



Informing Progress - Shaping the Future

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Life Expectancy in Catastrophic Injury Claims

Hosted by the FOIL Catastrophic Injury SFT, the roundtable event was led by **Derek O’Sullivan QC** of **39 Essex Chambers** and **Jordan Brooks** of **The Life Expectancy Project, San Francisco**.

Copies of both speaker’s slides are available at [Life expectancy in catastrophic claims - Derek O'Sullivan - 39 Essex Chambers - Forum of Insurance Lawyers \(FOIL\)](#) and [Life expectancy in catastrophic claims - Jordan Brooks - Forum of Insurance Lawyers \(FOIL\)](#) and include the full citations for cases referred to, extracts from the judgments and other detail not included in this summary.

Derek O’Sullivan QC

Background

Periodical payments (PPs) cannot realistically accommodate all future loss claims and in most cases, there has to be a ruling on LE, if it cannot be agreed. LE evidence is required anyway, even to reach agreement

IN BRIEF

This roundtable event involved a detailed discussion about the admissibility of evidence on life expectancy in catastrophic injury cases; the sources of that evidence; and how best to deploy it.

on a lump sum basis. The speaker's experience was that a majority of cases (excluding clinical negligence) still settle on a lump sum basis.

The admissibility of statistical LE evidence

With the catastrophic injury claims with which this discussion was concerned, the reduction in LE is caused by the injury sustained. In such circumstances, the court will allow evidence which deals with both the impact on the claimant's (C's) LE of 'life-style' and medical factors pre-accident (e.g., smoking or diabetes), as well as the LE impact arising from the injuries sustained in the accident, i.e., the court will *generally* permit evidence relating to a *bespoke* LE, namely that for the particular claimant in the particular proceedings. (This talk did not deal with cases where the injury causes no reduction in LE but the defendant still wishes to adduce evidence of pre-existing factors that impact on average LE.)

The case of *Rowley v London and North Western Railway (1873)* remains good authority for the principle that C will be assumed to have normal LE (pursuant to the relevant tables, which are admissible in evidence) but this is a rebuttable presumption.

Unlike previous editions of the Ogden Tables, Tables 1 and 2 of Ogden 8 are pretty well up to date and the 0% columns of those tables give an accurate figure for the average LE of males and females respectively, based on projected mortality.

LE is a matter for the court and it is not bound by expert evidence. The Court did not feel bound to follow the expert medical evidence in *Farrugia v Burtenshaw (2014)* and in *Robshaw v United Lincolnshire Hospitals (2015)* neither of which involved statistical LE evidence. *In a similar vein*, in *RVI v B (2002)* the Court did not feel compelled to follow the statistical evidence adduced by the defendant.

RVI v B is the leading case on this subject. Professor Strauss had given statistical LE evidence in this case, which involved the most severe form of catastrophic injury. This was the defendant's appeal based on the argument that its own medical expert (whose evidence the trial judge had accepted) had misunderstood Professor Strauss's evidence. In dismissing the appeal, the Court of Appeal dealt with the place of statistical evidence in this type of case. The starting point for determining the multiplier is the actuarial table, which is based on the statistics relating to the general population. However, in this case it was agreed that the level of disability was such that LE had been reduced so substantially that the tables were not of much assistance. The court had therefore to make a best estimate of for how long C would live. Accordingly, where the injuries are such that LE is significantly reduced, the court should not start with the Ogden table and reduce the multiplier, i.e., 'bottom down', but a bespoke estimate of how long C will live. (See *Lewis v Shrewsbury NHS Trust*). In such cases, statistical evidence may be admissible and could be a useful starting point for the judge, but if the evidence was disputed Professor Strauss (or whoever) would need to be called to give evidence. Both medical and statistical evidence should be taken into account. Although the judgments of Tuckey LJ and Sir Anthony Evans in *RVI* indicate that the court should rely primarily on the evidence of the medical experts relating to the individual C, the dissenting judgment of Thorpe LJ is important. Thorpe LJ was of the view that discerning LE is such a difficult exercise that "the court needs all the help it can get" and the process should be one of interdisciplinary cooperation (between medical and statistical experts). Thorpe LJ also made the point that although a medical expert can offer profound understanding of the claimant's case "his knowledge of comparable cases is limited to what chance has brought to his professional care during the course of his career". This

dissenting judgment was highly influential on the approach taken by MacDuff J in *Lewis v Shrewsbury*.

Once the LE has been determined on this bespoke basis, there should (on the basis of the judgment of the Court of Appeal in *RVI v B*) be no further discount for early mortality.

In truly catastrophic injury cases, therefore, the medical experts should consider both their assessment of the claimant and the available statistical evidence. But they have to understand and interpret the data and categorise C accordingly. This begs the question of why the medical expert should do this and indeed how they are qualified to discuss, interpret and explain statistical evidence; in reality the assessment should be (as Thorpe LJ pointed out in *RVI v B*) one of interdisciplinary co-operation.

The decision of a Master in *Dodds v Arif (2019)* is not binding on other Masters or higher courts. It reflects the approach adopted at case management level but no more than that. The Master held that where LE had been reduced by the injury in question then the Court will require LE evidence. In line with the decisions in *RVI v B*, *Sarwar v Ali* and *Arden v Malcolm* he decided that the primary source for this will be the medical evidence. He also decided (not following *RVI v B*) that the medical experts can choose the approach to be adopted, i.e., 'top down' (start with the Ogden Table and then make a discount) or 'bottom up' (start with C's age and add a number of years to that). He concluded that statistical "bespoke" evidence will not ordinarily be given unless the clinical experts cannot offer an opinion at all, or either one of them advises the Court that they require the input of a statistical expert or they deploy or wish to deploy statistical evidence but disagree on the correct approach to it.

Whiten v St George's NHS Trust (2011) is an example of a High Court Judge hearing from the medical experts, then studying statistical evidence (which was not called), before making factual decisions which took into account the statistical data.

An unfortunate consequence of the current approach of the Courts is that if the medical experts agree on a life expectancy figure then statistical evidence will not generally be permitted on the issue. This underlines the importance of ensuring that the medical opinion in relation to LE is in fact in line with the statistical evidence.

Tactical considerations

In traumatic brain injury (TBI) or spinal cord (SCI) cases it will invariably be cost proportionate to obtain statistical LE evidence and it is sensible to do so. This avoids the risk of leaving it too late. It can be used as a sense-check/reference guide for the medical evidence. Although a copy of the statistical report should not be provided to medical experts until permission has been given, the issues raised in it can be discussed with them, e.g., to highlight what is the latest data and how C might best be categorised.

The medical experts should be provided with guidance on the approach of the courts to the admission of statistical evidence into catastrophic injury cases; with such knowledge they can identify in a report or in a Joint Statement why they believe that statistical evidence is required. Of particular relevance on this point is the question of interpretation of the statistical data/evidence; medical experts need to be aware that if they do not believe they are expert in interpreting statistical evidence or that the Court needs the assistance of a statistical expert to understand and apply the data, then medical experts need to make this clear in a report or a Joint Statement. The

reason that such views need to be expressed is that they can be used in support of an application for permission to call the statistical expert.

The statistical experts have data relevant to SCI cases through the papers such as those by *Savic, De Vivo*, et al, although the *Savic* paper appears not to have reduced disputes about LE in these cases, as might have been anticipated. Statistical evidence may still be required in a SCI case. The full paper should be considered, not just the summary that is available.

The *Savic* paper estimates LE comparing SCI patients against general population life tables but it does not include projected changes in mortality in the future, which is one area of controversy. It is nevertheless useful when dealing with early interim payment applications and in early counter schedules.

In some cases, the medical experts may misinterpret/misunderstand papers of this type. There is nothing wrong with involving the authors to provide clarification and guidance. This could be by way of expert evidence but in some cases a witness statement may suffice.

The approach of the courts

A key issue is how do the quality of care and favourable economics impact on LE? In *Pankhurst v White (2009)*; *Lewis*; and *Robshaw*, High Court Judges ruled in favour of increasing LE estimates because of the impact on the award of damages. In *Lewis*, although the judge endorsed the approach adopted by Professor Strauss, concessions made by a defendant expert under cross-examination, as to the quality of C's care regime, led to a three-year increase in the figure for LE.

With foreign workers resident in the UK, the corresponding statistics should be obtained from their country of origin (and see the World Health Authority website).

The impact of a negative discount rate (DR)

With a positive DR it was in the interest of claimants to argue for the use of Table 28 (now Table 36)- calculating a "term certain" multiplier and not utilising Table 1 approach (i.e. adding a number of years to the Claimant's age to correspond with the reduction in LE). However with a negative DR the Table 28 approach now produces a slightly lower multiplier and so we may now see claimants arguing for a Table 1 approach.

Dr Jordan Brooks

Life expectancy research evidence and its application to UK litigation

Life expectancy is the average (mean) survival time for a group of similar people. Wherever possible, it should be estimated with accuracy and precision based upon empirical data.

The statistical expert is not a medical doctor but a specialist medical researcher. S/he looks at databases to link clinical assessments to survival outcomes; identify risk factors for mortality; estimate life expectancy using standard analytical methodology (as is the case with the Ogden Tables); and publish the findings in peer-reviewed medical research journals.

The research draws conclusions from the collective clinical experience of many doctors and a large number of their patients.

The Life Expectancy Project in San Francisco studies survival of persons with TBI, SCI, cerebral palsy and other conditions such as stroke, epilepsy, smoking, lung disease, liver disease. The Life

Expectancy Project works with many databases, including a number relating to TBI and SCI (see the slides for further details).

How to calculate LE

For an uninjured C this is the 0% column in Table 1 or 2 of Ogden 8, for C's current age. This in turn comes from a life table that incorporates mortality rates from the Office for National Statistics' 2018-based projections for the UK general population.

LE following TBI or SCI also comes from a life table but here the mortality rates are derived from people with similar injuries. It is accepted that these types of injury do impact on LE, but it is the magnitude of reduction that is the issue. The severity of the injury and specialised care needs are the critical factors. In TBI these include functional walking and feeding skills; ability to live independently or extent of support needs; gastrostomy dependence; limited communication or awareness. In SCI cases the relevant factors include the neurological level of injury; the grade of injury (A (complete) – D (incomplete)); for grade D, the extent of functional ambulation and bladder management needs; and ventilator dependence.

Available evidence

The Life Expectancy Project has published a number of research papers relating to LE in patients with TBI, some of which are detailed on the speaker's slides. There is clearly a correlation between greater care needs and reduced LE. The research also covers neurological disabilities following non-TBI cases, e.g., near drowning, and there is unpublished material relating to the most severe cases, such as 'vegetative state'. The speaker highlighted the variations in LE for those Cs who are ambulatory but are not able to live independently or re-engage in employment: their LE is often lower than the published data suggests.

Remarkably, there appears to have been no improvement in LE since data collection began.

The Life Expectancy Project is about to update its 2015 LE table with a 2021 version. LE predictions are similar but with better precision due to a larger sample and longer follow-up. The data is from the period 1988-2019. The data sample is double the size of that previously available and is now the largest such study in the world. There is no data yet for 2020 but that will be complicated by Covid.

The Life Expectancy Project has also published a number of SCI studies, which look at a variety of levels of disability and issues such as ventilation/non-ventilation; mobility; and bladder management. These papers are again detailed on the speaker's slides. The studies can be used in conjunction with life tables to calculate LE. There was again no change in LE in the period 1980 – 2010.

The finding of no improvement in survival of persons with neurological disabilities is a significant contrast to the increase in LE in the general population between 1980 and 2010, but it is less surprising in the context of the stagnation in general population LE since 2010.

Although the reasons for no improvement in the LE of patients with neurological disabilities due to TBI and SCI is unclear, it is consistent with the results from other countries. UK and Australian studies of survival of persons with neurological disabilities due to cerebral palsy have also reported no improvements.

The *Savic* study is a useful starting point in SCI cases. There are five comparison groups linked to sets of tables from which current LE may be calculated. LE did not change during the period 1990-2009, but there may have been an improvement in LE for the period 2010-2014. According to the authors, the possible improvement requires confirmation with more data. Other caveats to using the tables are set out on the speaker's slides, together with extracts from the tables.

How to estimate LE in UK claimants

Medical research is essential to a scientific determination of LE, something that the UK courts have recognised. Many experts take a two-stage approach: begin with the LE for the appropriate group from the research evidence; and then make adjustments to reflect additional factors for the individual C.

There is invariably disagreement about i) factual assumptions about C's condition (a matter for clinical experts); ii) what the research says given i) (a matter for the expert researchers); further adjustments to ii) (some room for discussion).

It is not appropriate to rely on UK studies alone because in SCI cases the US research is based on a much larger set of patients and is more comprehensive and there is no comparable study of LE in TBI cases. In SCI, while *Savic* is a good starting point, the data needs to be adjusted by reference to US papers such as *Shavelle*, with further adjustments to reflect UK conditions.

The *Brooks* Table for TBI is often cited in UK cases but is also often misused. The experts seem not to understand the criteria for the comparison groups (they may not read the text properly). Examples of this are provided on the speaker's slides.

Adjustments are required to reflect UK conditions. Another slide sets out in some detail why it is wrong to take C's projected LE from the table for projected LE in the UK population at large and then apply a discount. This will always produce too high a figure for LE. This is pointed out particularly in a 2018 study authored by researchers in the US, the UK and Australia.

The 'correct' approach is to take the percentage of 'normal' LE. Which UK general population figure the discount should be applied to (current, projected or some intermediary figure) will depend on the nature of the injury. It is suggested that in TBI cases, the appropriate procedure is to apply the percentage of normal LE to the normal current UK figure. In the case of SCI, the appropriate approach is to work with the midpoint of normal current and projected UK figures. (The reasoning for this appears in the speaker's slides).

Adjustments should then be made for other risk factors, using empirical evidence and standard life table methods, wherever possible. The slides detail common mistakes made in this regard and the role played by clinical judgment. For example, respiratory factors are probably not yet adequately factored into the data that is available.

As regards the suggestion that compensation affords higher quality care (however defined) and increases LE, the *Gates, et al* study of 2017 concluded that compensation had no significant impact on long-term survival.

Multipliers

The correct calculation of the multiplier requires a life table. The 'term certain' table (which was Table 28; now 36) should not be used.

Claimants from other countries

The speaker's slides dealt with an example of a C from an Eastern Bloc country and the extent to which their life expectancy in their country of origin should be taken into account.

Covid-19

The pandemic reduced current 2020 LE in the UK and US by about one year. Longer-term secondary effects may become apparent over time. Assuming no change in methodology, the 2020-based UK projected LE will be lower than that given in Ogden 8.

Q&A

These arguments are not likely to see an increase in PPOs, unless the more recent research leads to an increase in disputes about LE. Many claimants will still prefer a lump sum settlement.

When the data is available, research will be carried out into the effects of long-Covid on TBI.

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