

# The LIFETEST Procedure

Product-Limit Survival Estimates						
dur		Survival	Failure	Survival Standard Error	Number Failed	Number Left
0.00000		1.0000	0	0	0	10
2.00000		.	.	.	1	9
2.00000		0.8000	0.2000	0.1265	2	8
3.00000		0.7000	0.3000	0.1449	3	7
3.00000	*	.	.	.	3	6
5.00000		.	.	.	4	5
5.00000		.	.	.	5	4
5.00000		0.3500	0.6500	0.1602	6	3
5.00000	*	.	.	.	6	2
6.00000		0.1750	0.8250	0.1474	7	1
6.00000	*	0.1750	0.8250	.	7	0

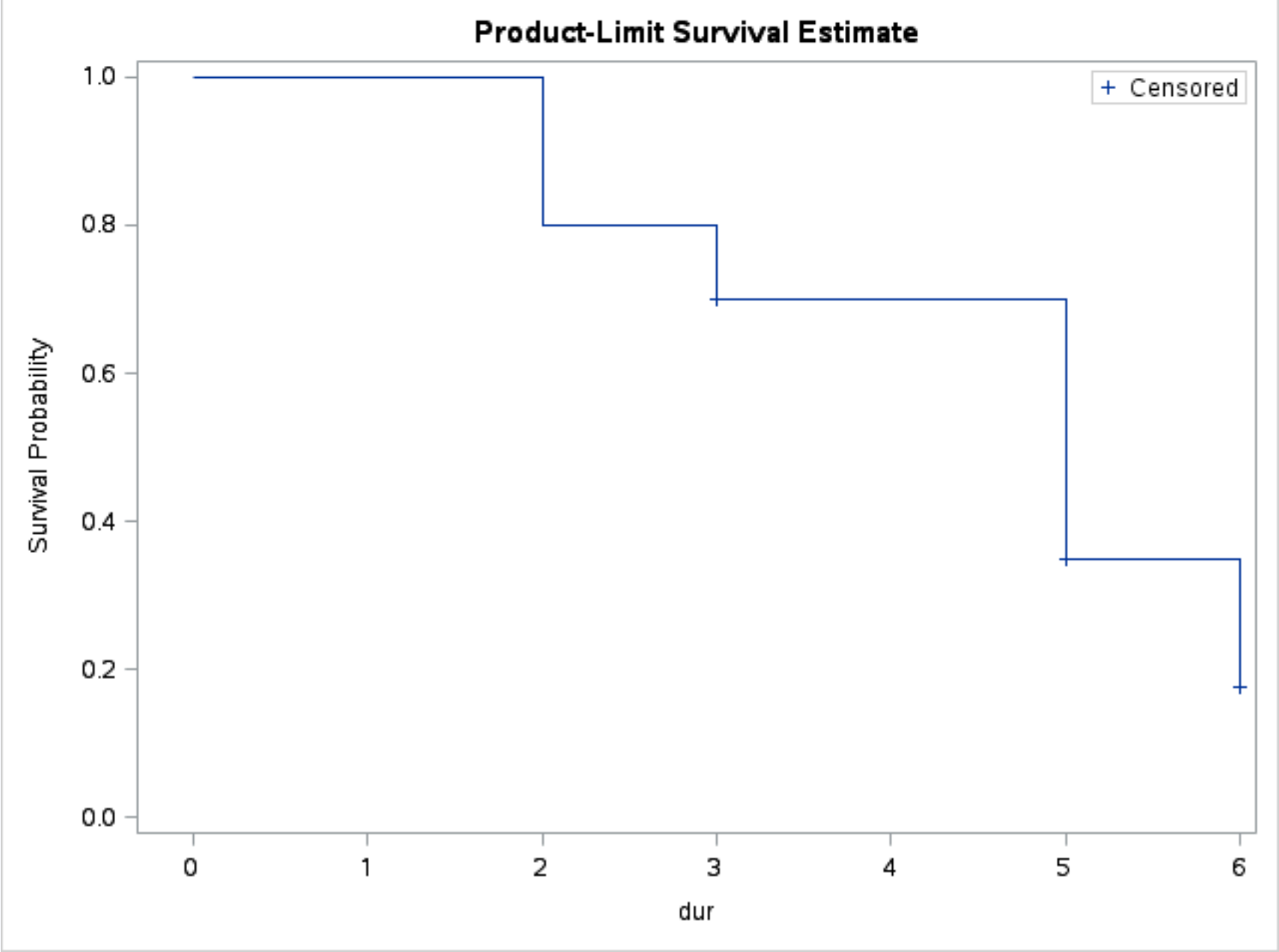
**Note:** The marked survival times are censored observations.

## Summary Statistics for Time Variable dur

Quartile Estimates				
Percent	Point Estimate	95% Confidence Interval		
		Transform	[Lower	Upper)
75	6.00000	LOGLOG	5.00000	.
50	5.00000	LOGLOG	2.00000	.
25	3.00000	LOGLOG	2.00000	5.00000

Mean	Standard Error
4.55000	0.52657

**Note:** The mean survival time and its standard error were underestimated because the largest observation was censored and the estimation was restricted to the largest event time.



Summary of the Number of Censored and Uncensored Values			
Total	Failed	Censored	Percent Censored
10	7	3	30.00

The LIFETEST Procedure  
Stratum 1: Treatment = 1

Product-Limit Survival Estimates						
Days		Survival	Failure	Survival Standard Error	Number Failed	Number Left
0.00		1.0000	0	0	0	158
41.00		0.9937	0.00633	0.00631	1	157
71.00		0.9873	0.0127	0.00889	2	156
131.00		0.9810	0.0190	0.0109	3	155
140.00		0.9747	0.0253	0.0125	4	154
179.00		0.9684	0.0316	0.0139	5	153
198.00		0.9620	0.0380	0.0152	6	152
223.00		0.9557	0.0443	0.0164	7	151
334.00		0.9494	0.0506	0.0174	8	150
348.00		0.9430	0.0570	0.0184	9	149
388.00		0.9367	0.0633	0.0194	10	148
400.00		0.9304	0.0696	0.0202	11	147
515.00		0.9241	0.0759	0.0211	12	146

533.00	*	.	.	.	12	145
673.00		0.9177	0.0823	0.0219	13	144
694.00		0.9113	0.0887	0.0226	14	143
732.00	*	.	.	.	14	142
737.00	*	.	.	.	14	141
750.00		0.9048	0.0952	0.0234	15	140
762.00		0.8984	0.1016	0.0241	16	139
799.00		0.8919	0.1081	0.0248	17	138
824.00		0.8855	0.1145	0.0254	18	137
839.00	*	.	.	.	18	136
877.00	*	.	.	.	18	135
901.00	*	.	.	.	18	134
904.00		0.8788	0.1212	0.0261	19	133
939.00	*	.	.	.	19	132
971.00		0.8722	0.1278	0.0267	20	131
980.00		0.8655	0.1345	0.0273	21	130
999.00		0.8589	0.1411	0.0279	22	129
1000.00		0.8522	0.1478	0.0285	23	128
1012.00		0.8456	0.1544	0.0290	24	127
1037.00		0.8389	0.1611	0.0295	25	126
1077.00		0.8322	0.1678	0.0301	26	125
1083.00		0.8256	0.1744	0.0305	27	124
1152.00		0.8189	0.1811	0.0310	28	123
1153.00	*	.	.	.	28	122
1170.00		0.8122	0.1878	0.0315	29	121
1191.00		.	.	.	30	120
1191.00		0.7988	0.2012	0.0324	31	119
1230.00	*	.	.	.	31	118
1234.00	*	.	.	.	31	117
1235.00		0.7920	0.2080	0.0328	32	116
1271.00	*	.	.	.	32	115
1293.00	*	.	.	.	32	114
1297.00		0.7850	0.2150	0.0332	33	113
1302.00	*	.	.	.	33	112
1349.00	*	.	.	.	33	111
1350.00		0.7779	0.2221	0.0337	34	110
1360.00		0.7709	0.2291	0.0341	35	109
1363.00	*	.	.	.	35	108
1401.00	*	.	.	.	35	107
1408.00	*	.	.	.	35	106
1412.00	*	.	.	.	35	105
1434.00		0.7635	0.2365	0.0346	36	104
1435.00	*	.	.	.	36	103
1447.00	*	.	.	.	36	102
1457.00	*	.	.	.	36	101
1481.00	*	.	.	.	36	100
1492.00		0.7559	0.2441	0.0350	37	99
1525.00	*	.	.	.	37	98

1568.00	*	.	.	.	37	97
1576.00		0.7481	0.2519	0.0355	38	96
1592.00	*	.	.	.	38	95
1614.00	*	.	.	.	38	94
1614.00	*	.	.	.	38	93
1657.00		0.7401	0.2599	0.0361	39	92
1682.00		0.7320	0.2680	0.0366	40	91
1690.00		.	.	.	41	90
1690.00		0.7159	0.2841	0.0375	42	89
1701.00	*	.	.	.	42	88
1702.00	*	.	.	.	42	87
1741.00		0.7077	0.2923	0.0379	43	86
1765.00	*	.	.	.	43	85
1770.00	*	.	.	.	43	84
1783.00	*	.	.	.	43	83
1810.00	*	.	.	.	43	82
1827.00		0.6991	0.3009	0.0384	44	81
1831.00	*	.	.	.	44	80
1882.00	*	.	.	.	44	79
1908.00	*	.	.	.	44	78
1925.00		0.6901	0.3099	0.0390	45	77
1932.00	*	.	.	.	45	76
1945.00	*	.	.	.	45	75
1951.00	*	.	.	.	45	74
2022.00	*	.	.	.	45	73
2033.00	*	.	.	.	45	72
2055.00		0.6805	0.3195	0.0396	46	71
2081.00		0.6709	0.3291	0.0402	47	70
2105.00		0.6613	0.3387	0.0407	48	69
2168.00	*	.	.	.	48	68
2170.00	*	.	.	.	48	67
2171.00	*	.	.	.	48	66
2178.00	*	.	.	.	48	65
2224.00		0.6512	0.3488	0.0414	49	64
2255.00	*	.	.	.	49	63
2256.00		0.6408	0.3592	0.0420	50	62
2272.00	*	.	.	.	50	61
2288.00		0.6303	0.3697	0.0426	51	60
2297.00		0.6198	0.3802	0.0432	52	59
2330.00	*	.	.	.	52	58
2332.00	*	.	.	.	52	57
2350.00	*	.	.	.	52	56
2363.00	*	.	.	.	52	55
2365.00	*	.	.	.	52	54
2386.00		0.6083	0.3917	0.0439	53	53
2400.00		0.5969	0.4031	0.0445	54	52
2443.00	*	.	.	.	54	51
2449.00	*	.	.	.	54	50

2475.00	*	.	.	.	54	49
2504.00	*	.	.	.	54	48
2527.00	*	.	.	.	54	47
2540.00		0.5842	0.4158	0.0453	55	46
2555.00	*	.	.	.	55	45
2556.00	*	.	.	.	55	44
2574.00	*	.	.	.	55	43
2580.00	*	.	.	.	55	42
2583.00		0.5703	0.4297	0.0463	56	41
2598.00		0.5564	0.4436	0.0472	57	40
2644.00	*	.	.	.	57	39
2657.00	*	.	.	.	57	38
2689.00		0.5417	0.4583	0.0482	58	37
2692.00	*	.	.	.	58	36
2863.00	*	.	.	.	58	35
2870.00	*	.	.	.	58	34
2944.00	*	.	.	.	58	33
2990.00	*	.	.	.	58	32
2995.00	*	.	.	.	58	31
3050.00	*	.	.	.	58	30
3059.00	*	.	.	.	58	29
3069.00	*	.	.	.	58	28
3086.00		0.5224	0.4776	0.0502	59	27
3098.00	*	.	.	.	59	26
3099.00	*	.	.	.	59	25
3150.00	*	.	.	.	59	24
3222.00		0.5006	0.4994	0.0526	60	23
3239.00	*	.	.	.	60	22
3282.00		0.4778	0.5222	0.0549	61	21
3297.00	*	.	.	.	61	20
3336.00	*	.	.	.	61	19
3458.00	*	.	.	.	61	18
3574.00		0.4513	0.5487	0.0580	62	17
3584.00		0.4247	0.5753	0.0603	63	16
3707.00	*	.	.	.	63	15
3823.00	*	.	.	.	63	14
3850.00	*	.	.	.	63	13
3913.00	*	.	.	.	63	12
3933.00	*	.	.	.	63	11
3992.00	*	.	.	.	63	10
4039.00	*	.	.	.	63	9
4050.00	*	.	.	.	63	8
4079.00		0.3717	0.6283	0.0725	64	7
4191.00		0.3186	0.6814	0.0792	65	6
4232.00	*	.	.	.	65	5
4365.00	*	.	.	.	65	4
4459.00	*	.	.	.	65	3
4467.00	*	.	.	.	65	2

4500.00	*	.	.	.	65	1
4556.00	*	0.3186	0.6814	.	65	0

**Note:** The marked survival times are censored observations.

**Summary Statistics for Time Variable Days**

Quartile Estimates				
Percent	Point Estimate	95% Confidence Interval		
		Transform	[Lower	Upper)
75	.	LOGLOG	4079.00	.
50	3282.00	LOGLOG	2540.00	4191.00
25	1576.00	LOGLOG	1152.00	2081.00

Mean	Standard Error
2833.04	126.91

**Note:** The mean survival time and its standard error were underestimated because the largest observation was censored and the estimation was restricted to the largest event time.

**The LIFETEST Procedure  
Stratum 2: Treatment = 2**

Product-Limit Survival Estimates						
Days		Survival	Failure	Survival Standard Error	Number Failed	Number Left
0.00		1.0000	0	0	0	154
51.00		0.9935	0.00649	0.00647	1	153
77.00		0.9870	0.0130	0.00912	2	152
110.00		0.9805	0.0195	0.0111	3	151
130.00		0.9740	0.0260	0.0128	4	150
186.00		0.9675	0.0325	0.0143	5	149
191.00		0.9610	0.0390	0.0156	6	148
207.00		0.9545	0.0455	0.0168	7	147
216.00		0.9481	0.0519	0.0179	8	146
264.00		.	.	.	9	145
264.00		0.9351	0.0649	0.0199	10	144
304.00		0.9286	0.0714	0.0208	11	143
321.00		0.9221	0.0779	0.0216	12	142
326.00		0.9156	0.0844	0.0224	13	141
460.00		0.9091	0.0909	0.0232	14	140
549.00		0.9026	0.0974	0.0239	15	139
552.00		0.8961	0.1039	0.0246	16	138
597.00		0.8896	0.1104	0.0253	17	137
611.00		0.8831	0.1169	0.0259	18	136
708.00		0.8766	0.1234	0.0265	19	135
733.00		0.8701	0.1299	0.0271	20	134
769.00		0.8636	0.1364	0.0277	21	133
786.00		0.8571	0.1429	0.0282	22	132
788.00	*	.	.	.	22	131
790.00		0.8506	0.1494	0.0287	23	130

797.00		0.8441	0.1559	0.0292	24	129
837.00	*	.	.	.	24	128
850.00		0.8375	0.1625	0.0298	25	127
853.00		0.8309	0.1691	0.0302	26	126
859.00		0.8243	0.1757	0.0307	27	125
890.00		0.8177	0.1823	0.0312	28	124
930.00		0.8111	0.1889	0.0316	29	123
943.00		0.8045	0.1955	0.0320	30	122
974.00		0.7979	0.2021	0.0324	31	121
994.00	*	.	.	.	31	120
1030.00	*	.	.	.	31	119
1067.00	*	.	.	.	31	118
1080.00		0.7911	0.2089	0.0329	32	117
1084.00	*	.	.	.	32	116
1149.00	*	.	.	.	32	115
1165.00		0.7843	0.2157	0.0333	33	114
1212.00		0.7774	0.2226	0.0337	34	113
1216.00	*	.	.	.	34	112
1216.00	*	.	.	.	34	111
1217.00		0.7704	0.2296	0.0341	35	110
1250.00	*	.	.	.	35	109
1295.00	*	.	.	.	35	108
1300.00	*	.	.	.	35	107
1301.00	*	.	.	.	35	106
1320.00	*	.	.	.	35	105
1321.00	*	.	.	.	35	104
1329.00	*	.	.	.	35	103
1356.00		0.7629	0.2371	0.0346	36	102
1363.00	*	.	.	.	36	101
1413.00		0.7553	0.2447	0.0351	37	100
1418.00	*	.	.	.	37	99
1420.00	*	.	.	.	37	98
1427.00		0.7476	0.2524	0.0355	38	97
1433.00	*	.	.	.	38	96
1434.00	*	.	.	.	38	95
1444.00		0.7398	0.2602	0.0360	39	94
1455.00	*	.	.	.	39	93
1487.00		0.7318	0.2682	0.0365	40	92
1504.00	*	.	.	.	40	91
1536.00		0.7238	0.2762	0.0370	41	90
1542.00	*	.	.	.	41	89
1558.00	*	.	.	.	41	88
1569.00	*	.	.	.	41	87
1615.00	*	.	.	.	41	86
1656.00	*	.	.	.	41	85
1666.00	*	.	.	.	41	84
1677.00	*	.	.	.	41	83
1735.00	*	.	.	.	41	82

1769.00	*	.	.	.	41	81
1776.00	*	.	.	.	41	80
1785.00	*	.	.	.	41	79
1786.00		0.7146	0.2854	0.0376	42	78
1790.00	*	.	.	.	42	77
1832.00	*	.	.	.	42	76
1847.00		0.7052	0.2948	0.0383	43	75
1874.00	*	.	.	.	43	74
1882.00	*	.	.	.	43	73
1967.00	*	.	.	.	43	72
1978.00	*	.	.	.	43	71
1979.00	*	.	.	.	43	70
2050.00	*	.	.	.	43	69
2090.00		0.6950	0.3050	0.0391	44	68
2106.00	*	.	.	.	44	67
2157.00	*	.	.	.	44	66
2176.00	*	.	.	.	44	65
2195.00	*	.	.	.	44	64
2216.00	*	.	.	.	44	63
2221.00	*	.	.	.	44	62
2224.00	*	.	.	.	44	61
2241.00	*	.	.	.	44	60
2294.00	*	.	.	.	44	59
2301.00	*	.	.	.	44	58
2318.00	*	.	.	.	44	57
2357.00	*	.	.	.	44	56
2419.00		0.6826	0.3174	0.0403	45	55
2452.00	*	.	.	.	45	54
2456.00	*	.	.	.	45	53
2466.00		0.6697	0.3303	0.0416	46	52
2468.00	*	.	.	.	46	51
2503.00		0.6566	0.3434	0.0428	47	50
2504.00	*	.	.	.	47	49
2563.00	*	.	.	.	47	48
2573.00	*	.	.	.	47	47
2576.00	*	.	.	.	47	46
2609.00	*	.	.	.	47	45
2615.00	*	.	.	.	47	44
2624.00	*	.	.	.	47	43
2666.00	*	.	.	.	47	42
2713.00	*	.	.	.	47	41
2721.00	*	.	.	.	47	40
2769.00		0.6401	0.3599	0.0447	48	39
2772.00	*	.	.	.	48	38
2796.00		0.6233	0.3767	0.0466	49	37
2797.00	*	.	.	.	49	36
2835.00	*	.	.	.	49	35
2847.00		0.6055	0.3945	0.0486	50	34



2891.00	*	.	.	.	50	33
2976.00	*	.	.	.	50	32
3090.00		0.5866	0.4134	0.0506	51	31
3092.00	*	.	.	.	51	30
3149.00	*	.	.	.	51	29
3170.00		0.5663	0.4337	0.0527	52	28
3244.00		0.5461	0.4539	0.0546	53	27
3255.00	*	.	.	.	53	26
3358.00		0.5251	0.4749	0.0564	54	25
3388.00	*	.	.	.	54	24
3395.00		0.5032	0.4968	0.0581	55	23
3422.00	*	.	.	.	55	22
3428.00		0.4804	0.5196	0.0598	56	21
3445.00		0.4575	0.5425	0.0612	57	20
3445.00	*	.	.	.	57	19
3577.00	*	.	.	.	57	18
3581.00	*	.	.	.	57	17
3611.00	*	.	.	.	57	16
3672.00	*	.	.	.	57	15
3762.00		0.4270	0.5730	0.0643	58	14
3820.00	*	.	.	.	58	13
3839.00		0.3941	0.6059	0.0672	59	12
3853.00		0.3613	0.6387	0.0692	60	11
4025.00	*	.	.	.	60	10
4032.00	*	.	.	.	60	9
4127.00	*	.	.	.	60	8
4184.00	*	.	.	.	60	7
4190.00	*	.	.	.	60	6
4196.00	*	.	.	.	60	5
4256.00	*	.	.	.	60	4
4427.00	*	.	.	.	60	3
4453.00	*	.	.	.	60	2
4509.00	*	.	.	.	60	1
4523.00	*	0.3613	0.6387	.	60	0

**Note:** The marked survival times are censored observations.

Summary Statistics for Time Variable Days

Quartile Estimates				
Percent	Point Estimate	95% Confidence Interval		
		Transform	[Lower	Upper)
75	.	LOGLOG	3853.00	.
50	3428.00	LOGLOG	3090.00	3853.00
25	1427.00	LOGLOG	890.00	2466.00

Mean	Standard Error
2748.76	116.69

**Note:** The mean survival time and its standard error were underestimated because the largest observation was censored and the estimation was restricted to the largest event time.

Summary of the Number of Censored and Uncensored Values					
Stratum	Treatment	Total	Failed	Censored	Percent Censored
1	1	158	65	93	58.86
2	2	154	60	94	61.04
Total		312	125	187	59.94

The LIFETEST Procedure

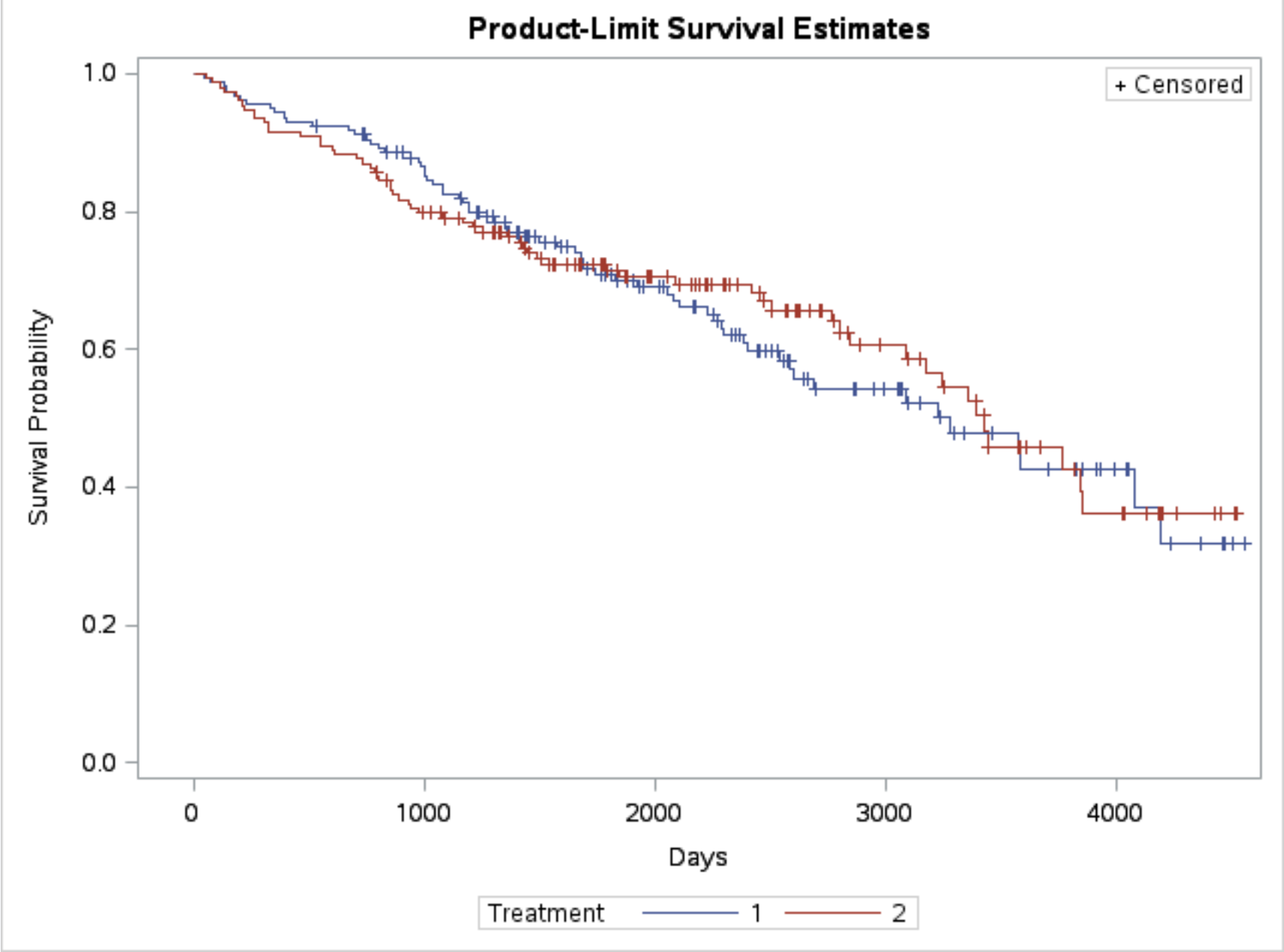
Testing Homogeneity of Survival Curves for Days over Strata

Rank Statistics		
Treatment	Log-Rank	Wilcoxon
1	1.7811	-52.000
2	-1.7811	52.000

Covariance Matrix for the Log-Rank Statistics		
Treatment	1	2
1	31.1917	-31.1917
2	-31.1917	31.1917

Covariance Matrix for the Wilcoxon Statistics		
Treatment	1	2
1	1522246	-1522246
2	-1522246	1522246

Test of Equality over Strata			
Test	Chi-Square	DF	Pr > Chi-Square
Log-Rank	0.1017	1	0.7498
Wilcoxon	0.0018	1	0.9664
-2Log(LR)	0.0634	1	0.8013



The PHREG Procedure

Model Information	
Data Set	WORK.PBC
Dependent Variable	Days
Censoring Variable	Event
Censoring Value(s)	0
Ties Handling	EXACT

Number of Observations Read	312
Number of Observations Used	312

Summary of the Number of Event and Censored Values			
Total	Event	Censored	Percent Censored
312	125	187	59.94

Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	1275.774	1211.822
AIC	1275.774	1213.822

SBC	1275.774	1216.650
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	63.9523	1	<.0001
Score	70.8923	1	<.0001
Wald	73.5439	1	<.0001

Analysis of Maximum Likelihood Estimates								
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	95% Hazard Ratio Profile Likelihood Confidence Limits	
Albumin	1	-1.79572	0.20939	73.5439	<.0001	0.166	0.111	0.252

The PHREG Procedure

Model Information	
Data Set	WORK.PBC
Dependent Variable	Days
Censoring Variable	Event
Censoring Value(s)	0
Ties Handling	EXACT

Number of Observations Read	312
Number of Observations Used	312

Class Level Information		
Class	Value	Design Variables
Albumin_hi	0	0
	1	1

Summary of the Number of Event and Censored Values			
Total	Event	Censored	Percent Censored
312	125	187	59.94

Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	1275.774	1232.475
AIC	1275.774	1234.475
SBC	1275.774	1237.303

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	43.2992	1	<.0001
Score	44.3869	1	<.0001
Wald	39.6791	1	<.0001

Type 3 Tests			
Effect	DF	Wald Chi-Square	Pr > ChiSq

Albumin_hi	1	39.6791	<.0001
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Analysis of Maximum Likelihood Estimates										
Parameter		DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	95% Hazard Ratio Profile Likelihood Confidence Limits		Label
Albumin_hi	1	1	-1.22762	0.19489	39.6791	<.0001	0.293	0.198	0.426	Albumin_hi 1

The PHREG Procedure

Model Information	
Data Set	WORK.PBC
Dependent Variable	Days
Censoring Variable	Event
Censoring Value(s)	0
Ties Handling	EXACT

Number of Observations Read	312
Number of Observations Used	312

Class Level Information				
Class	Value	Design Variables		
Albumin_hi	0	0		
	1	1		
Stage	1	0	0	0
	2	1	0	0
	3	0	1	0
	4	0	0	1

Summary of the Number of Event and Censored Values			
Total	Event	Censored	Percent Censored
312	125	187	59.94

Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	1275.774	1201.351
AIC	1275.774	1209.351
SBC	1275.774	1220.664

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	74.4231	4	<.0001
Score	76.4851	4	<.0001
Wald	62.9813	4	<.0001

Type 3 Tests			
Effect	DF	Wald Chi-Square	Pr > ChiSq
Albumin_hi	1	20.2545	<.0001

Albumin_hi	1	20.2545	<.0001
Stage	3	26.0612	<.0001

Analysis of Maximum Likelihood Estimates										
Parameter		DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	95% Hazard Ratio Profile Likelihood Confidence Limits		Label
Albumin_hi	1	1	-0.91136	0.20250	20.2545	<.0001	0.402	0.268	0.594	Albumin_hi 1
Stage	2	1	1.32821	1.03381	1.6506	0.1989	3.774	0.763	68.286	Stage 2
Stage	3	1	1.87890	1.01473	3.4285	0.0641	6.546	1.414	116.334	Stage 3
Stage	4	1	2.53916	1.01607	6.2450	0.0125	12.669	2.726	225.441	Stage 4