**Appendix S1. Clinical inputs into the model**

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| --- | --- | --- | --- |
| **Clinical data** |  | **Base-case values (ranges used in the sensitivity analysis )** | **References** |
| Age-specific all-cause mortality among transplant recipients with no underlying co-morbidities | Ages  18-24  25-44  45-64  65-74  ≥ 75 | 0.0017  0.0093  0.0271  0.0616  0.1000 | [1,2] |
| Age-specific all-cause mortality among listed dialysis patients with no underlying co-morbidities | Ages  18-24  25-44  45-64  65-74  ≥ 75 | 0.0212  0.0233  0.0532  0.0763  0.2350 | [1,2] |
| Probability of experiencing a complicated event post transplant |  | 0.222 (0.15 – 0.35) | [3-6] |
| Probability of dialysis withdrawal |  | 0.02 (0.01- 0.05) | [1,2] |
| Age-specific probability of experiencing a non-fatal cardiac event among transplant recipients | Ages  18-24  25-44  45-64  65-74  ≥ 75 | 0.0698  0.0286  0.0461  0.0424  0.0336 | [1,3] |
| Age-specific probability of experiencing a non-fatal cardiac event among patients on dialysis | Ages  18-24  25-44  45-64  65-74  ≥ 75 | 0.005  0.010  0.080  0.073  0.075 | [1,3] |
| Age-specific probability of receiving a deceased kidney donor transplant | Ages  18-24  25-44  45-64  65-74  ≥ 75 | 0.148  0.102  0.068  0.015  0.005 | [1-3] |
| Age-specific probability of graft failure | Ages  18-24  25-44  45-64  65-74  ≥ 75 | 0.041  0.041  0.038  0.022  0.010 | [1,2] |
| Adjusted hazard ratios for all-cause mortality associated with different co-morbid states in kidney transplant recipients | Diabetes  Cerebrovascular disease  Cardiovascular disease  Smoking (current smoker  Obesity (BMI > 30) | 1.84 (1.60 – 2.10)  1.56 (1.19 – 2.06)  1.28 (1.08 – 1.52)  1.50 (1.31 – 1.71)  0.98 (0.93 – 1.13) | [1,2] |
| Adjusted hazard ratios for all-cause mortality associated with different co-morbid states among patients on dialysis | Diabetes  Cerebrovascular disease  Cardiovascular disease  Smoking (current smoker  Obesity (BMI > 30) | 1.61 (1.55 – 1.67)  1.33 (1.26 – 1.57)  1.70 (1.63 – 1.77)  1.13 (1.07 – 1.18)  1.75 (0.62 – 4.92) | [1,2] |
| Discount rate | Benefits  Costs | 0.05 (0.03 – 0.08)  0.05 (0.03 – 0.08) | [7] |

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