The SAS System

The GLIMMIX Procedure

Model Information	
Data Set	WORK.Y06_2YR
Response Variable (Events)	dmg_now
Response Variable (Trials)	tot_nuts
Response Distribution	Binomial
Link Function	Logit
Variance Function	Default
Variance Matrix	Not blocked
Estimation Technique	Residual PL
Degrees of Freedom Method	Kenward-Roger
Fixed Effects SE Adjustment	Kenward-Roger

Class Level Information		
Class	Levels	Values
Year	2	2006 2007
Tier	8	1 2 3 4 7 8 9 10
treatment	3	C CMD MD

Number of Observations Read	16
Number of Observations Used	16
Number of Events	1347
Number of Trials	135524

Dimensions	
G-side Cov. Parameters	3
Columns in X	4
Columns in Z	26
Subjects (Blocks in V)	1
Max Obs per Subject	16

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	3
Lower Boundaries	3

Upper Boundaries	0
Fixed Effects	Profiled
Starting From	Data

Iteration History

Iteration	Restarts	Subiterations	Objective Function	Change	Max Gradient
0	0	5	22.039864332	0.01368619	4.158E-6
1	0	4	22.05249808	0.00060503	7.119E-8
2	0	2	22.052606981	0.00000513	6.014E-7
3	0	0	22.052607587	0.00000000	1.499E-6

Convergence criterion (PCONV=1.11022E-8) satisfied.

Fit Statistics	
-2 Res Log Pseudo-Likelihood	22.05
Generalized Chi-Square	12.90
Gener. Chi-Square / DF	0.99

Covariance Parameter Estimates

Cov Parm	Estimate	Standard Error
Year	0.5263	0.7687
Tier	0.06173	0.08582
Year*Tier	0.1070	0.06719

Type III Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
treatment	2	7.052	6.59	0.0243

treatment Least Squares Means

treatment	Estimate	Standard Error	DF	t Value	Pr > |t|
C	-4.6976	0.5401	1.136	-8.70	0.0560
CMD	-5.9503	0.6027	1.609	-9.87	0.0198
MD	-4.6370	0.5698	1.411	-8.14	0.0372

Differences of treatment Least Squares Means
Adjustment for Multiple Comparisons: Tukey-Kramer

treatment	_treatment	Estimate	Standard Error	DF	t Value	Pr > |t|	Adj P
C	CMD	1.2526	0.3642	11.4	3.44	0.0053	0.0134
C	MD	-0.06065	0.3006	5.046	-0.20	0.8480	0.9779
CMD	MD	-1.3133	0.4010	7.376	-3.27	0.0126	0.0301

Tukey-Kramer Grouping for treatment Least Squares Means (Alpha=0.05)

LS-means with the same letter are not significantly different.

treatment	Estimate	
MD	-4.6370	A
		A
C	-4.6976	A
CMD	-5.9503	B