|  |  |  |
| --- | --- | --- |
| **Health State** | **Status Quo** | **New Strategy** |
| **UTILITY** | | |
| **Healthy** | 0.637 | 0.637 |
| **Stroke** | 0.573& | 0.573& |
| **COST** | | |
| **Healthy** | £4792 (2018 Prices) ## | £4812 (2018 Prices) ## |
| **Stroke HCM Related** | £22,880 (2018 Prices) # | £22,880.00 (2018 Prices) # |
| #Obtained from the State of the Nation-Stroke Statistic, 2017 Report by the Stroke Association UK. An inflation rate of 1.04 was used to convert to 2018 prices.  ##Cost of ICD implantation as a day case is £4792 (Waight et al., 2019), consultation fee of £20 is added to the cost of implantation, when screened for SCD, under the new strategy. ‘Status Quo’ refers to current method of screening for SCD. ‘New Strategy’ refers to screening for SCD with HCM-SCD Prediction Model.  &Obtained after applying a decrement of 0.1 to the utility score for the Healthy health state. | | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **From** | **To** | | **Observed Transitions (y out of n)** | | | **Rate (Probability)** | | | | **Reference** |
|  |  | |  | | |  | | | |  |
| **Healthy** | **Healthy** | | 103 of 506 | | | N/A | | | | (Maron et al., 2007) |
| Healthy\* | Stroke HCM Related\* | | 4 of 1000 | | | 0.0035(0.003494) | | | | Assumption |
| 3 of 1000 | | | 0.003 (0.002995194) | | | | (O'Mahony et al., 2012) |
| Healthy\* | Sudden Cardiac Death\* | | 8 of 1000 | | | 0.0082(0.008165628) | | | | (O'Mahony et al., 2013) |
| **3 of 10** | | | 0.25(0.221179029) | | | | (Maron et al., 2007) |
| Healthy\* | Death All Causes\* | | 8 of 1000 | | | 0.008(0.007967262) | | | | (Maron et al., 2018) |
| **4 of 1000** | | | 0.004(0.003991598) | | | | (Schinkel et al., 2012) |
| Stroke HCM Related | Sudden Cardiac Death | | 2 of 1000 | | | 0.0019(0.001898) | | | | (Ågesen et al., 2018) |
| Stroke HCM Related | Death All Causes | | 6 of 10 | | | 0.52(0.405447397) | | | | State of the Nation-Stroke Statistics Report,2018 |
| **Summary of Observed Transitions** | | | | | | | | | | |
| **Status Quo** | | | | | | **New Strategy** | | | | |
| **state** | **H** | **SHR** | **SCD** | **DAC** | **Transitions (ns), in State (s) at year j** | **H** | **SHR** | **SCD** | **DAC** | **Transitions (ns), in State (s) at year j** |
| **Healthy** (H) | 103 | 4 | 8 | 4 | 119 | 103 | 3 | 3 | 8 | 117 |
| **Stroke HCM Related** (SHR) | N/A | N/A | 2 | 6 | 8 | N/A | N/A | 2 | 6 | 8 |
| **Transitions (ys), to State (s) at year j** | 103 | 4 | 10 | 10 |  | 103 | 3 | 5 | 14 |  |
| Shape Properties of the Beta Prior Distribution | | | | | | | | | | |
|  | **Eta/Tau** | | | | | **Eta/Tau** | | | | |
| Healthy (H) | N/A | 4/996 | 8/992 | 4/  996 |  | N/A | 3/997 | 3/7 | 8/992 |  |
| Stroke HCM Related (SHR) | N/A | N/A | 2/  998 | 6/4 |  | N/A | N/A | 2/  998 | 6/4 |  |
| \*Highlighted cells relate to expected observations under status quo, whereas not highlighted relate to expected observations under the new strategy: ICD implants under status quo are expected to lead to a less stable condition of health according to epidemiological evidence (O'Mahony et al., 2012), hence a lot more transitions are expected under the status quo compared to the new strategy. All other cells describe observed transitions common to the two strategies under study  N/A is ‘Not Applicable’ , **Death All Causes** (DAC), **Sudden Cardiac Death**(SCD) | | | | | | | | | | |

The prognostic model was derived using data from a retrospective, multicenter longitudinal cohort study. The model presented in this article was  
developed using the entire data set,

The study cohort consisted of all consecutively evaluated patients with  
HCM, followed up at six participating European centers:

(i) The Hear Hospital, London, UK

The study population was all successively evaluated patients (N=) with HCM, followed-up at the Heart Hospital London in the United Kingdom, one of the participating centers of the retrospective, multicenter longitudinal cohort study

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