|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Appendix Table 4.** Results of the sensitivity analyses per 1,000 Barrett’s esophagus patients | | | | | | | | | | | | | | | | | |
| 1. **Cohort of 50-year-old patients with BE** | | | | | | | | | | | | | | | | | |
| Strategy | Dutch guideline | | | Intensive for NDBE and LGD1 | | | | Intensive for NDBE1 | | | Intensive for LGD1 | | | Very intensive for NDBE and LGD1 | | Very intensive for NDBE1 | |
| Prevented EAC cases (>T1A) | 90 | 104 | | | +13 | | | 100 | +10 | | 92 | +2 | | 113 | +23 | 108 | +18 |
| Prevented EAC deaths | 80 | 88 | | | +7 | | | 86 | +5 | | 82 | +1 | | 92 | +12 | 90 | +9 |
| Endoscopies | 10,179 | 14,663 | | | +4,484 | | | 13,470 | +3,291 | | 11,054 | +875 | | 22,310 | +12,131 | 20,511 | +10,332 |
| Initial EET | 241 | 317 | | | +76 | | | 275 | +34 | | 272 | +31 | | 372 | +131 | 314 | +73 |
| EET touch-ups | 191 | 250 | | | +59 | | | 218 | +26 | | 216 | +25 | | 295 | +104 | 249 | +58 |
| Esophagectomy | 28 | 29 | | | +2 | | | 30 | +3 | | 27 | -1 | | 30 | +3 | 32 | +4 |
| Complications | 35 | 46 | | | +12 | | | 40 | +6 | | 39 | +4 | | 57 | +22 | 49 | +14 |
| Net cost2 (€m) | 6.3 | 9.3 | | | +2.9 | | | 8.3 | +1.9 | | 7.1 | +0.7 | | 13.9 | +7.6 | 12.5 | +6.1 |
| ($m) | 7.2 | 10.6 | | | +3.3 | | | 9.5 | +2.2 | | 8.1 | +0.8 | | 15.9 | +8.7 | 14.3 | +7.0 |
| LYs gained2 | 569.3 | 615.8 | | | +46.5 | | | 606.1 | +36.8 | | 573.6 | +4.3 | | 647.8 | +78.5 | 631.5 | +62.2 |
| QALYs gained2 | 622.5 | 671.6 | | | +49.1 | | | 662.5 | +40.0 | | 626.0 | +3.5 | | 702.5 | +80.0 | 686.9 | +64.4 |
| Incremental cost per QALY3 (€) | N.A. | | | 59,413 | | | |  | 48,643 | | 205,760 | | | 94,998 | |  | 95,328 |
| ($) | N.A. | | | 67,889 | | | |  | 55,583 | | 235,114 | | | 108,551 | |  | 108,928 |
| 1. **Cohort of 55-year-old patients with BE** | | | | | | | | | | | | | | | | | |
| Strategy | Dutch guideline | | Intensive for NDBE and LGD1 | | | | | Intensive for NDBE1 | | Intensive for LGD1 | | | | Very intensive for NDBE and LGD1 | | Very intensive for NDBE1 | |
| Prevented EAC cases (>T1A) | 75 | | 87 | | | +12 | | 84 | +9 | 77 | | | +2 | 95 | +20 | 90 | +16 |
| Prevented EAC deaths | 66 | | 72 | | | +6 | | 70 | +5 | 67 | | | +1 | 76 | +10 | 74 | +8 |
| Endoscopies | 8,406 | | 12,276 | | | +3,870 | | 11,205 | +2,799 | 9,187 | | | +781 | 18,848 | +10,442 | 17,165 | +8,759 |
| Initial EET | 210 | | 278 | | | +68 | | 240 | +30 | 238 | | | +28 | 327 | +118 | 274 | +65 |
| EET touch-ups | 143 | | 187 | | | +44 | | 162 | +19 | 161 | | | +18 | 220 | +78 | 185 | +43 |
| Esophagectomy | 24 | | 25 | | | +2 | | 26 | +2 | 23 | | | -1 | 26 | +3 | 27 | +3 |
| Complications | 29 | | 39 | | | +10 | | 34 | +5 | 33 | | | +4 | 49 | +19 | 41 | +12 |
| Net cost2 (€) | 5.6 | | 8.2 | | | +2.7 | | 7.3 | +1.7 | 6.2 | | | +0.7 | 12.4 | +6.9 | 11.0 | +5.5 |
| ($) | 6.3 | | 9.4 | | | +3.0 | | 8.3 | +2.0 | 7.1 | | | +0.8 | 14.2 | +7.9 | 12.6 | +6.3 |
| LYs gained2 | 434.6 | | 472.0 | | | +37.4 | | 464.6 | +30.0 | 438.2 | | | +3.6 | 497.8 | +63.2 | 485.1 | +50.5 |
| QALYs gained2 | 478.1 | | 517.4 | | | +39.4 | | 510.6 | +32.5 | 480.9 | | | +2.8 | 542.2 | +64.1 | 530.2 | +52.2 |
| Incremental cost per QALY3 (€) | N.A. | | 67,500 | | | | |  | 53,860 | 236,099 | | | | 107,146 | | 105,177 | |
| ($) | N.A. | | 77,129 | | | | | 61,543 | | 269,781 | | | | 122,431 | | 120,182 | |
| 1. **Cohort of 70-year-old patients with BE** | | | | | | | | | | | | | | | | | |
| Strategy | Dutch guideline | | | Intensive for NDBE and LGD1 | | | | Intensive for NDBE1 | | Intensive for LGD1 | | | | Very intensive for NDBE and LGD1 | | Very intensive for NDBE1 | |
| Prevented EAC cases (>T1A) | 27 | | | 32 | | +6 | | 31 | +4 | 28 | | | +1 | 37 | +11 | 34 | +8 |
| Prevented EAC deaths | 22 | | | 26 | | +3 | | 25 | +2 | 23 | | | +1 | 28 | +6 | 27 | +4 |
| Endoscopies | 3,065 | | | 4,707 | | +1,642 | | 4,192 | +1,126 | 3,459 | | | +394 | 7,699 | +4,633 | 6,836 | +3,770 |
| Initial EET | 106 | | | 143 | | +37 | | 121 | +15 | 122 | | | +16 | 171 | +65 | 140 | +34 |
| EET touch-ups | 28 | | | 36 | | +7 | | 31 | +3 | 32 | | | +3 | 41 | +13 | 35 | +7 |
| Esophagectomy | 12 | | | 13 | | +1 | | 13 | +1 | 11 | | | -1 | 14 | +2 | 14 | +2 |
| Complications | 13 | | | 18 | | +5 | | 15 | +2 | 15 | | | +2 | 22 | +9 | 19 | +6 |
| Net cost2 (€m) | 2.5 | | | 3.9 | | +1.4 | | 3.3 | +0.9 | 2.9 | | | +0.4 | 6.1 | +3.7 | 5.3 | +2.8 |
| ($m) | 2.8 | | | 4.4 | | +1.6 | | 3.8 | +1.0 | 3.3 | | | +0.5 | 7.0 | +4.2 | 6.0 | +3.2 |
| LYs gained2 | 110.3 | | | 123.6 | | +13.3 | | 121.4 | +11.1 | 110.7 | | | +0.5 | 134.0 | +23.8 | 129.9 | +19.6 |
| QALYs gained2 | 123.3 | | | 137.1 | | +13.8 | | 135.3 | +12.1 | 123.3 | | | 0.0 | 146.9 | +23.6 | 143.3 | +20.0 |
| Incremental cost per QALY3 (€) | N.A. | | | 100,605 | | | | 71,548 | | 23,736,152 | | | | 154,911 | |  | 141,311 |
| ($) | N.A | | | 114,958 | | | | 81,755 | | 27,122,394 | | | | 177,011 | |  | 161,470 |
| 1. **Higher progression rate from BE to EAC** | | | | | | | | | | | | | | | | | |
| Strategy | Dutch guideline | | | Intensive for NDBE and LGD1 | | | | Intensive for NDBE1 | | Intensive for LGD1 | | | | Very intensive for NDBE and LGD1 | | Very intensive for NDBE1 | |
| Prevented EAC cases (>T1A) | 70 | | | 84 | +14 | | | 80 | +11 | 73 | | | +3 | 94 | +24 | 89 | +19 |
| Prevented EAC deaths | 62 | | | 70 | +8 | | | 68 | +6 | 64 | | | +1 | 75 | +12 | 72 | +10 |
| Endoscopies | 6,892 | | | 9,857 | +2,965 | | | 8,968 | +2,075 | 7,340 | | | +448 | 15,245 | +8,353 | 13,830 | +6,937 |
| Initial EET | 189 | | | 255 | +65 | | | 221 | +32 | 216 | | | +27 | 303 | +114 | 255 | +66 |
| EET touch-ups | 109 | | | 142 | +33 | | | 125 | +16 | 123 | | | +14 | 168 | +59 | 143 | +34 |
| Esophagectomy | 23 | | | 25 | +2 | | | 26 | +3 | 22 | | | -1 | 27 | +4 | 28 | +5 |
| Complications | 26 | | | 35 | +9 | | | 30 | +5 | 29 | | | +3 | 43 | +17 | 37 | +11 |
| Net cost2 (€m) | 4.8 | | | 7.0 | +2.2 | | | 6.2 | +1.4 | 5.3 | | | +0.5 | 10.6 | +5.8 | 9.4 | +4.6 |
| ($m) | 5.5 | | | 8.0 | +2.5 | | | 7.1 | +1.6 | 6.0 | | | +0.5 | 12.2 | +6.6 | 10.8 | +5.3 |
| LYs gained2 | 389.3 | | | 431.5 | +42.3 | | | 424.9 | +35.6 | 394.5 | | | +5.3 | 458.5 | +69.3 | 446.5 | +57.3 |
| QALYs gained2 | 430.8 | | | 476.8 | +46.0 | | | 470.4 | +39.6 | 436.1 | | | +5.3 | 504.3 | +73.5 | 492.5 | +61.7 |
| Incremental cost per QALY3 (€) | N.A. | | | 47,360 | | | |  | 35,121 | 87,317 | | | | 79,156 | |  | 74,532 |
| ($) | N.A. | | | 54,117 | | | |  | 40,131 | 99,774 | | | | 90,449 | |  | 85,165 |
| 1. **Lower progression rate from BE to EAC** | | | | | | | | | | | | | | | | | |
| Strategy | Dutch guideline | | Intensive for NDBE and LGD1 | | | | | Intensive for NDBE1 | | Intensive for LGD1 | | | | Very intensive for NDBE and LGD1 | | Very intensive for NDBE1 | |
| Prevented EAC cases (>T1A) | 50 | | 58 | | | | +7 | 55 | +5 | 51 | | | +1 | 63 | +13 | 60 | +10 |
| Prevented EAC deaths | 43 | | 47 | | | | +4 | 45 | +3 | 43 | | | +1 | 49 | +7 | 47 | +5 |
| Endoscopies | 6,499 | | 9,613 | | | | +3,114 | 8,728 | +2,229 | 7,133 | | | +635 | 15,081 | +8,582 | 13,690 | +7,192 |
| Initial EET | 164 | | 220 | | | | +56 | 187 | +23 | 189 | | | +25 | 259 | +95 | 214 | +50 |
| EET touch-ups | 91 | | 118 | | | | +27 | 101 | +11 | 103 | | | +12 | 139 | +48 | 115 | +25 |
| Esophagectomy | 17 | | 18 | | | | +1 | 18 | +1 | 16 | | | -1 | 18 | +2 | 19 | +2 |
| Complications | 22 | | 30 | | | | +8 | 26 | +4 | 26 | | | +3 | 38 | +15 | 32 | +9 |
| Net cost2 (€m) | 4.6 | | 6.9 | | | | +2.3 | 6.1 | +1.5 | 5.2 | | | +0.6 | 10.6 | +6.0 | 9.4 | +4.8 |
| ($m) | 5.3 | | 7.9 | | | | +2.6 | 7.0 | +1.7 | 6.0 | | | +0.7 | 12.1 | +6.8 | 10.7 | +5.4 |
| LYs gained2 | 253.8 | | 275.0 | | | | +21.2 | 270.5 | +16.8 | 255.6 | | | +1.8 | 289.5 | +35.8 | 281.8 | +28.0 |
| QALYs gained2 | 280.3 | | 301.8 | | | | +21.4 | 298.1 | +17.7 | 281.4 | | | +1.1 | 314.5 | +34.1 | 307.6 | +27.2 |
| Incremental cost per QALY3 (€) | N.A. | | 107,433 | | | | | 84,104 | | 566,097 | | | | 175,634 | |  | 175,182 |
| ($) | N.A. | | 122,760 | | | | | 96,102 | | 646,857 | | | | 200,690 | |  | 200,174 |
| 1. **Lower participation rate in surveillance and endoscopic eradication therapy** | | | | | | | | | | | | | | | | | |
| Strategy | Dutch guideline | | | Intensive for NDBE and LGD1 | | | | Intensive for NDBE1 | | | Intensive for LGD1 | | | Very intensive for NDBE and LGD1 | | Very intensive for NDBE1 | |
| Prevented EAC cases (>T1A) | 41 | 49 | | | +8 | | | 47 | +6 | | 43 | +1 | | 56 | +15 | 53 | +12 |
| Prevented EAC deaths | 36 | 41 | | | +4 | | | 40 | +3 | | 37 | +1 | | 44 | +8 | 42 | +6 |
| Endoscopies | 5,724 | 8,486 | | | +2,763 | | | 7,661 | +1,937 | | 6,311 | +587 | | 12,246 | +6,522 | 11,104 | +5,380 |
| Initial EET | 131 | 174 | | | +43 | | | 149 | +19 | | 148 | +17 | | 212 | +81 | 176 | +46 |
| EET touch-ups | 74 | 95 | | | +21 | | | 83 | +9 | | 83 | +9 | | 115 | +41 | 97 | +23 |
| Esophagectomy | 15 | 16 | | | +1 | | | 16 | +1 | | 14 | -1 | | 17 | +2 | 17 | +3 |
| Complications | 18 | 24 | | | +6 | | | 21 | +3 | | 20 | +2 | | 31 | +13 | 26 | +8 |
| Net cost2 (€m) | 4.0 | 5.9 | | | +2.0 | | | 5.2 | +1.3 | | 4.5 | +0.5 | | 8.5 | +4.6 | 7.5 | +3.6 |
| ($m) | 4.5 | 6.8 | | | +2.3 | | | 6.0 | +1.5 | | 5.1 | +0.6 | | 9.7 | +5.2 | 8.6 | +4.1 |
| LYs gained2 | 214.7 | 237.5 | | | +22.8 | | | 233.8 | +19.2 | | 215.4 | +0.7 | | 257.1 | +42.4 | 250.0 | +35.3 |
| QALYs gained2 | 237.5 | 261.3 | | | +23.8 | | | 258.2 | +20.7 | | 237.6 | +0.1 | | 281.3 | +43.8 | 274.6 | +37.1 |
| Incremental cost per QALY3 (€) | N.A. | | | 83,174 | | | |  | 62,007 | | 4,648,332 | | | 103,983 | |  | 96,158 |  |
| ($) | N.A. | | | 95,039 | | | |  | 70,853 | | 5,311,472 | | | 118,818 | |  | 109,876 |
| 1. **Different discount rates for cost and life-years gained4** | | | | | | | | | | | | | | | | | |
| Strategy | Dutch guideline | | Intensive for NDBE and LGD1 | | | | | Intensive for NDBE1 | | Intensive for LGD1 | | | | Very intensive for NDBE and LGD1 | | Very intensive for NDBE1 | |
| Prevented EAC cases (>T1A) | 59 | | 69 | | | +10 | | 66 | +7 | 61 | | | +2 | 76 | +17 | 72 | +13 |
| Prevented EAC deaths | 51 | | 56 | | | +5 | | 55 | +4 | 52 | | | +1 | 60 | +9 | 58 | +7 |
| Endoscopies | 6,603 | | 9,734 | | | +3,131 | | 8,841 | +2,238 | 7,237 | | | +634 | 15,163 | +8,560 | 13,757 | +7,154 |
| Initial EET | 176 | | 235 | | | +59 | | 202 | +26 | 201 | | | +25 | 278 | +102 | 232 | +56 |
| EET touch-ups | 99 | | 129 | | | +29 | | 112 | +12 | 112 | | | +13 | 151 | +52 | 127 | +28 |
| Esophagectomy | 20 | | 21 | | | +1 | | 21 | +2 | 19 | | | -1 | 22 | +2 | 23 | +3 |
| Complications | 24 | | 32 | | | +8 | | 28 | +4 | 27 | | | +3 | 40 | +16 | 34 | +10 |
| Net cost2 (€m) | 4.1 | | 6.2 | | | +2.1 | | 5.4 | +1.4 | 4.6 | | | +0.5 | 9.5 | +5.5 | 8.4 | +4.3 |
| ($m) | 4.6 | | 7.0 | | | +2.4 | | 6.2 | +1.5 | 5.3 | | | +0.6 | 10.9 | +6.3 | 9.6 | +5.0 |
| LYs gained2 | 421.5 | | 459.7 | | | +38.2 | | 451.8 | +30.4 | 424.7 | | | +3.2 | 486.3 | +64.8 | 472.6 | +51.1 |
| QALYs gained2 | 465.5 | | 506.0 | | | +40.4 | | 498.5 | +33.0 | 468.0 | | | +2.5 | 531.9 | +66.4 | 518.6 | +53.1 |
| Incremental cost per QALY3 (€) | N.A. | | 51,772 | | | | |  | 41,048 | 217,508 | | | | 82,434 | | 81,863 | |
| ($) | N.A. | | 59,158 | | | | | 46,903 | | 248,538 | | | | 94,194 | | 93,542 | |
| ICER: incremental cost-effectiveness ratio, BE: Barrett’s esophagus, EAC: esophageal adenocarcinoma, HGD: high-grade dysplasia, LGD: low-grade dysplasia, LY: life year, m: million, ND: non-dysplastic, QALY: quality-adjusted life year, EET: endoscopic eradication therapy   1. Difference of the results of these strategies and Dutch guideline strategy before rounding are presented in the second column. 2. All discounted at an annual rate of 3%. 3. Compared to the Dutch guideline strategy. 4. Costs were discounted at an annual rate of 4%, and (quality-adjusted) life years were discounted at an annual rate of 1.5%. | | | | | | | | | | | | | | | | | |