Obs	id	clinic	status	time	prison	dose	time_yrs
1	1	1	1	428	0	50	1.17180
2	132	2	0	633	0	70	1.73306
3	2	1	1	275	1	55	0.75291
4	133	2	1	661	0	40	1.80972
5	3	1	1	262	0	55	0.71732

Comparison of survival by clinic

Summary of the Number of Censored and Uncensored Values						
Stratum	clinic	Total	Failed	Censored	Percent Censored	
1	1	163	122	41	25.15	
2	2	75	28	47	62.67	
Total		238	150	88	36.97	

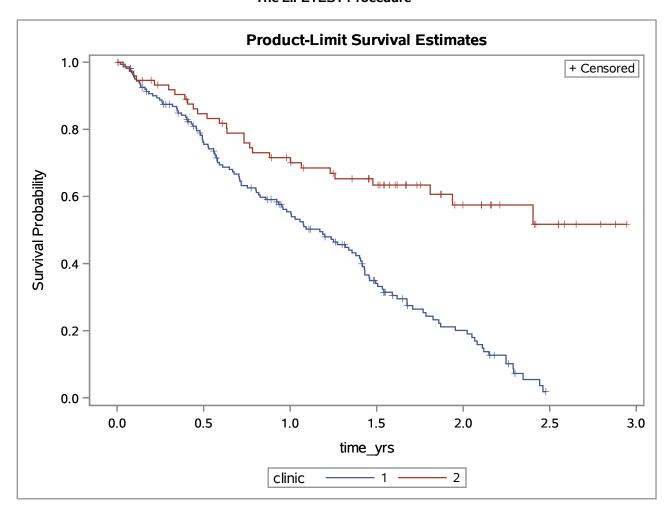
# Testing Homogeneity of Survival Curves for time\_yrs over Strata

Rank Statistics				
clinic	Log-Rank	Wilcoxon		
1	31.092	2929.0		
2	-31.092	-2929.0		

Covariance Matrix for the Log-Rank Statistics				
clinic	1	2		
1	34.6579	-34.6579		
2	-34.6579	34.6579		

Covariance Matrix for the Wilcoxon Statistics				
clinic	1	2		
1	737868	-737868		
2	-737868	737868		

Test of Equality over Strata						
Test	Chi-Square	DF	Pr > Chi-Square			
Log-Rank	27.8927	1	<.0001			
Wilcoxon	11.6268	1	0.0007			
-2Log(LR)	26.0236	1	<.0001			



Summary of the Number of Censored and Uncensored Values							
Stratum	prison	Total	Failed	Censored	Percent Censored		
1	0	127	81	46	36.22		
2	1	111	69	42	37.84		
Total		238	150	88	36.97		

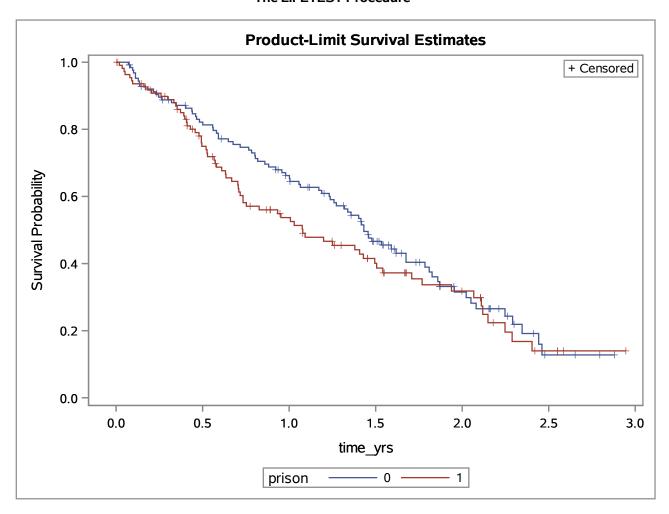
# Testing Homogeneity of Survival Curves for time\_yrs over Strata

Rank Statistics					
prison	Log-Rank	Wilcoxon			
0	-6.7504	-1434.0			
1	6.7504	1434.0			

Covariance Matrix for the Log-Rank Statistics					
prison	0	1			
0	36.1791	-36.1791			
1	-36.1791	36.1791			

Covariance Matrix for the Wilcoxon Statistics				
prison	0	1		
0	803374	-803374		
1	-803374	803374		

Test of Equality over Strata					
Test	Chi-Square	DF	Pr > Chi-Square		
Log-Rank	1.2595	1	0.2617		
Wilcoxon	2.5596	1	0.1096		
-2Log(LR)	1.0666	1	0.3017		



# Comparison of survival by dose groups

Summary of the Number of Censored and Uncensored Values						
Stratum	dose	Total	Failed	Censored	Percent Censored	
1	<40	5	5	0	0.00	
2	45	40	25	15	37.50	
3	55	48	35	13	27.08	
4	65	74	54	20	27.03	
5	>=70	71	31	40	56.34	
Total		238	150	88	36.97	

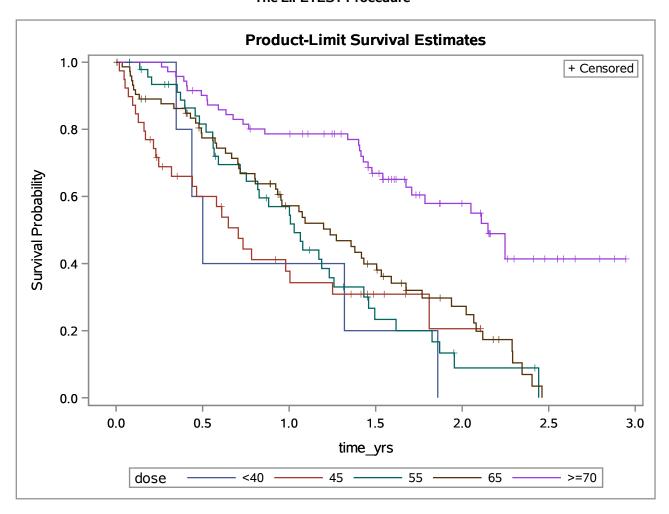
# Testing Homogeneity of Survival Curves for time\_yrs over Strata

Rank Statistics					
dose	dose Log-Rank Wilcoxo				
<40	2.703	338.0			
45	10.506	2243.0			
55	10.742	937.0			
65	10.036	690.0			
>=70	-33.985	-4208.0			

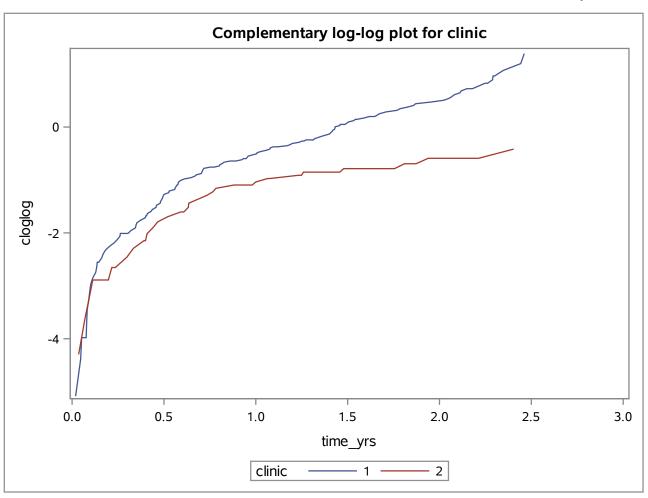
	Covariance Matrix for the Log-Rank Statistics						
dose	dose <40		55	65	>=70		
<40	2.2528	-0.2513	-0.4010	-0.6859	-0.9146		
45	-0.2513	12.8609	-2.5441	-4.3485	-5.7169		
55	-0.4010	-2.5441	20.0255	-7.2003	-9.8802		
65	-0.6859	-4.3485	-7.2003	30.8965	-18.6618		
>=70	-0.9146	-5.7169	-9.8802	-18.6618	35.1735		

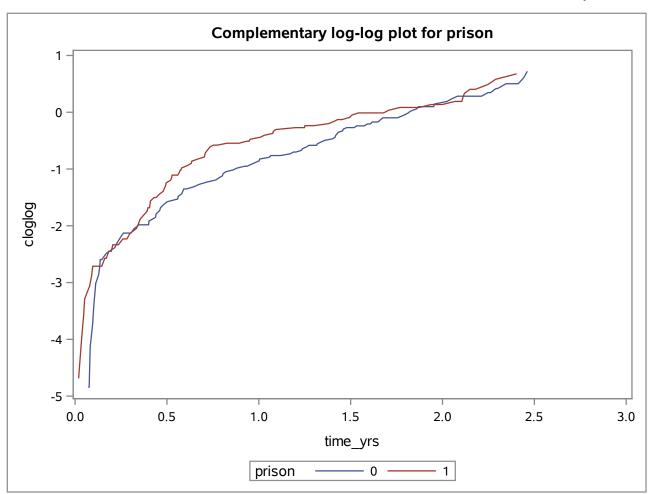
Covariance Matrix for the Wilcoxon Statistics							
dose	<40 45 55 65				>=70		
<40	60725	-7793	-11939	-18848	-22144		
45	-7793	351214	-77667	-122602	-143152		
55	-11939	-77667	503823	-190109	-224109		
65	-18848	-122602	-190109	695618	-364059		
>=70	-22144	-143152	-224109	-364059	753463		

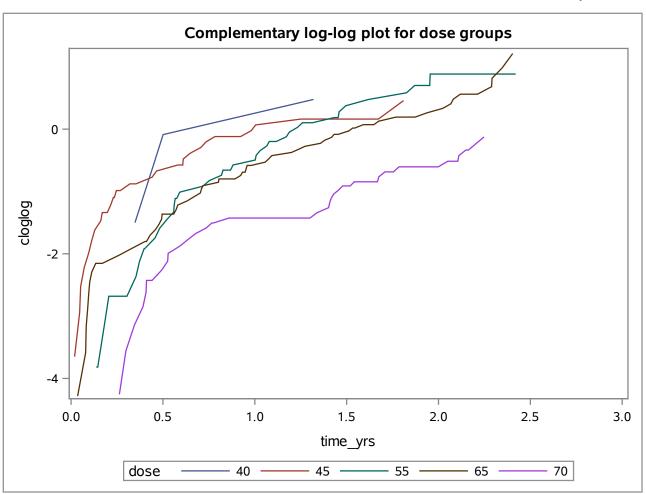
Test of Equality over Strata					
Test	Chi-Square	DF	Pr > Chi-Square		
Log-Rank	37.5522	4	<.0001		
Wilcoxon	31.4088	4	<.0001		
-2Log(LR)	30.4127	4	<.0001		



Obs	dose	time_yrs	_CENSOR_	SURVIVAL	SDF_LCL	SDF_UCL	STRATUM
1	40	0.00000		1.0	1.00000	1.00000	1
2	40	0.34771	0	0.8	0.20381	0.96918	1
3	40	0.43806	0	0.6	0.12573	0.88176	1
4	40	0.50103	0	0.4	0.05198	0.75282	1
5	40	1.31964	0	0.2	0.00837	0.58185	1







### The PHREG Procedure

Model Information			
Data Set	SURVIVAL.HEROIN		
Dependent Variable	time_yrs		
Censoring Variable	status		
Censoring Value(s)	0		
Ties Handling	BRESLOW		

Number of Observations Read	238
Number of Observations Used	

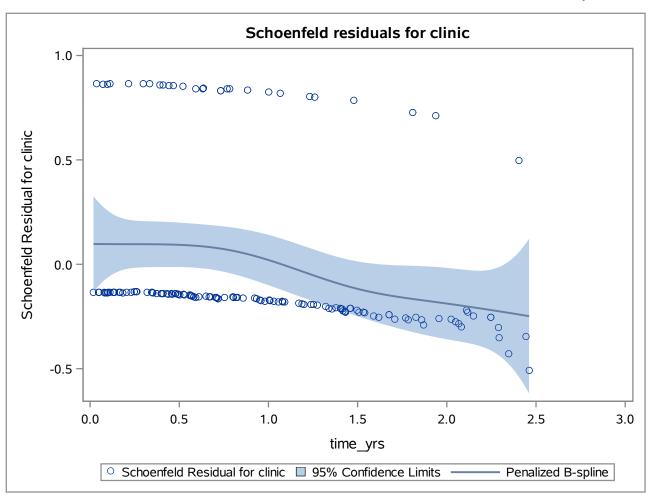
Summary of the Number of Event and Censored Values				
Total	Event	Censored	Percent Censored	
238	150	88	36.97	

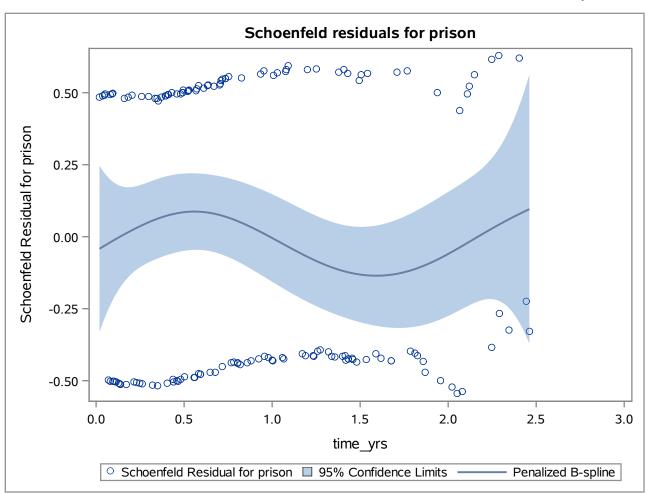
# Convergence Status Convergence criterion (GCONV=1E-8) satisfied.

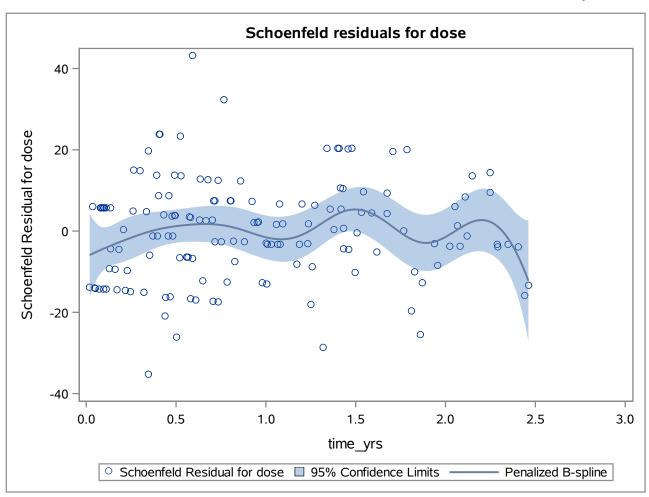
Model Fit Statistics					
Criterion	Without Covariates	With Covariates			
-2 LOG L	1411.324	1346.805			
AIC	1411.324	1352.805			
SBC	1411.324	1361.837			

Testing Global Null Hypothesis: BETA=0					
Test Chi-Square DF Pr > ChiSq					
Likelihood Ratio	64.5190	3	<.0001		
Score	56.2730	3	<.0001		
Wald	54.0906	3	<.0001		

Analysis of Maximum Likelihood Estimates							
Parameter	Parameter Standard Chi-Square Pr > ChiSq Ratio						
clinic	1	-1.00876	0.21486	22.0419	<.0001	0.365	
prison	1	0.32650	0.16722	3.8123	0.0509	1.386	
dose	1	-0.03540	0.00638	30.7844	<.0001	0.965	







Obs	time_yrs	clinic	prison	status	dose
1	0.005476	1	0		60
2	0.005476	1	1		60
3	0.005476	2	0		60
4	0.005476	2	1		60
5	0.005476	1	0		60
6	0.005476	1	1		60
7	0.005476	2	0		60
8	0.005476	2	1		60
9	0.019165	1	0		60
10	0.019165	1	1		60

# The PHREG Procedure

Model Information		
WORK.AUGMENT		
time_yrs		
status		
0		
BRESLOW		

Number of Observations Read	1190
Number of Observations Used	238

Summary of the Number of Event and Censored Values					
Stratum	clinic	Total	Event	Censored	Percent Censored
1	1	163	122	41	25.15
2	2	75	28	47	62.67
Total		238	150	88	36.97

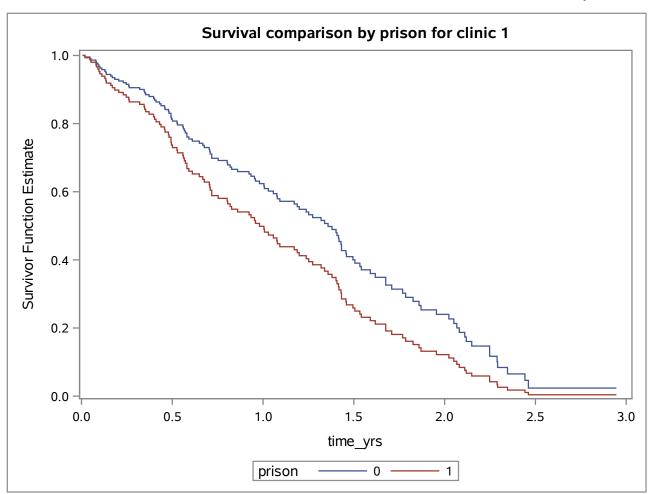
# Convergence Status Convergence criterion (GCONV=1E-8) satisfied.

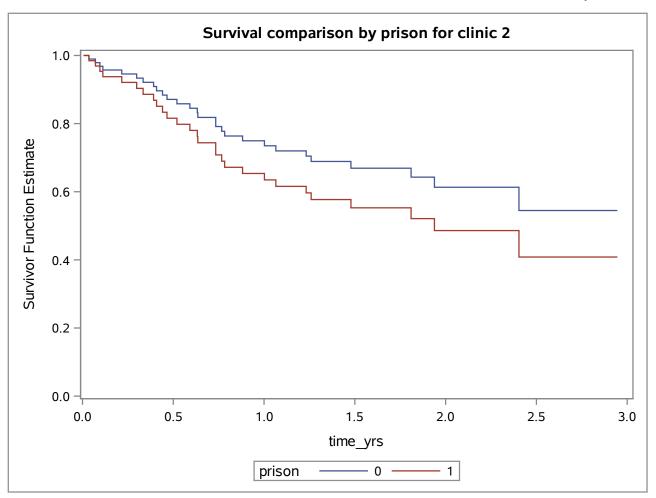
Model Fit Statistics				
Criterion	Without Covariates	With Covariates		
-2 LOG L	1229.367	1195.428		
AIC	1229.367	1199.428		
SBC	1229.367	1205.449		

Testing Global Null Hypothesis: BETA=0				
Test	Chi-Square	DF	Pr > ChiSq	
Likelihood Ratio	33.9393	2	<.0001	
Score	33.3628	2	<.0001	
Wald	32.6858	2	<.0001	

Analysis of Maximum Likelihood Estimates						
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio
prison	1	0.38877	0.16892	5.2974	0.0214	1.475
dose	1	-0.03514	0.00647	29.5471	<.0001	0.965

Obs	time_yrs	clinic	prison	status	dose	id	time	s
1	.005475702	1	0		60			1
2	.005475702	1	1		60			1
3	.005475702	2	0		60			1
4	.005475702	2	1		60			1
5	.005475702	1	0		60			1





# The PHREG Procedure

Model Information		
Data Set SURVIVAL.HEROII		
Dependent Variable	time_yrs	
Censoring Variable	status	
Censoring Value(s)	0	
Ties Handling	BRESLOW	

Number of Observations Read	
Number of Observations Used	238

Summary of the Number of Event and Censored Values			
Total	Event	Censored	Percent Censored
238	150	88	36.97

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

Model Fit Statistics						
Criterion Without Covariates Covar						
-2 LOG L	1411.324	1335.283				
AIC	1411.324	1343.283				
SBC	1411.324	1355.326				

Testing Global Null Hypothesis: BETA=0						
Test Chi-Square DF Pr > ChiS						
Likelihood Ratio	76.0407	4	<.0001			
Score	66.9784	4	<.0001			
Wald	57.7290	4	<.0001			

Analysis of Maximum Likelihood Estimates								
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio		
clinic	1	0.01829	0.34720	0.0028	0.9580	1.018		
prison	1	0.38964	0.16887	5.3239	0.0210	1.476		
dose	1	-0.03522	0.00644	29.8837	<.0001	0.965		
clinic_by_time	1	-1.10141	0.34534	10.1718	0.0014	0.332		

Obs	birth_dt	accept_dt	tx_date	fu_date	fustat	surgery	age	futime	wait_time
1	1937-01-10	1967-11-15	NA	1968-01-03	1	0	30.8446	49	
2	1916-03-02	1968-01-02	NA	1968-01-07	1	0	51.8357	5	
3	1913-09-19	1968-01-06	1968-01-06	1968-01-21	1	0	54.2971	15	0
4	1927-12-23	1968-03-28	1968-05-02	1968-05-05	1	0	40.2628	38	35
5	1947-07-28	1968-05-10	NA	1968-05-27	1	0	20.7858	17	
6	1913-11-08	1968-06-13	NA	1968-06-15	1	0	54.5955	2	
7	1917-08-29	1968-07-12	1968-08-31	1970-05-17	1	0	50.8693	674	50
8	1923-03-27	1968-08-01	NA	1968-09-09	1	0	45.3498	39	
9	1921-06-11	1968-08-09	NA	1968-11-01	1	0	47.1622	84	
10	1926-02-09	1968-08-11	1968-08-22	1968-10-07	1	0	42.5024	57	11

Obs	transplant	mismatch	hla_a2	mscore	reject
1	0				
2	0				
3	1	2	0	1.11	0
4	1	3	0	1.66	0
5	0				
6	0				
7	1	4	0	1.32	1
8	0				
9	0				
10	1	2	0	0.61	1

# Recalculation of data set

Obs	id	start	stop	event	transplant
1	1	0	49	1	0
2	2	0	5	1	0
3	3	0	15	1	1
4	4	0	35	0	0
5	4	35	38	1	1
6	5	0	17	1	0
7	6	0	2	1	0
8	7	0	50	0	0
9	7	50	674	1	1
10	8	0	39	1	0

# Naive analysis

### The PHREG Procedure

Model Information				
SURVIVAL.TRANSPLANT1				
futime				
fustat				
0				
BRESLOW				

Number of Observations Read	103
Number of Observations Used	103

Summary of the Number of Event and Censored Values						
Total	Event	Censored	Percent Censored			
103	75	28	27.18			

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

Model Fit Statistics						
Criterion Without Covariates Covari						
-2 LOG L	596.651	551.188				
AIC	596.651	557.188				
SBC	596.651	564.141				

Testing Global Null Hypothesis: BETA=0						
Test Chi-Square DF Pr > ChiS						
Likelihood Ratio	45.4629	3	<.0001			
Score	52.0469	3	<.0001			
Wald	46.6680	3	<.0001			

Analysis of Maximum Likelihood Estimates						
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio
transplant	1	-1.70813	0.27860	37.5902	<.0001	0.181
age	1	0.05860	0.01505	15.1611	<.0001	1.060
surgery	1	-0.42130	0.37098	1.2896	0.2561	0.656

# Time varying model

### The PHREG Procedure

Model Information			
Data Set	SURVIVAL.TRANSPLANT1		
Dependent Variable	futime		
Censoring Variable	fustat		
Censoring Value(s)	0		
Ties Handling	BRESLOW		

Number of Observations Read	103
Number of Observations Used	103

Summary of the Number of Event and Censored Values				
Total	Event	Censored	Percent Censored	
103	75	28	27.18	

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

Model Fit Statistics					
Criterion	Without Covariates	With Covariates			
-2 LOG L	596.651	585.946			
AIC	596.651	591.946			
SBC	596.651	598.898			

Testing Global Null Hypothesis: BETA=0					
Test	Chi-Square	DF	Pr > ChiSq		
Likelihood Ratio	10.7056	3	0.0134		
Score	9.9853	3	0.0187		
Wald	9.6574	3	0.0217		

Analysis of Maximum Likelihood Estimates						
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio
transplant	1	-0.04744	0.30274	0.0246	0.8755	0.954
age	1	0.03108	0.01391	4.9886	0.0255	1.032
surgery	1	-0.76975	0.35961	4.5817	0.0323	0.463