## Week 1 – Life Tables

The Kaplan-Meier method is used to calculate tables of the survival probability. When we plot the results, we end up with a stepped survival curve. Complete the table below using the Kaplan-Meier method.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Time (t) in days** | **Number of patients known to be alive at time t** | **Number of patients who died at time t** | **Proportion of patients surviving past time t** | **Probability of survival *past* time t** |
| 0 (study start) | 8 | 0 | 1 | 1 |
| 1 | 8 | 2 | 0.75 | 0.75 |
| 4 | 6 | 1 | 0.83 | 0.623 |
| 5 | 5 | 1 | 0.8 | 0.498 |
| 6+ | 4 | 0 | (4-0)/4 = 1 | 0.498 \* 1 = 0.498 |
| 9 | 3 | 1 | (3-1)/3 =0.667 | 0.498 \* 0.667 = 0.332 |
| 9+ | 2 | 0 | (2-0)/2 = 1 | 0.332 \* 1 = 0.332 |
| 22 | 1 | 1 | (1-1)/1 = 0 | 0.332 \* 0 = 0 |

## Week 2 – Harzard Function and Ratio

1. In survival analysis, a hazard is:
   1. The probability of surviving at time t having survived up to time t.
2. The risk set comprises:
   1. The set of patients at time t that are at risk of experiencing the event.