Cause of death, survivability and statistics: the importance of understanding the difference.

written by Bridget Dolan QC | 17 March 2019

***R (Chidlow) v Senior Coroner for Blackpool and Flyde* [2019] EWHC 581 (Admin)**

Humans' bodies being such complex organisms it is unsurprising that medical causation is often extremely complicated and that the law regarding the legal causation of medical injuries can be particularly convoluted.

Indivisible injuries, multifactorial causation, material contribution, loss of a chance etc. create a precarious legal minefield for clinical negligence lawyers to navigate before one even begins to wander into the less well marked territory of the coronial jurisdiction.

Here one must step even more carefully around the danger zone of semantics – wondering whether there really is any effective difference between the 'causation threshold' words of *minimal* or *trivial* or *negligible*, whilst remembering the 'causation standard' of *probable* is not what is possible, but not forgetting that a *missed opportunity* to make a difference may still matter and that Art 2 might anyway require the *possible* to be recorded regardless of proof.

But this week brings good news for all who must negotiate these coronial causation booby-traps. Mr Justice Pepperall has deployed the mine rollers ahead of you – so take off your personal protective equipment and put down the metal detector – if you want to protect yourself from triggering a legal casualty just take some time out to read and learn from the Divisional Court's erudite exposition of two fundamental points regarding causation at inquests:

- **Causation is more than a matter of medical statistics – even where survivors are a majority category.**

  > Something more than being a potential figure in a statistic will be needed that suggests the deceased would probably have been in the category of survivors[1];

- **There is an important difference between being able to identify what someone died from and being able to say whether, regardless of what precisely caused their death, their life could have been saved with earlier medical attention.**

  > Unfortunately a failure to discern that essential difference led the Senior Coroner in the present case to err in law when he withdrew from the jury the question of whether an admitted delay in an ambulance attending a man contributed to his death. The Coroner had wrongly concluded that, because there was no clear cause of death, it was not safe to allow the jury to consider the causal effect of the delay in him receiving treatment.

"Establishing a medical cause of death was not

> ***essential to being able to form an opinion as to the effect of delayed treatment."***

Moreover, the medical expert's evidence on survivability was not an opinion based solely on statistics. The expert's view that the deceased would have lived with prompt treatment also relied upon clinical experience; accounts of the deceased's condition when attended; reading of the other medical evidence (specifically the post-mortem findings and the lack of any underlying disease or infection in an apparently fit young man). The jury were not bound to accept this expert's opinion, but his view was not so obviously unreliable that it was not safe to leave the issue of causation to the jury.

The facts

Carl Bibby was only 38 when he died at his home on 28 July 2009. Police officers who were aware that he had fallen ill had repeatedly called for an ambulance[2]. At the inquest[3] the ambulance service acknowledged that a failure to upgrade the case in response to the Police's second telephone call had been an error. The case should have been prioritised with a 'red' (8-minute) response time which would have led to attendance 26 minutes sooner than actually occurred. During that delay, Mr Bibby suffered a cardiac arrest and died.

Cause of death unascertained

Detailed evidence available to the inquest from five pathologists could not elucidate the precise cause of death. Without a cause of death, understanding the causation of death was always going to be complex.

A Consultant in Critical Care & Emergency Medicine gave evidence for over three and a half hours. He said he could exclude some causes of death but concluded that it was impossible to reach a final diagnosis. What he could say, however, is that Mr Bibby became critically ill for a period of at least 25 minutes before his cardiac arrest and that an arrhythmia was the most likely cardiac event.

Survivability

The Critical Care Consultant stated that, had paramedics attended Mr Bibby before his cardiac arrest, he would, on the balance of probabilities, have survived. That opinion on survivability relied upon: clinical experience; accounts of the deceased's condition when attended; his reading of the other medical evidence (specifically the post-mortem findings and the lack of any underlying disease or infection in an apparently fit young man) and a number of statistical studies.

The expert quoted data from a large US study which showed an 80% survival rate of critically ill non-trauma patients without cardiac arrest who were attended to by 8 minutes. He stated that Mr Bibby's chances of survival if treated by paramedics *before* he was in cardiac arrest would have been "markedly of the underlying diagnosis."

Nevertheless, the coroner ruled that it was not safe (on a Galbraith plus basis[4]) to leave the issue of a causal link between the delay and Mr Bibby's death to the jury. As he put it "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." The essence of the coroner's ruling was that any evidence as to survivability was necessarily speculative, and therefore unsafe, given the absence of clear evidence as to the precise cause of death.

The Divisional Court disagreed. The Court held that the Coroner had fallen 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 the Consultant in Critical Care Medicine were not addressing the same issue.

Establishing the medical cause of death would plainly have assisted, but it was not essential to being able to form an opinion as to the effect of delayed treatment. The Consultant in Critical Care Medicine had 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.

Causation and statistics

In reviewing the Coroner's decision the Divisional Court considered the vexed question of whether causation can be proved by statistical evidence alone.

As Pepperall J explained, causation evidence relating to the particular deceased may *include* general statistical evidence drawn from population data such as the rate of survival in a particular group. But care has to be exercised when relying on statistics as a means of establishing causation – as figures in statistics cannot prove causation without more. The court must look at the deceased's individual and specific circumstances rather than generalised statistics alone.

Whilst research may show that the majority of patients survive an event with prompt treatment the fact a patient dies following delayed treatment does not of itself establish causation: it does not show whether or not he would anyway have been one of the minority who would not have survived regardless. The assessment of whether a delay to treatment contributed to a death turns upon all the medical evidence, both the overall statistical chances of survival and information about the particular condition and specific circumstances of the patient.

> ***"To be a figure in a statistic does not, in itself, prove causation."***

Even where survival rates are over 50%, without evidence supporting a proposition derived from the population data, a jury could not safely conclude that the deceased would have fallen into the category of survivors. Additional evidence is needed as to whether the deceased probably would or would not have lived.

Here the expert's opinion, that Mr Bibby was more likely than not to fall into the group of severely unwell patients who are nevertheless expected to survive with prompt treatment, was rooted in a number of matters:

- his own experience of dealing with critically ill patients;
- his reading of the other medical evidence in relation to Mr Bibby and specifically the post-mortem findings that meant he could exclude a number of underlying health problems;
- his understanding of Mr Bibby's condition when he was attended;
- statistics on survival data taken from a number of studies.

The jury were not bound to accept the Consultant's view, but it should have been left for them. Therefore the application was granted, the inquest quashed and a further inquest ordered.

A postscript on costs

There is no judgment on costs available, however recent news from Ifeanyi Odogwu – who appeared for the bereaved family – is that costs were awarded against the Coroner.

This is unsurprising. Coroners who enter the fray in argument risk losing the costs protection that comes with neutrality[5]. The main judgment records that "while stressing that the Coroner's position in these proceedings is *neutral*" the Coroner's counsel had nevertheless *sought to justify his ruling*. His counsel *argued* that it was not safe to rely on the causation evidence, she *argued* that it was not possible for the expert to form any opinion as to Mr Bibby's actual prospects of survival. The court was clearly anticipating the costs argument to come and signalling that any defence based on the Court of Appeal decision in *Davies*[6] faced an uphill struggle.

A family who have now successfully judicially reviewed two Coroners' conduct of this inquest and have been 10 years in the waiting for a final conclusion, have been vindicated once again.

Footnotes

[1] Although the essence of the coroner's ruling in this case was not any principled objection to statistical evidence.

[2] The wider picture of the inquest involved issues regarding police restraint. The family were also pressing for a conclusion of neglect on the basis of the police actions at the conclusion of the inquest, but this aspect formed no part of the judicial review application.

[3] The inquest was rather badly delayed after a challenge to the first coroner's conduct of the inquest had led to earlier judicial review proceedings, and that coroner's decision to recuse himself in June 2017.

[4] See *R v. Galbraith* (1981) 73 Cr. App. R. 124, CA; *R (Secretary of State for Justice) v. HM Deputy Coroner for the Eastern District of West Yorkshire* [2012] EWHC 1634 (Admin) and the Chief Coroner's Law Sheet on "Galbraith plus".

[5] See our earlier blogs on "*Costs against Coroners*" here and here

[6] *R (Davies) v Birmingham Coroner* [2004] ILR 96,