Causation and Divisible Injury, The 'Rocks Of Uncertainty':

CNZ (a minor) v Royal Bath Hospitals NHS Foundation Trust and Another [2023] EWHC 19 (KB)

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Introduction

1. *CNZ v Royal United Bath Hospitals NHS Foundation Trust* is a must-read for those practising in clinical negligence and especially for those practising in birth injury cases. However, the case also provides useful guidance on material contribution and apportionment. Ritchie J sketches out important parameters on the law on material contribution and extracts the important distinction between divisible injury and divisible outcome. The terminology can be nebulous unless a distinction is drawn between these concepts (injury and outcome) which Ritchie J provided with welcomed clarity. The law on material contribution has migrated from industrial disease to clinical negligence litigation and the judgment provides important guidance when a Claimant suffers an injury from a combination of tortious and non-tortious causes.

2. Ritchie J also addressed the extent to which *Montgomery* is retroactive. This article does not examine whether *Montgomery* applies to historic cases in detail, other than to say that Ritchie J made it clear that it 'probably' does in a 'tapered' or 'watered-down' form. It was opined that such questions, particularly relating to how far *Montgomery's* applicability dates back, are more appropriately answered by the Supreme Court.

Factual background

3. *CNZ* concerns the birth of twins, both born on 3rd February 1996. Twin one was delivered healthily at 00:01 on that date. Twin two, the Claimant, was born at approximately 01:03.

4. The Claimant, however, suffered 16 minutes of acute hypoxic ischaemic insult (PHI), as determined by the Court as the mid-point of 14-18 minutes, which began at 00:50. As the Claimant was born at 01:03, she suffered 13 minutes of acute PHI before birth and 3

minutes after birth (concluding at 01:06). The Claimant argued that she requested a caesarean section but her requests were refused and that when the hospital did finally decide to deliver the Claimant, it was carried out negligently as it was both late and caused the hypoxic ischaemic insult. Ritchie J found that the PHI endured by the Claimant was avoidable by necessary and prompt heeding by the treating obstetrician of the parents' wishes for a caesarean section, both in the treatment room and months in advance of her birth.

5. As a result of acute profound hypoxic ischaemia suffered before and after birth, the Claimant has quadriplegic cerebral palsy. While the first 10 minutes of PHI were non-injurious (from 00:50 to 01:00), the next six minutes were injurious (01:00 – 01:06). The Defendant's 6.5-minute delay in progressing the Claimant's mother to caesarean section (taken from a 5-8 midpoint) was found to have been negligent.

Causation & Material Contribution

6. In the Claimant's case, Ritchie J found that 'but for' causation was satisfied and concluded that the Defendant was negligent in delaying birth by 6.5 minutes. 'But for' the clinicians' negligent failure to provide the caesarean section, the Claimant would have avoided 6 injurious minutes of PHI in addition to 10 non-injurious minutes.

7. He did, however, explore the counter-factual to distil key principles in relation to the law on material contribution. Ritchie J opined that, of course, 'but for' causation does not always provide a definitive answer given the 'rocks of uncertainty' [341] that flow from scientific gaps in knowledge of tracking the extent of harm, or the nature of the functional outcome, caused by the negligence. The Courts have not shirked away from the challenge that rears its head when 'but for' causation is not applicable. Ritchie J examined the authorities such as Bonnington v Wardlaw [1956] AC 613 and Nicholson v Atlas [1957] 1 W.L.R 613 amongst others to map out the historic jurisprudence on the law on material contribution.

8. After exploring this jurisprudence, Ritchie J helpfully concluded that ***'where the but for test cannot be satisfied due to scientific gap impossibility then the law will apply the material contribution to the injury test. If the Claimant can prove the breach made a material contribution to the Claimant's injury which was more than de minimis then damages are to be awarded against the Defendant.'***

9. Ritchie J proceeded to explore the counter-factual on timings, specifically if the delay had been at the lower end of the range he decided upon, and the duration of PHI had been at the higher end. In light of the possibility that the delay *could* have theoretically been at the lower end of the range, he explored how the law would have applied if the Claimant suffered a period of negligent *and* non-negligent acute PHI. This naturally flowed on to his next point regarding the difference between divisible and non-divisible injury.

Apportionment, divisible and indivisible injuries and outcome

10. In order to grapple with this case and the relevant counter-factual, **Ritchie J further distilled the difference between divisible injury, indivisible injury and divisible outcome**. It was determined that brain damage caused by acute PHI is a 'divisible injury' because of the extent to which the damage materialises is related to dose.

11. The categorisation of diseases by Lord Philips in Sienkiewicz v Grief (UK) Ltd [2011] UKSC 10 is a helpful starting point to cut through the issues. Lord Philips opined that injury refers to harm that can be separated and attributed to specific causes. Each cause can be held responsible for a specific portion of the harm suffered. Where the harm is indivisible, the defendant is liable for the full harm. The parameters of these points were clearly defined when the useful analogy was made in relation to 'trigger' and 'dose related' injuries. Diseases such as malaria result from a single bite and infective agent. The severity of the injury is divorced from the fact the disease is caused by a single agent: *'the disease has a single, uniform, trigger and is indivisible'* [358]. Once the trigger is pulled, the disease progresses unaffected by any further dose.

12. Next, Ritchie J explained that a divisible injury is dose related and *'are started and then made worse by exposure to more of the noxious substance after they start.'* Ritchie stated in [362] *'that brain damage caused by PHI is not a trigger disease…The spread of brain damage due to PHI is wholly dose dependant.' 'Every minute of acute PHI over the first 10 minutes caused increasing or incremental brain cell deaths which could number in the tens or hundreds of thousands.'*

13. Ritchie J then considered the issue of apportionment in the context of divisible injury/disease cases. He opined that apportionment might be a fair way of apportioning damage in a divisible injury case, so long as a scientific gap did not exist. On the evidence provided, however, it was impossible to determine exactly how the harm would have manifested, other than on a purely conceptual basis.

14. Although the experts agreed that each minute after the acute PHI, following the tenth minute, caused damage, it was impossible to determine exactly how this damage would be quantified. Both neurology experts in the case advised that they could not track the severity of the functional disability on a minute-by-minute basis. Dr Rosenbloom attempted to classify the damage by presenting the 'Aliquot theory,' whereby the extent of harm could be measured in 5-minute tranches. Ritchie J, however, remained unconvinced by this theory and doubted its efficacy as an accurate tool.

15. Ritchie J found that apportionment was not possible on the facts of the case as there was 'clearly a scientific gap in the ability of all of the medical experts to predict with any accuracy the "but for" outcome for this claimant had she suffered say 1 to 3 minutes less acute PHI. He reasoned that **where there exists a scientific gap, in that it is impossible to adequately determine to what extent harm arose from negligence or non-negligence, the Claimant should be entitled to recover 100% of the damages**.

16. Hence, where the outcome is indivisible due to a scientific gap, Ritchie J concluded that Claimant should be entitled to recover 100% of their damages.

Conclusion

17. Although the jurisprudence in relation to material contribution, divisible injury and apportionment are arguably convoluted, Ritchie J provides a useful exposition of these principles at play.

18. *CNZ* provides particularly important guidance where there is more than one cause of injury, such as genetic abnormality or infection, in a child-birth injury. It will allow practitioners to understand the principles weighing on the Court's mind when there are both tortious and non-tortious injuries present within a factual matrix.

19. While Ritchie J's analysis was merely obiter, parties may be better advised to ensure that they focus, not only upon the distinction between divisible/ indivisible injury, but also whether the outcome is divisible or not. In my opinion, the important distinction between divisible injury and divisible *outcome* discussed by Ritchie J is equally applicable to all causes of hypoxic brain injury (and arguably any injury) where it is not possible, due to the scientific gap, to determine how much less injured the Claimant would be absent the 'non-negligent' cause.

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