## Melphalan PK-PD Model – Variable Descriptions

**Continuous Covariates**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Abbreviation** | **Description** | **Units** | **Lower Limit** | **Upper Limit** |
| BSA | Body surface area | m2 |  |  |
| CRCL | Creatinine clearance | mL/min |  |  |
| FFM | Fat free mass | kg |  |  |
| HCT | Haematocrit | mg/dL |  |  |
| BUN | Blood urea nitrogen | mg/dL |  |  |
| ANCBASE | Baseline absolute neutrophil count | K/µL |  |  |
| WBC | White blood cell count | K/µL |  |  |
| LNP53FOLD |  |  |  |  |

Other questions:

What are some plausible lower and upper limits for the above? i.e., based on your patient population (that you have data for) but also the general patient population?

* I ask so that I can attached limits to the application’s widgets – i.e., sliders or numerical input so that implausible combinations of values can not be used to simulate PK-PD profiles.

How was fat free mass calculated?

How was creatinine clearance calculated?

* From the Cockcroft-Gault equation?
* Did you use fat free mass or ideal body weight in the equation?
* Would you like sliders for each of it’s elements? i.e., age, serum creatinine, height, etc.?

**Categorical Covariates**

|  |  |  |  |
| --- | --- | --- | --- |
| **Abbreviation** | **Description** | **0** | **1** |
| SEX | Gender |  |  |
| SLC7A5 |  |  |  |
| G-CSF | Granulocyte Colony Stimulating Factor – Filgrastim (Neupogen®) | Administered Day 1 | Administered Day 7 |

**Infusion Guidelines**

What are the guidelines around the melphalan infusion?

Based on the dataset, everyone has very different infusion rates. When I go to calculate the infusion duration, it varies quite a bit between half an hour to 1 hour.

Would it be best to have a slider for infusion duration if it varies between individuals and doses?