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APPEAL REF: KA-2022-BHM-000049

IN THE HIGH COURT OF JUSTICE
KING'S BENCH DIVISION
BIRMINGHAM REGISTRY

ON APPEAL FROM
THE COUNTY COURT AT WOLVERHAMPTON

Date: 26th May 2023

Before :

MR JUSTICE RITCHIE

- -

BETWEEN

SURENA MASIH [1]
MIRIAM GHAFOOR [2]

Appellants/Claimants

- and -

THE ROYAL WOLVERHAMPTON NHS TRUST

Respondent/Defendant

Michael Redfern KC (instructed by **William Graham Law LLP**) for the **Appellants**
Robert Dickason (instructed by **Browne Jacobson LLP**) for the **Respondent**

Hearing dates: 12th & 15th May 2023

- -

APPROVED JUDGMENT

Mr Justice Ritchie:

The appeal

1. This is an appeal from a decision of HHJ Boora [the Judge] handed down at Wolverhampton County Court on 17 October 2022.

2. The Judge dismissed the claim with costs against the Claimants.

3. By notice of appeal dated 4th November 2022 (sealed 7th November 2022) the Appellants seek to obtain judgment on liability for damages to be assessed later.

4. Permission to appeal was granted on the papers by Eyre J on 21.2.2023 refusing all grounds except for: 1 and 7, 12-14 and 22-29.

Bundles and evidence

5. The Court was provided with various digital appeal bundles named as follows: (1) appeal hearing bundle; (2) supplemental bundle; (3) appeal bundle part 1; (4) appeal bundle part 2; (5) application for determination at hearing bundle; (6) Doc00205620230510150351.pdf; (7) skeleton arguments from both parties; (8) Masih Exhibits; (9) the Appellants' speaking note.

6. These bundles contained: 1,758 pages in the appeal bundle, which included the whole of the trial bundle and a bundle for the pre-trial review and 523 pages for the supplementary bundle. There was no core bundle of key medical records for the appeal.

7. No suggested reading list was provided and the Appellants' skeleton had no appeal bundle page references in it.

8. CPR 52B PD at para 6.4 requires that only relevant documents are put into the appeal bundle. The Appellants ignored that rule. It was a challenge to sort out what to read before the hearing. The PDF bookmarking of the digital bundles was inadequate and confusing. The bundles sent in just before the appeal were repeats of earlier bundles. In the event Counsel for the Appellants had a different bundle with different pagination.

Background facts

9. This was a tragic fatal accident claim arising from the death of Andrew Masih Mattu [I hope his family will not min me calling him Andrew] between 3.30 and 4.25 am on 8.1.2016 in the Defendant's New Cross Hospital, Wolverhampton. He had been admitted to ward A14 on 2.1.2016 with quite severe pancreatitis and was treated conservatively. He had been provided with an oxygen mask. His family had agreed with the hospital for the family to provide 24 hour supervisory care support. On 8.1.2016 he got up at night needing to go to the toilet and at just before 03.30 am, having handed his urine bottle (for measurement) to his cousin, Jonathan, he locked the cubicle door and suffered a wholly unexpected cardiac arrest. When Jonathan realised Andrew was not responding verbally

he called the nurses. They arrived and (according to the notes) they unlocked the door from the outside, after some difficulty, taking 2-3 minutes. They took him out of the cubicle and tried to resuscitate him. When they failed they made a crash call at 03.38 am and the resuscitation team arrived including Senior Registrar Berair [SRB]. Electrodes were put onto his chest. Andrew was in PEA (pulseless electrical activity of the heart, so no blood was being pumped around his body) for 25 minutes whilst they tried to resuscitate him through chest compression. Then he went into ventricular fibrillation so SRB could (only then) give Andrew's heart "shocks" to try to restore the rhythm. Three were delivered, alongside various heart stimulating injections, but by 04.25 am Andrew was in asystole (heart stopped beating and no electrical activity-flat lining) and so had died.

Pleadings

10. The Claim Form and Amended Particulars of Claim in the Appeal Bundle were undated. Andrew's family sued the hospital for damages under the *Law Reform (Miscellaneous Provisions) Act 1934* and the *Fatal Accidents Act 1976.* The breaches alleged included failing to transfer Andrew to ICU. On causation the Claimants pleaded that had Andrew been given ICU high dependency treatment involving: better fluid balancing; better oxygenation; perhaps mechanical ventilation or O2 intubation, all to prevent hypoxia occurring and causing the cardiac arrest, he would have survived. It was asserted that in ICU Andrew would not have gone to the toilet without his oxygenation. If he had been better oxygenated he would have survived. The lack of oxygen caused the arrest. It was specifically pleaded that the delay in opening the door of the cubicle was not causative on the Claimants' case. I note here specifically that there was no mention of ECG monitoring anywhere in the Amended Particulars of Claim.

11. In the Amended Defence, the Defendant admitted that Andrew should have been cared for in ICU from 5th January 2016 with "level two care", however the Defendant denied causation. The Defendant pleaded that Andrew had an oedematous and necrotic pancreas. He was stable on 7.1.2016. He was oxygenated properly with a mask on the ward. He could and did mobilise (walk about) on ward A14. He had no need for intubation or mechanical ventilation. He had no evidence of significant hypoxia. On the but for projection: whether, had he gone to the toilet from ICU, the same result would have occurred, it was pleaded that the probable cause of the heart stopping was undiagnosed arrythmia. The Defendant asserted that the crash response and result after the attack would have been the same on ICU.

12. Breach was admitted, so the issues for the trial were:
    (1) whether hypoxia caused the cardiac arrest (the Claimants' case);
    (2) whether Andrew would have been better ventilated in ICU such that the cardiac arrest would have been avoided and he would have been resuscitated.
    (3) Whether heart arrythmia caused the heart attack not hypoxia.

13. Before trial the Claimants' counsel wrote this in his skeleton argument:

> “(j) The evidence of hypoxia causing death is overwhelming and the likelihood of coincidental arrythmia is vanishingly unlikely upon logical, responsible, reasonable and respectable medical analysis of the Deceased’s in-patient treatment from 2.01.2016 to death in the early hours of 8.01.2016.”

14. Closing submissions were taken on 3 separate days: 16 May, 26 July and 13 September 2022. On the first day of closing submissions that Claimants pursued their originally pleaded case, so the Claimants wrote in their document entitled “Final Submissions” on 16 May 2022 that:

> “It is the Claimants' contention that on any logical, reasonable, responsible and respectable analysis the Claimants' argument on causation is highly persuasive. The Defendant's contention is speculative and lacking in specificity (sic) logical evidence."

15. It was therefore a considerable surprise to the Judge and the Defendant that on the second day of closing submissions, in July 2022, the Claimants’ case on causation due to hypoxia was abandoned and the Claimants accepted the Defendant’s case on the causation of Andrew’s cardiac arrest, namely arrythmia.

16. The Claimants applied to re-amend the claim as follows:

> “The Claimants' contention that hypoxia was the cause of cardiac arrest and death of Andrew Masih Mattu on January 2016 stands withdrawn”

And,

> "14(viii) (a) Failed, on or before 5 January 2016, to transfer Andrew to Level 2 Critical Care where, inter alia, he would have been on continuous ECG monitoring which would have immediately identified any ventricular arrhythmia and immediate intervention would have saved Andrew's life."

17. Despite the Defendant’s objection to this very late amendment of the fundamental issue in the case permission was granted. No appeal from that decision is before me.

The Claimants’ new causation case

18. So the Claimants had changed horses. They had not done so “mid-stream”, instead they did so right at the end of the crossing of the river. What then was the Claimants’ new case? To what type of horse had they changed?

19. The new pleaded case was based solely or mainly on ECG monitoring. Hypoxia was abandoned and the delay in medical staff getting into the locked cubicle had been expressly disavowed from the start.

The main issue in the appeal

20. The two real issues in this appeal in my judgment related to (1) whether, on the balance of probabilities, continuous ECG monitoring would have picked up the arrythmia and prevented cardiac arrest, and (2) whether resuscitation of Andrew in ICU would have saved his life. This involved asking whether the Judge wrongly accepted the Defendant's expert and lay evidence, when determining the Claimants' new case on causation, instead of the evidence, which the Claimants' sought to rely on in part two of their final closing submissions in July and September 2022.

Appeal - CPR 52

21. I take into account that under CPR rule 52.21 every appeal is a review of the decision of the lower court, unless the court rules otherwise or a practice direction makes different provision, it will not hear oral evidence or new evidence which was not before the lower court and will allow the appeal if the decision was wrong or unjust due to procedural or other irregularity.

22. This appeal is restricted to the evidence before the lower court. Additional pieces of evidence can only be allowed them into evidence under CPR rule 52.21(2) and the three grounds in *Ladd v Marshall* [1954] 1 W.L.R. 1489 (CA), namely that it was (1) not obtainable with reasonable diligence before the lower court, (2) would have an important influence on the result and (3) was apparently credible though not incontrovertible.

23. Under CPR rule 52.20 this court has the power to affirm, set aside or vary the order; refer the claim or an issue for determination by the lower court; order a new trial or hearing etc.

Findings of fact

24. For appeals on findings of fact and evidence I take into account the decisions in *Henderson v Foxworth* [2014] UKSC 41, per Lord Reed at [67]; *Grizzly Business v Stena Drilling* [2017] EWCA Civ. 94, per Longmore LJ at [39-40] and *Deutsche Bank AG v Sebastian Holdings* [2023] EWCA Civ. 191, per Males LJ at [48-55], which in summary require that any challenges to findings of fact in the court below have to pass a high threshold test. The trial Judge has the benefit of hearing and seeing the witnesses, which the appellate Court does not. The Appellant needs to show the Judge was plainly wrong in the sense that there was no sufficient evidence upon which the decision could have been reached or that no reasonable Judge could have reached that decision.

25. So, the threshold was summarised in *Deutsche Bank AG v Sebastian Holdings* [2023] EWCA Civ 191, per Lord Justice Males at [48] - [55] thus:

"48. The appeal here is against the Judge's findings of fact. Many cases of the highest authority have emphasised the limited circumstances in which such an appeal can succeed. It is enough to refer to only a few of them.

49. For example, in *Henderson v Foxworth Investments Ltd* [2014] UKSC 41, [2014] 1 WLR 2600 Lord Reed said that:

> "67. ... in the absence of some other identifiable error, such as (without attempting an exhaustive account) a material error of law, or the making of a critical finding of fact which has no basis in the evidence, or a demonstrable misunderstanding of relevant evidence, an appellate court will interfere with the findings of fact made by a trial Judge only if it is satisfied that his decision cannot reasonably be explained or justified."

50. We were also referred to two more recent summaries in this court explaining the hurdles faced by an appellant seeking to challenge a Judge's findings of fact. Thus in *Walter Lily & Co Ltd v Clin* [2021] EWCA Civ 136, [2021] 1 WLR 2753 Lady Justice Carr said (citations omitted):

> "83. Appellate courts have been warned repeatedly, including by recent statements at the highest level, not to interfere with findings of fact by trial Judges, unless compelled to do so. This applies not only to findings of primary fact, but also to the evaluation of those facts and to inferences to be drawn from them. The reasons for this approach are many. They include:
>
> (i) The expertise of a trial Judge is in determining what facts are relevant to the legal issues to be decided, and what those facts are if they are disputed;
>
> (ii) The trial is not a dress rehearsal. It is the first and last night of the show;
>
> (iii) Duplication of the trial Judge's role on appeal is a disproportionate use of the limited resources of an appellate court, and will seldom lead to a different outcome in an individual case;
>
> (iv) In making his decisions the trial Judge will have regard to the whole of the sea of evidence presented to him, whereas an appellate court will only be island hopping;
>
> (v) The atmosphere of the courtroom cannot, in any event, be recreated by reference to documents (including transcripts of evidence);

> (vi) Thus, even if it were possible to duplicate the role of the trial Judge, it cannot in practice be done ...
>
> 85. In essence the finding of fact must be plainly wrong if it is to be overturned. A simple distillation of the circumstances in which appellate interference may be justified, so far as material for present purposes, can be set out uncontroversially as follows:
>
> (i) Where the trial Judge fundamentally misunderstood the issue or the evidence, plainly failed to take evidence in account, or arrived at a conclusion which the evidence could not on any view support;
>
> (ii) Where the finding is infected by some identifiable error, such as a material error of law;
>
> 86. Where the finding lies outside the bounds within which reasonable disagreement is possible. An evaluation of the facts is often a matter of degree upon which different Judges can legitimately differ. Such cases may be closely analogous to the exercise of a discretion and appellate courts should approach them in a similar way. The appeal court does not carry out a balancing task afresh but must ask whether the decision of the Judge was wrong by reason of some identifiable flaw in the trial Judge's treatment of the question to be decided, such as a gap in logic, a lack of consistency, or a failure to take account of some material factor, which undermines the cogency of the conclusion.
>
> 87. The degree to which appellate restraint should be exercised in an individual case may be influenced by the nature of the conclusion and the extent to which it depended upon an advantage possessed by the trial Judge, whether from a thorough immersion in all angles of the case, or from first-hand experience of the testing of the evidence, or because of particular relevant specialist expertise."

26. The threshold was also, more recently, considered by Lord Justice Lewison in *Volpi v Volpi* [2022] EWCA Civ 464, [2022] 4 WLR 48, at paras. 2-4 and 52:

"2. The appeal is therefore an appeal on a pure question of fact. The approach of an appeal court to that kind of appeal is a well-trodden path. It is unnecessary to refer in detail to the many cases that have discussed it; but the following principles are well-settled:

(i) An appeal court should not interfere with the trial Judge's conclusions on primary facts unless it is satisfied that he was plainly wrong.

(ii) The adverb 'plainly' does not refer to the degree of confidence felt by the appeal court that it would not have reached the same conclusion as the trial Judge. It does not matter, with whatever degree of certainty, that the appeal court considers that it would have reached a different conclusion. What matters is whether the decision under appeal is one that no reasonable Judge could have reached.

(iii) An appeal court is bound, unless there is compelling reason to the contrary, to assume that the trial Judge has taken the whole of the evidence into his consideration. The mere fact that a Judge does not mention a specific piece of evidence does not mean that he overlooked it.

(iv) The validity of the findings of fact made by a trial Judge is not aptly tested by considering whether the judgment presents a balanced account of the evidence. The trial Judge must of course consider all the material evidence (although it need not all be discussed in his judgment). The weight which he gives to it is however pre-eminently a matter for him.

(v) An appeal court can therefore set aside a judgment on the basis that the Judge failed to give the evidence a balanced consideration only if the Judge's conclusion was rationally insupportable.

(vi) Reasons for judgment will always be capable of having been better expressed. An appeal court should not subject a judgment to narrow textual analysis. Nor should it be picked over or construed as though it was a piece of legislation or a contract.

3. If authority for all these propositions is needed, it may be found in *Piglowska v Piglowski* [1999] 1 WLR 1360; *McGraddie v McGraddie* [2013] UKSC 58, [2013] 1 WLR 2477; *Fage UK Ltd v Chobani UK Ltd* [2014] EWCA Civ 5, [2014] FSR 29; *Henderson v Foxworth Investments Ltd* [2014] UKSC 41, [2014] 1 WLR 2600; *Elliston v Glencore Services* (UK) Ltd [2016] EWCA Civ 407; *JSC BTA Bank v Ablyazov* [2018] EWCA Civ 1176, [2019] BCC 96; *Staechelin v ACLBDD Holdings Ltd*

[2019] EWCA Civ 817, [2019] 3 All ER 429 and *Perry v Raleys Solicitors* [2019] UKSC 5, [2020] AC 352.

4. Similar caution applies to appeals against a trial Judge's evaluation of expert evidence: *Byers v Saudi National Bank* [2022] EWCA Civ 43, [2022] 4 WLR 22. It is also pertinent to recall that where facts are disputed it is for the Judge, not the expert, to decide those facts. Even where expert evidence is uncontroverted, a trial Judge is not bound to accept it: see, most recently, *Griffiths v TUI (UK) Ltd* [2021] EWCA Civ 1442, [2022] 1 WLR 973 (although the court was divided over whether it was necessary to cross-examine an expert before challenging their evidence). In a handwriting case, for example, where the issue is whether a party signed a document a Judge may prefer the evidence of a witness to the opinion of a handwriting expert based on stylistic comparisons: *Kingley Developments Ltd v Brudenell* [2016] EWCA Civ 980."

"52 … It need hardly be emphasised that "plainly wrong", "a decision ... that no reasonable Judge could have reached" and "rationally insupportable", different ways of expressing the same idea, set a very high hurdle for an appellant.

[...]

54. These considerations apply with particular force when an appeal involves a challenge to the Judge's assessment of the credibility of a witness. Assessment of credibility is quintessentially a matter for the trial Judge, with whose assessment this court will not interfere unless it is clear that something has gone very seriously wrong. It is not for this court to attempt to assess the credibility of a witness, even if that were possible, but only to decide, applying the stringent tests to which I have referred, whether the Judge has made so serious an error that her assessment must be set aside."

The Grounds of appeal

27. The Appellants' grounds of appeal were wide-ranging, however, the grounds which are before me are narrow and summarised as follows. I have used English numbering instead of the Roman numerals originally used.

28. **One and Seven: Bolitho not applied, (***Bolitho* was not applied properly in relation to the "but for" projection and the Judge failed to accept the evidence of Mr. Curran relating to the but for projection which was central thereto).

29. **Twelve – Fourteen and twenty eight: Survival to Discharge,** (the Judge preferred the evidence of Dr. McCrirrick and wrongly rejected the evidence of Dr. Cripps and the articles relied upon by him which demonstrated that Andrew had an 83% chance of surviving pancreatitis and a 75% chance of surviving discharge from hospital).

30. **Twenty two – twenty seven, twenty nine: continuous ECG Monitoring would have saved Andrew's life,** (the Judge wrongfully failed to find that in ICU, on the but for projection, Andrew would have been on ECG monitoring continuously which would have identified ventricular arrhythmia and therefore led to faster intervention, which would have saved Andrew's life. Also letters from Mr Curran and Professor Johnson included opinions that Andrew's sudden death was not caused by pancreatitis but instead by a heart arrest or blood clot and Andrew's death was atypical and unexpected).

31. For all the other proposed grounds of appeal, the Appellants were not granted permission. So as to be clear about the grounds for which permission was NOT granted, they included allegations against the Judge of:

    (1) bias;
    (2) failure to read the Claimants' submissions;
    (3) wrongly alleging that the Claimants had dramatically changed their case;
    (4) failure to understand medical terminology, meanings and definitions;
    (5) wrongfully offering to the Defendant the chance to recall witnesses but not offering the same to the Claimants;
    (6) suggesting that the Claimants should abandon the case;
    (7) failing to understand the purpose of ECG monitoring;
    (8) failing to understand the dangers of lowered potassium and sodium and inadequate fluid balance;
    (9) failing to find that Andrew's health was deteriorating on the 7th of January 2016;
    (10) failing to reject Dr. Li's factual evidence;
    (11) failing to accept Dr. Bristow's "*excellent report";*
    (12) mishandling the hot tubbing procedure for expert evidence;

32. No application to renew the application for permission on the rejected grounds was filed at Court or made during the appeal.

33. Inevitably when, in a complicated clinical negligence case, some grounds are permitted and other are refused, there is overlap. In the Appellants' oral submissions, counsel ignored the boundaries between the grounds permitted and the grounds refused and made wide ranging submissions covering many of the disallowed grounds (except for the judicial bias allegation made against the Judge which was withdrawn). In this appeal, where there is overlap I will generally favour the Appellants and deal with the submissions made rather than exclude them for breaching the permission refusals, but I do not intend to lay down any precedent for doing so and I do not imply the grant of permission by doing so.

Speaking note

34. On the day of the hearing the Appellants' counsel sent my clerk (but did not C-efile) a document entitled "speaking note" which was used for his oral submissions. This did not separate out the grounds on which the Appellants had permission to appeal and concentrate on them, but instead dealt with all the original grounds, many of which, as set out above, the Appellants' had no permission to appeal upon. The Appellants' skeleton argument was not followed.

35. The "speaking note" was of little assistance to the Court in this appeal save as to the bundle references therein. It was an attempt to put in a supplementary skeleton argument and to avoid the need for permission to do so.

36. I consider that the purpose of a skeleton argument is to argue out and fulfil the permitted grounds of appeal. It gives the Respondent notice of the case it has to meet. It informs the Court in advance of the arguments in the appeal. It is not a formality to be abandoned at the hearing by the use of a speaking note.

Chronology of the Judge's findings

37. In his judgment the Judge recorded the Claimants' abandonment of their pleaded case on hypoxia during closing submissions. The Judge commented that, as a result, much of the evidence which he had heard on hypoxia had become irrelevant. The Judge also recorded that the Claimants had made no application to recall any witnesses to concentrate on the new case on arrythmia and ECG monitoring. In so far as there was a dispute about this during the appeal hearing I accept and find that no application was made by the Appellants to recall any witnesses at the trial.

The cardiac arrest

38. The Judge found, when accepting the factual evidence of Jonathan, that 30 seconds after their last conversation, Jonathan became worried because he had received no verbal reply from Andrew. He estimated the time as 03.30am. He shouted to the nurses who came immediately and it took them two to three minutes to get into the cubicle. When the door was opened he saw that Andrew was sitting on the toilet leaning against the wall. The crash trolley arrived 5 to 7 minutes later.

39. The Judge made no findings of fact in relation to the clinical notes in his judgment and did not refer to them. However, the following are relevant:

> "7/1/2016: 21.50 Outreach review, settled, has been SOB + sweaty following walk to toilet within side room. Now breathing back to normal for him. Feel comfortable now. 0 C/O pain. RR 20-25/min. Sats 95% on 8 L/min (O2 increased when SOB). … encouraged to deep breath + cough to expand lungs. BP: 158/100 … HR: 122/min … Output: inaccurate totals, Pt has been using toilet to void urine + no volumes recorded.

> Family member by bedside – advised to remind pt to use urinal so urine can be measured. Neuro: alert, calm, orientated, communicated appropriately, Temp above 38 degrees C, … Pain: states he feels comfortable – presently has no pain. …tending to go "clammy" with increased HR on exertion – when mobilising to toilet."
> "8.1.2016: Dr. R Berair on call medical SR. Cardiac arrest call at 03.38. … found unresponsive in toilet, vomit around mouth, CPR started, pads attached, initial rhythm = PEA.
> No vascular access, IO x 2 inserted fluid started, adrenaline given, oropharangeal airway inserted, biliary vomitous coming out, anaesthetist, fast bleeped, unable to intubate, CPR continued for 25 minutes, PEA throughout, VBG done …, at 25 mins rhythm changed to VF, shocked AED x 3 times, given amiodarone 300 x 1, 150mg x 1, at 33 min rhythm changed to asystole. CPR continued for 45 mins in total. … CPR stopped at 04.30. 04,45 unresponsive. No cardiac sound. … died."

Dr. Li

40. In his Judgment the Judge dealt with the evidence of Dr. Li. He was the ICU witness of fact from the hospital. The Judge noted that he advised that intervention would have been quicker on ICU. He gave evidence and the Judge recorded that the family of patients being given level 2 care at ICU could be allowed to visit and such patients could be permitted to go to the toilet. The Judge noted that fluid administration would be the same as on a ward and that alternative oxygen support was available. He gave evidence that hypoxia induced cardiac arrest would generally get a quicker response on level 2 than on the ward. In re-examination the Judge noted that Dr. Li said there would be no difference between ICU and the ward in relation to the locked toilet door. Likewise for the treatment once the door was opened.

Mr. Curran

41. Mr. Curran was the surgeon in charge of the ward. The Judge made various findings of fact. He recited Mr. Curran's evidence, including explaining that the outreach note set out above was made by an ICU critical care nurse on ward A14. He noted that Mr. Curran advised that Andrew's fluid balance was critical; there was no treatment for pancreatitis; pain relief would be given and Andrew's fluid balance would be maintained and then nature would take its course. The Judge recorded that Mr. Curran found Andrew's death a shock and sudden.

42. The Judge recited Mr. Curran's letter dated 5th January 2017 which set out that Andrew did not have organ failure, he had organ dysfunction, no signs of infection in his lungs and that he could not explain where the pathologist had got the information that Andrew was suffering alcohol withdrawal symptoms from, although it was likely to be the medical records.

43. Despite what was said in that letter, in evidence Mr. Curran advised that Andrew's behaviour on the 4th and 5th of January was alcohol withdrawal behaviour. Andrew had been seen by a drug and alcohol liaison team member on the 5th or 6th of January. Mr. Curran advised that an EWS score (of 9) which Andrew had on the 8th of January at 01.41 am was a "cause for concern". Mr. Curran advised that in the last two days of his life Andrew was stable and was not deteriorating. His condition worsened at 21.50 hours on the 7th.

44. I have read Mr. Curran's witness statement and there is nothing in that in relation to ECG and the but for projection. I have also read the transcript of Mr. Curran's evidence and in particular cross examination. No questions were put to him in relation to ECG monitoring or resuscitation or the but for projection based on ECG monitoring. The focus of the cross examination was on lung congestion and oxygenation. His letter of January 2017 was put to him by Claimants' counsel, but he was not asked to pass an opinion on Andrew's prospects of surviving resuscitation. In particular it is clear that he answered that the EWS value of nine was an early warning score to alert people to the fact that a patient might need reviewing. He was cross examined on the speed at which mechanical ventilation or intubation could occur on the ward to improve Andrew's oxygen intake. Mr. Curran did not accept that Andrew was on a downward spiral between the 6th of January and his death but instead asserted that he was stable.

45. In the appeal the Appellants relied on a letter from Mr Curran, dated 5th January 2017, sent to Andrew's family. This set out the diagnosis for Andrew which was pancreatitis, probably linked to excessive alcohol consumption and then alcohol withdrawal symptoms in hospital. Mr. Curran stated that Andrew's death was entirely unexpected and that Mr. Curran did not have any immediate concerns about his condition the day before his death. He stated that with severe pancreatitis some patients do not survive but usually their death is a long, slow process and not sudden and in hospital. He postulated that the cause of the death was more likely a blood clot or a heart attack but noted that the post mortem did not show any condition other than pancreatitis.

46. For the reasons set out in the Judgment the Judge did not find that letter persuasive in making the Claimants' case on the but for projection. It did not prove that Andrew would have survived if he had been in ICU. Nor was that letter expert evidence because he was a witness of fact, being the treating doctor. I agree with the Judge that evidence to prove the but for projection had to come from the Claimants' expert on ICU, Dr. Bristow or the cardiologist if they did not defer to the ICU experts. I will therefore dismiss any part of the appeal based on the assertion that the Judge failed to rely on the letter written by Mr. Curran.

Causation

Pancreatic experts

47. In his judgment the Judge then went on to consider the burden and standard of proof and ruled that it was for the Claimants to fulfil the burden of proof to show that Andrew would

have survived had he been on ICU instead of on the ward. The Judge found that the experts on pancreatitis deferred to the ICU experts on management and hence on causation. They were unable to advise on whether or how much improvement there would have been as a result of Andrew being in ICU. Neither pancreatic expert was called to give evidence and neither advised on the but for projection based on death caused by heart arrhythmia and whether the Claimants would have been successfully resuscitated on ICU. Thus any pre-claim letter written by Professor Johnson fell within that caveat.

48. The Judge noted that the Claimants sought to rely on 2 letters from Professor Johnson which were not in the trial bundle and were dated the 20th of March and the 1st of April 2019 in which he opined that Andrew would have survived if he had been in level two care. The Judge noted firstly that the letters were not CPR 35 compliant; secondly they were not in the trial bundle and thirdly they were based on miss-assumptions. The March 2019 letter was based on the assumption that Andrew died due to aspirating his vomit. The post mortem did not support that. After reading the post mortem Professor Johnson wrote his April 2019 letter accepting that Andrew did not die due to aspirating vomit and postulated he may have died due to a spasm of the larynx. The Judge noted that the Claimants at trial accepted that that assumption was not the cause of death. Therefore, for those additional reasons the Judge placed little or no reliance on the pre-claim letters of Professor Johnson.

49. I have read both letters from Professor Johnson. The first (March) is based on the false assumption which the Judge identified. The April letter proceeds on the basis of Andrew having insufficient oxygenation and that lack of oxygen causing the death through spasm of the larynx. The hypoxia case was abandoned by the Claimants so that undermined the letter. Professor Johnson also raised a confounding factor which was Andrew's consumption of cocaine and a concern he may have used this in the toilet before his death. What the Claimants sought to rely on was the last paragraph of the letter which stated:

> "In conclusion, I have outlined how I now understand the mechanism of death, I still say the Defendant was negligent and but for that Mr. Masih would have survived."

50. In my Judgment, quite properly, the Judge rejected relying on the evidence of a witness in an old letter who: (1) was giving an opinion but had not put this evidence into his report to the Court; (2) had not put a part 35 statement on the letter; (3) had not raised this evidence at the joint experts' meeting or in the joint report; (4) was not called to give evidence at trial and so was not cross examined upon it.

51. Therefore, I dismiss all grounds of appeal by the Appellants based on the letters of Professor Johnson. In my judgment the decision was rational and justified on the evidence.

The ICU experts

52. The Judge dealt with the evidence of the ICU experts, Dr. Bristow and Dr. McCrirrick in section K to L of his Judgment. In relation to Dr. Bristow he summarised the evidence given live during hot-tubbing. That was to the effect that in ICU with, level 2 care, he would not have been allowed to go to the toilet but would have toileted on a commode, behind a privacy curtain, using his oxygen supply and hence hypoxia would not have arisen causing the heart arrest. However, Dr. Bristow accepted that he had not heard Dr. Li's evidence to the contrary, that in the Defendant's hospital Andrew would have been permitted in ICU to go to the toilet alone, if he was mobile and his readings were satisfactory. Dr. Bristow accepted in evidence that if the toilet cubicle in ICU had been locked then the prospects of resuscitation would have been poor. In re-examination Dr. Bristow again advised the Court that Andrew should not have been allowed to go to a toilet without oxygenation on an ICU unit, or to lock himself into the toilet. He advised that the advantages of level 2 care would have been continuous ECG monitoring and saturation monitoring, strict bed rest, continuous oxygenation such that hypoxia would not have arisen and therefore death would not have occurred. If heart arrest had occurred the intervention would have been better, there would have been no lock on the toilet and the equipment and nurses would have been better. He advised that Andrew had only collapsed because he had hypoxia because he did not have his mask on.

53. The Judge found that as a result of the Claimants abandoning their case on hypoxia most of this evidence from Dr. Bristow became irrelevant. I agree, save for his one reference to the ECG monitoring which was not opened up or expanded on either in his report or the joint report or in his live evidence. It was not explored because during the trial continuous ECG monitoring was not a pleaded issue.

54. I have read Dr. Bristow's report and the joint ICU experts' report. In the report dated 1.8.2021. Dr Bristow advised thus:

> "65 Had Mr Masih been transferred to intensive care or for the purposes of my opinion high dependency care there would have been a number of changes in his treatment. First, he would have had one-to-one nursing or possibly one to 2 nursing at all times. **He would not have been allowed to get out of bed, and he would not have been allowed to go to the toilet except under direct supervision if all monitoring were normal immediately before. He would not have been able to lock the toilet door.** There would have been an accurate measurement of fluid output. Fluid intake would be both monitored and controlled. Importantly, he would have received active and regular chest physiotherapy as well as physiotherapy assessments and possibly the use of bronchodilators. Antibiotic therapy would have been assessed and reassessed and microbiology samples obtained if physiotherapy produced expectoration. Oxygen therapy would have been titrated so that oxygen requirements could be followed.

Continuous positive airway pressure or CPAP might have been used, but I do not believe that intubation or ventilation was warranted.
66 …
67 …
68 The arrest is not fully documented. The anaesthetist has not made any record. I find it unusual he could not intubate a young man who was not obese but we have no airway assessment nor previous anaesthetics. There is no record of how ventilation was continued but the arterial blood gas taken at 04.01 ie 31 minutes after the call and if accurately timed before stopping resuscitation shows an absolute lack of ventilation and circulation which in itself would prevent survival. The lack of a working defibrillator should never occur as the machine should be checked every morning. The Trust could be asked for the record of it being checked that morning together with a report on why it did not work, **but defibrillation was only indicated when ventricular fibrillation occurred, and the chance of a successful outcome after 25 minutes of PEA is less than 5%.** On the balance of probability had Mr Masih arrested on ITU (which I opine is unlikely) there would have been an immediately available anaesthetist and a working defibrillator.
69 The risk of death from severe pancreatitis is 10% (Banks, P.A., Bollen, T.L., Dervenis, C., et al. (2012) Classification of acute pancreatitis-2012: revision of the Atlanta classification and definitions by international consensus. British Medical Journal 62(1), 102-111.) rising to 25% in the case of intra-abdominal infection **so on the balance of probability Mr Masih would have survived with full support.** Significant pulmonary consolidation might together with fatigue increase the risk of needing invasive ventilation after 8 January had Mr Masih survived, and this would have its own mortality, but in my opinion the risk of death would not have reached 50%
70 The post-mortem excludes possible causes of death, such as myocardial infarction or pulmonary embolus, that might have occurred even on intensive care. The skin bruising, pericardial and pleural fluid, together with widespread abdominal necrosis is typical of progressive acute pancreatitis. The pathologist is correct that this has a high risk of death and often progressives to multiorgan failure. Mr Masih did not have multiorgan failure on 5 January: his urea and creatinine remained normal and his liver function tests merely demonstrated hypoproteinaemia reflecting the failure of nutritional support. The Trust could be asked for the biochemistry after this date as well as the temperature, pulse and blood pressure readings / MEWS charts which are missing from my bundle. This would help to demonstrate whether other organs failed between 5 January and the time of arrest. However, in the absence of significant hypotension, I

do not believe Mr Masih died because of multiorgan failure and **the mode of death is uncertain, but most likely an arrythmia. He would have been monitored if on intensive care and on the balance of probability an arrhythmia would have been treated successfully in a man of this age."** (My emboldening).

55. Thus Dr. Bristow's opinion in his report was that Andrew died due to arrythmia and would not have died had he been on level 2 care in ICU. The but for projection appears to have been based on the following assertions: (1) Andrew not being allowed to go to the toilet on ICU unless his monitoring was normal before he did so; (2) had he arrested on ICU he would have survived; (3) generally patients with severe pancreatitis survive to discharge; (4) arrythmia was probably the cause of death. It is therefore unexplained why the Claimants' case proceeded at trial on the basis that arrythmia was not the cause of the cardiac arrest.

56. In his joint report with Dr. McCrirrick they advised as follows:

> "**Q9** *Do you consider that, if the Deceased had suffered a cardiac arrest while using the toilet facilities on Level 2, he was unlikely to have been successfully resuscitated?*
> **AM:** In my opinion the prospects of successful resuscitation would only have very marginally improved had he been in a Level 2 facility at the time. Cardiac arrest with pulseless electrical activity (PEA) has a poor prognosis, with less than 10% of inpatients overall surviving to leave hospital. Prognosis improves slightly if PEA occurs in critical care environment, primarily because these patients are generally closely monitored, and such events are consequently usually identified rapidly. However, in this case, cardiac arrest occurred when the Deceased was unmonitored and unobserved and there would have been a significant delay in identification and treatment even had he been in a Level 2 facility, with initial resuscitation taking place in the unfavourable environment of a toilet. Even had the toilet door been unlocked and entry facilitated more quickly than was the case, in my opinion the prospects of successful resuscitation would not have improved sufficiently to make survival probable.
>
> **AB** The post mortem demonstrated no pulmonary embolus so Mr Masih had a true desire to empty his bowels. **It is alleged no nurse was available so his family assisted and called out twice at 5 minute intervals before not receiving a response the third time.** In my opinion Mr Masih would have become severely hypoxic off oxygen for perhaps over 15 minutes. **Although I cannot exclude a coincidental arrythmia, in my opinion a hypoxia induced arrest**

> **would be more likely.** As an anaesthetist I encounter such events and they are responsive to ventilation and anticholinergics. **The delay in opening the cubicle was therefore crucial.** The failure to intubate would have prolonged and exacerbated the hypoxia. The lack of a working defibrillator is noted. **I believe that had oxygen been continued Mr Masih would not have arrested. If he had arrested on level 2 and been immediately resuscitated there would have been a good chance of survival had the arrest been due to hypoxia.** I agree that PEA has a poor prognosis but PEA could only have been recorded some time after Mr Masih lost consciousness. **Even if his death was due to an arrythmia, this would have been detected immediately on level 2 where he would have had a continuous ECG displayed and defibrillation would have occurred if necessary within possibly 60 seconds.** Other resuscitation techniques including oxygenation and drugs would on the balance of probability have been immediately available. In my opinion Mr Masih would not have gone into PEA from sinus rhythm but would have initially demonstrated another arrythmia." (My emboldening).

57. It can readily be seen that Dr. Bristow's advice in the joint report was as follows: (1) the locked toilet door was crucial. But I note that the Claimants had rejected that assertion in the Amended Particulars of Claim and never applied to amend the claim to plead it. (2) That it took 5-10 minutes for nursing staff to reach Andrew and get him out. That was not the evidence of Jonathan, Andrew's cousin or the nurses. Jonathan's evidence was that he took 30 seconds to call the nurses and they came and the toilet door was opened in 2-3 minutes. (3) Hypoxia caused the cardiac arrest. That case was abandoned by the Claimants in closing submissions. (4) In ICU, the oxygen supply would not have been stopped for Andrew to go to the toilet. But Dr. Li, the ICU witness of fact from the Defendant, stated that if Andrew was mobile he would have been allowed to go to the toilet without his oxygen mask. (5) If arrythmia had caused Andrew's issues he would have survived on ICU because it would have been detected immediately and he would have been defibrillated (shocked) in 60 seconds or so. Thus there was evidence before the Court relating to the but for projection from Dr. Bristow about continuous ECG and survival but it was not his primary advice to the Court.

58. In the joint report further relevant answers were given on causation:

> **Q12.** *Do you agree that the description at paragraph 5 of the witness statement of Mr Jonathan Masih of the Deceased's mobilising to and using the toilet, and speaking and calling out to his cousin from within, is not suggestive of a patient imminently peri-arrest due to hypoxia? The experts are to refer to paragraph 5 of the written statement of Jonathan Masih.*

> **AM:** Yes. In my opinion the Deceased's status at the time he mobilised to the toilet was not suggestive of imminent cardiac arrest from hypoxia or any other cause.
> **AB** Cardiac arrest can be sudden and I have witnessed patients talking well under 5 minutes before arresting**. However I consider a hypoxic arrest more likely.** Patients continue to be conscious and capable of speech, their oxygen levels may then fall in well under 5 minutes (the time from last contact to no response) and they become unconscious.
> **Q13**. *Do you consider that the likeliest cause of death was a cardiac arrhythmia?*
> **AM:** In my opinion the most likely cause of the Deceased's collapse was a sudden and unpredictable cardiac arrythmia that rapidly progressed to cardiac arrest secondary to pulseless electrical activity. I suspect the act of going to the toilet precipitated the arrhythmia.
> **AB** Mr Masih was at risk of a cardiac arrythmia but it would be a coincidence for it to occur at the very time he locked himself in the toilet. I note Dr. Cripps' comments about a Valsalva but still consider a hypoxic arrest from having his oxygen suddenly withdrawn when highly oxygen dependant to be more likely. It is also possible the hypoxia led to a cardiac arrythmia and again I refer to Dr. Cripps' report." (My emboldening).

59. I have read Dr. McCrirrick's report. He advised that Andrew should have been in ICU by 5th January 2016 and that the Defendant was in breach. This was then admitted by the Defendant. He advised on causation as well. In ICU he advised that a face mask would have been used for oxygenation agreeing with Dr. Li. Dr. McCrirrick accepted that Andrew became more difficult to manage on the 6th and 7th of January due to confusion. He did not accept that this was caused by hypoxia. Andrew's oxygen saturation readings were between 94% and 100% throughout. He did not accept that fluid management would have been different in ICU. He considered that intubation and ventilation were not called for on the 7th of January. He did not accept that when Andrew mobilised to go to the toilet he became more confused due to lack of oxygen. He considered that the monitoring on ICU would not have been significantly different in relation to going to the toilet and accepted Dr. Li's factual evidence that Andrew would have been permitted to do so. He advised that Andrew would have been advised to take a portable oxygen cylinder with him but that this would not have affected the outcome. He advised the Court that aspiration of vomit was not likely to have been the cause of death, neither was laryngospasm. He wrote:

> "… Although the Deceased's arterial oxygen saturation would have decreased to an extent whilst he was off oxygen, on the balance of probability, this would not have been sufficient to cause him to collapse

> or suffer cardiac arrest. In my opinion cardiac arrest would not have been prevented even had he gone to the toilet whilst breathing oxygen from a portable oxygen cylinder."
> …
> "7.6 In my opinion, the Deceased suffered an acute event after he locked himself in the toilet, the nature of which cannot be absolutely determined from the evidence available. On the balance of probabilities, it was a complication of pancreatitis that was most likely cardiac in nature although I defer to a cardiology expert for a definitive opinion.
> 7.7 In summary I do not consider there is evidence to support the hypothesis that the Deceased died from a gradual progression of his disease that could have been identified and treated had he been in a High Dependency environment (whether from 4th or 5th January). This position is particularly hard to support given that he was able to mobilise to the toilet independently, which in my view suggests cardiac arrest was a result of an acute and unpredictable cardiac event. On the balance of probability death could have been neither predicted nor prevented and was not a consequence of any action or omission with respect to the care provided."

60. Dr. McCrirrick's evidence to the Court, which the Judge accepted, was that hypoxia was not the cause of the heart issues. Andrew's oxygen saturation would have needed to have dropped much lower in the short time he was off the mask and Andrew was talking to Jonathan a few seconds before he suffered the attack which would not indicate that he was hypoxic at the level needed to cause a heart arrest. This issue was of course conceded later by the Appellants.

61. Dr. McCrirrick also advised that Andrew probably would not have had continuous ECG in ICU because he was not a cardiac case. The resuscitation in ICU would have been similar or the same and Andrew's chances of survival, for days and/or to discharge from hospital, would have been the same. The Judge accepted that evidence.

62. The challenge which the Appellants faced on appeal was that the Judge rejected Dr. Bristow's evidence and preferred that of Dr. McCrirrick. The Judge did not spend much time dealing with the joint report of the ICU experts. He focused instead on their oral evidence. At section L the Judge decided that he preferred the evidence of Dr. McCrirrick. He was impressed by Dr. McCrirrick and unimpressed by Dr. Bristow for the reasons set out in section L. He found Dr. Bristow obfuscated and his evidence was confusing. He was surprised that Dr. Bristow abandoned cardiac arrest as the cause of death at the start of his evidence, a case which he had put forwards all along before that time. He was unimpressed by new theories which Dr. Bristow raised in his evidence which were not properly elucidated or explored in his report or the joint statement with Dr. McCrirrick (infection; Atropine etc.). Dr. Bristow had not read the Defence so did not realise that the Defendants' case was that arrythmia caused the heart to stop and

hence death. He informed the Judge that he could think of no other cause for Andrew's cardiac arrest, when in his own report, he had come to that conclusion and in the joint report accepted that possibility. Dr. Bristow had the timing of events after Andrew's collapse completely incorrect (the 5-10 minutes point). His evidence on hypoxia was undermined by his answers in cross examination as well. He accepted he was not right to advise on Andrew's oxygen saturation levels after the arrest.

63. Those reasons are amongst the classic tests for a first instance Judge to use to determine which expert witness to prefer. Although no cases were cited before me in this appeal on the guidance given to first instance Judges on how to assess and prefer expert evidence, there are many: qualifications; internal consistency; flexibility in the face of changed facts; independence; good preparation; attention to detail; mastery of the relevant facts; clarity of expression and reasoning; logicality; staying within the field of expertise and presentation are all matters which a first instance Judge will take into account when assessing credibility. The editors of *Phipson on Evidence* (current edition) say the following about assessment of expert evidence:

> "45-27 How is one to choose between competing experts? Demeanour is usually of no assistance, nor is credibility an issue in the vast majority of cases. That said the various matters to be taken into account may be summarised as follows:
>
> (1) The qualifications, expertise and practical experience of the expert. In many cases the professional qualifications of the experts are broadly comparable. A view may need to be taken in any particular case of the practical experience of the expert in the precise field that relates to the issues in the action on which he is giving expert evidence. There are numerous examples in the authorities of judges preferring one expert over another because he has more practical experience or familiarity with the matters in issue.
>
> (2) The published work or other material such as reports in other cases of the expert which may be inconsistent with the evidence being given.
>
> (3) Any weakness or inconsistencies arising from cross-examination.
>
> (4) Whether the expert's evidence comes across as impartial and objective.
>
> 45-28 Where the court rejects an expert's evidence or prefers one expert over another, the reasons for this must be set out in the judgment, *Flannery v Halifax Estate Agencies Ltd* [2000] 1 W.L.R. 377; *Simetra Global Assets Ltd v Ikon Finance Ltd* [2019] EWCA Civ 1413 at [38]–[47]; see paras 33-66 and 33-82."

64. The Judge gave clear and cogent reasons for rejecting Dr. Bristow's evidence and for accepting Dr. McCrirrick's evidence and nothing in the grounds of appeal, the Appellant's submissions, the evidence or the judgment leads me to consider that the Judge was plainly wrong in that assessment. In any event, assessment of a witness's credibility is a matter primarily for the trial Judge not the Appellate Courts. I did not see the witnesses give evidence.

65. I dismiss the appeal on all of the grounds asserting that the Judge's decision to prefer the evidence of Dr. McCrirrick over that of Dr. Bristow was plainly wrong or unjustified or irrational. It was a decision which in my judgment was one which a reasonable Judge could make on the evidence.

The cardiology evidence

66. Dr. Richard Cooke reported for the Claimants. He advised as follows:

> "42. The principal cause was hypoxia and if the Deceased's oxygen levels had been maintained and he had avoided hypoxia on balance of probabilities he would not have sustained cardiopulmonary arrest.
> 43. I defer to an ITU specialist as to whether hypoxia was avoidable, to what extent his underlying medical condition was treatable, and in matters relating to outcome if he had been treated with an acceptable standard of care.
> 44. …
> **45. The survival to discharge from in hospital cardiac arrest is between 20% and 30%, so once this occurs the outcome is poor.**
> 46. The initial survival after cardiopulmonary arrest with return of cardiac output (ROSC) is more than 50%. Survival after this will depend on factors such as age, underlying medical condition, the sequelae of any delays in resuscitation such as neurological injury.
> 47. In a level 2 setting or in ITU once the arrest occurred he would have received prompt resuscitation. **Survival reduces by approximately 10% for every 1 minute of delay time.** A delay time no more than 3 minutes is the standard of care advised by the UK Resuscitation Council.
> 48. The delay time between the Deceased's cardiopulmonary arrest and resuscitation is a matter of evidence. The Deceased's relative was in the room and alerted the nursing staff when he was worried that the Deceased was no longer answering his calls. There were issues with opening the door to the en-suite toilet. The nursing record indicates that this was opened with a coin within 60 seconds, and is a matter of evidence.
> 49**. It is reasonable to consider that if he had received prompt resuscitation in ITU or level 2 setting he would have been successfully resuscitated and his outcome determined by his underlying medical condition."** (My emboldening).

67. The hypoxia case advanced in paragraphs 42 and 43 of the report was abandoned by the Claimants. Paragraph 45 did not support the Claimants' case on but for resuscitation being more likely than not in ICU. Paragraph 46 never factually occurred and does not answer the but for question. Paragraph 47 assumes prompter or faster arrival of the crash team in ICU. Paragraph 48 is a matter of evidence. Paragraph 49 begs the question.

68. In my judgment the key period, in relation to whether resuscitation would have been successful, would have been between:

    (1) minutes 2-3 after the collapse (so 03.32-03.33 am) when the nurses got into the toilet; and
    (2) the arrival of the crash team (after they were called at 03.38) perhaps 03.39 am when they started the work of resuscitation and found A's heart in PEA as soon as the pads were put on.

69. This was around a 6 minute gap. The Judge accepted the evidence that there was a 10% reduction in the prospect of success for every minute of delay. A 6 minute delay would therefor reduce the prospects of survival by 60%.

70. When SRB applied the ECG pads he found Andrew's heart was in PEA which the experts agreed was not a "shockable" condition and poor prognostically. It necessitated CPR. A key issue was whether the heart was in VF (ventricular fibrillation) during those 6 minutes and so still shockable back into rhythm. The Judge did not so find. The Judge found on Dr. McCrirrick's evidence that the outcome of resuscitation would have been the same in ICU.

71. Dr. Cripps, the Defendant's cardiologist, advised that Andrew was not in need of cardiovascular support at any stage. He advised on causation as follows:

> "33. It is probable that given his significant pericardial effusion straining at stool would be likely to have a profound effect on his blood pressure which could precipitate a ventricular tachyarrhythmia or a PEA arrest.
> 34. There was some delay in attending him after his collapse (though this was reportedly brief and this was unlikely to affect the outcome) and this would be ample time for an initial ventricular arrhythmia to degenerate to PEA.
> …
> 37. Although there was some deterioration between 20:56hr and 02:59hr, he was not hypoxic and while disconnection from the oxygen would have caused a drop in O2 saturation, it is not probable that this would be so profound that a cardiac arrest would occur.
> 38. I consider that on balance the cardiac arrest would still have occurred even if he was on Level 2 care and his oxygen was continued (so far as

he would tolerate it while straining at stool). It is not probable that the cardiac arrest was caused by hypoxia. Although he had a high oxygen requirement, this was adequate to maintain his oxygen levels based on saturations and blood gases. He was able to mobilise to the toilet and converse with his cousin shortly before his cardiac arrest."

72. On causation Dr. Cripps advised in his second report thus:

> "**Prognosis and Life Expectancy**
> 8. If the cardiac arrest could not have been avoided, he would not on balance have survived. He was a worse than average risk in view of his severe inflammatory illness, and in-hospital cardiac arrest (particularly where the first identified rhythm is PEA) is very poor.
> 9. In Reference 1 (*Andersen)* there was around a 25% survival after in hospital cardiac arrest. Even the best possible scenario, with a shockable rhythm, leads to around 45% survival, still below the balance of probability level."

73. The cardiologists' joint report concentrated on hypoxia. At question 6 they were asked whether Andrew would have survived if he had been in ICU. Both refused to advise because the question was outside their expertise.

74. In cross examination it was put by Mr. Redfern KC to Dr. Cripps that the *Andersen* paper showed that A had a better than 50% prospect of survival with resuscitation. This was the exchange:

> "A. No, I do not think that is what it says. It is true that those factors would put him in a more favourable group for resuscitation, but his medical condition very much puts him in a less favourable group.
> Q. If you could just go back, please, to the chart with you extracted in your report from that paper, which appears at page 113, this is a graph, and it is headed: "Survival after in-hospital cardiac arrest 2000-2017."
> JUDGE BOORA: What page is that, please?
> MR REDFERN: This is the Andersen paper we have been looking at, and just for the sake -----
> JUDGE BOORA: Page...?
> MR REDFERN: We are looking at it as it appears in the report from Dr Cripps at page 113. (To the witness) So, we look at the shockable rhythm, don't we?
> A. Yes.
> Q. And for the purpose of analysis here, we look at the black line, don't we, between the dotted lines?
> A. Well, no. The dotted lines are very important because they show the range -- as your Honour commented -- there is clearly going to be a

range of outcome for cardiac arrest, and those dotted lines show you the range.
Q. Yes, well, just -----
A. And even the upper end of the range is well below 50%.
Q. Well, just a moment. I have not formulated a question yet.
JUDGE BOORA: Well, he was answering your question."

75. The Judge made a finding in line with that evidence.

76. The Judge also dismissed the claim on causation because he found that Dr. Li's evidence was credible and was not challenged in cross examination. Dr. Li gave this evidence in chief in his witness statement:

> "19. I understand that it has been alleged that if Andrew had been managed on Level 2 care he would not have visited the toilet unaccompanied. As a matter of fact this is not the case. Level 2 patients are nursed in a bay rather than individual rooms and have access to shared toilet facilities rather than ensuite. They are permitted to mobilise independently to the toilet if they can do so safely and that is their preference. Andrew would have been provided with a portable oxygen canister to take with him to the toilet, if he wished to use the facilities privately. On Level 2 HDU visitors would only be allowed during visiting times set during the day, so his family would not have been able to be present overnight, but Andrew would have been provided with nursing care at a ratio of 1 to 2 patients if he requested or required assistance mobilising to the toilet.
> 20. The notes indicate that, although Andrew had been provided with a urine bottle, he preferred to use the toilet independently (whether or not taking his urine bottle with him). The records note "Output: Inaccurate totals. Pt has been using toilet to void urine + no volumes ???? Family member by bedside advised to remind pt to use urinal so urine can be measured." Please see the note marked "Exhibit YWL12"."

77. The Judge found that the Claimants had failed to put their commode only case to Dr. Li, so failed to challenge the evidence that in ICU Andrew would have been allowed to go to the toilet himself if he could mobilise. Having read the transcript that is clearly correct. No appeal is made from that part of the decision. Nor could it have been. It is the responsibility of the Claimants' legal team to put their case to the defence witnesses with whom they are at issue. This was not done. In any event the Judge accepted Dr. Li's evidence and made factual findings based upon it. I can find no reason for upholding any ground of appeal which seeks to undermine the findings which are based on Dr. Li's credibility and on the lack of challenge to key parts of his evidence.

Chances of successful resuscitation in the but for projection

78. The Claimants carried the burden of proof on causation. The Claimants sought to prove that if Andrew had been in ICU on the balance of probabilities he would have survived. To prove causation the Claimants needed to call expert evidence firstly as to what would have happened in ICU (the but for projection) and then what would have resulted from that but for projection (namely whether Andrew would have survived).

79. On the facts of the but for projection, the Judge found that Andrew would not have been restricted to toileting on a bed pan in ICU with ECG and oxygen attached, but would have been permitted to mobilise to the toilet. He also found that Andrew would not have complied with being banned from mobilising to the toilet either. There is no permitted ground of appeal from that decision and none would have succeeded had permission been granted. That decision was a matter for the trial Judge having heard Dr. Li and noted that he had not been cross-examined on the but for projection about bed pans.

80. Therefore the Appellant's case on appeal rests on overturning the Judge's findings in relation to resuscitation if Andrew had collapsed in a locked toilet in ICU. The Judge found on Dr. McCrirrick's and Dr. Cripps' evidence that on balance Andrew would not have survived resuscitation had he been in ICU so the claim failed. The ICU experts agreed that if the door in the ICU toilet had been locked then the result for Andrew would have been the same in any event (Judgment O11). That is the end of the matter in reality unless no reasonable Judge could have accepted the evidence of those experts and in my judgment the Judge was entitled to accept their evidence.

Dr. Cripps' Papers

81. In the grounds Appellants' counsel submitted that: *"any reasonable analysis of that material demonstrated that the Deceased had an 83% chance of surviving severe acute pancreatitis…"* Setting aside the hyperbole in that submission, the first matter to consider is where the 83% figure came from.

82. Dr. Cripps' evidence on causation is set out above. He advised that at best Andrew had around a 45% chance of survival and a paper by *Andersen* was relied upon.

83. In the Appellants' submissions much was made of three medical papers attached to the second report of Dr. Cripps on long term life expectation. It was submitted that the Judge refused to interpret the papers in the way that Appellants' counsel indicated they should be interpreted. It was submitted that Andrew had a CASPRI score of 0-4 which meant he had an 83% prospect of successful resuscitation and hence survival to discharge from hospital.

84. However, the Appellants accepted that no expert had carried out a CASPRI score analysis either in their reports or in the joint reports. It was introduced in live evidence. Dr. Bristow said in his evidence in re-examination that the score could be 6.

85. The main paper relied upon by Mr. Redfern KC was by *Andersen et al* published in the JAMA 2019 March 26; 321 (12), 1200-1210. It was a study of in hospital cardiac arrest. The abstract says this:

> "Abstract
> IMPORTANCE—In-hospital cardiac arrest is common and associated with a high mortality rate. Despite this, in-hospital cardiac arrest has received little attention compared with other high-risk cardiovascular conditions, such as stroke, myocardial infarction, and out-of-hospital cardiac arrest.
> OBSERVATIONS—In-hospital cardiac arrest occurs in over 290 000 adults each year in the United States. Cohort data from the United States indicate that the mean age of patients with in- hospital cardiac arrest is 66 years, 58% are men, and the presenting rhythm is most often (**81%) non-shockable (ie, asystole or pulseless electrical activity).** The cause of the cardiac arrest is most often cardiac (50%-60%), followed by respiratory insufficiency (15%-40%). Efforts to prevent in hospital cardiac arrest require both a system for identifying deteriorating patients and an appropriate interventional response (eg, rapid response teams). The key elements of treatment during cardiac arrest include chest compressions, ventilation, early defibrillation, when applicable, and immediate attention to potentially reversible causes, such as hyperkalemia or hypoxia. There is limited evidence to support more advanced treatments. Post–cardiac arrest care is focused on identification and treatment of the underlying cause, hemodynamic and respiratory support, and potentially employing neuroprotective strategies (eg, targeted temperature management). Although multiple individual factors are associated with outcomes (eg, age, initial rhythm, duration of the cardiac arrest), a multifaceted approach considering both potential for neurological recovery and ongoing multiorgan failure is warranted for prognostication and clinical decision-making in the Post–cardiac arrest period. Withdrawal of care in the absence of definite prognostic signs both during and after cardiac arrest should be avoided. Hospitals are encouraged to participate in national quality-improvement initiatives.
> CONCLUSIONS AND RELEVANCE—An estimated 290,000 in-hospital cardiac arrests occur each year in the United States. However, there is limited evidence to support clinical decision making. An increased awareness with regard to optimizing clinical care and new research might improve outcomes. In-hospital cardiac arrest is an acute event that can potentially affect any hospitalized patient. For the purposes of clinical care, research, and guideline development, in-hospital cardiac arrest (as opposed to death without resuscitation) is most commonly defined as the loss of circulation prompting resuscitation with chest compressions, defibrillation, or both. **Traditionally, in-hospital cardiac**

arrest has been viewed as a condition with such poor outcomes that resuscitation may not even be warranted. Although outcomes remain poor, recent data suggest improvement over the past 2 decades. One reason for this improvement might be an increased awareness of the influence that clinical management can have on outcomes in patients with in-hospital cardiac arrest and cardiac arrest in general. Despite this increased interest, in-hospital cardiac arrest remains a somewhat neglected condition compared with out-of-hospital cardiac arrest and other cardiovascular conditions, such as stroke and myocardial infarction. For example, in a systematic review of all randomized clinical cardiac arrest trials (n = 92) involving at least 50 patients from 1995 to 2014, only 4 (4%) exclusively involved patients with in-hospital cardiac arrest. Although guidelines for in- and out-of-hospital cardiac arrest are almost identical, there are important differences between the conditions that warrant consideration (Table 1). In this review, we discuss adult in-hospital cardiac arrest, including epidemiology, causes, management during and after cardiac arrest, characteristics related to outcomes, prognostication, and quality improvement. There are relatively few randomized clinical trials of patients with in-hospital cardiac arrest (Table 2). Therefore, much of the current knowledge is based on observational studies primarily from large registries, extrapolation of results from trials of out-of-hospital cardiac arrest, and expert opinion." (My emboldening).

86. Under the heading "results" the authors wrote this:

"In a review from 2007, survival (most commonly to hospital discharge) varied from 0% to 42% between studies, although most larger studies reported survival around 20%."

87. The Appellants' counsel in submissions relied on the table at page 20 of the paper which set out the determination method for the CASPRI score. Having made his lawyer's calculation of "4" he then relied on the footnote which reads as follows:

"Figure 2. **The Cardiac Arrest Survival Post resuscitation In-hospital** (CASPRI) Score Reprinted from Chan et al,84 where a detailed description of the score's interpretation is presented. **Scores of 0-4 are associated with 83% survival,** 15-19 are associated with 23% survival, and 30-34 are associated with 2% survival. CPC indicates cerebral performance score; VF/VT, ventricular fibrillation or ventricular tachycardia." (My emboldening).

88. The table is a reproduction of another author's work, namely *Chan et al* 2012 Arch. Intern. Med. 172; (12) 947-953. That paper was not before the Court.

89. The evidence before the Judge was that the *Andersen* paper was relied on in part by Dr. Cripps when advising that Andrew's but for projection of surviving resuscitation was 45% at best.

90. In my judgment, without evidence in the experts' reports and joint reports on the correct CASPRI scoring for Andrew, its relevance to resuscitation on the facts (if any) and whether it is at all determinative of the issues, on the evidence put before the Court, the Judge was entitled to make the findings which he did on causation and survival after resuscitation in the but for projection. He assessed the expert witnesses and gave reasons for his preferences. The decisions made by the Judge on Andrew's survival chances, had he been in ICU, are neither plainly wrong nor conclusions which no reasonable Judge could reach, on the contrary, they were findings of fact which he was entitled to reach. The Appellant's CASPRI score assertion was rejected by the Judge and rightly so. It was forensic fluff, not reported upon, not jointly considered by the experts, and not tested in cross-examination.

Adverse Inferences

91. There was no permitted ground of appeal based on adverse inferences and the law relating thereto. However, Appellants' counsel persisted in his submissions that the Judge was wrong in part T of the judgment to fail to make adverse inferences against the Defendant due to its failure to provide various missing pieces of evidence or medical notes. The missing evidence was: no root cause analysis; no resuscitation report; no mortality meeting notes; no General Surgical Governance meeting notes, and a failure to call the resuscitation registrar, SRB.

92. The Judge did have the notes made by SRB about the resuscitation efforts and the nurse's note.

93. With no ground of appeal there is no ruling which I am required to make on those submissions. Nor, had permission been granted, would I have acceded to the submissions which were made. The Defendant had provided the notes relating to the resuscitation and the Claimants had an eye witness.

Taking each Ground in turn

94. **Grounds One and Seven: Bolitho not applied** The relevant paragraphs of *Bolitho* v *City and Hackney HA* [1998] AC 232, which the Appellants assert the Judge did not follow, are not set out in the grounds, the skeleton or the speaking note. In my judgment, the Judge addressed the burden of proof properly. He considered the but for projection of what would have happened in ICU (had there been no breach). He considered the expert evidence and made reasoned decisions on which evidence was more credible, which he preferred and gave his reasons. He considered whether Andrew would have gone to the toilet or used a commode in ICU; whether Andrew would have received

different oxygen support in ICU; whether Andrew would have been required to take oxygen with him to the toilet; whether Andrew would have had continuous ECG monitoring; whether he would have been supervised; whether the toilet would have been locked and what would have happened during resuscitation. The Appellants' real complaint here is that the Judge rejected the Claimants' expert evidence from Dr. Bristow, which is a different point. In my judgment the submission that the Judge failed to consider the but for projection is without foundation.

95. As for Mr. Curran's letter, which is set out above, the Judge expressly considered it. Mr. Curran was a witness of fact not an expert in the case. Most of his factual evidence was accepted by the trial Judge. The Appellants' ground 7 rests on this one letter dated 2017, written long before the claim was started, which the Appellants seeks to raise to the level of expert opinion, which it is submitted should overwhelm and put in the shade all of the evidence from the various other experts who were fully instructed to consider all of the evidence and to give reports thereon and who gave live evidence before the Judge. In my judgment the letter does not determine the issues in the case. It is of very little weight. It is not in part 35 format. It was not expert evidence. It was not delivered after instructions to write an opinion for the Court after considering all of the evidence. Whilst it was raised in cross examination, the line of questioning did not raise the conclusions therein any higher in evidential value. I am not sure that I understand how the letter was "central to *Bolitho*": per ground 7 in any event. I consider that the expert evidence which was served and called was central to the but for projection which the Judge had to consider and which he made findings upon, not the pre-claim letter.

96. For the reasons set out above, the *Bolitho* grounds are dismissed.

97. **Grounds Twelve – Fourteen and twenty-eight: Survival to Discharge:** In my judgment the Judge was entitled to prefer the evidence of Dr. McCrirrick over that from Dr. Bristow and was not wrong to do so. On the contrary, he gave plenty of good reasons for doing so. As for the evidence of Dr. Cripps, on causation, he advised that Andrew would not have survived if the heart issues had arisen in ICU. The Appellants' grounds miss-state what he actually advised the Court. In relation to the papers he cited and produced for his opinion on long term life expectation (a different issue to resuscitation survival) if Andrew had been discharged from hospital, their use by the Appellants to construct the Claimants' last minute case based on a CASPRI score, which their own experts did not set out in their reports, is without any solid expert foundation. These grounds of appeal do not meet the thresholds in the cases summarised above for appeal on findings of fact and expert opinion and are therefore dismissed.

98. **Twenty two – Twenty-seven and Twenty-nine: ECG Monitoring would have saved Andrew's life** The Judge accepted the evidence of Dr. Li about what would have been done in ICU. He was entitled to do so. Dr. Li was not cross examined on the major part of the case which the Appellants subsequently sought to argue. The finding was that Andrew would have been able to mobilise and attend the toilet himself with supervision

and without ECG leads. Having accepted that factual evidence and having preferred the evidence from Dr. McCrirrick, the Appellants' case that he would have had continuous ECG whilst using a commode on ICU was rejected. The Judge noted there was no evidence called from the Appellants' cardiologist as to what the continuous ECG would have shown in ICU before Andrew took off the pads and went to the toilet.

99. The Appellants' submissions also sought to raise the weight and significance of the pre-action letters of Professor Johnson to the status of powerful expert evidence which should have been preferred over the opinions of (1) Professor Johnson himself in his reports; (2) all other experts whose evidence the Judge found to be persuasive and convincing. I consider this submission is without merit. The opinions in the letters were not repeated in the Professors' report. The issues were not put forwards in the joint meeting with his counterpart, Professor Sagar. Neither expert was called to give evidence because there was no real dispute between them after the joint report. No application was made to call the Professor. No cross examination on the letters took place, so the views therein were not explained or tested. The letters were a record of his view at the time, made without consideration of the full factual or expert evidence in the claim. Nor, on the analysis made above of their contents, do they actually say what the Appellants seeks to extract from them. They were based on misapprehensions about the cause of Andrew's death.

100. In any event in their evidence to the Court, the pancreatic experts deferred to the ICU experts and cardiologists on survival from resuscitation. For these reasons I dismiss these grounds.

Conclusions

101. For the reasons set out above I dismiss the appeal on all grounds for which permission has been granted. None of the grounds pass the test for challenging findings of fact or the Judge's assessment of the expert or lay witnesses.

102. I cannot leave this judgment without expressing my sorrow for and sympathy with the suffering of the family of Andrew.

103. I invite submissions on the costs and the consequentials to be provided to my clerk within 7 days of the handing down of this judgment.

END