Appendix 3:

This appendix presents the results of mixed logit models for pooled data and individual countries.

Two models were fitted to the pooled data. In the first model (Model A, table 1) the alternative specific constant (ASC) (1= for either Treatment and 0=No treatment) was specified to be random, to allow for unobserved heterogeneity in preferences for treatment compared with “no treatment”. The second model (Model B, table 1) allowed for observed heterogeneity between countries by including country specific dummies interacted with the ASC.

In addition, models were fitted to the data of individual countries. Here, all the attributes (bar the OOP) were defined as random variables.

The significant standard deviations indicate the existence of preference heterogeneity, across countries (significant SD for the interaction terms) and within attributes for each country (significant SD for the random variables).

Table 1: Mixed logit models for pooled data

|  |  |  |
| --- | --- | --- |
|   | Model A | Model B |
|   | coefficient (Robust SE) | coefficient (Robust SE) |
| Constant  | 4.50\*\*\*(0.482) | 0.638\*(0.266) |
| Out-of-pocket payment (OOP) | -0.47x10-4\*\*\*(0.8x10-5) | -0.47x10-4\*\*\*(0.8x10-5) |
| Progression free survival (PFS) | 0.029\*\*\*(0.004) | 0.029\*\*\*(0.004) |
| Febrile neutropenia (FN)  | -0.036\*\*\*(0.005) | -0.036\*\*\*(0.005) |
| No pain (reference: severe pain) | 0.740\*\*\*(0.051) | 0.736\*\*\*(0.050) |
| Moderate pain (reference: severe pain) | 0.568\*\*\*(0.052) | 0.567\*\*\*(0.051) |
| No impairment functional wellbeing (reference: severely impaired) | 0.855\*\*\*(0.058) | 0.847\*\*\*(0.058) |
| Moderate impairment functional wellbeing (reference: severely impaired) | 0.744\*\*\*(0.049) | 0.741\*\*\*(0.048) |
| ASC\*Country |  |  |
| France |   | 3.806\*\*\*(0.846) |
| Spain |   | 3.291\*\*\*(0.876) |
| Ireland |   | 4.575\*\*(1.491) |
| Std. Deviation (se) |   |   |
| Constant |  4.66\*\*\*(0.356) |  |
| France |   | 5.296\*\*\*(1.098) |
| Spain |   | 4.988\*\*\*(0.870) |
| Ireland |   | -5.512\*\*\*(1.529) |
| Number of observations | 17808 | 17808 |
| Χ2 | 543.361\*\*\* | 571.684\*\*\* |
| Log likelihood | -4297.326 | -4515.471 |
| AIC | 8612.651 | 9058.942 |
| BIC | 8682.738 | 9167.966 |
| \* p<0.05, \*\* p<0.01, \*\*\* p<0.001 |  |  |

Table 2: Mixed logit models for individual countries

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | France |   | Ireland |   | Poland |   | Spain |   |
|   | coefficient | Robust se | coefficient | Robust se | coefficient | Robust se | coefficient | Robust se |
| **Mean** |   |   |   |   |   |   |   |   |
| Constant | 4.182\*\*\* | 0.696 | 5.166\*\*\* | 1.561 | 3.871\*\*\* | 0.882 | 4.225\*\*\* | 0.863 |
| Out-of-pocket payment (OOP) | -0.12x10-3\*\*\* | 0.24x10-4 | -0.59x10-4\* | 0.23x10-4 | -0.56x10-4\* | 0.23x10-4 | -0.72x10-4\*\* | 0.23x10-4 |
| Progression free survival (PFS) | 0.031\*\* | 0.010 | 0.047\*\*\* | 0.013 | 0.049\*\*\* | 0.012 | 0.028\*\*\* | 0.008 |
| Febrile neutropenia (FN)  | -0.104\*\*\* | 0.015 | -0.123\*\*\* | 0.030 | -0.032\* | 0.015 | -0.016 | 0.010 |
| No pain (reference: severe pain) | 1.419\*\*\* | 0.160 | 0.923\*\*\* | 0.150 | 0.513\*\*\* | 0.099 | 0.957\*\*\* | 0.131 |
| Moderate pain (reference: severe pain) | 0.900\*\*\* | 0.155 | 0.788\*\*\* | 0.160 | 0.521\*\*\* | 0.102 | 0.715\*\*\* | 0.122 |
| No impairment functional wellbeing (reference: severely impaired) | 1.290\*\*\* | 0.141307 | 1.357\*\*\* | 0.193 | 0.867\*\*\* | 0.170 | 1.130\*\*\* | 0.150 |
| Moderate impairment functional wellbeing (reference: severely impaired) | 1.191\*\*\* | 0.127509 | 1.186\*\*\* | 0.164 | 0.657\*\*\* | 0.101 | 0.899\*\*\* | 0.129 |
| **Std. Deviation** |   |   |   |   |   |   |   |   |
| Constant | 5.965\*\*\* | 0.691939 | 5.370\*\*\* | 1.177 | 2.982\*\*\* | 0.500 | 4.328\*\*\* | 0.592 |
| Out-of-pocket payment (OOP) | -0.038\* | 0.015438 | 0.070\*\*\* | 0.021 | 0.095\*\*\* | 0.014 | 0.031\* | 0.015 |
| Progression free survival (PFS) | 0.114\*\*\* | 0.019105 | 0.134\*\*\* | 0.025 | 0.132\*\*\* | 0.025 | 0.095\*\*\* | 0.018 |
| Febrile neutropenia (FN)  | 0.596\*\*\* | 0.159173 | -0.66x10-3 | 0.299 | 0.290\* | 0.123 | -0.554\*\*\* | 0.119 |
| No pain (reference: severe pain) | -0.611\*\* | 0.198697 | -0.152 | 0.231 | 0.451\* | 0.189 | -0.067 | 0.280 |
| Moderate pain (reference: severe pain) | 0.283 | 0.199807 | 0.284 | 0.239 | 0.577\*\* | 0.182 | 0.556\*\* | 0.184 |
| No impairment functional wellbeing (reference: severely impaired) | -0.047 | 0.262482 | -0.090 | 0.206 | 0.099 | 0.059 | -0.212 | 0.176 |
| Number of observations | 4848 | 3360 | 4800 | 4800 |
| Χ2 | 245.199\*\*\* | 85.396\*\*\* | 94.345\*\*\* | 128.065\*\*\* |
| Log likelihood | -1021.61 | -702.159 | -1147.35 | -1119.79 |
| \* p<0.05, \*\* p<0.01, \*\*\* p<0.001 |