Neutral Citation Number: [2019] EWHC 581 (Admin)

Case No: CO/2002/2018

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
ADMINISTRATIVE COURT IN MANCHESTER
DIVSIONAL COURT

Manchester Civil & Family Justice Centre
1 Bridge Street West, Manchester M60 9DJ

Date: 12 March 2019

Before :

THE RIGHT HON. LORD JUSTICE HICKINBOTTOM
THE HON. MR JUSTICE PEPPERALL

- -

Between :

THE QUEEN **(on the application of JOHN PAUL CHIDLOW)**	**Claimant**
- and -	
HM SENIOR CORONER FOR BLACKPOOL AND FYLDE.	**Respondent**
-and-	
(1) CHIEF CONSTABLE OF MERSEYSIDE **(2) NORTH WEST AMBULANCE SERVICE**	**Interested Parties**

- -
- -

Ifeanyi Odogwu (instructed by **Broudie Jackson Canter**) for the **Claimant**
Alison Hewitt (instructed by **Sefton Council**) for the **Defendant**
There being no appearance by the First Interested Party
Ana Samuel (instructed by the **North West Ambulance Service NHS Trust**) for the **Second Interested Party**

Hearing date: 26 February 2019

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Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

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MR JUSTICE PEPPERALL:

1. Carl Bibby fell ill in the night of 27/28 July 2009. An ambulance was called but there was admitted delay in the response of the North West Ambulance Service NHS Trust (NWAS). During that delay, Mr Bibby suffered cardiac arrest and died. He was only 38.

2. At the inquest in respect of his death, the jury heard evidence from a consultant in Critical Care & Emergency Medicine that had paramedics attended Mr Bibby before he suffered cardiac arrest, he would, on the balance of probabilities, have survived. Nevertheless, the coroner ruled that it was not safe to leave the issue of a causal link between the delay and Mr Bibby's death to the jury. By these judicial review proceedings, Mr Bibby's brother, John Chidlow, seeks a declaration that the coroner acted unlawfully, an order quashing the record of inquest and an order that a fresh inquest be held before a different coroner.

THE FACTS

MR BIBBY'S DEATH

3. On the evening of 27 July 2009, a neighbour heard banging and screaming inside Mr Bibby's home in the Kirkby area of Liverpool. She called the police who arrived at the scene shortly before midnight. A police officer saw Mr Bibby lying on the floor in his flat and called the police control room in order to request an ambulance. The first call to NWAS was made at 23:54. The police reported that a male was threatening suicide and was lying on the floor within his property. This call was graded with the amber code 25B06. This signified that the patient was believed to be suicidal and called for a bravo-level response.

4. At 00:03 on 28 July, the police forcibly entered Mr Bibby's flat. They found him lying on his back with his head titled back. They noted that his complexion was grey, his breathing laboured and his pulse fast. At 00:10, the police made a second call to the ambulance service notifying them that Mr Bibby was now fitting. This information was logged, but the case was not re-prioritised.

5. By 00:30, police officers noted that Mr Bibby's breathing remained laboured and that he was grey in colour. Limb restraints were used as Mr Bibby was pushing back. A few minutes later, Mr Bibby made a last gasp and then stopped breathing. The officers recorded that his body went limp.

6. At 00:36, a police officer called NWAS again. The case was initially upgraded to 25D01. While still an amber code, the upgraded delta-level response would allow the call handler to dispatch a rapid response vehicle. The police explained that the patient was not breathing and that he was unconscious. The case was then upgraded to 09E01, a purple code which signifies that the patient is in cardiac arrest. It is the highest possible priority and required an 8-minute vehicle response.

7. At 00:38, the police called again. They asked when the ambulance would arrive and explained that Mr Bibby was now in cardiac arrest. The four police officers carried Mr Bibby through to his lounge and started cardiopulmonary resuscitation while they waited for the ambulance. A fifth call was made to NWAS at 00:42 when the police said that the patient was neither conscious nor breathing.

8. The first ambulance arrived at the scene at 00:46. On arrival, paramedics found that Mr Bibby was asystolic (i.e. there was no electrical activity from his heart), his pupils were fixed and he was not breathing. Further resuscitation was hopeless and Mr Bibby was certified dead at the scene at 00:47.

9. John Kilroe, an Emergency Control Centre Training & Development Manager for the Cheshire and Merseyside Area of NWAS, made a statement although he had retired by the time of the inquest. A colleague therefore gave evidence confirming Mr Kilroe's evidence. Mr Kilroe asserted that the initial call had been correctly graded, but that the failure to upgrade the case in response to the call at 00:10 had been an error. Mr Kilroe explained, at paragraph 9 of his statement:

> "I can confirm that call number two was incorrectly coded as the Emergency Medical Dispatcher who took the call should have re-prioritised the case to reflect the patient's clinical deterioration (patient was now fitting). If this had been recoded it would have been prioritised as a red 8-minute vehicle response."

10. Mr Kilroe then considered the resources available to NWAS on the evening of 27/28 July 2009 and concluded that, had the second call at 00:10 been properly coded with an 8-minute vehicle response time, a rapid response vehicle would have been available and would have arrived at Mr Bibby's flat at approximately 00:20. The ambulance therefore arrived some 51 minutes after the original emergency call to NWAS and 36 minutes after the second call at 00:10 which, on Mr Kilroe's evidence, should have led to the urgent dispatch of a rapid response vehicle.

THE INQUEST

11. The inquest in respect of Mr Bibby's death was heard by HM Senior Coroner for Blackpool and Fylde, Alan Wilson, and a jury between 12 and 22 February 2018. It is a matter of concern that the inquest was so badly delayed. In fairness to Mr Wilson, I should, however, observe that the case was originally to be heard by another coroner. A challenge to the first coroner's conduct of the inquest led to earlier judicial review proceedings, thereby causing inevitable delay and leading to that coroner's decision to recuse himself in June 2017.

Medical evidence

12. The jury heard that post-mortem examinations conducted by Dr Gradwell on 28 July 2009 and Dr Richard Shepherd, a Home Office pathologist, on 3 August 2009 failed to establish a medical cause of death. There was also a separate examination of Mr Bibby's heart by Dr Mary Sheppard, a consultant cardiac pathologist. She also found nothing remarkable but

raised the possibility of an electrical abnormality such as a channelopathy and noted that alcohol withdrawal can cause cardiac arrythmia and fitting.

13. Two further pathologists, Dr Brian Rodgers and Dr Nathaniel Cary, were instructed for the purposes of the inquest. Each reported and, after discussion of the evidence, Drs Shepherd, Rodgers and Cary agreed that the cause of death was unascertained. They specifically agreed that there was no evidence of any natural disease, that a sudden cardiac event such as a channelopathy was unlikely and that there was no evidence of any toxicological cause of death. By their joint report, they added:

> "The history suggests that the deceased may have been suffering from an acute behavioural disturbance. If it is accepted that the deceased was a chronic alcoholic then the finding of a minimal blood alcohol level raises the possibility that the deceased was suffering from acute withdrawal. This might explain his acute behavioural disturbance."

14. Dr Shepherd recorded that Mr Bibby was a known alcoholic and that there were some changes in his liver that would accord with alcohol abuse.

15. In his report, Dr Cary considered the possibility of a link between struggling against restraint and death. He reported:

> "In cases of this kind there are many factors believed to underline the development of cardiac arrest. Position, including being prone and restriction of breathing through pressure on the chest and indirectly on the abdomen through being in contact with the ground are not the only potential factors that operate. Equally important is the effect of prolonged struggling, which is often akin to isometric exercise where muscles expend energy but there is little if any movement. Prolonged struggling against restraint and the extreme levels of exercise that it may entail has a strong potential to cause lactic acidosis and muscle breakdown known as rhabdomyolysis. The latter can be associated with acute elevations in potassium which of itself has a negative effect on the heart. In these circumstances cardiac arrest is likely to occur as a result of the combined effects of several factors including lactic acidosis, the possibility of a raised potassium level and hypoxia from restriction of breathing as a result of the restraint itself. Hypoxia may develop quite suddenly and be the final feature prior to collapse."

16. In their joint report, the three pathologists agreed:

> "Any potential role for struggling and restraint in causing or contributing to death will be dependent on evidence adduced at the inquest. At present the circumstantial evidence is somewhat vague and contradictory and until a clearer picture emerges, we feel unable to comment either way."

17. Dr Cary returned to this theme in his oral evidence. The coroner summarised his evidence to the jury that it was "both possible and plausible" that restraint or struggling against restraint was the major cause of death or at least provided a more than minimal contribution. He added that Dr Cary acknowledged that the evidence of a link between restraint or struggling against restraint and death fell short of the balance of probabilities.

18. In addition to the pathological evidence, the inquest heard evidence from Dr Francis Andrews, a consultant in Critical Care & Emergency Medicine and a medical director of Advanced Life Support training. He was asked to address the question of whether Mr Bibby would have survived had he arrived at Accident & Emergency in a timely manner.

19. Dr Andrews first considered the likely diagnosis. In view of the post-mortem findings and family history, he was able to exclude a number of possibilities. He considered that the remaining possible diagnoses were airway obstruction, arrythmia, alcohol withdrawal and hypoglycaemia. He was able to exclude hypoglycaemia as "very, very unlikely." Dr Andrews explained that alcoholics suffering from withdrawal can present as agitated and confused. They can have a fast heartbeat and suffer fits, which could in turn lead to obstruction of the airway and cardiac arrest. It was, however, very unusual for alcohol withdrawal of itself to lead to cardiac arrest.

20. Dr Andrews concluded that it was impossible to reach a diagnosis other than to say that Mr Bibby became critically ill for a period of at least 25 minutes before cardiac arrest. Nevertheless, Dr Andrews concluded that arrythmia was the most likely diagnosis.

21. He then commented on the heart rhythm at the time of cardiac arrest:

> "… at the time of cardiac arrest, the actual heart rhythm may be a ventricular arrythmia such as ventricular fibrillation (commonest: random, fast chaotic and uncoordinated heart electrical activity) or ventricular tachycardia (fast arrythmia), or may sometimes show asystole (no heart electrical activity at all) or a very slow arrythmia by the time of cardiac arrest.
>
> Moreover, during cardiac arrest, the rhythm may progress from ventricular rhythm to asystole."

22. Turning to consider the course of events if the paramedics had attended before Mr Bibby's death, Dr Andrews reported:

> "Had the paramedics arrived before a cardiac arrest, I would expect them to have rapidly assessed the patient, looking at the airway, breathing, circulation, coma and any other external clues.
>
> From the information given, I would expect them to have rapidly identified that the patient was critically ill, opened the patient's airway if any sign of airway obstruction, given oxygen, put the patient on a heart monitor, put a drip in and rapidly transport to the nearest Emergency Department."

23. He then explained the interventions that would have been probable upon the admission of such a patient. As to survivability, Dr Andrews reported:

> " Had the paramedics arrived and commenced CPR within an earlier time after the onset of cardiac arrest, (the current standard is within 8 minutes), then the overall rate of return of the circulation in a group of such patients with a cardiac arrest would have been approximately 25% with an overall survival to hospital discharge of 12%,

according to recent data for NHS North West Ambulance Service, for all presenting heart rhythms.

It is generally accepted that the chances of survival would be higher if the presenting heart rhythm in cardiac arrest was ventricular fibrillation or ventricular tachycardia with over a doubling of survival to more than 25%.

Had the presenting heart rhythm been asystole or normal electrical activity but without a pulse then the chances of survival would be less than average.

I agree with the paramedic assessment that if the patient had been in asystole (i.e. no heart activity on the monitor) for 20 minutes then there would have been no chance of survival even with CPR.

Had the paramedics arrived prior to the onset of cardiac arrest then it is very likely that there would have been a marked increase in the chance of survival.

Data from the UK and United States suggest that survival of patients is markedly increased when paramedics arrived before the onset of cardiac arrest … or less than 4 minutes after the arrest (up to 50% survival in some studies).

Data from a large US study showed that survival from critically ill non-trauma patients attended to even by 8 minutes without cardiac arrest was still at least 80% of such patients with critical conditions such as coma, shock and so on.

Such figures should be interpreted with some degree of caution as there are very few other studies in this area to corroborate these findings.

Had the patient arrived in the emergency department in cardiac arrest, then this would be regarded as an 'out of hospital' arrest (with similar figures to those given for the North West Ambulance service) in a recent study from the United States.

If the patient had not been in cardiac arrest but a ventricular arrhythmia then treatment with a defibrillator to give a shock to restore a normal heart rhythm would have been even more successful with a high survival rate.

Patients who then go on to have implantable defibrillators have a more than 90% survival following an appropriate shock from such a device over the first year following them being fitted. This must be interpreted with caution as it can only be speculated that this patient may have had such an arrhythmia had the paramedics arrived within 8 minutes of the first call, then even in the worst-case scenario, this would have been about 25 minutes prior to the presumed cardiac arrest onset.

Had the paramedics arrived within 8 minutes of the second call, they still would probably have been there prior to the onset of cardiac arrest.

In fact, opening the patient's airway if required and giving oxygen would have bought even more time potentially for this patient prior to any cardiac arrest."

24. Dr Andrews concluded:

"His chances of survival would have initially modestly but incrementally increased from the paramedics arriving at an earlier stage of cardiac arrest, through arriving before the onset of cardiac arrest through to the patient arriving in the Emergency Department (ED) prior to any cardiac arrest.

If he had arrived in the ED alive, then cardioversion for a presumed ventricular arrhythmia would have been life-saving in the majority of such cases.

> However it must be emphasised that this patient may still have died even if he had reached the Emergency Department whilst still alive, especially if he had suffered a cardiac arrest soon after admission prior to any treatment or if he was not suffering from a treatable arrhythmia.
>
> By the time the paramedics actually reached this patient, his chance of survival was zero as essentially he was already dead and any attempt at resuscitation would have been futile.
>
> Had he arrived in an Emergency Department in a very timely manner, and still alive then in my opinion his chances of survival would have increased very significantly above zero and it is likely he would have more than likely survived rather than died given the most likely cause was an arrhythmia."

25. Dr Andrews gave oral evidence at the inquest over 3½ hours. The transcript of his evidence runs to 72 pages. He clarified that, in his opinion, the chances of survival if treated by paramedics before Mr Bibby was in cardiac arrest would have been "markedly increased … irrespective of the underlying diagnosis." He repeated that it was more likely than not that Mr Bibby would have survived with early treatment but conceded that "you never quite know" what the outcome would have been for any individual patient.

26. Agreeing that a cause of death would be of assistance in assessing Mr Bibby's chance of survival, Dr Andrews said:

> "It can help but it's not the be all and end all, the post mortem, that's the important thing. There are things that – you know, I think the point I was trying to make in my evidence is this, is that we don't have patients arrive in the Emergency Department with fast pulses and laboured breathing and then die, you know, if you like, we do things for them, and if they die you will see things like pneumonia, or whatever, and usually we'd know about heart rhythms and things like that which you won't see on a post mortem as well and I think that's my point is that there are things you can do. I agree with you, you haven't got the cause of death from the post mortem but my argument is there are things you can do before you get to a cardiac arrest.

27. Asked whether he was therefore speculating as to what a paramedic could have done, Dr Andrews explained that both doctors and paramedics deal with patients all of the time where they don't actually know the diagnosis. As he put it pithily:

> "You don't have to have a diagnosis in front of you to provide emergency care and also to save a patient as well."

The coroner's ruling

28. At the conclusion of the evidence, the coroner received legal submissions as to, among other matters, the availability of a conclusion of neglect by reason of NWAS's delay in attending upon Mr Bibby and whether he should direct the jury to consider a possible causal link between such delay and death. The coroner ruled that neither matter should be left to the jury.

29. The coroner reviewed Dr Andrews' evidence and the Chief Coroner's Guidance. He then ruled:

> "Again, having noted Mr (sic) Andrews' evidence on survivability, it seems to me that, in the absence of knowing the medical cause of death, it would be unsafe to put before this jury the possibility of returning any neglect rider. It cannot be established, in my judgment, that the rendering of care would have prevented the death if we do not know what the cause of death was. Further, I am not at all satisfied that the conduct (and I deal with this generally) of the police and/or ambulance personnel is capable of amounting to a gross failure for the purposes of neglect."

30. Rejecting Mr Odogwu's submission that he should exercise his discretion to leave possible, rather than probable, causes of death to the jury in accordance with the decision in R (Lewis) v. Mid & North Shropshire Coroner [2009] EWCA Civ 1403, [2010] 1 W.L.R. 1836, he added:

> "Straightforwardly, I disagree. In the context of 1a unascertained, I take the view strongly that there is all the more reason not to exercise discretion and to leave possibly causative features to the jury."

31. The coroner ruled that the jury should be directed to include in the record of inquest reference to NWAS's admitted failing. Such direction complied with his duty as identified in R (Tainton) v. HM Senior Coroner for Preston & West Lancashire [2016] EWHC 1396 (Admin), [2016] 4 W.L.R. 157. He ruled, however, that the case had to be viewed through the prism of the cause of death being unascertained and that it would not be safe to allow the jury to speculate as to causation.

THE LAW

32. Where, as here, Article 2 of the European Convention on Human Rights is engaged, the inquest must not only determine the usual statutory questions (who the deceased was and how, when and where he or she died) but must also record "in what circumstances" the deceased came by his or her death: s.5(2) of the Coroners and Justice Act 2009. The coroner must ensure an effective and independent investigation into the death.

GALBRAITH PLUS

33. When sitting with a jury, a coroner must give the jury directions as to the conclusions and findings that are properly open to it upon the evidence. In R (Secretary of State for Justice) v. HM Deputy Coroner for the Eastern District of West Yorkshire [2012] EWHC 1634 (Admin), Haddon-Cave J (as he then was) explained that when determining what conclusions or findings to leave to the jury, a coroner is required to consider a test that has become known as Galbraith Plus. There are two components to the test:

    33.1 First, the coroner is required to apply an evidential filter and ask whether there is evidence upon which the jury properly directed could properly reach the particular finding. This is of course the test used by a Crown Court judge in determining whether to leave a criminal charge to the jury: R v. Galbraith (1981) 73 Cr. App. R. 124, CA.

33.2 Secondly, the coroner is also required to consider whether it would be safe for the jury to reach the conclusion or finding upon the evidence.

34. As Haddon-Cave J observed at [23], the second limb arguably provides a "wider and more subjective filter":

> "In my view, this extra layer of protection makes sense in the context of a coronial inquiry where the process is inquisitorial rather than adversarial, the rights of interested parties to engage in the proceedings are necessarily curtailed and coronial verdicts are at large."

35. In many cases, there may be little difference between Galbraith Plus and pure Galbraith. Where there is evidence upon which a jury properly directed could properly reach a particular conclusion or finding then it is likely to follow that the jury could safely reach such conclusion or finding. The question of safety - as opposed to the sufficiency of the evidence – is, however, at the heart of these judicial review proceedings since, through counsel, the coroner:

35.1 accepts that there was evidence as to a possible causal link between the admitted delay in the dispatch of a rapid response vehicle by the ambulance service and death upon which a properly directed jury could make a finding of causation; but

35.2 maintains that he was nevertheless right not to leave the question to the jury because it would have been unsafe for the jury to find causation upon the evidence in this case.

CAUSATION

36. In R (Tainton) v. HM Senior Coroner for Preston & West Lancashire [2016] EWHC 1396 (Admin), [2016] 4 W.L.R. 157, Sir Brian Leveson P and Kerr J said, at [41]:

> "… it is common ground that the threshold for causation of death is not the same thing as the standard of proof required to prove causation of death. In cases such as this, the latter is proof on the balance of probabilities. It is agreed that the threshold that must be reached for causation of death to be established, is that the event or conduct said to have caused the death must have 'more than minimally, negligibly or trivially contributed to the death' (see e.g. R (Dawson) v HM Coroner for East Riding and Kingston upon Hull Coroners District [2001] EWHC Admin 352; [2001] Inquest LR 233, per Jackson J at paras 65-67). Putting these two concepts together, the question is whether, on the balance of probabilities, the conduct in question more than minimally, negligibly or trivially contributed to death."

37. It follows that the question of a causal link between the delay in the attendance of the ambulance service and death should have been left to the jury in this case if there was sufficient evidence upon which the jury could safely find that, on the balance of probabilities, such delay had more than minimally, negligibly or trivially contributed to Mr Bibby's death. For completeness, a coroner also has a discretion, but not a duty, to leave to the jury causes of death that are merely possible but not probable: R (Lewis) v. Mid & North Shropshire Coroner [2009] EWCA Civ 1403, [2010] 1 W.L.R. 1836, per Sedley LJ at [28].

38. This case raises the question of whether causation can be proved by statistical evidence as to the prospects that Mr Bibby might have survived had he received expert treatment in good time. A similar issue arose in two cases in which suspects died from drug overdoses in police custody. In R (Khan) v HM Coroner for West Hertfordshire [2002] EWHC 302 (Admin), a drug dealer sought to conceal a wrap of heroin by hiding it in his mouth as he was arrested. He resisted the police officers' attempts to get the drugs out of his mouth. Meanwhile, the package burst. Subsequently Mr Khan lost consciousness and stopped breathing. An ambulance was called but he was dead by the time that it arrived. On judicial review, it was argued that the coroner should have left neglect to the jury on the basis of the police's alleged delay in calling an ambulance. It was said that if the ambulance had arrived 8 minutes earlier, the paramedics would have administered an antidote to morphine poisoning and that there was a real possibility of saving Mr Khan's life.

39. Richards J (as he then was) held that the coroner had been right not to leave causation to the jury. He observed that the widow's case that there was a real possibility, rather than a probability, of saving Mr Khan's life was not enough. He added, at [43(v)]:

> "In the present case there was no exploration in evidence of whether it would have made a difference, in terms of saving or prolonging life, if the ambulance had arrived up to 8 minutes earlier. I reject as untenable any suggestion that it was open to the jury to infer that it would probably have made a difference. The evidence as to the antidote came only from a paramedic who, whilst saying that it usually works within a matter of seconds, went on to say, 'obviously in each case it's different.' Evidence from such a source was in any event insufficient. Whether the antidote would probably have made a difference if administered earlier (or even, I would add, whether it might have made a difference if administered earlier) required evidence from the medical experts. Such evidence would have had to take account of the fact that the deceased had taken a combination of heroin and cocaine. It would also have had to take account of the evidence as to the deceased's condition in the minutes before the ambulance arrived, including the speed of his decline into unconsciousness. Any attempt by the jury to reach conclusions on this issue in the absence of such evidence would be based not on legitimate inference and common sense but on impermissible speculation."

40. While obiter, Richards J plainly envisaged that expert medical evidence could have been adduced provided such evidence took account of not just the general efficacy of the antidote but also the evidence as to the drugs ingested and Mr Khan's condition.

41. In R (N) v. Coroner for the City of Liverpool [2001] EWHC 922 (Admin), the deceased swallowed heroin when stopped by the police in respect of a motoring matter. He saw a police doctor who certified him as fit to be detained but not fit for interview. Some hours later, the suspect collapsed in his cell. Attempts at resuscitation were not successful. In N, this Court held that the coroner had been wrong to fail to hear evidence from an Accident & Emergency Consultant as to the appropriateness of the treatment given by the police doctor, when the antidote should have been administered and the likely efficacy of the antidote.

42. While I keep in mind the coronial context in which the question arises in this case, it is instructive to consider the approach taken in clinical negligence cases. In Hotson v. East

Berkshire Area Health Authority [1987] 1 A.C. 750, a 13-year-old boy fell from a tree and sustained an acute traumatic fracture of the left femoral epiphysis. He developed avascular necrosis leading to disability of the hip joint and inevitable osteoarthritis. The Health Authority admitted negligence in failing to diagnose and treat the injury promptly, but argued that, even with prompt treatment, the boy would have suffered avascular necrosis. At trial, Simon Brown J rejected this argument and held that while there would have been a 75% chance of developing the condition even with prompt treatment, the negligent delay had caused the boy to lose a 25% chance of avoiding the condition. The judge awarded the claimant damages to reflect the loss of the 25% chance that he would have made a nearly full recovery.

43. The judge was, however, reversed by the Court of Appeal. In his judgment, Croom-Johnson LJ considered the relevance of the statistical evidence, at page 769B:

> "If it is proved statistically that 25% of the population have a chance of recovery from a certain injury and 75% do not, it does not mean that someone who suffers that injury and who does not recover from it has lost a 25% chance. He may have lost nothing at all. What he has to prove is that he was one of the 25% and that his loss was caused by the defendant's negligence. To be a figure in a statistic does not by itself give him a cause of action. If the plaintiff succeeds in proving that he was one of the 25% and that the defendants took away that chance, the logical result would be to award him 100% of his damages and not only a quarter, but that might be left for consideration if and when it arises. In this case the plaintiff was only asking for a quarter."

44. The House of Lords dismissed the boy's further appeal. Lord Bridge explained, at page 782C-F, that the judge's finding that there was in any event a 75% chance of necrosis meant that the plaintiff had failed to establish on the balance of probabilities that the delay in treatment was a material cause of necrosis. Rather, the evidence showed that on the balance of probabilities the plaintiff's fall left insufficient blood vessels intact to keep the epiphysis alive. Thus, in law, the fall was the sole cause of the necrosis.

45. The law in this area is not, however, without controversy. In their dissenting speeches in Gregg v. Scott [2005] 2 A.C. 176, Lord Nicholls of Birkenhead and Lord Hope of Craighead echoed the disquiet expressed by Latham LJ (in his own judgment in Gregg v. Scott) and by Waller, Carnwath and Laws LJJ in Coudert Bros. v. Normans Bay Limited [2004] EWCA Civ 215. Lord Nicholls said, at [46]:

> "The reason for this disquiet is not far to seek. The present state of the law is crude to an extent bordering on arbitrariness. It means that a patient with a 60% chance of recovery reduced to a 40% prospect by medical negligence can obtain compensation. But he can obtain nothing if his prospects were reduced from 40% to nil. This is rough justice indeed. By way of contrast, the approach set out above meets the perceived need for an appropriate remedy in both these situations and does no more than reflect fairly and rationally the loss suffered by a patient in these situations."

46. While I respectfully share such disquiet, the law on the point is clear. As the majority of the House of Lords confirmed in Gregg v. Scott, a claim for clinical negligence must be proved on the balance of probabilities and, if it cannot be, no separate action lies upon proof of a reduced chance of a positive outcome.

47. In Wardlaw v. Farrar [2003] EWCA Civ 1719, [2004] P.I.Q.R. P289, a GP negligently failed to diagnose a pulmonary embolus. The condition was subsequently diagnosed and the patient was treated in hospital but died. In seeking damages for her death, her widower relied on a study by the International Pulmonary Embolism Registry that while 85% of patients who were haemodynamically stable upon diagnosis survived, the survival rate fell to 41% when the patient was already unstable. Relying on Hotson, the plaintiff argued that causation had been established since the patient was haemodynamically stable at the point when she should have been diagnosed and therefore had an 85% chance of survival.

48. The claim failed because there was evidence that this patient did not respond to the usual beneficial effects of anti-coagulation therapy when she eventually received treatment in hospital. The known fact that this was a patient who did not respond to anti-coagulants therefore pointed to the probability that she was in the 15% group of patients who do not survive despite prompt treatment. Accordingly, the plaintiff had failed to prove causation.

49. Echoing Croom-Johnson LJ's observation that it is not enough to be a figure in a statistic, Brooke LJ commented, at [35]:

> "While judges are of course entitled to place such weight on statistical evidence as is appropriate, they must not blind themselves to the effect of other evidence which might put a particular patient in a particular category, regardless of the general probabilities."

50. Clerk & Lindsell on Torts (22nd Ed., 2017) observes at paragraph 2-30:

> "Care has to be exercised when relying on statistics as a means of establishing causation. The court must look at the claimant's individual circumstances rather than at the general statistics."

51. After citing Wardlaw, the editors of Clerk & Lindsell continue, again at paragraph 2-30:

> "On the other hand, care should be taken not to take the logic of this reasoning too far in the opposite direction. If the evidence is that, say, 80% of patients survive with prompt treatment, but 20% die even with prompt treatment, the fact that the patient died following delayed treatment does not establish that he probably fell into the 20% category at the outset and therefore the delay did not contribute to the death. The assessment of causation would turn upon the detailed medical evidence, both as to the overall statistical chances of survival and the particular condition and circumstances of the patient. To be a figure in a statistic does not, in itself, prove causation. The difficulty of using statistics, which derive from trends in general populations, to prove what 'probably' happened in a particular case is well recognised. Moreover, analysis of the factual basis for drawing appropriate conclusions from statistical evidence may be far from easy. In some respects a test based on a balance of probability gives the standard of proof a pseudo-scientific credibility. The notion that the event(s) in issue were more likely to have occurred than not, taking a balance of probability as 51:49, appears to confer on the decision-making process a degree of mathematical accuracy which simply is not available in most cases. Proof of causation is almost invariably

about a burden of persuasion, and sometimes statistics can be highly persuasive, when used appropriately."

52. From this review, the following principles can be identified:

52.1 In deciding whether to leave an issue of causation to a jury, a coroner should consider both limbs of the Galbraith Plus test. Causation should be left where there is evidence upon which the jury could properly and safely find that, on the balance of probabilities, the event or omission had more than minimally, negligibly or trivially contributed to death. That is the crucial test.

52.2 In considering whether it is safe to leave such an issue to the jury, a coroner must have regard to all relevant evidence. In addition to evidence relating to the particular deceased and the circumstances of his or her death, that may include general statistical evidence drawn from population data such as the rate of survival in a particular group.

52.3 Such general statistical evidence alone is, however, unlikely to be sufficient. For example, even where the rate is over 50%, a raw survival rate for the group into which (without the relevant event or omission) the deceased is said to fall is unlikely to be sufficient because, without evidence supporting the proposition derived from the population data , a jury could not safely conclude that he or she would have fallen into the category of survivors. As Croom-Johnson LJ put it, being a figure in a statistic does not of itself prove causation.

52.4 In most cases, there will be other evidence as to whether the deceased probably would or would not have fallen in the group of survivors. Where there is apparently credible additional evidence of causation which, if accepted, together with the general statistical evidence could properly lead the jury to find on the balance of probabilities that the event or omission more than minimally, negligibly or trivially contributed to death then it will usually be proper and safe to leave causation to the jury.

ARGUMENT

53. The Claimant does not challenge the coroner's ruling on neglect but does argue that the coroner was wrong in law not to leave causation to the jury. Ifeanyi Odogwu, who appeared for the family at the inquest as he did before this court, submits that the coroner failed to give proper weight to Dr Andrews' evidence, that he applied the wrong test of causation and that, upon a proper exercise of the Galbraith Plus test, he should have ruled that it was not unsafe to leave causation to the jury.

54. Mr Odogwu argues that Dr Andrews' evidence was not merely a matter of statistics but a careful forensic study of the post-mortem findings and the available evidence as to Mr Bibby's condition. While he presented the statistical evidence from the Denver study, Dr Andrews' opinion was properly rooted not just in the statistics but also his own professional experience and the available evidence in respect of Mr Bibby.

55. Alison Hewitt appeared for the coroner. While stressing that the coroner's position in these proceedings is neutral, she nevertheless seeks to justify his ruling. She argues that in the absence of a medical cause of death, it was not safe to rely on Dr Andrews' evidence as to causation. She points to the fact that the lack of medical observations prior to Mr Bibby's

death means that there was no evidence as to why he suffered a cardiac arrest and whether he first went into ventricular fibrillation or ventricular tachycardia, or whether he was asystolic throughout. Accordingly, she argues that it was not possible for Dr Andrews to form any opinion as to Mr Bibby's actual prospects of survival. She asks rhetorically what is it in Mr Bibby's case that would allow the jury safely to conclude that he was likely to have been in the survival group.

56. Further, Ms Hewitt submits that Dr Andrews did not in any event consider a realistic possible cause of death in that he did not address Dr Cary's thesis that the cardiac arrest had been caused by a build-up of lactic acidosis secondary to police restraint. She observes that the family were still pressing for a conclusion of neglect on the basis of the police actions at the conclusion of the inquest.

57. Ms Hewitt accepts that there would be no objection in principle to statistical evidence in a case such as Khan. Distinguishing Khan, Ms Hewitt argues that in this case there was no evidence as to the underlying sickness or, save his subsequent cardiac arrest and death, its effect on the body. By contrast, in Khan it was known that the prisoner died through drug intoxication.

58. Ana Samuel, who appears for NWAS, adopts Ms Hewitt's arguments. She adds that Dr Andrews' evidence was not personally tailored to Mr Bibby's case and that there was insufficient evidence safely to say whether Mr Bibby was likely to have fallen into the 80% or the 20%. She argues that it is not enough simply to reason that 80% is greater than 20%.

59. In reply, Mr Odogwu argues that the lactic acidosis case was not at the forefront of this case. No one asked Dr Andrews about it during his extensive evidence, the issue was not mentioned by the coroner in his ruling and, in any event, the coroner left no case to the jury on the basis of restraint.

ANALYSIS

60. I accept Ms Hewitt and Ms Samuels' submissions that the bare statistic that 80% of severely ill patients survive provided they receive expert treatment before they suffer a cardiac arrest is not sufficient to prove causation. I do not, however, accept their characterisation of Dr Andrews' evidence as essentially nothing more than statistics. Over the course of his written report and extensive oral evidence, the doctor explained his opinion on survivability. It was rooted in a number of matters:

    60.1 First, his own experience as a consultant in emergency medicine dealing with critically ill patients.

    60.2 Secondly, his reading of the other medical evidence in relation to Mr Bibby and specifically the post-mortem findings.

    60.3 Thirdly, his understanding of the available evidence as to Mr Bibby's condition when attended by the police and subsequently the ambulance service.

    60.4 Fourthly, statistics; here survival data from a number of studies, but principally a study from Denver.

61. Accordingly, this was not evidence that simply sought to prove that Mr Bibby was a figure in a statistic. Indeed, the very absence of findings upon post mortem meant that Dr Andrews could exclude a number of underlying health problems. Mr Bibby was not, therefore, suffering from any underlying disease or infection. The lack of any disease or infection in an apparently fit young man was a significant finding that Dr Andrews was entitled to take into account in order to determine in his professional opinion whether Mr Bibby was more likely than not to fall into the 80% of severely unwell patients who are expected to survive with prompt treatment.

62. Equally, Dr Andrews gave careful consideration to the possible causes of Mr Bibby's death and analysed his prospects of successful treatment in respect of such causes.

63. The essence of the coroner's ruling was, however, not any principled objection to statistical evidence but his view that any evidence as to survivability was necessarily speculative, and therefore unsafe, given the absence of clear evidence as to the cause of death. In my judgment, the coroner fell into error in concluding that the lack of a clear cause of death prevented the jury from being able to consider the possible causal effect of the delay in treatment. The pathologists and Dr Andrews were not addressing the same issue. Establishing the medical cause of death would plainly have assisted but was not, as Dr Andrews explained, essential to being able to form an opinion as to the effect of delayed treatment. Indeed, Dr Andrews confronted this problem clearly in his evidence and nevertheless was able to say that, on the balance of probabilities, he would have expected Mr Bibby to have survived with prompt treatment. The jury were not bound to accept that view but it was not, in my judgment, a view that was so obviously unreliable that it was not safe to leave the issue of causation to the jury.

64. I do not consider that the possibility of lactic acidosis affects this conclusion:

    64.1 First, the point was apparently so insignificant in the inquest that no one thought to put the point to Dr Andrews during his 3½ hours in the witness box. While Ms Hewitt observes that Dr Cary gave evidence after Dr Andrews, the point was already in play since it was referred to in the written reports.

    64.2 Secondly, the coroner's ruling was not made on the basis that Dr Andrews' evidence was undermined by the lack of evidence as to the possibility of lactic acidosis but on the broader basis that, looking at the case through the prism of the cause of death not being ascertained, any evidence as to causation was speculative. Had lactic acidosis been the issue of concern, then no doubt the coroner would have recalled Dr Andrews to deal with the point.

    64.3 Thirdly, Dr Cary's own evidence suggested that lactic acidosis was a possible rather than a probable cause of death. It could not in any event have been the explanation for Mr Bibby's initial illness since, on the evidence, he had collapsed and was apparently severely unwell even before the police attended at his flat. Accordingly, the case on lactic acidosis would appear to involve the coincidence that a normally fit young man who was not suffering from any underlying disease or infection collapsed for an unidentified reason and then, after being restrained by the police, suffered cardiac arrest by reason of lactic acidosis caused by struggling against such restraint.

64.4 Fourthly, although the family was seeking to press a case on this issue at the end of the inquest, I note that such case is not pursued in these proceedings.

65. For these reasons, I conclude that the coroner erred in law and that the issue of the causative effect of NWAS's admitted delay in attending to Mr Bibby should have been left to the jury. Subject to my lord, Lord Justice Hickinbottom, I would therefore quash the record of inquest and remit this case for a fresh inquest.

LORD JUSTICE HICKINBOTTOM:

66. I agree.