USING THE LOG-NORMAL DISTRIBUTION TO MODEL SURVIVAL DATA

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With the current trend for modelling survival data as a counting process and summarising results in terms of hazard ratios, use of the log-normal survival model has become unfashionable. In addition it is sometimes argued that the log-normal distribution is inappropriate due to its non-monotonic hazard.

This talk will illustrate how the log-normal hazard appears when fitted to several examples of medical survival data. It will also argue that log-normal models can have substantial benefits over models based on counting processes for modelling bivariate survival, particularly for those with negative correlations between times to event.