The SAS System

The Mixed Procedure

Model Information	
Data Set	WORK.DOGS
Dependent Variable	GBV
Covariance Structure	Variance Components
Subject Effect	id
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
id	18	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
sas_trt	3	Cholechystokynin Clanobutin Control
time_cat	5	0 120 30 60 90

Dimensions	
Covariance Parameters	2
Columns in X	16
Columns in Z per Subject	1
Subjects	18
Max Obs per Subject	5

Number of Observations	
Number of Observations Read	90
Number of Observations Used	90
Number of Observations Not Used	0

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	529.00942053	
1	1	299.25503219	0.00000000

Convergence criteria met.

Covariance Parameter Estimates		
Cov Parm	**Subject**	**Estimate**
Intercept	id	46.6443
Residual		0.6897

Fit Statistics	
-2 Res Log Likelihood	299.3
AIC (Smaller is Better)	303.3
AICC (Smaller is Better)	303.4
BIC (Smaller is Better)	305.0

Solution for Fixed Effects							
Effect	**sas_trt**	**time_cat**	**Estimate**	**Standard Error**	**DF**	**t Value**	**Pr > |t|**
Intercept			16.5150	2.8087	15	5.88	<.0001
sas_trt*time_cat	Cholechystokynin	0	3.1900	3.9722	60	0.80	0.4251
sas_trt*time_cat	Cholechystokynin	120	2.6333	3.9722	60	0.66	0.5099
sas_trt*time_cat	Cholechystokynin	30	-2.8683	3.9722	60	-0.72	0.4730
sas_trt*time_cat	Cholechystokynin	60	-1.2733	3.9722	60	-0.32	0.7497
sas_trt*time_cat	Cholechystokynin	90	1.0483	3.9722	60	0.26	0.7927
sas_trt*time_cat	Clanobutin	0	-0.6950	3.9722	60	-0.17	0.8617
sas_trt*time_cat	Clanobutin	120	-1.3867	3.9722	60	-0.35	0.7282
sas_trt*time_cat	Clanobutin	30	-3.8550	3.9722	60	-0.97	0.3357
sas_trt*time_cat	Clanobutin	60	-2.6250	3.9722	60	-0.66	0.5112
sas_trt*time_cat	Clanobutin	90	-1.6450	3.9722	60	-0.41	0.6803
sas_trt*time_cat	Control	0	0.1567	0.4795	60	0.33	0.7450
sas_trt*time_cat	Control	120	0.2333	0.4795	60	0.49	0.6283
sas_trt*time_cat	Control	30	-0.2117	0.4795	60	-0.44	0.6605
sas_trt*time_cat	Control	60	0.1967	0.4795	60	0.41	0.6832
sas_trt*time_cat	Control	90	0	.	.	.	.

Type 3 Tests of Fixed Effects				
Effect	**Num DF**	**Den DF**	**F Value**	**Pr > F**
sas_trt*time_cat	14	60	20.37	<.0001

Coefficients for Chol. vs Can.							

Effect	sas_trt	time_cat	Row1	Row2	Row3	Row4	Row5
Intercept							
sas_trt*time_cat	Cholechystokynin	0	-1				
sas_trt*time_cat	Cholechystokynin	120		-1			
sas_trt*time_cat	Cholechystokynin	30			-1		
sas_trt*time_cat	Cholechystokynin	60				-1	
sas_trt*time_cat	Cholechystokynin	90					-1
sas_trt*time_cat	Clanobutin	0	1				
sas_trt*time_cat	Clanobutin	120		1			
sas_trt*time_cat	Clanobutin	30			1		
sas_trt*time_cat	Clanobutin	60				1	
sas_trt*time_cat	Clanobutin	90					1
sas_trt*time_cat	Control	0					
sas_trt*time_cat	Control	120					
sas_trt*time_cat	Control	30					
sas_trt*time_cat	Control	60					
sas_trt*time_cat	Control	90					

Contrasts

Label	Num DF	Den DF	F Value	Pr > F
Chol. vs Can.	5	60	6.90	<.0001

The SAS System

The Mixed Procedure

Model Information	
Data Set	WORK.DOGS
Dependent Variable	GBV
Covariance Structure	Variance Components
Subject Effect	id
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
id	18	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
sas_trt	3	Cholechystokynin Clanobutin Control
minutes	5	0 30 60 90 120

Dimensions	
Covariance Parameters	2
Columns in X	16
Columns in Z per Subject	1
Subjects	18
Max Obs per Subject	5

Number of Observations	
Number of Observations Read	90
Number of Observations Used	90
Number of Observations Not Used	0

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	529.00942053	
1	1	299.25503219	0.00000000

Convergence criteria met.

Covariance Parameter Estimates		
Cov Parm	**Subject**	**Estimate**
Intercept	id	46.6443
Residual		0.6897

Fit Statistics	
-2 Res Log Likelihood	299.3
AIC (Smaller is Better)	303.3
AICC (Smaller is Better)	303.4
BIC (Smaller is Better)	305.0

Solution for Fixed Effects							
Effect	**sas_trt**	**minutes**	**Estimate**	**Standard Error**	**DF**	**t Value**	**Pr > |t|**
Intercept			16.7483	2.8087	15	5.96	<.0001
sas_trt*minutes	Cholechystokynin	0	2.9567	3.9722	60	0.74	0.4596
sas_trt*minutes	Cholechystokynin	30	-3.1017	3.9722	60	-0.78	0.4380
sas_trt*minutes	Cholechystokynin	60	-1.5067	3.9722	60	-0.38	0.7058
sas_trt*minutes	Cholechystokynin	90	0.8150	3.9722	60	0.21	0.8381
sas_trt*minutes	Cholechystokynin	120	2.4000	3.9722	60	0.60	0.5480
sas_trt*minutes	Clanobutin	0	-0.9283	3.9722	60	-0.23	0.8160
sas_trt*minutes	Clanobutin	30	-4.0883	3.9722	60	-1.03	0.3075
sas_trt*minutes	Clanobutin	60	-2.8583	3.9722	60	-0.72	0.4746
sas_trt*minutes	Clanobutin	90	-1.8783	3.9722	60	-0.47	0.6380
sas_trt*minutes	Clanobutin	120	-1.6200	3.9722	60	-0.41	0.6848
sas_trt*minutes	Control	0	-0.07667	0.4795	60	-0.16	0.8735
sas_trt*minutes	Control	30	-0.4450	0.4795	60	-0.93	0.3571
sas_trt*minutes	Control	60	-0.03667	0.4795	60	-0.08	0.9393
sas_trt*minutes	Control	90	-0.2333	0.4795	60	-0.49	0.6283
sas_trt*minutes	Control	120	0	.	.	.	.

Type 3 Tests of Fixed Effects				
Effect	**Num DF**	**Den DF**	**F Value**	**Pr > F**
sas_trt*minutes	14	60	20.37	<.0001

Coefficients for CH. vs CL						
Effect	**sas_trt**	**minutes**	**Row1**	**Row2**	**Row3**	**Row4**
Intercept						
sas_trt*minutes	Cholechystokynin	0	1			
sas_trt*minutes	Cholechystokynin	30	-1	1		
sas_trt*minutes	Cholechystokynin	60		-1	1	
sas_trt*minutes	Cholechystokynin	90			-1	1
sas_trt*minutes	Cholechystokynin	120				-1
sas_trt*minutes	Clanobutin	0	-1			
sas_trt*minutes	Clanobutin	30	1	-1		
sas_trt*minutes	Clanobutin	60		1	-1	
sas_trt*minutes	Clanobutin	90			1	-1
sas_trt*minutes	Clanobutin	120				1
sas_trt*minutes	Control	0				
sas_trt*minutes	Control	30				
sas_trt*minutes	Control	60				
sas_trt*minutes	Control	90				
sas_trt*minutes	Control	120				

Contrasts				
Label	**Num DF**	**Den DF**	**F Value**	**Pr > F**
CH. vs CL	4	60	8.52	<.0001

The SAS System

The Mixed Procedure

Model Information	
Data Set	WORK.DOGS
Dependent Variable	GBV
Covariance Structure	Variance Components
Subject Effect	id
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
id	18	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
sas_trt	3	Cholechystokynin Clanobutin Control
minutes	5	0 30 60 90 120

Dimensions	
Covariance Parameters	2
Columns in X	16
Columns in Z per Subject	1
Subjects	18
Max Obs per Subject	5

Number of Observations	
Number of Observations Read	90
Number of Observations Used	90
Number of Observations Not Used	0

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	529.00942053	
1	1	299.25503219	0.00000000

Convergence criteria met.

Covariance Parameter Estimates		
Cov Parm	**Subject**	**Estimate**
Intercept	id	46.6443
Residual		0.6897

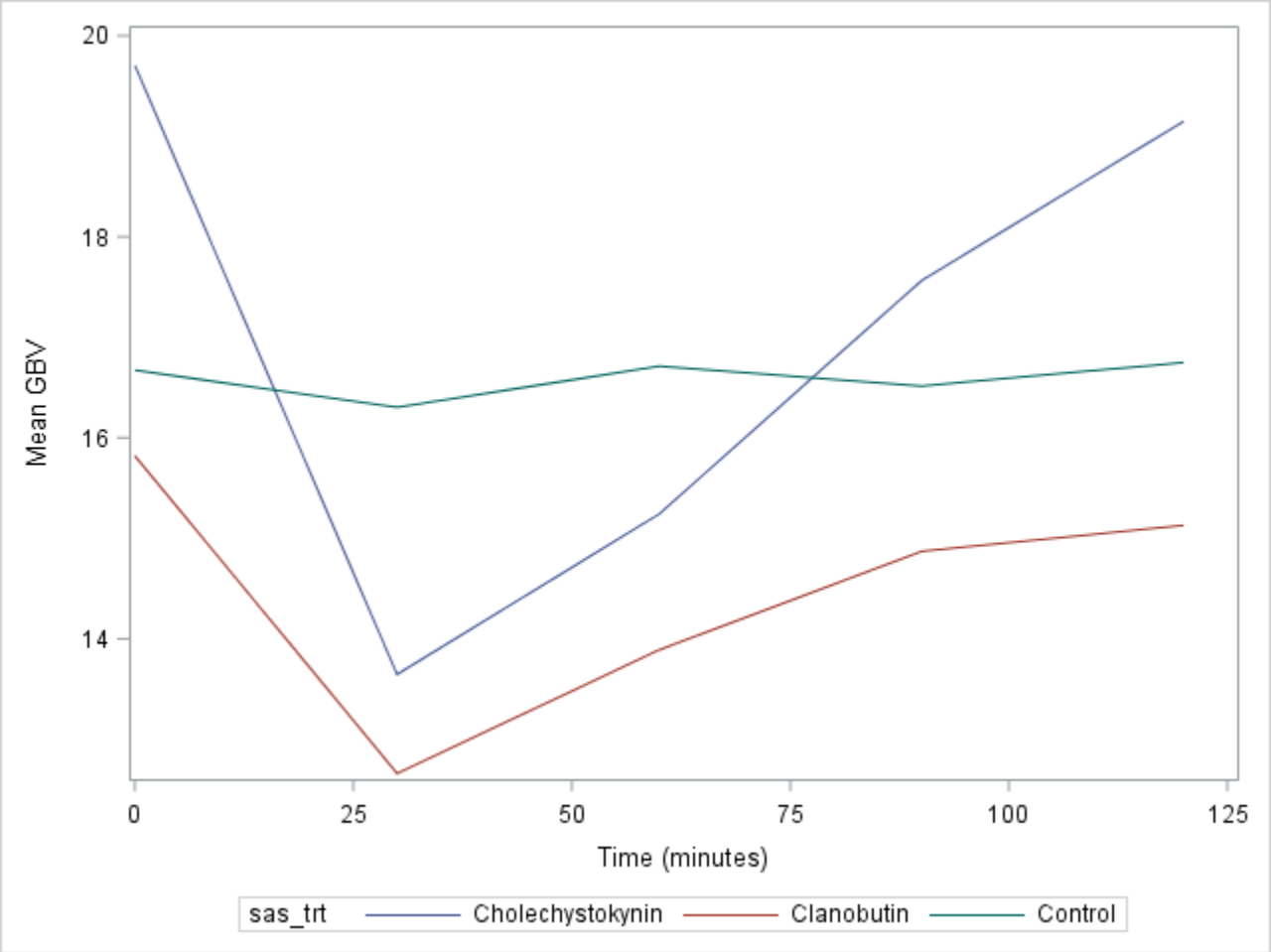
Fit Statistics	
-2 Res Log Likelihood	299.3
AIC (Smaller is Better)	303.3
AICC (Smaller is Better)	303.4
BIC (Smaller is Better)	305.0

Solution for Fixed Effects							
Effect	**sas_trt**	**minutes**	**Estimate**	**Standard Error**	**DF**	**t Value**	**Pr > |t|**
Intercept			16.7483	2.8087	15	5.96	<.0001
sas_trt*minutes	Cholechystokynin	0	2.9567	3.9722	60	0.74	0.4596
sas_trt*minutes	Cholechystokynin	30	-3.1017	3.9722	60	-0.78	0.4380
sas_trt*minutes	Cholechystokynin	60	-1.5067	3.9722	60	-0.38	0.7058
sas_trt*minutes	Cholechystokynin	90	0.8150	3.9722	60	0.21	0.8381
sas_trt*minutes	Cholechystokynin	120	2.4000	3.9722	60	0.60	0.5480
sas_trt*minutes	Clanobutin	0	-0.9283	3.9722	60	-0.23	0.8160
sas_trt*minutes	Clanobutin	30	-4.0883	3.9722	60	-1.03	0.3075
sas_trt*minutes	Clanobutin	60	-2.8583	3.9722	60	-0.72	0.4746
sas_trt*minutes	Clanobutin	90	-1.8783	3.9722	60	-0.47	0.6380
sas_trt*minutes	Clanobutin	120	-1.6200	3.9722	60	-0.41	0.6848
sas_trt*minutes	Control	0	-0.07667	0.4795	60	-0.16	0.8735
sas_trt*minutes	Control	30	-0.4450	0.4795	60	-0.93	0.3571
sas_trt*minutes	Control	60	-0.03667	0.4795	60	-0.08	0.9393
sas_trt*minutes	Control	90	-0.2333	0.4795	60	-0.49	0.6283
sas_trt*minutes	Control	120	0	.	.	.	.

Type 3 Tests of Fixed Effects				
Effect	**Num DF**	**Den DF**	**F Value**	**Pr > F**
sas_trt*minutes	14	60	20.37	<.0001

Coefficients for CH0 vs CH60			
Effect	**sas_trt**	**minutes**	**Row1**
Intercept			
sas_trt*minutes	Cholechystokynin	0	1
sas_trt*minutes	Cholechystokynin	30	
sas_trt*minutes	Cholechystokynin	60	-1
sas_trt*minutes	Cholechystokynin	90	
sas_trt*minutes	Cholechystokynin	120	
sas_trt*minutes	Clanobutin	0	
sas_trt*minutes	Clanobutin	30	
sas_trt*minutes	Clanobutin	60	
sas_trt*minutes	Clanobutin	90	
sas_trt*minutes	Clanobutin	120	
sas_trt*minutes	Control	0	
sas_trt*minutes	Control	30	
sas_trt*minutes	Control	60	
sas_trt*minutes	Control	90	
sas_trt*minutes	Control	120	

Estimates					
Label	**Estimate**	**Standard Error**	**DF**	**t Value**	**Pr > |t|**
CH0 vs CH60	4.4633	0.4795	60	9.31	<.0001


20
18
16
14
Mean GBV
0
25
50
75
100
125
Time (minutes)
sas_trt
Cholechystokynin
Clanobutin
Control