October 2019 in relation to this statement and handed in a letter from Mrs Hodgson's GP setting out that she was unfit to attend court having given birth by caesarean section the week before the trial, following the development of pre-eclampsia.
66. Mrs Hodgson reviewed Mr Collyer's records to make her statement but says that she does remember him (although not the detail of her actual contact with him) because she worked with him over a few sessions. Despite this recollection, it is apparent from Ms Hodgson's statement that she is really dependent on the notes she made at the time and what she says her usual practice would be.
67. She saw Mr Collyer on 3<sup>rd</sup> March, 5 days after the operation. It seems to have been a scheduled visit because there is no suggestion that she was called to the ward in the notes. Her note reads:

“He reports he is unable to move his tongue (although reports he was able to when he first came round from surgery) o/e unable to move tongue laterally, nil tongue protrusion. Uneven tongue surface. Advised I would let his medical team know.”
68. This record is timed at 10.30 and Mrs Hodgson clearly did let the medical team know because the next entry is the one made by Dr Navaratnam at 11.00.
69. Mrs Hodgson says that she would have been concerned to establish the onset of Mr Collyer's tongue paralysis and would therefore have specifically asked him when the onset was and would have recorded the result in the record. She therefore says that Mr Collyer's account of not being able to move his tongue when he woke up from the operation does not accord with her entry in the notes.
70. Of course, Mrs Hodgson was not available for cross-examination and it is for me to decide what weight I should give to her evidence.

### The Records

71. In line with the description of the surgery I have outlined, the operation note which is at p.154 indicates the vertical midline incision and the process of dissection (including in this case removal of the left thyroid lobe). The operation note relating to the dissection of the suprahyoid muscles reads "dissection carried out along superior border of hyoid bone". The tracheostomy was fashioned and secured. The larynx was separated from the oesophagus. The reference to the closure of the pharynx says it was "created with three-layer closure". In short, the operation note records an uneventful and conventional laryngectomy and no particular or unusual features.
72. There is a bundle of medical records which do not contain the observation/nursing notes from HDU. I refused to allow late disclosure (after the majority of the evidence had been heard and at a stage when only Professor Homer's evidence was to be heard) of some HDU records where the defendant had simply failed to look for them and where witnesses would have potentially had to have been recalled.
73. Most surprisingly, there is no mention at all in any of the nursing notes for the month that Mr Collyer was an inpatient of his ability/inability to move his tongue.

74. When he gave his evidence under cross-examination Mr Stafford confirmed that there should be notes from HDU recording observations such as pulse, temperature, respiratory rate, blood pressure and medication. In fact, there are only the three pages of notes (page 530 – 532) in the bundle.
75. He was taken to the nursing notes and agreed that the tongue paralysis should have been referred to as should have been the visits by the speech and language therapist and Dr Navaratnam. There are no such entries in the nursing records. He agreed that the absence of a record of an event in the nursing notes does not necessarily indicate whether or not it happened.

### The Expert Evidence

76. The claimant's expert is Mr Peter Gooder, a consultant otolaryngologist. He became a consultant in 1982 having begun to specialise in otolaryngology in 1976. He retired from NHS practice in 2008 but resumed in 2009 working for companies contracted to the NHS on an outpatient basis. He has performed a total of 50 laryngectomies, the last one being in 2007. His CV is at page 211a.
77. His report on breach of duty and causation dated January 2019 is at page 177. He has also provided a condition and prognosis report which is at p.28 (dated 8 August 2017) and together with the defendant's expert, Professor Homer, prepared the joint liability statements based on each party's agenda which are pp.292 and 332.
78. By the time of the condition and prognosis report, Mr Collyer was showing significant atrophy of his tongue consistent with the near total paralysis.
79. Mr Gooder expresses the opinion that it is likely on the balance of probabilities that both the hypoglossal nerves were damaged in either one or two surgical manoeuvres both of which are the result of substandard surgical technique. These two manoeuvres would be: the incision "into the anterior pharyngeal wall" just above the hyoid bone; or inclusion of the nerves in the closure of the pharyngeal wall after removal of the larynx. He notes the fact that there is no mention in the operation note of any technical difficulties and no record of difficulties in dissection because of densely scarred tissues and/or obliteration of tissue planes. Mr Gooder points out that the risk of hypoglossal nerve damage is not listed in the standard textbook, *Stell* and *Maran*, in the chapter on laryngectomy.
80. It is Mr Gooder's opinion that the injury occurred during the laryngectomy, probably at the time of the suprahyoid dissection.
81. By reference to the chapter at page 1001 of *Stell* and *Maran*, he agrees that there are some head and neck surgeries where the 12th cranial nerves (hypoglossal) could be at risk, but is of the opinion that in laryngectomy, it could only occur negligently.
82. In short, he considers that the injury could not have occurred had Mr Stafford been exercising all reasonable care and skill. He does not agree with Professor Homer's theory that the nerves might have been vulnerable by reason of diabetes, vascular disease and the previous radiotherapy or that they might have been injured during intubation for the administration of anaesthesia.
83. In his oral evidence he said that it is his opinion that the nerves were cut incompletely and that when he refers to "transected" he does not mean cut completely.
84. On analysis of the amount of movement which Mr Collyer has in his tongue, he concluded that the nerve must have been "more or less hanging on by a thread" since he is only left with

about 5% of function. Whilst Mr Gooder accepts that he has not used the phrase "partial" transaction anywhere, he denies having initially formed the view that the transection here was complete. He accepts it was an error not to make the difference clear.

85. Mr Gooder points out the direct conflict between the statements of Dr Navaratnam and Miss Hawkins; and the statements of Mr Collyer, his mother and Miss Thame in relation to whether or not he could move his tongue immediately post-surgery and correctly says it is a matter for me to decide.
86. He agreed that if Mr Collyer had full movement when in HDU and had only limited protrusion only by five days post operatively then that would not be consistent with the nerves being cut during surgery. If he had almost complete loss of movement immediately post operatively and then total loss of movement at five days with recovery back to the same level as immediately post operatively that would be consistent with his opinion because post-surgery oedema would have exacerbated the effect of the initial (and permanent) injury.
87. In his report he defines types of nerve injury. Neuropraxia, he says, is the equivalent of a concussion of the nerve as a result of some stretch or distortion but the nerve fibres remain intact within the intact nerve sheath and there is no degeneration of the axons and recovery is complete. Axonotmesis is rupture of the nerve fibres within an intact nerve sheath. Recovery after axonotmesis, when it occurs, is delayed but he says that whilst recovery may occur with peripheral nerves it never occurs with cranial nerves such as the hypoglossal nerve. Neurotmesis is produced by partial or complete division of the nerve sheath and its fibres. If the division of the nerve is recognised it may be possible to join together the two cut ends but the results are variable. Clearly, if the nerve is divided and not repaired there will be no recovery.
88. Mr Gooder's second possible cause for the injury is inclusion of hypoglossal nerves during the suture of the pharynx after removal of the larynx. It is his view that such inclusion in the suture would also produce neurotmesis.
89. In relation to the point made on behalf of the defendant that contact with the nerve would produce a muscle reaction, Mr Gooder agrees that for example, stimulation by diathermy would cause muscle contraction but says, "When any nerve is transected, in my opinion, it is more likely than not that there would have been immediate paralysis of the intrinsic muscles of the tongue". He says that he cannot find any reference in the literature to the concept that division i.e. transection of any motor nerve will produce contraction of the muscle supplied by that nerve. He says that he has never transected a hypoglossal nerve and has not seen whether the tongue muscle jumps when that happens, but more importantly says there is no literature reference to it anywhere and he would expect that to be in the literature. The difficulty with this point is that there cannot have been "complete" transection of these nerves because Mr Collyer has retained some movement in his tongue. If the nerves were cut it could only have been partially.
90. As far as vulnerability due to diabetes is concerned Mr Gooder agrees that peripheral neuropathy is a common complication of diabetes. However, the only report he can find in relation to cranial nerves is of a seven-year-old girl with type I diabetes who developed right 7th and 12th nerve palsies when the control of her diabetes was less than optimal. The palsies recovered when her treatment regime was changed and her diabetes brought under control (see *Semiz et al* paper at p.860). The recovery was after about three months. Moreover, these palsies were unilateral.
91. As set out, by reference to this single reported incident of unilateral and transient nerve palsy in a seven-year-old diabetic girl, he similarly discounts the diabetes as even a contributory causative factor.

92. Mr Gooder said in respect of the risks from previous radiotherapy that he did not think that it would have rendered the hypoglossal nerves vulnerable.
93. In any event, as he says by reference to the *Hutcheson* paper at page 909, radiation neuropathy seems to manifest itself between 4.6 and 9 years after the radiotherapy and not within a year as would have to have been the case here.
94. He reviewed the paper (page 885; *Shah, "Hypoglossal nerve palsy after airway management for general anaesthesia: an analysis of 69 patients"*). He pointed out that it covered a period beginning in 1926 and that the conclusion is that the majority of patients recovered within quite a short time and none had permanent bilateral defunctioning of the tongue. He concludes therefore in this case that on a balance of probability, anaesthesia did not cause or contribute to the palsy.
95. Mr Gooder accepts that traction is applied during laryngectomy for example to the greater cornua (horns) of the hyoid bone during one stage of the procedure. Retraction is applied to the tongue base from above downwards during removal of the larynx. Mr Gooder does not consider that this retraction or traction on the hyoid bone/tongue should cause any nerve damage. Or at least not non-negligently.
96. He reiterated that when in the pharynx, the tongue muscle is lifted up, but there is no traction on the hypoglossal nerve; the tongue is being retracted gently. Moreover, by reference to page 193 in his report he says that since the retraction would have been to the inside of the pharynx the hypoglossal nerves (lying outside of the pharynx) would not be affected.
97. In his oral evidence, he did agree that if Mr Stafford performed the operation as he describes in his statement then he was using all care. He agreed that using the dissecting scissors rather than diathermy is safer and would reflect the practice of a careful surgeon.
98. He agreed that the phrase "incision into the anterior pharyngeal wall" is a mistake in his report. He says the mistake seems to have been repeated in the particulars of claim, but it is a mistake in terminology only and it remains his view that the injury was caused during the separation of the suprahyoid muscles. He denied ever saying that the nerves were completely transected.
99. He also agreed that he had never heard of even one hypoglossal nerve having been enclosed in sutures. He has never seen it reported or referred to and the theory is therefore his own, but he considers that it is a probability because of the proximity to the hypoglossal nerves. He said that he can only put forward what seem to him to be logical points of view. He gave as one of his reasons for discounting the defendant's theories, that if Mr Collyer had pre-existing disease in the form of microvascular damage due to radiotherapy and/or diabetes then he would have had symptoms of impaired tongue function and he did not. Similarly, swelling is invariable after a laryngectomy and the combination of previous radiotherapy, diabetes and such swelling is not uncommon. Similarly, all people having laryngectomy have a general anaesthetic. Nonetheless, there is nothing in the literature to say that this combination of factors has ever produced this sort of post-surgical palsy.
100. The defendants called Professor Homer.
101. Professor Homer's report dated 15 January 2019 is at p.212 in the bundle. He has also prepared a condition and prognosis report dated 11 June 2019 which is at p.247. That report was prepared without examination of Mr Collyer, but its conclusions are much the same as Mr Gooder's; Mr Collyer has a permanent nerve injury with catastrophic consequences. Professor Homer has, of course, also contributed to the two joint reports with Mr Gooder based on each party's agenda.

102. Professor Homer has been a consultant otolaryngologist, head and neck surgeon since 2002. He is an Honorary Professor of otolaryngology (head and neck surgery). He continues in NHS practice and has performed just under 200 laryngectomies. His extensive and impressive CV begins at page 265 in the bundle.
103. Importantly, Professor Homer says that hypoglossal nerve palsy is a recognised but uncommon complication of laryngectomy because the nerve is near the supero-lateral aspect of dissection and is always potentially liable to a degree of traction and possibly heat damage from diathermy (this point was not pursued in light of the fact that Mr Stafford indicated that uses micro-dissecting scissors).
104. Professor Homer refers to *Stell and Maran* (5th edition) where the 12th cranial nerve (hypoglossal nerve) is listed as being at risk "during head and neck surgery". He agreed that his reference in this textbook to Box 11.4 (p.1010) is a summary of the nerves at risk in head and neck surgery and is not specific to laryngectomy.
105. He emphasises the words of the textbook which set out that provided the dissection is done "on the bone", "any damage to the hypoglossal on either side should be avoided as the nerve lies superomedial to the hyoid". He considers that the use of the word "should" (he particularly emphasises that choice of word) indicates that damage to the nerve is possible albeit the risk is very small. He relies on the standard surgical technique for separating the supra hyoid muscles; moving along the hyoid bone, as itself confirming that there is a risk to the hypoglossal nerves if the surgeon does not follow this technique.
106. Professor Homer acknowledges that damage to the hypoglossal nerve post laryngectomy is not reported.
107. Further, he acknowledges that even unilateral hypoglossal nerve palsy is incredibly rare. Professor Homer said he had never come across near total permanent bilateral hypoglossal nerve damage. He considers that it may be that it is not that this sort of injury does not happen, it is just that it is not reported.
108. For the first time in his evidence he said that he had come across three unexplained unilateral hypoglossal nerve palsies in 18 years.
109. He said that he had not mentioned the three cases in his statement because it is "privileged". Nonetheless, he felt able to mention them in open court. He agreed that this information could not be verified. He said one of the cases was one of his patients who developed palsy after laryngectomy in the late 2000s. He said the 3 cases were all unilateral and only one was permanent. He said that he was sure that the nerve had not been injured and the outcome remain unexplained. He agreed that neither that instance nor the other two are in any literature.
110. He also said for the first time in his oral evidence that he had been told by one consultant on his unit that she does warn about the risk of hypoglossal nerve damage. He confirmed that even though he is now aware that this colleague warns about this risk, he does not do so. Although he can only find the one protocol paper from the state of Iowa following a worldwide search, nonetheless, he relies on it to say that there is a body that would accept this sort of injury as a complication of laryngectomy, although he agreed that in the UK patient leaflets would not refer to this risk.
111. He also agreed that the papers cited are all of limited impact/relevance in the circumstances of this case.

112. Professor Homer challenges the claimant's case. In his report he makes it clear that he considers that some potential nerve trauma is inevitable in a standard laryngectomy due to retraction and in this case there were other factors which made the nerves vulnerable. Further, even if the palsy occurred immediately post operatively, for the same reasons there is no evidence of negligence shown and there was no twitch/movement of the tongue.
113. Professor Homer summarises his view that the probable cause was some kind of nerve trauma which occurred during the operation from tissue retraction or intubation/changes in neck position and against the background of poor tissue vitality due to diabetes. the effects of radiotherapy and vascular disease and further as a result of the development of diabetic neuropathy as a result of radiotherapy, diabetes and immunosuppressive drugs.
114. He agreed that patients who undergo laryngectomy for cancer are mostly less healthy on average (due to lifestyle factors including smoking and drinking). He felt that Type I diabetes was not that common, however. He considered that the claimant therefore was at the extreme end of commonly found comorbidities.
115. He clarified that during radiotherapy, although a patient's head is fixed into position, the larynx will still move on swallowing (potentially into the radiation field) and further the upper limit in narrow field radiotherapy would still be significantly above the hyoid bone and thus there is the risk of trauma to the hypoglossal nerve.
116. He clarified that he was not saying that radiotherapy had caused Mr Collyer's bilateral nerve palsy, merely that it might have been a contributing factor in making the nerves more vulnerable.
117. Nonetheless, he acknowledged that Mr Collyer's wound did not break down but healed well despite the comorbidities he relies on as having caused the nerves to be vulnerable.
118. He considers that the damage here is the type of nerve damage known as axonotmesis, where the sheath is not cut but the axons inside are damaged causing the palsy and never recovering. This is a situation he has encountered in his own surgical practice when dissecting the nerve away, for example, from a tumour.
119. Professor Homer also agrees that neuropraxia is associated with the spontaneous return of function.
120. Both experts agree that pressure on a nerve can cause loss of conduction in motor fibres.
121. He sets out that since the nerve is very near the greater cornu of the hyoid bone, pulling and retraction of the tissue around the area and dissection will make the nerve liable to some degree of traction. When cutting tissue, including in this case along the hyoid bone, counter traction is always applied so the hyoid bone is pulled down and medially, causing retraction on the nearby and underlying hypoglossal nerve. Professor Homer does agree with Mr Gooder that the base of the tongue is retracted during laryngectomy and again there will be pressure put on the hypoglossal nerves.
122. He described this as an extraordinarily ("mega") rare occurrence which he would estimate as being about a one in 1 million. He said that in his view every plausible mechanism/explanation here is extremely unlikely. It was his view that the only mechanism that has some credence is pressure damage to the nerve and the tongue during retraction. He agreed that this is not a listed complication in laryngectomy, but he relies on it as being a general principle in surgery.

123. Professor Homer confirmed that one would not necessarily see a muscle reaction on retraction of the nerve. Retraction cannot be avoided.
124. Professor Homer puts forward his view that if not caused by nerve trauma from tissue retraction, an alternative cause might be nerve compression resulting from anaesthesia and/or changes in neck position. It is his opinion that this is a recognised complication.
125. Professor Homer refers to the *Shah* paper referring to a recognised complication of intubation/tongue positioning with reported cases including bilateral palsy often with a delayed onset. He says that he was not aware of this at the time of writing his primary report, but says it provides support for his opinion in that it evidences "proof of principle" that transient compression of the hypoglossal nerve can (rarely) cause a palsy that emerges even over a day or two after surgery.
126. He confirmed that the proposition that anaesthesia alone can cause hypoglossal nerve palsy was new to him and only emerged in the course of his involvement in this case. It seems that he relies on the *Shah* paper more as establishing that pressure on the nerve can cause neuropraxia and in some cases long-lasting or permanent nerve damage. He amplifies this by saying that the amount of retraction in anaesthesia is minuscule compared to the amount in the course of laryngectomy.
127. Professor Homer emphasises the discrepancy between Mr Collyer's account of not being able to move his tongue immediately post-surgery and the records. One of the reasons why he says that the palsy could not have arisen due to negligent surgical technique is because, according to the notes, it did not manifest itself until three days post-operatively.
128. He also relies on the fact that there is no recorded evidence of negligence in the operation; the operation note describes a standard procedure. There was no record of an observable/very obvious twitch or movement of the tongue which he says would occur if the nerves were cut. Further, there were risk factors in this case including: previous radiation; a significant adverse tissue reaction to radiotherapy; diabetes; and vascular disease.
129. In the joint report in respect of the defendant's agenda, Professor Homer says that if it is accepted that Mr Collyer could move his tongue initially post-operatively then it can be assumed that he developed nerve palsy sometime around the second or third post-operative day. On balance, he considers that that would be a delayed consequence of tissue trauma sustained during the surgery against the background of the claimant's risk factors which he has identified. He states that all such surgery will produce oedema.
130. Professor Homer makes the point that the fact that there was a bilateral nerve palsy suggests generic factors at play rather than "a tiny chance that both nerves were transected". He repeated that there must be some unifying factor or factors for both nerves to have been damaged.
131. He expresses the view that he would be surprised that a very experienced head and neck cancer surgeon like Mr Stafford performed surgery "below the standard of a reasonably competent surgeon". Although Professor Homer agreed that "even the best can make mistakes", he said that the thought that an experienced surgeon departed from surgical technique on both sides of the hyoid bone seemed to him to be extraordinary.
132. In his oral evidence he said that the hypoglossal nerve is a couple of millimetres in diameter and it would be very difficult, particularly with dissecting scissors, partially to transect the nerve, let alone to do it twice. It was his evidence that when a surgeon says "transection" he means complete division/cutting. At p.304 Professor Homer states that the chance of the



mechanism of this injury being bilateral nerve transection is tiny and in any event the nerves could not have been completely cut because the palsy is not total.

133. The responses to the claimant's agenda are at page 292. The experts were asked to consider the operation note and they agree that there is no indication of any technical or other difficulty in the operation. Whilst they agree that any such technical difficulty or significant finding should be recorded, Professor Homer adds that he would not expect any commentary on fibrosis in salvage laryngectomy unless it was particularly unusual or excessive. On this point, Mr Gooder refers to Mr Stafford's statement in which he says that there was "dense fibrosis". Professor Homer expands on this to say that it would only be recorded if it changed the way in which the operation was done or the post-operative management. The experts agree that there is evidence of radio necrosis although it is not specifically reported in the histopathology following the operation.
134. Professor Homer is very clear that the hypoglossal nerve is very reactive to nearby tissue handling, causing the tongue to jump and move. He found it difficult to explain why there would not have been a muscle reaction if the retraction was sufficient to cause this permanent damage to the nerves even against a background of those nerves being vulnerable.
135. He described Mr Gooder's theory about inclusion in the sutures as "fantastical", primarily because of the distance involved.

#### The Law

136. The legal principles applicable in this case are not the subject of any great dispute between the parties.
137. Clearly the claimant has the burden of proving that Mr Stafford was negligent. Breach of duty is determined by reference to the well-known *Bolam* test, that is, whether what Mr Stafford did was in accordance with a practice accepted as proper by a responsible body of the relevant clinical opinion (*Bolam v Friern Hospital Management Committee* [1957] 1 WLR 582).
138. Even if the court considers that there are a number of possible causes, some negligent and some non-negligent, the claimant must still establish that the negligent cause he puts forward was not just the most likely but was more likely than not to have been the cause (see *Rhesa Shipping Co S.A. v Edmunds and Fenton Insurance Co Ltd* [1985] 1 WLR 948 ("*the Popi M*").
139. The "*Popi M*" case involved the loss of the ship. The House of Lords held that on the facts the only inference which could properly be drawn was that the true version of the ship's loss was in doubt and that accordingly there was no justification for drawing the inference that there had been a loss by "perils of the sea" whether in the form of a collision with a submarine (or any other form) and that therefore the [plaintiffs] had failed to establish their claim. In light of the burden on [plaintiff], although it was open to the defendants to suggest and seek to prove some other cause of loss there was no obligation on them to do so and if they chose to do so there was no obligation to prove even on a balance of probabilities the truth of the alternative case. Thirdly it was held that is always open to a court even after a prolonged enquiry with a mass of expert evidence to conclude at the end of the day that the proximate cause of the ship's loss even on a balance of probabilities remained in doubt with the consequence that the [plaintiff] shipowners had failed to discharge the burden of proof which lay upon them. In summary, the House of Lords held that, when considering the burden of proof on a balance of probabilities, common sense must be applied. Before a judge can find that a particular event occurred, he or she must be satisfied on the evidence that it is more likely to have occurred than not. If the judge concludes even on a whole series of cogent

grounds that the occurrence of an event is extremely improbable, a finding by him that it is nevertheless more likely to have occurred than not does not accord with common sense.

140. At paragraph 64 of *O'Connor v The Pennine Acute Hospitals NHS trust* [2015] EWCA Civ 1244 it was said, "It is not an uncommon feature of litigation that several possible causes are suggested for the mishap which the court is investigating. If the court is able, for good reason, to dismiss causes A, B and C, it may be able to reach the conclusion that D was the effective cause, but the mere elimination of A, B and C is not of itself sufficient. The court must step back and, looking at all the evidence, consider whether on the balance of probabilities D is proved to be the cause."
141. I was also referred *Ratcliffe v Plymouth and Torbay Health Authority; Exeter and North Devon Health Authority* [1998] PIQR 170, at page 184 where at (6) it is set out in respect of the relevance of the maxim *res ipsa loquitur* in medical negligence cases (which is accepted is not the case here) –... "The defendant's evidence may satisfy the judge on the balance of probabilities that he did exercise proper care. If the untoward outcome is extremely rare or is impossible to explain in the light of the current state of medical knowledge, the judge will be bound to exercise great care in evaluating evidence before making such a finding, but if he does so, the *prima facie* inference of negligence is rebutted and the plaintiffs claim will fail."
142. The claimant says that where it can be proved that the injury suffered does not ordinarily happen if reasonable skill and care is deployed, that raises a powerful case that there was negligence. This is not to say that *res ipsa loquitur* applies. It does not apply here. *Res ipsa loquitur* has a very limited application in cases where each side calls evidence.
143. In short, therefore, in order for the claimant to succeed he has to establish on a balance of probabilities that in this case it is more likely than not that the injury he suffered was caused by the negligence of Mr Stafford in either making direct contact with the hypoglossal nerves such as to cause the damage resulting in the palsy when dissecting the suprahyoid muscles off the bone or by incorporating the hypoglossal muscles in the sutures when closing after removing the larynx.

### Discussion of Expert Evidence

144. I consider that both expert witnesses were doing their best to assist the court and to try to find a logical explanation for the outcome of this surgery. Because the outcome is unreported and therefore there is almost no experience of it or its causes amongst the profession, I find that both experts were forced to identify a possible cause rather than a likely one. In doing so I find that there were flaws in their arguments which I have identified in my analysis below.
145. I agree with the defendants that Mr Gooder has less specialist experience and less recent experience than Professor Homer. I also agree that it is unfortunate that there were some mistakes (which he frankly admitted) in his evidence. I consider that the use of "transected" was inappropriate if "partially transected" was meant. On the other hand, if Mr Gooder did initially consider that both nerves had been cut completely then he clearly failed to take into account that Mr Collyer has some movement in his tongue, however limited.
146. Whilst acknowledging his considerable expertise, it seemed to me that Professor Homer's opinion was prefaced on two views in particular, both of which I consider to be overly emphatic. Firstly, he says that this palsy has been recognised as a complication of laryngectomy. That is not supported by the literature, certainly not in the standard textbooks. His view seemed to be based initially on the Iowa protocol. The fact that a worldwide trawl found one state in America which suggests that it would be appropriate to warn of the risk of hypoglossal nerve damage does not, in my view, make this a recognised complication. That is particularly so where there are no reported cases of this almost total permanent bilateral palsy.

147. It is only since writing his report that he has identified that a surgeon on his unit warns of a risk. The nature of the warning and the specific risk identified has not been explored and no evidence was called about it. Moreover, Professor Homer was unaware of this practice on his own unit. Further, and importantly on this point he has said that he himself does not warn of the risk. If it is a recognised complication, that would surely be a concern.
148. For the first time in evidence he referred to 3 instances of some level of paralysis (unilateral or bilateral), but again no details were provided and the evidence was not tested. If that is Professor Homer's experience it was certainly not referred to in his reports or discussions with Mr Gooder.
149. He relied on the table of risks in *Stell* and *Maran* in respect of head and neck surgery, but on analysis this does not in fact have any particular relevance to cranial nerves in laryngectomy and so does not evidence that this is a recognised complication. Similarly, he relied on the word "should" in the textbook where the technique of staying on the hyoid bone is described as one which "should" avoid damage to the hypoglossal nerves. This does not as I find specifically identify damage to the hypoglossal nerve as a recognised complication of laryngectomy. I take the view that it is detailing the standard surgical technique (which I am sure it does in respect of many other operations) which should be followed.
150. Secondly, Professor Homer's view that this was not caused by surgical error (negligence) seemed to be based primarily on the fact that he would be "surprised" that a surgeon of Mr Stafford's skill and experience could have made such a basic error. It is unfortunate truth that even the most experienced and able surgeons, like any other professional, can make mistakes, even basic ones.

### Findings

151. First of all, there was no anatomical abnormality in Mr Collyer by which I mean no evidence that, for example, the hyoid bone or the hypoglossal nerves themselves were abnormal or in an abnormal position.
152. Secondly, I accept the evidence of Mr Stafford, Dr Nair and Dr Navaratnam and the details contained in the operation note to the effect that there was nothing unusual about this surgery. A standard technique and procedure were followed. There were no obvious complications or difficulties. It was essentially an uneventful operation of its type.
153. I find on the basis of the earlier histological evidence and Mr Stafford's account that there was necrosis following the radiotherapy leading to some fibrosis. I find that it was within sufficiently normal parameters for it not to be necessary to record it in the operation note. It has been noted that Mr Collyer has a short, fat neck (I hope he will forgive the description), but again his anatomy was not so much out of the ordinary as to be worthy, as I find, of note.
154. Where Mr Gooder is critical of the operation note for failing to reflect the contents of Mr Stafford's statement on these issues, I find that Mr Stafford (in particular, but like everybody else) has spent a great deal of time since the surgery trying to understand what happened. I think with hindsight he has wondered whether the necrosis/fibrosis was a factor and so it has been uppermost in his mind when giving his evidence. As I heard, these salvage laryngectomies are done post-radiotherapy routinely and will often/usually be done in the presence of such necrosis/fibrosis.
155. Having heard the evidence of Dr Nair, Dr Navaratnam and Mr Stafford all of whom were aware of and indeed emphasised that a muscle will twitch or move if its innervating nerve is touched or damaged, I find that they would have seen Mr Collyer's tongue twitch or move if it had done so. If it had done so twice then again with three of them involved in the surgery, I

- find that such movement could not have been missed. I further find again having considered the careful way in which they gave their evidence that any such movement would have been recognised and noted.
156. I find therefore on the balance of probabilities that however this damage was caused it did not result in any movement or twitch of Mr Collyer's tongue.
  157. I have carefully considered the conflicting evidence about the timing of events post-surgery. Dr Navaratnam and Mrs Hodgson have both made entries in the records which state in clear terms that Mr Collyer was saying that on 3 March he had not been able to move his tongue for two days but that he had been able to move it post operatively. Dr Navaratnam has no independent recollection of this but it is clear that he would have elicited a history and would not simply have followed on from Mrs Hodgson's note. As indicated above it seems to me that Mrs Hodgson was working from records although she remembers Mr Collyer, she does not specifically recollect her work with him. She was not available for cross-examination in any event. It is clear from these entries that at the as at 3 March, Mr Collyer had no movement at all in his tongue.
  158. I do not need to repeat the forceful evidence of Mr Collyer and his witnesses about his complaint of not being able to move his tongue immediately he came around from the anaesthetic. I accept that when considering this evidence, I should bear in mind the features set out in the defendant's skeleton argument by reference to the "psychology" of recollection compared to the fact of a written note. However, I also agree with the claimant's submissions that such psychology is not the subject of any evidence or at least certainly not in this case. Further, whilst it is a factor which I take into account it is not, in my opinion, the decisive one.
  159. Mr Collyer had significant communication issues with at that time, but he had a whiteboard and when communicating with Miss Thame and his mother, he was communicating with his closest family members who knew him well. He was in the very early days of recovering from major surgery. I found the evidence of the claimant and his witnesses compelling for a number of reasons. Firstly, I noted Mr Collyer's almost naive response in question form to the effect of "why would I say I had been able to move my tongue post operatively when I couldn't"? Also, Mrs Collyer's evidence that given that her son was in HDU following salvage laryngectomy for recurrent laryngeal cancer her clear evidence that whilst she was worried and concerned about very many things in advance, Mr Collyer not be able to his tongue was not one of them. And yet her evidence is that that was in fact her immediate concern post-operatively and her recollection is that it was a surprise to her. Similarly, Miss Thame's evidence of reporting this issue and her account of the incident with the nurse suggesting there had been tongue movement when Mr Collyer's tongue dropped down through gravity is a powerful recollection consistent with an immediate report to a nurse and Mr Collyer's recollection of his tongue feeling stuck and like a "wet sponge" in his mouth.
  160. It is apparent from the notes of Mrs Hodgson and Dr Navaratnam that at the time they saw Mr Collyer he could not move his tongue at all but clearly, he has since recovered some very limited movement so that he can protrude his tongue a little. On the balance of probability although it is not in fact either party's case, I find that Mr Collyer was aware immediately post operatively that he could not move his tongue. I find that Mr Collyer had the impression immediately that he could not move his tongue at all. I find that by the time he was seen on 3 March, however, the post-operative oedema had created a temporary increase in the defunctioning so that by reason of difficulties in communication and/or lack of familiarity, Mr Collyer did at least appear to indicate that he had had some movement post operatively.
  161. The total absence of any mention of tongue function in the nursing records is not only surprising but particularly unhelpful in resolving this issue.

162. However, weighing up the evidence of the claimant and his witnesses and even taking into account their bitter disappointment in the outcome of the surgery and their conviction that it arose through negligence I found their evidence, as I say, compelling. On the basis of my finding about the lack of tongue function post operatively, I find that the mechanism of injury occurred during surgery.
163. Professor Homer's mention of a colleague in his unit who he says told him does warn of this risk, was not and could not be explored further. It does not seem to me that I could properly reach any conclusion about the reasons why one person might give such a warning. The evidence I heard and which I accept is that Mr Stafford, Professor Homer and Mr Gooder do not consider that hypoglossal nerve injury is a recognised complication of laryngectomy in the sense that it is necessary to warn patients of such a risk. I accept this evidence and find that the risk/complication has not been reported and is not recognised. I find that a failure to warn of the same is not negligent.
164. The defendant developed its argument that there might have been damage to the nerves caused by the previous radiotherapy and/or the claimant's diabetes, but such damage was latent and resulting in vulnerability of the nerves to damage but not resulting in any loss of function. It is acknowledged that such damage would be unusual. I was not referred to any reported instance of such vulnerability, nor was I taken to any literature/text book in which it is identified. I find that it amounts to nothing more than a theory and I do not find on a balance of probability in this case that it was a cause/material cause of the damage Mr Collyer suffered.

### Analysis

165. Mr Edis QC accepted on behalf of the claimant that he has the burden to satisfy me on the balance of probabilities that the damage was caused negligently. He accepts, in accordance with the legal principles set out above, that this means that it is not enough for the claimant to establish which is the most likely cause out of the various hypotheses. He has to establish that it is more likely than not that Mr Stafford was negligent.
166. The claimant nonetheless contends that I should exercise very great care where the outcome is as unprecedented as occurred in this case before finding that the defendant has rebutted any prima facie case in negligence. It is argued that human error is always more likely than an event that has never been reported before especially in an operation that has been performed for over 145 years.
167. The defendant contends that the fallacy in this argument is that simply because something has never been reported, or recognised as occurring, then it can only have been negligently caused. The outcome for Mr Collyer has not been reported as being a non-negligent injury and it has not been reported as being a negligent injury. It has not been reported. It is therefore difficult to make any reasonable inference from the fact that it appears to be the first time to have happened to anyone. Medicine is not a precise science and there must be room for wholly unexpected result notwithstanding appropriate surgical technique.
168. There are effectively four possible mechanisms which it is said could have occurred during the surgery and which are put forward.
169. Turning first to Mr Gooder's hypothesis that Mr Stafford might have included the hypoglossal nerves in the sutures when closing the pharynx; I dismiss that completely. I find it to be implausible. I have heard the description of the procedure (which is set out above) including the horizontal suture line (despite the essentially vertical hole) in the pharynx made with tiny sutures. During each part of this closure with sutures the hypoglossal nerves would be somewhere between 2 and 3 cm away. I do not find that it would be possible given the

suturing described to encompass any structure at such a distance. As Mr Gooder acknowledged that he has never seen or heard of this before. He was simply trying to put forward a logical explanation. I reject it as implausible.

170. Professor Homer relies on the theory that the nerves were irreparably damaged (although with the nerve sheath intact) during retraction either of the base of the tongue or the hyoid bone in the context of the nerves being "vulnerable" although not actually damaged such as to affect function before the operation by reason of fibrosis/radionecrosis/diabetic neuropathy/vascular disease. Further he refers to the exacerbating effect of the structure of Mr Collyer's neck.
171. It seems to me that this hypothesis is highly unlikely and I so find. Even if Mr Collyer was at the extreme end of the range of patients with his presentation in terms of comorbidities, he was not in fact out of the ordinary. As I have found the radiotherapy damage was not sufficient to cause it to be noted in the operation note. The damage was caused to both nerves. For this theory to be correct both nerves must have been had the pre-existing vulnerability and the retraction pressure applied must have been equal in order to achieve the same lack of function on each side. Professor Homer did not find it easy to answer the question about whether the muscle twitch/movement would have occurred in this scenario. That is despite his proposition that any damage to the nerve would produce such movement. If retraction was sufficient to cause this near total permanent bilateral paralysis, he was unable to explain why as the nerve tipped from vulnerable but functioning to severely and permanently damaged there would not have been this movement. As I have found there was no such movement. Retraction to the hyoid bone and the base of the tongue occurs in every such laryngectomy and this consequence has never been seen before. For these reasons I conclude that this theory is highly unlikely.
172. Thirdly it was suggested that the damage may be caused during intubation for the anaesthesia and/or due to neck positioning. Again, Professor Homer would say that this was in the context of already vulnerable nerves. I note that I was provided with no evidence about this sort of symptomless extensive nerve damage which could be "tipped" into near non-functioning. There is evidence and I accept the evidence I heard that tongue movement/positioning during anaesthesia in any surgery can produce neuropraxia. It seems that Professor Homer was not previously aware of this risk. Although it is reported, it is not a risk that a patient would be warned about. It is not a sufficiently recognised complication to merit a warning. The difficulty with this theory is the lack of instances of bilateral near total permanent palsy. And again, it presupposes there would be equal pressure on each hypoglossal nerve.
173. However, since neuropraxia is at least reported as a potential consequence of intubation/tongue movement during anaesthesia, I find that it is a possible cause in this case. If it were the cause here, however, the outcome (bilateral permanent almost total paralysis) would still have been as I find unique in medical experience. I can therefore only consider it to be a remote possibility and certainly not probable or more likely than not.
174. Fourthly there is the hypothesis on which the claim is primarily based, that Mr Stafford caused a partial transection of each hypoglossal nerve in the course of dissecting the suprahyoid muscles. Of course, surgical error, even grossly negligent surgical error can never be discounted. Even in this apparently straightforward/simple part of this surgery there must be a risk of injury to the nerves if the surgeon does not follow along the hyoid bone but in error moves off it. However, the surgeon would have to move a centimetre off the bone which is set out above, in the terms of the surgery, would be a great distance away from where he should have been. Moreover, had that damage occurred to the nerve there would have been a twitch or movement of the tongue muscles and as I have found, there was not. The damage caused with the micro dissection scissors would have to have been such to leave this 2mm diameter nerve "hanging by a thread" so that Mr Collyer was left with 5% of the function in

his tongue on that side. Although I do not give it any great weight because it was not fully explored before the evidence given at trial Mr Stafford, Dr Nair and Dr Navaratnam would also have to have failed to identify that there was more muscle tissue above the hyoid bone when it was removed than would normally be the case.

175. More significantly, however, Mr Stafford having done the dissection negligently on one side as described would then have to have repeated exactly the same procedure on the other side moving off the bone by as much as a centimetre and almost but not completely transacting the second hypoglossal nerve to create the same damage on each side. Had he done so there would again have been a muscle twitch which I find there was not. If I am wrong about that, then he and the two others would have failed to have noticed two muscle twitches/movements. That is a scenario which I do not find is likely to have occurred. In the circumstances whilst it is not completely impossible that this is what happened I do not find that it is more likely than not to have happened.
176. In the circumstances the claimant has failed to prove his case on the balance of probability. It is an unhappy situation for the court not to be able to identify the cause of an injury such as this. However, having given this matter careful consideration my firm conclusion is that the mechanism of Mr Collyer's injury remains unexplained.
177. I should add for the sake of completeness that even if I were wrong in my finding about when the damage occurred (during surgery) the position would remain the same. If Mr Collyer did in fact have movement in his tongue post operatively and then not by 1 March there must be some mechanism which would have produced this near total paralysis in the intervening period of time. The only suggestion (not fully explored) is of post-operative oedema causing sufficient damage to create permanent palsy. There is no suggestion that this would have been negligent. It is also unheard of. I do not consider it to be more likely than not on the evidence that I have heard. In that sense the outcome would have been the same.
178. Mr Collyer has suffered a devastating consequence of this surgery (albeit life-saving surgery). Like everybody else involved in this case I have real sympathy for him. However, on the basis of my findings the claim must be dismissed.