

## Supplementary Model Example

### Patient Characteristics:

Age: 74 years

AST: 63 U/L

PLT:  $53 \times 10^9/L$

Splenomegaly: Present (1)

|                    | Age         | AST         | PLT          | Splenomegaly |
|--------------------|-------------|-------------|--------------|--------------|
| Model Coefficients | 0.036911392 | 0.002162216 | -0.008674203 | 0.765446583  |
| Center Values      | 51.8876404  | 192.4460674 | 51.7528090   | 0.6067416    |

### Baseline Survival Probabilities:

30-day: 0.6989615

90-day: 0.5635805

### Step-by-step Calculation:

- **Calculate Linear Predictor:**

$$LP = 0.036911392 \times (74 - 51.8876404) + 0.002162216 \times (63 - 192.4460674) + (-0.008674203) \times (53 - 51.7528090) + 0.765446583 \times (1 - 0.6067416) = 0.8266$$

- **Calculate Mortality Risks:**

$$\text{30-day mortality} = 1 - 0.6989615^{\exp(0.8266)} = 1 - 0.6989615^{2.285} = 1 - 0.406 = 0.594 \text{ (59.4\%)}$$

$$\text{90-day mortality} = 1 - 0.5635805^{\exp(0.8266)} = 1 - 0.5635805^{2.285} = 1 - 0.267 = 0.733 \text{ (73.3\%)}$$

### Interpretation:

This patient has a linear predictor value of 0.8266, which is higher than those in average risk. The calculated 30-day mortality risk is 59.4% and 90-day mortality risk is 73.3%.