**Table S1**

A. Positive evidence ratio of arm function models estimated from surrogate data (2700 surrogate subjects).

|  |  |  |  |
| --- | --- | --- | --- |
| Regressors | 1 parameter model | 2 parameters model | 3parameters model |
| F(t-1) | 1461:498 | 2228:472 | -- |
| U(t-1)  | 1346:149 | 2617:81 | -- |
| F(t-1) and U(t-1)  |  ***(1-)F(t-1)+U(t-1)*** | 2549:59 | 2624:75 |

B. Positive evidence ratio of arm use estimated from surrogate data (2900 surrogate subjects).

|  |  |
| --- | --- |
| Regressors | Models |
| F(t) (linear) | 2689:86 |
| F(t-1) (linear) | 2424:336 |
| F(t) (sigmoidal) | 1771:486  |
| F(t-1) (sigmoidal) | ***1/(1+exp[-(*** ***F(t-1)-******)])*** |