*Table 7A: Estimates of mean and median expected survival for five patient populations*

| Population | | Approximate analysis using summary data (K-M) | | | | Available digitised data (AUC) | | | | Projection to death using Weibull model (MLE for summary data) | | | Projection to death using Weibull model (Weighted LS estimation) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | P/C | C | Difference | Max data | P/C | C | Difference | Max data | P/C | C | Difference | P/C | C | Difference |
| ITT | mean | 13.80 | 11.79 | **+ 2.08** | 28.5 | 13.23 | 11.60 | **+ 1.63** | 27.9 | 14.39 | 11.68 | **+ 2.71** | 14.24 | 11.68 | **+ 2.56** |
| | *LCL* | 12.49 | 10.62 | + 0.32 | - | - | - | **-** | - | 12.88 | 10.53 | + 0.81 | - | - | **-** |
| | *UCL* | 15.12 | 12.95 | + 3.84 | - | - | - | **-** | - | 15.91 | 12.83 | + 4.61 | - | - | **-** |
| | median | 12.50 | 9.50 | **+ 3.00** | - | 12.07 | 9.14 | **+ 2.93** | - | 12.02 | 10.09 | **+ 1.93** | - | - | **-** |
| | *LCL* | 10.37 | 8.05 | + 0.42 | - | - | - | **-** | - | 10.13 | 8.65 | - 0.44 | - | - | **-** |
| | *UCL* | 14.63 | 10.95 | + 5.58 | - | - | - | **-** | - | 13.90 | 11.52 | + 4.30 | - | - | **-** |
| Fully Supplemented | mean | 13.63 | 11.99 | **+ 1.64** | 25.5 | 13.38 | 11.78 | **+ 1.60** | 23.7 | 15.32 | 12.31 | **+ 3.01** | 15.33 | 12.25 | **+ 3.08** |
| | *LCL* | 12.27 | 10.72 | - 0.22 | - | - | - | **-** | - | 13.48 | 10.95 | + 0.72 | - | - | **-** |
| | *UCL* | 15.00 | 13.26 | + 3.50 | - | - | - | **-** | - | 17.16 | 13.67 | + 5.30 | - | - | **-** |
| | median | 13.50 | 10.50 | **+ 3.00** | - | 13.28 | 10.12 | **+ 3.16** | - | 12.88 | 10.65 | **+ 2.23** | - | - | **-** |
| | *LCL* | 11.87 | 8.63 | + 0.52 | - | - | - | **-** | - | 10.60 | 8.95 | - 0.61 | - | - | **-** |
| | *UCL* | 15.13 | 12.37 | + 5.48 | - | - | - | **-** | - | 15.16 | 12.34 | + 5.07 | - | - | **-** |
| Fully Supplemented stage III or IV | mean | 13.02 | 10.25 | **+ 2.73** | 23.5 | - | - | **-** | - | 14.43 | 10.28 | **+ 4.15** | 13.59 | 10.00 | **+ 3.59** |
| | *LCL* | 11.6 | 8.93 | + 0.79 | - | - | - | **-** | - | 12.41 | 9.04 | + 1.78 | - | - | **-** |
| | *UCL* | 14.45 | 11.56 | + 4.67 | - | - | - | **-** | - | 16.44 | 11.53 | + 6.52 | - | - | **-** |
| | median | 13.50 | 8.50 | **+ 5.00** | - | - | - | **-** | - | 12.13 | 8.97 | **+ 3.16** | - | - | **-** |
| | *LCL* | 11.41 | 6.56 | + 2.15 | - | - | - | **-** | - | 9.63 | 7.42 | + 0.22 | - | - | **-** |
| | *UCL* | 15.59 | 10.44 | + 7.85 | - | - | - | **-** | - | 14.62 | 10.51 | + 6.09 | - | - | **-** |
| Fully Supplemented PS 0 or 1 | mean | - | - | - | - | 13.99 | 12.21 | **+ 1.78** | 23.2 | - | - | - | 16.53 | 12.99 | **+ 3.55** |
| | *LCL* | - | - | - | - | - | - | **-** | - | - | - | - | - | - | **-** |
| | *UCL* | - | - | - | - | - | - | **-** | - | - | - | - | - | - | **-** |
| | median | - | - | - | - | 14.49 | 10.46 | **+ 4.03** | - | - | - | - | - | - | **-** |
| Fully Supplemented stage III / IV & PS 0 or 1 | mean | - | - | - | - | 13.3 | 10.25 | **+ 3.04** | 23.7 | - | - | - | 15.47 | 10.34 | **+ 5.12** |
| | *LCL* | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | *UCL* | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | median | - | - | - | - | 13.90 | 8.95 | **+ 4.95** | - | - | - | - | - | - | **-** |

ITT: Intention-to-treat; LCL: lower confidence interval; UCL: upper confidence interval; PS 0 or 1: Performance status 0 or 1; AUC: Area under curve; MLE: Maximum likelihood estimation; LS: least squares; P/C: Pemetrexed and cisplatin combination therapy; C: Cisplatin monotherapy

*Table 7C:   Resource use and unit cost uncertainty distributions and parameter estimates*

| | | | Population | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Distribution** | FS | | FS/AD | | FS/PS01 | | FS/AD&PS0/1 | |
| | | **Parameters** | Normal | Mean | St. Error | Mean | St. Error | Mean | St. Error | Mean | St. Error |
| | | | Beta | Alpha | Beta | Alpha | Beta | Alpha | Beta | Alpha | Beta |
| Topic | Item | Treatment | | | | | | | | | |
| AE hospitalisations | Events per cycle | P/C | Beta | 63 | 761 | 52 | 532 | 44 | 673 | 33 | 463 |
| | | C | Beta | 27 | 623 | 15 | 447 | 24 | 555 | 13 | 389 |
| | Cost per event | P/C & C | Normal | 811.4 | 34.3 | 802.8 | 36.7 | 805.8 | 42.2 | 796.9 | 47.6 |
| Treatment | Cycles per patient | P/C | Beta | 824 | 1192 | 584 | 916 | 717 | 999 | 496 | 752 |
| | | C | Beta | 650 | 1306 | 462 | 1002 | 579 | 1113 | 402 | 834 |
| Drug cost | Cost per cycle | P/C | Normal | 1746.7 | 10.1 | 1752.5 | 12.4 | 1754.6 | 10.1 | 1762.7 | 12.2 |
| | | P/C adjusted | Normal | 91.9 | 0.6 | 92.0 | 0.7 | 91.4 | 0.6 | 91.8 | 0.7 |
| | | C | Normal | 1576.6 | 7.7 | 1585.4 | 8.9 | 1588.8 | 7.5 | 1603.0 | 8.1 |
| Treatment mode | %IP administered | P/C | Beta | 340 | 484 | 267 | 317 | 289 | 428 | 216 | 280 |
| | | C | Beta | 266 | 384 | 165 | 297 | 235 | 344 | 137 | 265 |
| Post-study chemotherapy | Events per patient | P/C | Beta | 65 | 103 | 51 | 74 | 58 | 85 | 46 | 58 |
| | | C | Beta | 68 | 95 | 51 | 71 | 60 | 81 | 43 | 60 |
| | Cost per event | P/C & C | Normal | 2768.1 | 132.2 | 2770.0 | 156.2 | 2931.0 | 150.0 | 2788.2 | 171.2 |
| Utility gain | Discounted | - | Normal | 0.145 | 0.052 | 0.179 | 0.050 | 0.177 | 0.062 | 0.238 | 0.058 |

FS: Fully supplemented; AD: Advanced disease; PS 0 or 1: Performance status 0 or 1; P/C: Pemetrexed and cisplatin combination therapy; C: Cisplatin monotherapy

*Table 7D: Cost-effective results for base case pemetrexed costs*

| Patient population | Cost per patient | | | Life-years per patient | | | Incremental QALYs | Incremental cost per life-year gained | Incremental cost per QALY gained |
|---|---|---|---|---|---|---|---|---|---|
| | Pemetrexed + cisplatin | Cisplatin | Incremental Cost | Pemetrexed + cisplatin | Cisplatin | Incremental Life-years | | | |
| Fully supplemented | £12,495 | £3,723 | + £8,773 | 1.254 | 1.008 | + 0.246 | + 0.145 | £35,629 | £60,561 |
| Fully supplemented with advanced disease | £12,211 | £3,448 | + £8,763 | 1.115 | 0.827 | + 0.288 | + 0.179 | £30,444 | £49,051 |
| Fully supplemented with good performance status (0 or 1) | £12,815 | £3,880 | + £8,935 | 1.349 | 1.068 | + 0.281 | + 0.177 | £31,783 | £50,357 |
| Fully supplemented with advanced disease & good performance status (0 or 1) | £12,441 | £3,483 | + £8,958 | 1.265 | 0.855 | + 0.410 | + 0.238 | £21,847 | £37,664 |

*Table 7E: Cost-effectiveness for alternative pemetrexed costs*

| Patient population | Cost per patient | | | Life-years per patient | | | Incremental QALYs | Incremental cost per life-year gained | Incremental cost per QALY gained |
|---|---|---|---|---|---|---|---|---|---|
| | Pemetrexed + cisplatin | Cisplatin | Incremental Cost | Pemetrexed + cisplatin | Cisplatin | Incremental Life-years | | | |
| Fully supplemented | £11,661 | £3,723 | + £7,938 | 1.254 | 1.008 | + 0.246 | + 0.145 | £32,241 | £54,802 |
| Fully supplemented with advanced disease | £11,430 | £3,448 | + £7,982 | 1.115 | 0.827 | + 0.288 | + 0.179 | £27,731 | £44,681 |
| Fully supplemented with good performance status (0 or 1) | £11,983 | £3,880 | + £8,103 | 1.349 | 1.068 | + 0.281 | + 0.177 | £28,825 | £45,671 |
| Fully supplemented with advanced disease & good performance status (0 or 1) | £11,680 | £3,483 | + £8,197 | 1.265 | 0.855 | + 0.410 | + 0.238 | £19,990 | £34,463 |

*Table 7F*:     *Key results of probabilistic sensitivity analysis for base case and alternative pemetrexed costs*

| Patient population | Base Case Scenario | | | | | Alternative Drug Costs Scenario | | | | |
| | Acceptability threshold for probability cost-effective of | | | Probability cost-effective | | Acceptability threshold for probability cost-effective of | | | Probability cost-effective | |
| | 50% | 2.5% | 97.5% | £30,000 threshold | £40,000 threshold | 50% | 2.5% | 97.5% | £30,000 threshold | £40,000 threshold |
|---|---|---|---|---|---|---|---|---|---|---|
| Fully supplemented | £59,118 | £34,284 | £191,242 | 0.7% | 9.2% | £53,304 | £31,048 | £172,800 | 1.6% | 18.2% |
| Fully supplemented with advanced disease | £48,747 | £31,699 | £109,428 | 1.1% | 21.0% | £44,394 | £28,951 | £99,738 | 4.1% | 33.0% |
| Fully supplemented with good performance status (0 or 1) | £50,155 | £29,626 | £154,219 | 2.8% | 23.3% | £45,425 | £26,973 | £140,009 | 6.6% | 34.3% |
| Fully supplemented with advanced disease & good performance status (0 or 1) | £37,451 | £25,526 | £73,365 | 16.4% | 60.1% | £34,287 | £23,410 | £67,201 | 27.9% | 70.9% |