

The SAS System

The GLM Procedure

Class Level Information						
Class	Levels	Values				
chem	3	1 11 111				
trt	4	ABCD				

Number of Observations Rea	d	48
Number of Observations Use	d	48

Dependent Variable: sTime

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	2.20435625	0.20039602	9.01	<.0001
Error	36	0.80072500	0.02224236		
Corrected Total	47	3.00508125			

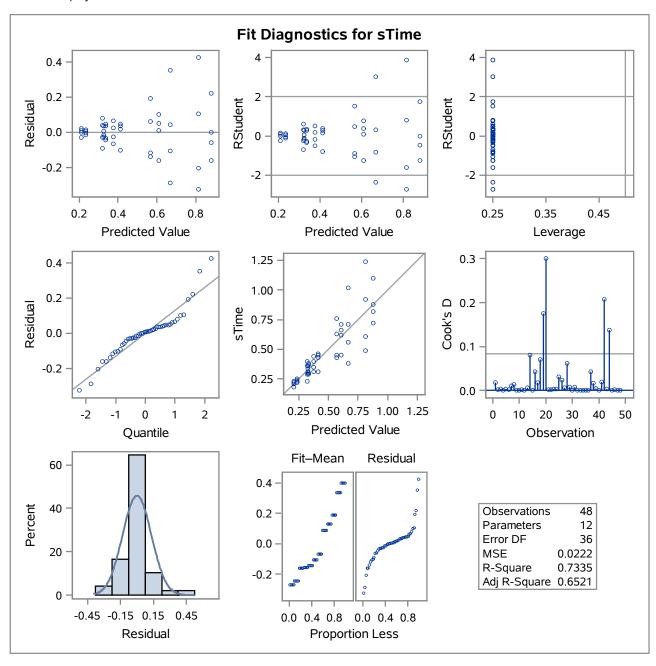
R-Square	Coeff Var	Root MSE	sTime Mean
0.733543	31.11108	0.149139	0.479375

Source	DF	Type III SS	Mean Square	F Value	Pr > F
chem	2	1.03301250	0.51650625	23.22	<.0001
trt	3	0.92120625	0.30706875	13.81	<.0001
chem*trt	6	0.25013750	0.04168958	1.87	0.1123

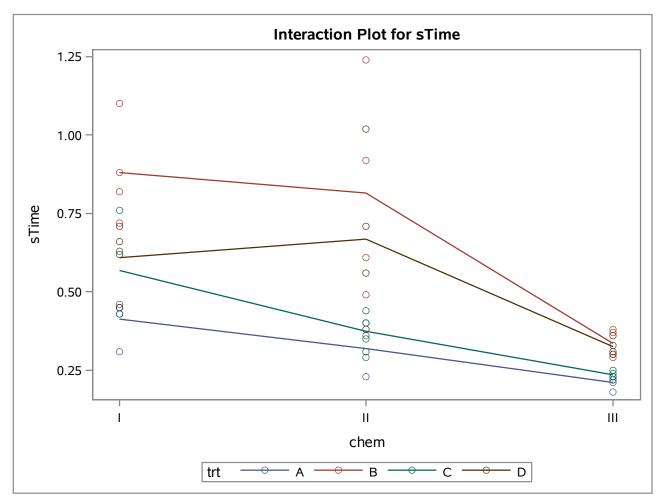
	Chandard								
Parameter Estimate			Standard Error	t Value	Pr > t	95% Confid	ence Limits		
Intercept		0.3250000000	В	0.07456937	4.36	0.0001	0.1737663171 0.4762336829		
chem	I	0.2850000000	В	0.10545701	2.70	0.0104	0.0711232745	0.4988767255	
chem	II	0.3425000000	В	0.10545701	3.25	0.0025	0.1286232745	0.5563767255	
chem	III	0.0000000000	В						
trt A		1150000000	В	0.10545701	-1.09	0.2827	3288767255	0.0988767255	
trt B		0.0100000000	В	0.10545701	0.09	0.9250	2038767255	0.2238767255	
trt C		090000000	В	0.10545701	-0.85	0.3991	3038767255	0.1238767255	
trt D		0.0000000000	В						
chem*trt	IA	0825000000	В	0.14913873	-0.55	0.5836	3849673658	0.2199673658	
chem*trt	ΙB	0.2600000000	В	0.14913873	1.74	0.0898	0424673658	0.5624673658	
chem*trt	ıc	0.0475000000	В	0.14913873	0.32	0.7519	2549673658	0.3499673658	
chem*trt	ID	0.0000000000	В						
chem*trt	II A	2325000000	В	0.14913873	-1.56	0.1278	5349673658	0.0699673658	
chem*trt	IIВ	0.1375000000	В	0.14913873	0.92	0.3627	1649673658	0.4399673658	
chem*trt	II C	2025000000	В	0.14913873	-1.36	0.1830	5049673658	0.0999673658	
chem*trt	II D	0.0000000000	В						
chem*trt	III A	0.0000000000	В						
chem*trt	III B	0.0000000000	В						
chem*trt	III C	0.0000000000	В				·		
chem*trt	III D	0.0000000000	В						

Dependent Variable: sTime

Note: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.



Dependent Variable: sTime



Class	Class Level Information					
Class	Levels	Values				
chem	3	1 11 111				
trt	4	ABCD				

Number of Observations Read	48
Number of Observations Used	48

Dependent Variable: recTime

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	56.86218143	5.16928922	21.53	<.0001
Error	36	8.64308307	0.24008564		
Corrected Total	47	65.50526450			

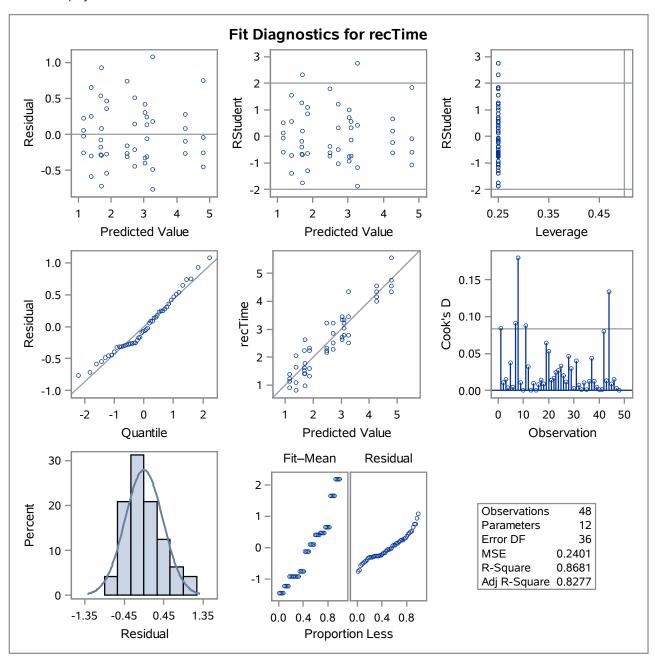
R-Square	Coeff Var	Root MSE	recTime Mean
0.868055	18.68478	0.489985	2.622376

Source	DF	Type III SS	Mean Square	F Value	Pr > F
chem	2	34.87711982	17.43855991	72.63	<.0001
trt	3	20.41428935	6.80476312	28.34	<.0001
chem*trt	6	1.57077226	0.26179538	1.09	0.3867

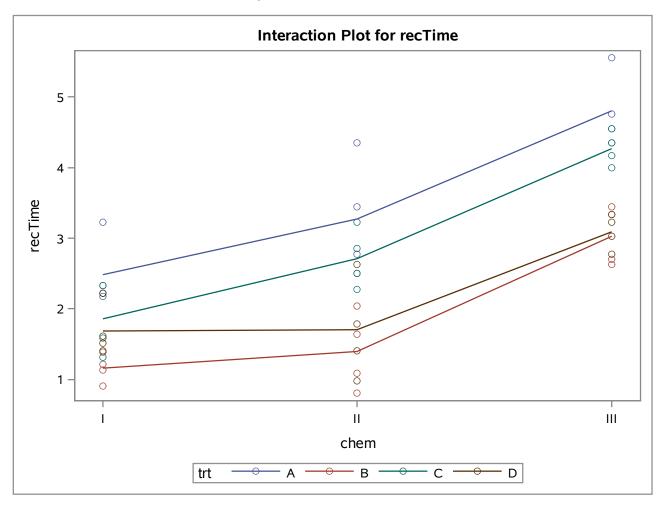
Parameter	Estimate		Standard Error	t Value	Pr > t	9E% Confid	ence Limits
Farameter	Estillate		EIIO	t value	F1 > 4	95 /6 COIIIIG	ence Limits
Intercept	3.091805148	В	0.24499267	12.62	<.0001	2.594936976	3.588673320
chem I	-1.402123231	В	0.34647196	-4.05	0.0003	-2.104800939	-0.699445524
chem II	-1.390271125	В	0.34647196	-4.01	0.0003	-2.092948832	-0.687593417
chem III	0.000000000	В					
trt A	1.710880089	В	0.34647196	4.94	<.0001	1.008202382	2.413557797
trt B	-0.062832437	В	0.34647196	-0.18	0.8571	-0.765510144	0.639845271
trt C	1.173181677	В	0.34647196	3.39	0.0017	0.470503969	1.875859384
trt D	0.000000000	В					
chem*trt I A	-0.913681228	В	0.48998535	-1.86	0.0704	-1.907417572	0.080055116
chem*trt IB	-0.463385573	В	0.48998535	-0.95	0.3506	-1.457121916	0.530350771
chem*trt I C	-1.000139924	В	0.48998535	-2.04	0.0486	-1.993876268	-0.006403580
chem*trt ID	0.000000000	В					
chem*trt II A	-0.143944181	В	0.48998535	-0.29	0.7706	-1.137680525	0.849792163
chem*trt II B	-0.245309406	В	0.48998535	-0.50	0.6197	-1.239045750	0.748426938
chem*trt II C	-0.160796555	В	0.48998535	-0.33	0.7447	-1.154532899	0.832939789
chem*trt II D	0.000000000	В					
chem*trt III A	0.000000000	В					
chem*trt III B	0.000000000	В					
chem*trt III C	0.000000000	В					
chem*trt III D	0.000000000	В					

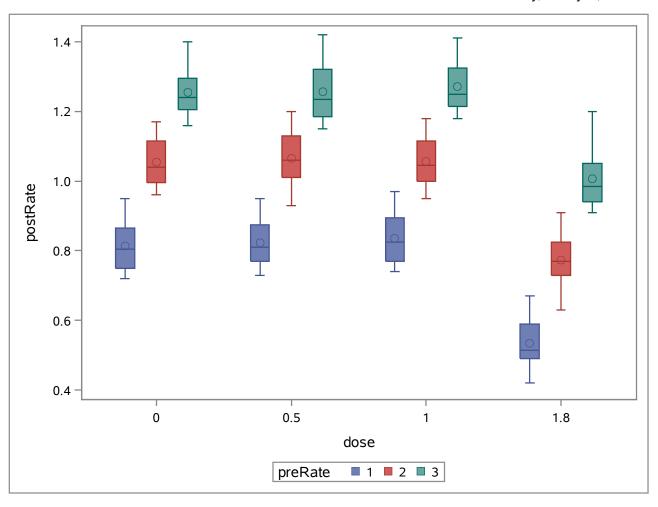
Dependent Variable: recTime

Note: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.



Dependent Variable: recTime





The SAS System

The Mixed Procedure

Model Information					
Data Set	WORK.DRUGS				
Dependent Variable	postRate				
Covariance Structure	Variance Components				
Estimation Method	REML				
Residual Variance Method	Profile				
Fixed Effects SE Method	Model-Based				
Degrees of Freedom Method	Containment				

Class Level Information					
Class Levels Values					
ratID	12	1 10 11 12 2 3 4 5 6 7 8 9			
preRate	3	123			
dose	4	0 0.5 1 1.8			
rep	2	12			

Dimensions				
Covariance Parameters	2			
Columns in X	20			
Columns in Z	12			
Subjects	1			
Max Obs per Subject	96			

Number of Observations				
Number of Observations Read	96			
Number of Observations Used	96			
Number of Observations Not Used	0			

Iteration History						
Iteration	Criterion					
0	1	-158.89839922				
1	1	-237.58325759	0.00000000			

Convergence criteria met.

Covariance Parameter Estimates					
Cov Parm Estimate					
ratID	0.005533				
Residual	0.001819				

Fit Statistics				
-2 Res Log Likelihood	-237.6			
AIC (Smaller is Better)	-233.6			
AICC (Smaller is Better)	-233.4			
BIC (Smaller is Better)	-232.6			

Solution for Fixed Effects										
Effect	dose	preRate	Estimate	Standard Error	DF	t Value	Pr > t	Alpha	Lower	Upper
Intercept			1.0075	0.04013	9	25.10	<.0001	0.05	0.9167	1.0983
preRate		1	-0.4725	0.05675	75	-8.33	<.0001	0.05	-0.5856	-0.3594
preRate		2	-0.2337	0.05675	75	-4.12	<.0001	0.05	-0.3468	-0.1207
preRate		3	0							
dose	0		0.2475	0.02132	75	11.61	<.0001	0.05	0.2050	0.2900
dose	0.5		0.2488	0.02132	75	11.67	<.0001	0.05	0.2063	0.2912
dose	1		0.2638	0.02132	75	12.37	<.0001	0.05	0.2213	0.3062
dose	1.8		0							
preRate*dose	0	1	0.03125	0.03016	75	1.04	0.3034	0.05	-0.02882	0.09132
preRate*dose	0.5	1	0.04000	0.03016	75	1.33	0.1887	0.05	-0.02007	0.1001
preRate*dose	1	1	0.03750	0.03016	75	1.24	0.2175	0.05	-0.02257	0.09757
preRate*dose	1.8	1	0							
preRate*dose	0	2	0.03250	0.03016	75	1.08	0.2846	0.05	-0.02757	0.09257
preRate*dose	0.5	2	0.04375	0.03016	75	1.45	0.1510	0.05	-0.01632	0.1038
preRate*dose	1	2	0.01875	0.03016	75	0.62	0.5360	0.05	-0.04132	0.07882
preRate*dose	1.8	2	0							
preRate*dose	0	3	0							
preRate*dose	0.5	3	0							
preRate*dose	1	3	0							
preRate*dose	1.8	3	0							

Type 3 Tests of Fixed Effects								
Effect Num Den DF F Value Pr >								
preRate	2	75	34.46	<.0001				
dose	3	75	251.68	<.0001				
preRate*dose	6	75	0.59	0.7378				

