QUANTUM IN NEUROSURGERY AND NEUROLOGICAL DISEASE

INTRODUCTION

1.1 Ambit & Philosophy

- My personal perspective on quantum in neurosurgery / neurological disease cases
- There are numerous correct ways of valuing a claim
- There are numerous correct valuations of the same claim

1.2 Dialogue

- The aim will be to generate dialogue and perhaps some discussion

CAUSATION

2.1 Rationale

- Causation is the starting point for quantum in clinical negligence
- It establishes the limits of Quantum
- Two parts: primary causation and causation of damage

2.2 Primary Causation

- The hypothetical treatment / management pathway which would or should have taken place

2.3 Causation of Damage

- The difference between the actual condition of the Clm and the hypothetical condition that the Clm would have been in consequence upon the primary causation management / treatment pathway

CAUSATION RE: NEUROSURGERY & NEUROLOGICAL DISEASE

3.1 Why Particularly Relevant

- Often in such cases, medical treatment and management is attempting to limit damage that is occurring or has already occurred and aims to stop any more damage

- I.e. without negligence there is a likelihood of some residual deficit

"REAL" CASE EXAMPLES

4. Re: D

4.1 Facts

- Cm was struck on head, went to A&E and left after incorrectly (and we say negligently) being told his wait would be 4 – 5 hours; he went home and an hour after attending A&E suffered dramatic deterioration.

- This was due to a large extra-dural haematoma, which caused a midline shift. It had also caused something called a Kernohan's Notch – a secondary consequence of the primary injury on the other side of the brain.

- The permanent damage was suffered when the Kernohan's notch was established.

- Issue was when did the Kernohan's notch become established: and the potential error was to assume that the collapse was the commencement of the Kernohan's notch.

4.2 **Primary Causation**

- In fact he suffered the collapse at home at 2130 and didn't get to hospital until 2250, where a CT reported at 0015 identified the EDH; and he was transferred to St. Georges, arriving just before 0100 and went straight to theatre. A note made in theatre as he was being prepped recorded at 0130 the left pupil becoming dilated. It had been noted in the ambulance records that the pupils had been normal. Hence the Kernohan's notch could be timed to around 0130.

- But for the negligence, clm would have suffered the collapse within the hospital at about 2130.

- Given the history, he would have undergone a CT scan within 30 mins, which would have identified the EDH; the on-call neurosurgery SpR at St. Georges would have been contacted; and those images would have been transmitted to the neurosurgical team at St. George's and he would have been blue-light ambulanced to St. Georges.

- He would have been on the operating table by about 1130 and decompression achieved after about an hour – before the Kernohan's notch became established.

4.3 **Causation of Damage - Cognitive**

- So primary causation trial gets us home on some damage – but the CT scan had shown a midline shift with effacement of the left ventricle.

- Given that, was there any inevitable damage that would have been caused in any event by the EDH causing a midline shift which would have occurred in any event?

Q: What experts do we need: -

(a)

(b)

(c)

Q: What do we ask them: -

(a)

(b)

4.4 **Causation of Damage – Physical**

Q: What experts do we need: -

(a)

(b)

(c)

Q: What do we ask them: -

(a)

(b)

4.5 **Valuation**

- Only now can you begin to value the claim.

- C&P reports inform you how clm is; causation reports should tell you how he would have been

- Instruct (as required): -

(a) Care and O/T;

(b) Physiotherapist;

(c) Assistive Technology;

(d) SALT;

(e) Accommodation;

5. RE: W

5.1 Facts

- Clm had a A/V malformation in the form of a fistula at T6 level on the spinal cord, which caused him no trouble until his late sixties.

- Originally presented to GP in the summer of 2014 with unilateral pain and signs in the left leg

- Those signs and symptoms became bi-lateral by early Oct ‘14.

- GP missed the bilateral nature and assumed sciatica – and had several subsequent opportunities to pick this up between Oct and Dec ‘14.

- Bi-lateral signs and symptoms are “red flag” and should be investigated with an urgent MRI – degree of urgency depends upon the nature of the symptoms: if becoming incontinent, then emergency. If, as in this case, reduced function and altered sensation and power over a longer period of time, then within several days.

- In fact it was 7 months after the first act of negligence of the GP before Clm underwent operation for decompression of cord and closure of A/V fistula.

5.2 Primary Causation

Q: What are the difficulties here with the causation timeline

-
-
-
-

Q: What experts do we need here for primary causation (clue, minimum of four)?

(a)

(b

(c)

(d)

(e)

5.4 **Causation of Damage**

- By the time he underwent the decompression and closure operation, he had urinary incontinence, he had lost sexual function, he was confined to a wheelchair, as he could not walk.

- After rehab, he could walk a few yards with two sticks and he had gained some control over his bladder.

Q: What is the most important factor re hypothetical outcome:

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-

Q: What is going to be essential evidence in determining hypothetical outcome:

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6. RE: P

6.1 Facts

- Clm had hydrocephalus as a young man and underwent insertion of a shunt in 1978. He required a shunt revision in 1992.

- He suffered another blockage in Oct ’02 and was admitted with drowsiness, confusion, vomiting and double vision. A CT scan revealed a blocked shunt and a ventricular drain was inserted. A week later a ventriculostomy was attempted, which would have provided drainage of the ventricle, but was unsuccessful.

- Post-operatively he did not do well; and he suffered a ventriculitis and he spent two weeks with his GCS fluctuating between 8/15 and 14/15, even though they thought they had got the infection under control.

- He then underwent in mid Nov ’02 an insertion of a further shunt, during which the catheter was negligently inserted 6cm too far and into the midbrain. This was not discovered for about a year, during which time he suffered severe memory impairment and processing difficulties, left visual difficulties and bad headaches.

- The neurosurgeons reasonably decided to withdraw it, in the hope of resolving During the procedure to withdraw the shunt, he suffered a catastrophic haemorrhage. He is now in a nursing home, ambulant but with significant cognitive deficits.

6.2 Primary Causation

- What are the questions for the neurosurgeons: -
-
-
-

6.3 **Causation of Damage**

- Since the early 80s Mr. P suffered from headaches and diplopia, which did not stop him from working but did interfere with his capacity to enjoy life and undertake the full range of social and domestic activities.

- By 1992 Mr. P was complaining of additional symptoms: burning on the right of the head; lethargy, poor memory & dizziness.

- By 1996 he was abusing Co-proxamol 8+ per day, as his symptoms were getting worse and he couldn't sleep or work (he was a hairdresser) and was referred to the Head Pain Clinic.

- In 2001 he was referred back to the Head Pain Clinic with a catalogue of symptoms, some of which were due to the shunt beginning to malfunction.

Q: But for the negligence, what he would have avoided: -
Obvious answer: all the damage done by the insertion of the catheter into the mid-brain and all of the damage caused by the bleed

- Anything else to remember
-
-

Q: What happens if the post negligent symptoms "eclipse" the pre-negligence symptoms
-
-
-
-

7. RE: C

7.1 **Facts**

- Clm a 55 year old entrepreneur in security systems, slipped on ice walking home from work and struck the back of his head on the pavement. He went home but had a bad night and woke the day with a throbbing, worsening headache and nausea. He had suffered a large SDH. He was also on Warfarin for a mechanical aortic valve inserted the year before.

- He was taken to A&E at Kingston at 1100 where his GCS was 15. A CT scan an hour later revealed the SDH and the local hospital A&E doctors contacted the neurosurgeons at a specialist hospital. At 1240 his GCS was 13 and he was described as confused.

- The neurosurgery SpR at the at a specialist hospital negligently advised the local hospital A&E that he did not require surgical intervention; and did not advise them to stop the Warfarin: the risk of exacerbating the bleed with Warfarin was much greater than the risk of the mechanical valve clotting if the Warfarin was reversed.

- The Neurosurgeons should have advised them to reverse the Warfarin, stabilize him and then transfer him: can't operate until the Warfarin has been reversed or he would bleed to death at surgery.

- He deteriorated at the local hospital at 1600 and then advice was given to reverse the Warfarin; but not acted on for 5 hours. By the time he got to the at a specialist hospital the situation was not retrievable and he died the following day.

- Def admitted that with appropriate reversal of Warfarin and transfer to the at a specialist hospital he would have survived; but contended he would have suffered severe permanent brain damage i.e.a.

- Causation issues were (i) timeline of events resulting in surgery (ii) degree of damage before surgery could be undertaken; (iii) what surgery would have achieved.

7.2 **Primary Causation**

Q: Which experts do we need: -

(a)

(b)

Q: What do we need to ask them: -

-

-

-

-

-

7.3 **Causation of Damage**

- What do we need to ask the ----------: -

(a)

(b)

(c)

(d)

- What do we need to ask the ----------: -

(a)

(b)

- The case settled: but even on our evidence, it was accepted he would have suffered a loss of smell and taste, a right hemiplegia of some degree, would have been able to undertake part-time work but only with an understanding employer, he would have suffered mild to moderate headaches, he would have been less able to multi-task.

8. Re: T

8.1 **Facts**

- Clm (45 year old woman) attended A&E with complaints of numbness of the left side of face and difficulty in speaking and a “tingly” left leg. She had been visiting her son in hospital, who had been injured very badly in an RTA and it was touch and go for him.

- She was in A&E for several hours and was given a full neuro examination, by which time all symptoms bar the tingly leg had resolved. The impression was that there was no evidence of a CVA or TIA or of neurology and she was reassured.

- 3 days later she returned with c/o over last 3 days of numbness on the left side of her face, slurring speech, on/off weakness of the left half of her body; and a new symptom of numbness of the right arm. There were references to stress +++ due to her son.

- The neurology SpR was called to examine her and he found her normal on examination and referred her to the TIA clinic (a couple of weeks later) and organized a CT scan of the head that afternoon which reported no evidence of a haemorrhage, an acute infarction or space occupying lesion.

- 3 days later she re-attended A&E (now the third time) with c/o dysarthria & left arm weakness; and the A&E doctor found reduced tone and reflexes in all 4 limbs; and noted normal gait and no vertigo, nystagmus, intention tremor or slurred speech. There was a note that the neurology SpR was to come and examine the Clm but that never occurred; and she was discharged with a plan for an MRI and out-patient follow-up.

- Of course, the inevitable happened 2 days after that; when she was admitted having nearly collapsed due to an inability to use her right side; and came under the care of the neurologists, who include possible stroke / TIA in the differential diagnosis.

- An MRI scan 2 days later revealed left sided acute infarcts and an abnormal appearance of the left internal carotid artery, which proved to be a dissection (when a bit of the internal lining splits /peels off and provoke clot formation).

- She was started on Aspirin the following day; and onto Heparin the day after that. But she was left with a permanent weakness of the right arm and speech and word finding difficulties.

- Clm argued that at each of the three A&E attendances she should have been referred for observation to the acute stroke unit under the hospitals own guidelines. A&E expert in joint discussion conceded that re the first attendance, action was reasonable.

8.2 **Primary Causation**

- On causation, it was argued she would have been started on aspirin on the 2nd attendance and should have had an MR angiogram which would have revealed a stenosis of the left ICA, and then an MRI which would have revealed the dissection of the left ICA, which would then have resulted in anti-coagulation therapy; and that would have prevented the embolus forming in the ICA consequent upon the dissection; and hence no stroke.

8.3 **Causation of Damage**

- With that treatment, it was argued she would have had a 90% recovery of the arm and a 50% recovery of speech and word finding problems.

8.4 **Outcome**

- Unfortunately, the neurologist effectively agreed in the joint discussion that he could not demonstrate on a balance of probability that with earlier referral to the neurologists the timeline would have been any quicker than it was in discovering the dissection or that anti-coagulation would have commenced any earlier, with earlier referral to the neurologists. It was a mere possibility.

HEADS OF CLAIM - THREE CURRENT SOURCES OF DISPUTE

9. CARE

9.1 **Gratuitous Care**

- Not confined to "nursing" in the medical sense – see **Giambrone –v- JMC Holidays 2004 2AER 891 (C of A),**

9.2 **Hours**

- Hours are normally calculated retrospectively by an expert carer (a very rough and ready approach, which is subjective and open to criticism in XX that (if for a claimant) it is too generous and (if for a defendant) too mean.

- A clm can improve position if family told to keep a diary

- But Court's approach will not be to undertake a retrospective time and motion study; it will still be a broad brush approach.

9.3 **Rates**

- National Joint Council Spinal Point 8; base rates unless clm able to demonstrate special levels of care justifying aggregate rates

9.4 **Lost Earnings of Carer**

- Fact sensitive: if a carer reasonably takes a holiday or gives up work to care, then the lost wages may well be recoverable.

- Assume a man earning £350 per week net. His wife needs 5 hours of care periodically throughout the day: 35 hours a week. Purchased care assistant is beyond the reach of most of us. Weekly gratuitous care would be 35 hours x base rate of £9.60 x 75% = £252. Argue loss of earnings are recoverable.

9.5 **Pre-Trial Purchased Care & Case Management**

- The scenario here is that by reason of an IP and a clear need for professional input, a case manager has been appointed and a care regime introduced.

- Essential to keep firm control over the appointed case manager to ensure that: -
(i) the regime of the case manager is supported by the expert care report;
(ii) the rates and method of provision (i.e. individual contract or agency supply) can be justified – in the sense that the case manager has investigated and made a decision on rational grounds if the mode is a more expensive one;
(iii) there is no inconsistency between the carer's expert report and the regime in fact implemented;
(iv) adduce a statement from the case to deal expressly with the reasons for the mode and rates of the regime.

9.5 **Future Care**

- Important to remember the tortious test for recovery: (i) to place the claimant in the position, so far as money can do, in which he would have been had the injury not been suffered; and (ii) to cater for his reasonable needs consequent upon the injury.

- Hence, if the claimant used to have hobbies which he now cannot do alone and it cannot be pursued without the presence or assistance of another, then this is recoverable.

10. LOSS OF EARNINGS

10.1 **Loss of promotion & Loss of Chance**

- "Baseline" earnings and "loss of chance" earnings.

- If Clm was potential high flier with an establish foot on the career ladder, then you will have the "baseline".

- You may be able to establish to a high level of probability to the next step on the ladder, in which case that becomes to new “baseline”.

- But you may not be able to establish anything more than a mere possibility of further promotion or advancement in career or increase in earnings.

- In which case, you apply a loss of chance percentage (which will get progressively smaller the further up the promotion ladder you go).

11. ACCOMMODATION – Cost of Purchase

11.1 Roberts -v- Johnstone

- In a state of flux; and I think the law is in a mess on this because although in **JR -v- Sheffield Teaching Hospitals NHSFT** [2017] EWHC 1245 (25/5/17) William Davis J rejected this head claim on the basis that no loss was made out on a minus 0.75% discount rate; and there was no evidence of an alternative basis of calculation. Clm appealed and NHS Resolution settled this appeal by paying out.

- What Davis J did was to leave the door open for other ways of trying to value the loss to a clm of having to invest money in a property that they would not otherwise have done.

- Have yet to discover a method by which this can be done - that is not simply the cost of borrowing the money at various rates – all of which end up costing more than the extra capital cost required in cases of lengthy life expectation.

- As a matter of logic, plainly there is a “cost” or a “loss” to a clm who has to spend extra capital to secure appropriate accommodation for disabilities in consequence of negligence. The options are: -

(i) If the paymaster is NHS Resolution, adopt the “bullish” approach;

(ii) seek a lump sum, akin to a “contingency” cost;

(iii) apply a discount rate of plus 0.75% to 1% to a **Roberts -v- Johnstone** calculation, on the assumption that that is what the effect of the likely change will be in the future.

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