

Percent Injury at 14 Days after application results - differences between treatments

The GLIMMIX Procedure

Model Information	
Data Set	WORK.RT
Response Variable	injury_14d
Response Distribution	Gaussian
Link Function	Identity
Variance Function	Default
Variance Matrix	Not blocked
Estimation Technique	Restricted Maximum Likelihood
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
Trmt	11	1 2 3 4 5 6 7 8 9 10 11
Block	4	1 2 3 4
PLOT	44	101 102 103 104 105 106 107 108 109 110 111 201 202 203 204 205 206 207 208 209 210 211 301 302 303 304 305 306 307 308 309 310 311 401 402 403 404 405 406 407 408 409 410 411

Number of Observations Read	264
Number of Observations Used	262

Dimensions	
G-side Cov. Parameters	1
R-side Cov. Parameters	1
Columns in X	12
Columns in Z	4
Subjects (Blocks in V)	1
Max Obs per Subject	262

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	1
Lower Boundaries	1
Upper Boundaries	0
Fixed Effects	Profiled
Residual Variance	Profiled
Starting From	Data

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Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	2077.8318891	.	0.943243
1	0	6	2077.8318334	0.00005572	0.020409
2	0	2	2077.8318334	0.00000003	0.000247

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

Fit Statistics	
-2 Res Log Likelihood	2077.83
AIC (smaller is better)	2081.83
AICC (smaller is better)	2081.88
BIC (smaller is better)	2080.60
CAIC (smaller is better)	2082.60
HQIC (smaller is better)	2079.14
Generalized Chi-Square	50217.57
Gener. Chi-Square / DF	200.07

Covariance Parameter Estimates		
Cov Parm	Estimate	Standard Error
Block	0.7847	3.1860
Residual	200.07	17.9695

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Trmt	10	248	7.42	<.0001

Trmt Least Squares Means					
Treatment	Estimate	Standard Error	DF	t Value	Pr > t
1	0.02551	2.9826	248	0.01	0.9932
2	14.1667	2.9210	248	4.85	<.0001
3	1.0417	2.9210	248	0.36	0.7217
4	4.2917	2.9210	248	1.47	0.1430
5	14.9167	2.9210	248	5.11	<.0001
6	5.1667	2.9210	248	1.77	0.0782

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Trmt Least Squares Means					
Treatment	Estimate	Standard Error	DF	t Value	Pr > t
7	23.8333	2.9210	248	8.16	<.0001
8	6.4583	2.9210	248	2.21	0.0280
9	12.5472	2.9826	248	4.21	<.0001
10	6.9167	2.9210	248	2.37	0.0187
11	21.2083	2.9210	248	7.26	<.0001

Differences of Trmt Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer							
Treatment	Treatment	Estimate	Standard Error	DF	t Value	Pr > t	Adj P
1	2	-14.1412	4.1274	248	-3.43	0.0007	0.0291
1	3	-1.0162	4.1274	248	-0.25	0.8057	1.0000
1	4	-4.2662	4.1274	248	-1.03	0.3023	0.9943
1	5	-14.8912	4.1274	248	-3.61	0.0004	0.0161
1	6	-5.1412	4.1274	248	-1.25	0.2141	0.9765
1	7	-23.8078	4.1274	248	-5.77	<.0001	<.0001
1	8	-6.4328	4.1274	248	-1.56	0.1204	0.8978
1	9	-12.5217	4.1710	248	-3.00	0.0030	0.0995
1	10	-6.8912	4.1274	248	-1.67	0.0963	0.8495
1	11	-21.1828	4.1274	248	-5.13	<.0001	<.0001
2	3	13.1250	4.0832	248	3.21	0.0015	0.0553
2	4	9.8750	4.0832	248	2.42	0.0163	0.3592
2	5	-0.7500	4.0832	248	-0.18	0.8544	1.0000
2	6	9.0000	4.0832	248	2.20	0.0284	0.5041
2	7	-9.6667	4.0832	248	-2.37	0.0187	0.3920
2	8	7.7083	4.0832	248	1.89	0.0602	0.7247
2	9	1.6194	4.1274	248	0.39	0.6951	1.0000
2	10	7.2500	4.0832	248	1.78	0.0770	0.7934
2	11	-7.0417	4.0832	248	-1.72	0.0859	0.8216
3	4	-3.2500	4.0832	248	-0.80	0.4268	0.9994
3	5	-13.8750	4.0832	248	-3.40	0.0008	0.0318
3	6	-4.1250	4.0832	248	-1.01	0.3134	0.9953
3	7	-22.7917	4.0832	248	-5.58	<.0001	<.0001
3	8	-5.4167	4.0832	248	-1.33	0.1859	0.9634
3	9	-11.5056	4.1274	248	-2.79	0.0057	0.1690

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Differences of Trmt Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer							
Treatment	Treatment	Estimate	Standard Error	DF	t Value	Pr > t	Adj P
3	10	-5.8750	4.0832	248	-1.44	0.1515	0.9374
3	11	-20.1667	4.0832	248	-4.94	<.0001	<.0001
4	5	-10.6250	4.0832	248	-2.60	0.0098	0.2534
4	6	-0.8750	4.0832	248	-0.21	0.8305	1.0000
4	7	-19.5417	4.0832	248	-4.79	<.0001	0.0002
4	8	-2.1667	4.0832	248	-0.53	0.5962	1.0000
4	9	-8.2556	4.1274	248	-2.00	0.0466	0.6490
4	10	-2.6250	4.0832	248	-0.64	0.5209	0.9999
4	11	-16.9167	4.0832	248	-4.14	<.0001	0.0023
5	6	9.7500	4.0832	248	2.39	0.0177	0.3788
5	7	-8.9167	4.0832	248	-2.18	0.0299	0.5186
5	8	8.4583	4.0832	248	2.07	0.0393	0.5988
5	9	2.3694	4.1274	248	0.57	0.5664	1.0000
5	10	8.0000	4.0832	248	1.96	0.0512	0.6772
5	11	-6.2917	4.0832	248	-1.54	0.1246	0.9045
6	7	-18.6667	4.0832	248	-4.57	<.0001	0.0004
6	8	-1.2917	4.0832	248	-0.32	0.7520	1.0000
6	9	-7.3806	4.1274	248	-1.79	0.0750	0.7861
6	10	-1.7500	4.0832	248	-0.43	0.6686	1.0000
6	11	-16.0417	4.0832	248	-3.93	0.0001	0.0052
7	8	17.3750	4.0832	248	4.26	<.0001	0.0015
7	9	11.2861	4.1274	248	2.73	0.0067	0.1908
7	10	16.9167	4.0832	248	4.14	<.0001	0.0023
7	11	2.6250	4.0832	248	0.64	0.5209	0.9999
8	9	-6.0889	4.1274	248	-1.48	0.1414	0.9267
8	10	-0.4583	4.0832	248	-0.11	0.9107	1.0000
8	11	-14.7500	4.0832	248	-3.61	0.0004	0.0159
9	10	5.6306	4.1274	248	1.36	0.1737	0.9558
9	11	-8.6611	4.1274	248	-2.10	0.0369	0.5796
10	11	-14.2917	4.0832	248	-3.50	0.0006	0.0230

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Tukey-Kramer Grouping for Trmt Least Squares Means (Alpha=0.05)					
LS-means with the same letter are not significantly different.					
Treatment	Estimate				
7	23.8333			A	
				A	
11	21.2083			A	
				A	
5	14.9167	B		A	
		B		A	
2	14.1667	B		A	C
		B		A	C
9	12.5472	B	D	A	C
		B	D		C
10	6.9167	B	D		C
		B	D		C
8	6.4583	B	D		C
		B	D		C
6	5.1667	B	D		C
		B	D		C
4	4.2917	B	D		C
			D		C
3	1.0417		D		C
			D		
1	0.02551		D		

Tests of Covariance Parameters Based on the Restricted Likelihood					
Label	DF	-2 Res Log Like	ChiSq	Pr > ChiSq	Note
block=0	1	2077.91	0.08	0.3879	MI

MI: P-value based on a mixture of chi-squares.