

# Byrom Street Chambers

Life Expectancy  
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# A3 – Life Tables and Projected Life Tables

- Published by ONS – most recent are English Life Tables no. 16
- Historical tables based on 2001 Census data
- But Facts and Figures uses the 2008-2010 data
- Mortality rates have improved and are continuing to improve
- The ONS publishes projected mortality data
- The Ogden tables are based on projections made in 2009
- The ONS published new tables in December 2013
- Expect therefore slight upward revision

# **A4 – Earnings multipliers adjusted for factors other than mortality**

- Ogdén 6 – (un)employed? – dis(abled)? – educational attainment
- These avoid the need to apply the discount factors
- The job is done for you

# **Royal Victoria Infirmary v B (a child)**

## **[2002] Lloyd's Law Rep (Med) 282**

- Practical propositions in approaching life expectancy
- Clinicians make what they can of the medical/statistical literature
- They use it to inform their overall opinion on life expectancy
- Strauss and Hutton should not be the first port of call.

# Arden v Malcom [2007] EWHC 404

In my judgment it is in the spirit in the decision of the Court of Appeal in *Royal v Victoria* (sic) that the clinician experts should be the normal and primary route through which such statistical evidence should be put before the court. It is only if there is disagreement between them on a statistical matter that the evidence of a statistician, such as Professor Strauss, ought normally to be required. Tugendhat J in *Arden v Malcom* [2007] EWHC 404 (QB) at [36]

# In Summary

- Obtain statistical evidence only where the dispute relates to statistics
- But once in, all evidence must be considered and given appropriate weight.
- *top-down* or *bottom-up* argument is irrelevant as a point of principle
- The court will decide, guided by the experts, best starting point on the facts of each case.
- If medical literature and statistical evidence use a common starting point – doctors will use it too

# Evidence and Logic

- The arguments must have some basis in evidence and logic
- (*pace* Professor Barnes in *Lewis*.)

# Variation from 'normal'

- The literature generally tends to an analysis in terms of
- a *reduction of a number of years* or
- *percentage reduction in survival* from normal
- (as appears to be so in the spinal injuries literature – see *Sarwar No.1* and *Burton*),
- The analysis will conveniently use normal life expectancy (Ogden 7) as the starting point.
- It will then apply the *prima facie* appropriate statistical variation from the closest cohort(s)



# Deviation from the Cohort

- Where individual's condition closely matches cohort
- Variation from statistical evidence for clinical condition may be very small
- HHJ MacDuff QC in *Lewis*
- Strauss populations so close - little variation from the statistical starting point
- Normal life expectancy had nothing to offer: the literature did not use it as a reliable yardstick.
- Increased overall life expectancy from age 37 to 40
- *a first class care package*
- Strauss says evidence does not actually support the *quality of care line*
- would probably now be substantially higher for the Claimant for different reasons

# Adjustment for Longer Life Expectancy

- *Life expectancy in cerebral palsy: an update* Developmental Medicine & Child Neurology 2008, 50: 487- 493 at 493, Strauss, Brooks, Rosenbloom & Shavelle.
- Life expectancies in earlier work should be adjusted
- for current longer UK life expectancy and for the fact that the
- UK Courts apply tables for *projected* life expectancy.
- Based on cohorts of past American patients using *historical* mortality as the basis for PI claims

# Projected life expectancies

- Strauss says
- 'normal' life expectancy in UK and Australian courts works with **projections** of future mortality rates at each age
- These **projections** assume a steady decline in mortality rates at all ages
- The result is an increase of some 7 to 9 years in a typical child's life expectancy,
- current UK female life expectancy at birth is 81 years compared with the projected figure of 90 years.
- The choice between current and projected rates in litigation is a legal issue rather than an actuarial one:
- the scientific community is not unanimous on what should be assumed about future mortality rates.

# The Methodology

- If projected rates are to be used, there are several ways to adjust the life expectancy estimates
- US female of age 15, normal life expectancy is 66 additional years.
- Consider a female of age 15 whose life expectancy is estimated to be 29 additional years, which is 44% of normal.
- How should this be applied in the case of a similar child according to, for example, UK projected mortality rates, given that normal UK projected life expectancy is 74 years, 8 years higher than the US current figure?
- In the above example, where life expectancy is 44% of normal, we would thus apply this percentage to the UK general population figure of 74 years. The result is 33 years, an increase of four years over the US figure.
- Swift J in Whiten applied it

# Applicability

- Should apply to traumatic brain injuries as well as birth injuries and spinal injuries
- Arguably to all injuries

# Age specific

- The literature may relate to length of survival from an event or date or death at a certain age
- (cerebral palsy - traumatic brain injury –Lewis - Strauss and Hutton)
- *normal life expectancy* as a starting point *has nothing to offer*
- Thorpe LJ in the *Royal Victoria* case at page 289, applied by HHJ MacDuff QC in *Lewis* [57.]
- Omit reference to normal life expectancy
- Simply find starting point from closest matching cohort(s) in the literature
- Then refine the variation for individual clinical considerations (*positives* and *negatives*)
- Projected life expectancy may have something to offer

# Spinal Injury Cases

- *Sarwar No.1* and *Burton* (both spinal injuries)
- Statistical variation applied to starting point of normal life expectancy
- then refined through clinical judgment
- On the evidence both satisfied socio-economic factors justified upwards variation
- In *Pankhurst*, *MacDuff J* enhanced findings on statistical life expectancy from 18 to 19 more years first class care package the Claimant would have – see [7.17.]

# Estimate or Prediction – Table 28 or Table 1

- If medical analysis purports to reach a medical *prediction*
- Ogden table 28 should be used to fix the multiplier - Lloyd Jones J in *Sarwar No.1*.
- To use Table 1, it is said, is to double discount.
- Even where doctors had not factored in chance events
- Lloyd Jones J decided to apply Table 28 in *Sarwar No.1* [30.]
- *However, in view of the fact that by far the greater proportion of risks to this Claimant's life have already been taken into account by the experts in their assessment of life expectancy, and in the absence of any evidence as to what apportionment between Tables would be appropriate, I conclude that the appropriate multiplier should be calculated by reference to Table 28*



# Ogden 7<sup>th</sup> edition

- The Introduction to the Ogden 7<sup>th</sup> edition at paragraph 20 is to the contrary.
- Using table 28 is
  - ... likely to give a multiplier which is too high since [it] does not allow for the distribution of deaths around the expected length of life. For a group of similarly impaired lives of the same age, some will die before the average life expectancy and some after; allowing for this spread of deaths results in a lower multiplier than assuming payment for a term certain equal to life expectancy.
- The Ogden Working Group recommends using Tables 1 and 2.

# Crofts

HHJ Collender QC considered argument in *Crofts* on whether to apply Table 1 or Table 28 to a life expectancy reduced by 5 years. He decided that he had *not* made a ruling on *how long the Claimant was likely to live* (when Table 28, he said obiter, would be appropriate to avoid double discounting.) Rather, he had decided the Claimant's life expectancy was reduced by 5 years from *his pre-morbid statistical life expectancy, whatever that was* [97.] Hence, he applied Ogden Table 1, taking the Claimant at a theoretical age 5 years older than he was to reach the proper life multiplier [100.]

# Smith and Ali

Cranston J in *Smith v LC Window Fashions Ltd* [2009] EWHC 1532 (QB) followed the reasoning in *Crofts* and applied Table 1.

The same approach, applying table 1, was recently followed by Stuart-Smith J in the moderate brain injury case of *Ali v Caton & MIB* [2013] EWHC 1730 (QB) at [299]-[311].

# Whiten

There was no room to dodge the argument

About paragraph 20 of the Ogden Introduction she said this:

104. In any event, there can be no doubt that the effect of using Table 1 in the manner suggested by Paragraph 20 is to produce a discount (albeit a relatively modest discount) from the multiplier based on the full life expectancy as predicted. That being so, the application of Table 1 in accordance with the Paragraph 20 methodology in a case such as this would offend against the principle that there should be no discount from the multiplier calculated by reference to a claimant's predicted life expectancy.

# The Argument for Table 1

- Table 28 gives multipliers over a *term certain*.
- Any finding about life expectancy is not that the Claimant will die on a specific day
- It is a finding of an *average term of life* which is a *term necessarily uncertain*.
- Table 28 multipliers apply only where the period is absolutely fixed

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