|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Input value (mean) | 95% CI | Distribution | Source |
| Norovirus GP attendance |  |  |  |  |
| 0-4 | 0.046 | 0.043-0.051 | Beta(628.4,12944.5) | Bolt et al. |
| 5-14 | 0.035 | 0.032-0.039 | Beta(452.4, 12376.3) | Bolt et al. |
| 15-64 | 0.0011 | 0.0007-0.0018 | Beta(15234.64, 416794.8) | O’Brien et al. |
| 65+ | 0.0021 | 0.0011-0.004 | Beta(8, 3819.9) | O’Brien et al. |
| Norovirus hospitalisation |  |  |  |  |
| 0-4 | 0.0033 | 0.00241-0.0044 | Beta(40.5, 12223.3) | Verstraeten at al. |
| 5-14 | 0.0004 | 0.0003-0.0005 | Beta(61.4, 153540.1) | Verstraeten at al. |
| 15-64 | 0.00026 | 0.0002-0.00033 | Beta(61.4, 236282.2) | Verstraeten at al. |
| 65+ | 0.068 | 0.033-0.114 | Beta(10.7, 142) | Bolt et al. |
| Acute kidney injury hospitalisation |  |  |  |  |
| 0-4 | - |  | - | - |
| 5-14 | - |  | - | - |
| 15-64 | - |  | - | - |
| 65+ | 0.258 | 0.179-0.363 | Beta(22.2, 63.8) | Bolt et al. |
| Norovirus mortality |  |  |  |  |
| 0-4 | 0.00000625 | 0.0000057-0.0000067 | Beta(600.2, 96038798.5) | Bartsch et al. |
| 5-14 | 0.00000466 | 0.0000043–0.000005 | Beta(681, 146136237) | Bartsch et al. |
| 15-64 | 0.00000466 | 0.0000043–0.000005 | Beta(681, 146136237) | Bartsch et al. |
| 65+ | 0.000435 | 0.0004–0.00047 | Beta(593.2, 1362972.4) | Bartsch et al. |
| Acute kidney injury mortality |  |  |  |  |
| 0-4† | 0.033 | 0.02-0.18 | Beta(1.7, 49.4) | UK Renal Registry |
| 5-14† | 0.033 | 0.02-0.18 | Beta(1.7, 49.4) | UK Renal Registry |
| 15-64‡ | 0.0685 | 0.014-0.254 | Beta(1.1, 14.9) | UK Renal Registry |
| 65+¥ | 0.222 | 0.116-0.845 | Beta(5.1, 17.7) | UK Renal Registry |

† Unadjusted mortality age <18 years old, range from AKI stage 1 (0.02) to AKI stage 3 (0.18)

‡ Unadjusted mortality age18-64 years old, range from AKI stage 1 of 18-39 year olds (0.014) to AKI stage 3 of 40-64 year olds (0.254)

¥ Unadjusted mortality age 65+ years old, range from AKI stage 1 of 65-74 year olds (0.12) to AKI stage 3 of 75+ year olds (0.45)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Health utility (mean) | Range | Distribution | Source |
| Norovirus GP attendance\* |  |  |  |  |
| 0-4 | 0.688 | 0.553-0.824 | Beta(18.7,8.5) | Martin et al. |
| 5-14 | 0.688 | 0.553-0.824 | Beta(18.7,8.5) | Martin et al. |
| 15-64 | 0.688 | 0.553-0.824 | Beta(18.7,8.5) | Martin et al. |
| 65+ | 0.688 | 0.553-0.824 | Beta(18.7,8.5) | Martin et al. |
| Norovirus hospitalisation† |  |  |  |  |
| 0-4 | 0.542 | 0.445-0.638 | Beta(24.8,21.0) | Martin et al. |
| 5-14 | 0.542 | 0.445-0.638 | Beta(24.8,21.0) | Martin et al. |
| 15-64 | 0.542 | 0.445-0.638 | Beta(24.8,21.0) | Martin et al. |
| 65+ | 0.542 | 0.445-0.638 | Beta(24.8,21.0) | Martin et al. |
| Acute kidney injury hospitalisation‡ |  |  |  |  |
| 0-4 | 0.676 | 0.520-1.00 | Beta(2.2,1.0) | Nisula et al. |
| 5-14 | 0.676 | 0.520-1.00 | Beta(2.2,1.0) | Nisula et al. |
| 15-64 | 0.676 | 0.520-1.00 | Beta(2.2,1.0) | Nisula et al. |
| 65+ | 0.676 | 0.520-1.00 | Beta(2.2,1.0) | Nisula et al. |

\* quarter of the range of values

\* General practitioner utility scores age 18 months to 5 years

† Pediatricitan utility score age 18 months to 5 tears

‡ Stage 1 AKI patient health utility score, compared to general population score of 0.826 (0.812-0.876)

QALY loss distributions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | QALY loss per episode | Range | Distribution | Source |
| Norovirus GP attendance\* |  |  |  |  |
| 0-4 | 0.0000211 | 0.0000119-0.000031 | Beta(20.3, 7900.9) | Martin et al. |
| 5-14 | 0.0000211 | 0.0000119-0.000031 | Beta(20.3, 7900.9) | Martin et al. |
| 15-64 | 0.0000211 | 0.0000119-0.000031 | Beta(20.3, 7900.9) | Martin et al. |
| 65+ | 0.0000211 | 0.0000119-0.000031 | Beta(20.3, 7900.9) | Martin et al. |
| Norovirus hospitalisation† |  |  |  |  |
| 0-4 | 0.00715 | 0.00565-0.00867 | Beta(85.9, 11925.3) | Martin et al. |
| 5-14 | 0.00715 | 0.00565-0.00867 | Beta(85.9, 11925.3) | Martin et al. |
| 15-64 | 0.00715 | 0.00565-0.00867 | Beta(85.9, 11925.3) | Martin et al. |
| 65+ | 0.00715 | 0.00565-0.00867 | Beta(85.9, 11925.3) | Martin et al. |
| Acute kidney injury hospitalisation‡ |  |  |  |  |
| 0-4 | 0.01065 | 0-0.0158 | Beta(6.9, 642.4) | Nisula et al. |
| 5-14 | 0.01065 | 0-0.0158 | Beta(6.9, 642.4) | Nisula et al. |
| 15-64 | 0.01065 | 0-0.0158 | Beta(6.9, 642.4) | Nisula et al. |
| 65+ | 0.01065 | 0-0.0158 | Beta(6.9, 642.4) | Nisula et al. |

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| --- | --- | --- | --- | --- | --- |
| Parameter | Cost value (£) | Range | SD | Distribution | Source |
| Norovirus GP attendance |  |  |  |  |  |
| 0-4 | 49 | 36.75-61.25 | 6.25 | Lognormal | Unit Costs of Health and Social Care 2023. |
| 5-14 | 49 | 36.75-61.25 | 6.25 | Lognormal | Unit Costs of Health and Social Care 2023. |
| 15-64 | 49 | 36.75-61.25 | 6.25 | Lognormal | Unit Costs of Health and Social Care 2023. |
| 65+ | 49 | 36.75-61.25 | 6.25 | Lognormal | Unit Costs of Health and Social Care 2023. |
| Norovirus hospitalisation |  |  |  |  |  |
| 0-4 | 1045 | 543-3600 | 779 | Lognormal | National schedule of NHS costs 2021/2022 |
| 5-14 | 1045 | 543-3600 | 779 | Lognormal | National schedule of NHS costs 2021/2022 |
| 15-64 | 1749 | 403-8855 | 2157 | Lognormal | National schedule of NHS costs 2021/2022 |
| 65+ | 1749 | 403-8855 | 2157 | Lognormal | National schedule of NHS costs 2021/2022 |
| Acute kidney injury hospitalisation |  |  |  |  |  |
| 0-4 | - | - | - | Lognormal | National schedule of NHS costs 2021/2022 |
| 5-14 | - | - | - | Lognormal | National schedule of NHS costs 2021/2022 |
| 15-64 | - | - | - | Lognormal | National schedule of NHS costs 2021/2022 |
| 65+ | 3730 | 2434-10787 | 2131 | Lognormal | National schedule of NHS costs 2021/2022 |

*Admin cost child 18.20 (9.71-25.97)*

*Admin cost adult 14.05 (7.59-20.88)*