Survival Statistics

August 14, 2021

Data

Raw data:

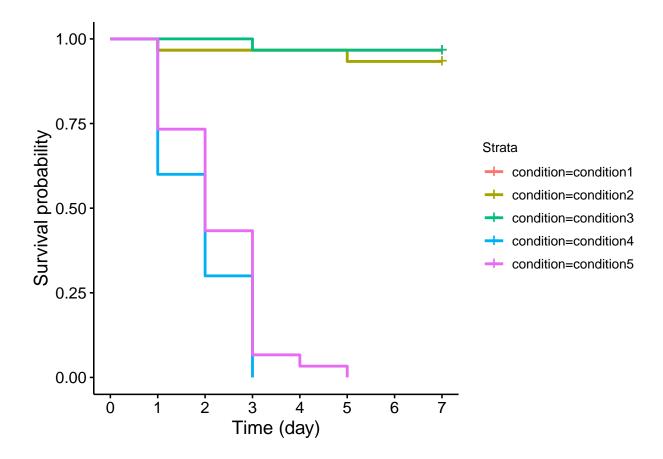
day	condition1	condition2	condition3	condition4	condition5
0	30	30	30	30	30
1	29	29	30	18	22
2	29	29	30	9	13
3	29	29	29	0	2
4	29	29	29	0	1
5	29	28	29	0	0
6	29	28	29	0	0
7	29	28	29	0	0

The survival data was reformatted so the Kaplan-Meier plot could be produced. Each row represents a different test subject. If the test subject survived the whole study fustat = 0 but if the subject died before the end of the study fustat = 1. futime reflects the day/time subject had died or, if the subject survived the study, futime reflects the day/time when the study ended. Tick marks indicate that one or more subjects have been excluded from the study at a particular time point, or (if the tick mark appears on the final time point) that the study has been concluded. Below is an example of the first 5 rows of data. The full transformed data set can be found in the output file FormattedSurvivalData.csv.

	condition	fustat	futime
1	condition1	1	1
2	condition1	0	7
3	condition1	0	7
4	condition1	0	7
5	${\rm condition} 1$	0	7

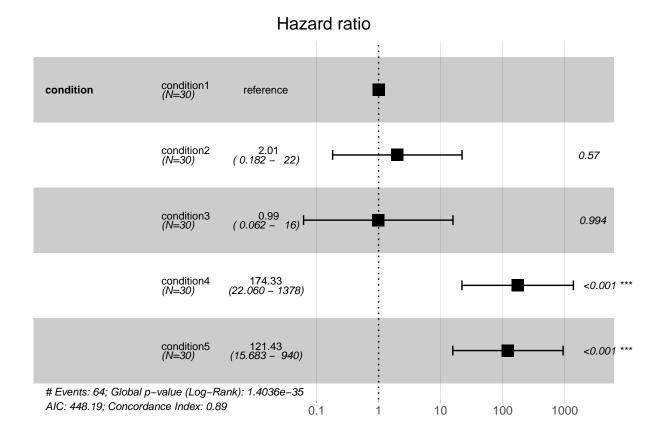
Kaplan-Meier Plot

This plot shows the fraction of surviving test subjects from each treatment group by each day of treatment.



Cox Proportional-Hazards Model

This plot reflects the risk of test subjects dying during the specified time interval. The higher the ratio value, the more likely the subjects in that treatment group will die (compared to a control group). The reference group is indicated as the first group listed in this figure.



Log Rank Tests

Log rank tests compare whether the results from a pair of test conditions are significantly different from one another. If the p-value is < 0.05, the two test conditions are significantly different.

condition1	condition2	pvalue
condition1	condition2	0.5614831
condition1	condition3	0.9904370
condition1	condition4	0.0000000
condition1	condition 5	0.0000000
condition2	condition3	0.5570936
condition2	condition4	0.0000000
condition2	condition 5	0.0000000
condition3	condition4	0.0000000
condition3	condition 5	0.0000000
condition4	condition 5	0.1404907

LT50 (Lethal Time)

The LT50 value is the time at which 50% of subjects are dead.

condition	LT50
condition1	39.1
condition2	17.7
condition3	16.2
condition4	1.4
condition5	1.8