

## BMA-CRM Simulator version 2.2.4

### Model

Target Toxicity Probability	0.300
Safety Stopping Probability (Upper Limit $Pr(\text{tox})$ at Lowest Dose)	0.900
Maximum Sample Size	30
Cohort Size	3
Starting Dose Level	1
Toxicity Assessment Period (Days)	42
Use Data Augmentation (DA)	False

Prior **Median** Probabilities of Toxicity at Each Dose Level:

Prob Set	1
Dose	Prob.
1	0.150
2	0.200
3	0.260
4	0.310
5	0.360

### Simulation Settings

Number of Simulated Trials	1000
Random Number Generator Seed	1052
Accrual Rate (Patients per Month)	3.38
Proportion of Toxicities Observed in Second Half of Assessment Period	0.700

### Scenarios and Results

Scenario: s1

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.050	0.00	3.6	0.2
2	0.080	0.00	3.9	0.3
3	0.100	0.01	4.3	0.4
4	0.150	0.06	5.1	0.8

5	0.190	0.93	13.1	2.5
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 4.2</b>				
<b>Total Trial Time (Months): 17.73</b>				

**Scenario: s2**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.300	0.35	14.5	4.3
2	0.350	0.22	6.4	2.3
3	0.370	0.13	3.2	1.2
4	0.450	0.05	1.2	0.6
5	0.550	0.01	0.2	0.1
<b>Probability of Early Termination: 0.24</b>				
<b>Toxicities per Trial: 8.4</b>				
<b>Total Trial Time (Months): 16.35</b>				

**Scenario: s3**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.300	0.34	14.8	4.4
2	0.330	0.22	6.1	2.0
3	0.360	0.12	3.2	1.1
4	0.390	0.06	1.2	0.5
5	0.420	0.04	0.6	0.3
<b>Probability of Early Termination: 0.23</b>				
<b>Toxicities per Trial: 8.4</b>				
<b>Total Trial Time (Months): 16.56</b>				

**Scenario: s4**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.300	0.46	16.3	4.9
2	0.400	0.23	6.6	2.6
3	0.500	0.05	2.2	1.1
4	0.600	0.00	0.3	0.2
5	0.800	0.00	0.0	0.0
<b>Probability of Early Termination: 0.26</b>				

<b>Toxicities per Trial: 8.8</b>
<b>Total Trial Time (Months): 16.10</b>

**Scenario: s5**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.300	0.56	18.7	5.7
2	0.500	0.14	5.6	2.8
3	0.700	0.01	0.8	0.6
4	0.750	0.00	0.0	0.0
5	0.800	0.00	0.0	0.0
<b>Probability of Early Termination: 0.27</b>				
<b>Toxicities per Trial: 9.0</b>				
<b>Total Trial Time (Months): 15.46</b>				

**Scenario: s6**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.200	0.22	11.1	2.2
2	0.300	0.36	9.5	3.0
3	0.350	0.22	5.4	1.9
4	0.400	0.11	2.3	0.9
5	0.500	0.04	0.8	0.4
<b>Probability of Early Termination: 0.05</b>				
<b>Toxicities per Trial: 8.3</b>				
<b>Total Trial Time (Months): 19.35</b>				

**Scenario: s7**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.100	0.14	8.2	0.8
2	0.300	0.60	13.8	4.1
3	0.500	0.22	6.7	3.4
4	0.550	0.02	1.0	0.5
5	0.560	0.00	0.2	0.1
<b>Probability of Early Termination: 0.01</b>				
<b>Toxicities per Trial: 8.9</b>				
<b>Total Trial Time (Months): 20.42</b>				

**Scenario: s8**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.050	0.11	6.8	0.3
2	0.300	0.60	14.0	4.1
3	0.450	0.28	7.8	3.6
4	0.700	0.01	1.3	0.9
5	0.780	0.00	0.0	0.0
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 8.9</b>				
<b>Total Trial Time (Months): 20.68</b>				

**Scenario: s9**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.100	0.02	5.0	0.5
2	0.150	0.16	6.9	1.0
3	0.300	0.48	10.6	3.1
4	0.440	0.28	5.8	2.6
5	0.550	0.05	1.7	0.9
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 8.1</b>				
<b>Total Trial Time (Months): 20.56</b>				

**Scenario: s10**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.100	0.01	5.4	0.5
2	0.200	0.20	8.1	1.6
3	0.300	0.43	9.1	2.7
4	0.400	0.24	5.3	2.1
5	0.500	0.11	2.1	1.0
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 7.9</b>				
<b>Total Trial Time (Months): 20.52</b>				

**Scenario: s11**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.050	0.01	4.6	0.2
2	0.200	0.21	8.5	1.7
3	0.300	0.44	9.5	2.8
4	0.400	0.28	5.6	2.3
5	0.600	0.06	1.9	1.2
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 8.2</b>				
<b>Total Trial Time (Months): 20.59</b>				

**Scenario: s12**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.280	0.25	12.8	3.5
2	0.290	0.21	6.4	1.9
3	0.300	0.14	4.2	1.3
4	0.310	0.11	2.0	0.6
5	0.320	0.13	1.6	0.5
<b>Probability of Early Termination: 0.15</b>				
<b>Toxicities per Trial: 7.8</b>				
<b>Total Trial Time (Months): 17.70</b>				

**Scenario: s13**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.150	0.08	7.9	1.2
2	0.250	0.27	8.6	2.1
3	0.300	0.30	6.9	2.1
4	0.350	0.26	4.3	1.5
5	0.550	0.08	1.9	1.0
<b>Probability of Early Termination: 0.02</b>				
<b>Toxicities per Trial: 7.9</b>				
<b>Total Trial Time (Months): 20.06</b>				

**Scenario: s14**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities

1	0.050	0.00	3.7	0.2
2	0.080	0.01	4.2	0.4
3	0.120	0.21	6.1	0.7
4	0.300	0.55	9.9	2.9
5	0.600	0.23	6.2	3.7
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 7.9</b>				
<b>Total Trial Time (Months): 19.92</b>				

**Scenario: s15**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.120	0.01	5.1	0.6
2	0.140	0.06	5.5	0.8
3	0.200	0.20	6.9	1.3
4	0.300	0.35	7.0	2.1
5	0.400	0.38	5.4	2.2
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 7.0</b>				
<b>Total Trial Time (Months): 20.01</b>				

**Scenario: s16**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.050	0.00	3.6	0.2
2	0.060	0.01	3.8	0.2
3	0.070	0.23	5.9	0.4
4	0.300	0.67	11.8	3.5
5	0.800	0.09	4.9	3.9
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 8.3</b>				
<b>Total Trial Time (Months): 19.87</b>				

**Scenario: s17**

<b>Dose Level</b>	<b>True Prob(tox)</b>	<b>Selection Probability</b>	<b># of Subjects Treated</b>	<b># of Toxicities</b>
1	0.250	0.20	11.5	2.9
2	0.260	0.20	6.6	1.7

3	0.270	0.18	4.8	1.3
4	0.300	0.15	2.9	0.9
5	0.330	0.17	2.1	0.7
<b>Probability of Early Termination: 0.10</b>				
<b>Toxicities per Trial: 7.5</b>				
<b>Total Trial Time (Months): 18.26</b>				

**Scenario: s18**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.050	0.00	3.7	0.2
2	0.100	0.01	4.5	0.5
3	0.150	0.04	5.2	0.7
4	0.190	0.17	5.9	1.1
5	0.300	0.78	10.7	3.2
<b>Probability of Early Termination: 0.00</b>				
<b>Toxicities per Trial: 5.7</b>				
<b>Total Trial Time (Months): 18.72</b>				

**Scenario: s19**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.300	0.38	14.8	4.4
2	0.350	0.24	6.6	2.4
3	0.400	0.11	3.2	1.3
4	0.450	0.03	0.9	0.4
5	0.700	0.00	0.1	0.1
<b>Probability of Early Termination: 0.23</b>				
<b>Toxicities per Trial: 8.6</b>				
<b>Total Trial Time (Months): 16.46</b>				

**Scenario: s20**

Dose Level	True Prob(tox)	Selection Probability	# of Subjects Treated	# of Toxicities
1	0.300	0.32	13.7	4.1
2	0.310	0.25	6.9	2.1
3	0.400	0.16	4.0	1.6
4	0.500	0.04	1.1	0.6

5	0.600	0.01	0.2	0.1
<b>Probability of Early Termination:</b> 0.22				
<b>Toxicities per Trial:</b> 8.5				
<b>Total Trial Time (Months):</b> 16.74				

Elapsed time: 1 minutes, 29 seconds

## BMA-CRM BackEnd version 2.2.4

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