Material contribution in acute hypoxic ischaemia

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SERJEANTS' INN

1. There is no doubt that since the decision in Bailey v MoD the claimant's task in proving causation has become significantly easier because she no longer needs to prove that her condition is worse than it would have been 'but for' the defendant's breach of duty. There are cases where it is not possible to say whether or not she is worse off but causation is nevertheless established because the breach of duty has made a more than negligible (or material) contribution to the outcome. What though is the position in a conventional case of acute profound hypoxic ischaemia caused by breach of duty at the time of delivery?

The conventional 'but for' approach

2. The conventional approach is to take the end point as being when the baby is resuscitated following delivery and circulation restored so that the baby's heart rate is back to >100bpm. In 'acute profound' cases it is usually assumed that a baby can withstand 10 minutes of total (or near total) hypoxia without injury but that it will not survive more than about 30 minutes. Where a baby has cerebral palsy caused by acute profound hypoxia the usual legal approach will therefore:

a. firstly, identify the probable time of the onset of the terminal bradycardia (which will be not more than 30 minutes earlier than restoration of the circulation post-delivery);

b. secondly, see whether it is possible to argue that delivery should have been either before that point or within 10 minutes after it.

3. Such an approach enables the claimant to argue that all of the injury would have been avoided i.e. *'but for the breach there would have been no damage'*.

Is a 'material contribution' argument available?

4. There will be cases where either it is not possible to succeed on 'but for' causation or where different findings are possible as to how much earlier delivery should have been. The question then is whether the claimant can achieve a fall back position and succeed on the basis of material contribution to an indivisible injury?

Popple

5. The first case to consider material contribution in cerebral palsy was Popple v. Birmingham Women's NHS Foundation Trust [2012] EWCA Civ 1628. In that case the court (upheld on appeal) found that Nathan who was delivered at 1449 should have been delivered ten minutes earlier, by 1439. HHJ Oliver Jones QC found in the alternative that if he was wrong about that then Nathan should have been delivered by 1444.

6. He found that Nathan's brain damage was caused by a period of 15-20 minutes of acute profound hypoxia immediately prior to birth of which the first 10 minutes was non damaging. This enabled him to find 'but for' the delay Nathan would have been uninjured – because with delivery by 1439 he would have avoided any injury.

7. The judge then went on to consider the alternative case on breach and say that even if delivery should have been by 1444 i.e. only 5 minutes earlier, the Claimant would have established causation on the basis of material contribution.

8. The Court of Appeal, considering the scenario where delivery was at 1444 concluded that either causation would be established on the basis of 'but for' causation or 'material contribution'. See Ward LJ at 78:

"I agree with Mr Sweeting that all of the damage might have been done in the last five minutes before delivery i.e. after 1444 if the overall duration of the insult was 15 minutes. Some damage might have occurred during the five minute period prior to 1444 if the overall duration of the insult was 20 minutes, but there would still have been damage in the entire last five minutes from which Nathan would have been had he been delivered by 1444. It was not possible to say how much, if any, damage occurred prior to 1444, whereas all of the period thereafter must have been damaging. Thus on any view, a failure to deliver by 1444 either caused the damage in its entirety or made a material and probably preponderant contribution to it.

"The rule established by Bailey... is per Waller LJ at [46]

'In a case where medical science cannot establish the probability that 'but for' an act of negligence the injury would not have happened but can establish that the contribution of the negligent cause was more than negligible, the 'but for' test is modified and the claimant will succeed.'

"Here the negligent failure to deliver Nathan before 1444 caused all the damage if this was a 15 minute insult. Medical science cannot establish whether it was a 15 minute insult or a 20 minute insult. If it did take 20 minutes, the damage done in the last five minutes must have made a contribution to the overall harm which was more than minimal. I cannot see why the Bailey principle does not apply."

DS v. Northern Lincolnshire

9. The issue arose for a second time in DS v. Northern Lincolnshire and Goole NHS Trust [2016] EWCH1246 QB. In DS the claimant failed in his argument that there had been a 6 to 9 minute delay in delivery. Cheema-Grubb J found that at most there had been only a 3 minute negligent delay. The overall period of hypoxic ischaemia was 39 minutes. The judge's conclusion on material contribution was, in effect, that causation would have been established on the basis of a 9 minute delay but not with either a 6 minute or 3 minute delay.

10. The judge's conclusion is found from paragraph 196 onwards. See firstly, paragraph 196 vii):

"... on all the evidence I have read and heard, I am persuaded that if birth had been as much as 9 minutes earlier, a substantial proportion of the total hypoxic insult would have been avoided and although I cannot calculate it exactly I am satisfied on the balance of probabilities that it would have made a difference to DS's cognitive abilities so that although the care support he needed may have been the same his ability to manage himself, to make daily (not legal) decisions and the degree to which he would be able to join in his care would have been substantially improved."

11. This is in effect a finding that a 9 minute delay, had it been proved, would have led to a finding of material contribution in respect of the claimant's cognitive but not physical impairment.

12. Cheema-Grubb J then goes on to say at 196 viii in relation to six minutes of delay:

"... the Claimant has not persuaded me that it is likely he would have suffered materially less injury had he been delivered 6 minutes before 1529... DS was bound to suffer significant brain damage from the acute hypoxia following placental abruption until resuscitation and although a saving of 6 minutes before delivery and a consequential shorter period of necessary resuscitation may have made some proportionally minor difference to his cognitive functioning, it is impossible to say to what extent that saving of time would have improved his current condition."

13. I read that as a rejection of the material contribution argument. The judge though appears to have understood the test to be whether the claimant could prove that he would have been less injured. I would respectfully question that approach which is not what is normally understood by material contribution causation. In Bailey the whole point was that the Claimant could not prove that she would have avoided, or suffered less, brain damage had she been kept reasonably hydrated in hospital, the court could not say one way or another. All that could be said was that the failure of hydration had made a more than negligible contribution to the outcome. Similarly in Williams v. Bermuda, the court was not able to find that with earlier CT scanning and surgery the claimant would probably have had fewer cardiac and respiratory complications, only that the these had been contributed to by the delay.

14. The judge should have asked "would the outcome for DS probably have been the same in any event". If the answer was 'yes', then there could have been no material contribution. It was an error to suggest that the Claimant was required to prove how much less injured he would have been with earlier delivery.

15. In respect of three minutes she found at paragraph 197:

"On the basis of the negligent delay of 3 minutes I have found proved, my conclusion is that for all the reasons set out above, the Claimant has not proved on the balance of probabilities that but for the negligent delay in delivery of 3 minutes he would have not sustained brain damage or that the damage he has suffered would have been materially less severe in its impact on his ability and capacity."

16. Again, the question should have been *'would he probably have suffered the same injury in any event'* and it appears that the answer would have been 'yes'. Causation would therefore have failed anyway, but the test was wrong.

Discussion

17. In Popple the Defendant had the difficulty that the experts had agreed that the total period of hypoxia

was 15-20 minutes of which the first 10 minutes was probably non-damaging. This meant that the damage was done over a period of 5 to 10 minutes. The period of culpable delay was between 5 and 10 minutes. There was no option therefore for the defendant to argue that even with earlier delivery there would probably have been some damage in any event.

18. In DS the position was very different. Here the total period of hypoxia was 39 minutes, which was exceptionally long and difficult to explain. In that context the door was open to the defendant to identify a level of damage which would probably have occurred in any event because even taking the Claimant's case at its highest with a 9 minute period of culpable delay there would have been 30 minutes of non-negligent hypoxia. The judge made an attempt to divide the Claimant's injury based on the evidence of Dr Rosenbloom for the defendant and found that his physical function would have been similar but that he would have been less cognitively impaired. This would have been significant for the assessment of quantum because, relying on Reaney v. Staffordshire the defendant would have been able to argue that the same care would have been required in any event and, in all likelihood, most of the special damage claim would have disappeared. She, understandably, found that a 3 minute delay in the context of a total period of 39 minutes was not material.

19. It is important to understand that it is not enough for a defendant to prove that some damage would have occurred anyway unless it is possible to say 'how much'. See John v. Central Manchester [2016] EWHC 407 (QB). This was a case of a 44 year old man who suffered brain damage having fallen downstairs. He would undoubtedly have suffered some brain injury in any event but this was materially contributed to by a negligent delay in performing a CT scan and then surgery. In the period of delay he suffered damaging raised intracranial pressure. The judge, Picken J, refused to apportion damage as between the negligent and non-negligent causes, see paragraph 98:

"This brings me, then, to Mr Kennedy's submission that in a case such as the present the Court should engage in an apportionment exercise of the sort carried out in the Holtby case. I cannot accept that this can be right. First, I am in some doubt how this argument can work in circumstances where, as Mr Kennedy accepted during closing submissions, if the 'material contribution' test has been satisfied, then causation is made out. It seems to me that, if that is the position, then if the evidence is such that it is not possible to attribute particular damage to a specific cause, the claimant must be entitled to recover in respect of the entirety of his or her loss."

20. In particular CP cases the strength of the material contribution argument will depend on the facts – including the overall period of hypoxia, the length of the 'avoidable/ culpable delay' and nature of the injury. If (as in DS) there is a long period of hypoxia and a very short period of delay then it will be harder to argue for a material contribution than where (as in Popple) the period of delay and the period of damaging hypoxia are similar in length.

21. We know that some experts are attempting to divide hypoxic ischaemic injury and identify a level of injury that corresponds to the period of damage – as Dr Lewis Rosenbloom did in DS. Where this approach will work best for defendants is where it is possible to argue that there would have been profound damage in any event with little or no change in functional outcome or care needs. However for claimants, even in such cases material contribution may allow a claim to succeed in respect of some of the damage – for example a claim for plsa in respect of the degree of cognitive impairment.

22. Overall it would be wrong to generalise about the applicability of material contribution causation to cases of acute profound hypoxic ischaemia. Popple shows that the argument has a good foundation in law. Whether it applies to a particular case will depend on the expert evidence and the facts – in these cases as much as any other clinical negligence claim.