Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 6: Huntington Study No. 1
Time = 240 minutes
Checking Residuals for Study 6 at The Minutes Specified

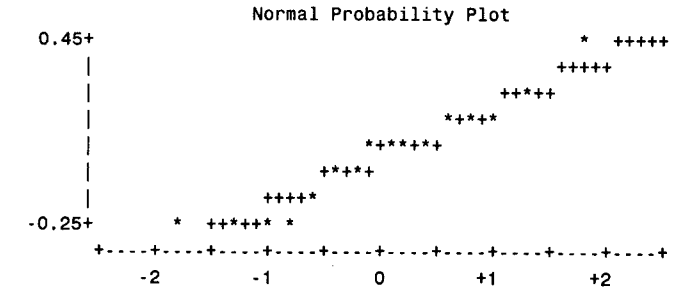
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.271036	6031	10	0.106866	6023	8
-0.235652	6026	9	0.123845	6034	11
-0.231013	6040	12	0.145854	6003	2
-0.227991	6008	4	0.236776	6046	15
-0.183682	6044	14	0.431383	6005	3

```
Stem Leaf                    #             Boxplot                                  Normal Probability Plot
   4 3                       1                |                  0.45+                                                  *  +++++
   3                                          |                      |                                                +++++
   2 4                       1                |                      |                                          ++*++
   1 0125                    4             +-----+                   |                                     *+*+*
   0 158                     3             *--+--*                   |                              *+**+*+
  -0 76                      2             |     |                   |                          +*+*+
  -1 8                       1             |     |                   |                     ++++*
  -2 7433                    4             +-----+                 -0.25+        *  ++*++* *
     ----+----+----+----+                                                +----+----+----+----+----+----+----+----+----+----+
 Multiply Stem.Leaf by 10**-1                                                -2        -1         0        +1        +2
```



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 6: Huntington Study No. 1
Time = 240 minutes
Checking Residuals for Study 6 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	16	Sum Weights	16
Mean	0	Sum Observations	0
Std Deviation	0.34592383	Variance	0.11966329
Skewness	1.42536616	Kurtosis	4.78269793
Uncorrected SS	1.79494942	Corrected SS	1.79494942
Coeff Variation	.	Std Error Mean	0.08648096

Basic Statistical Measures

Location		Variability	
Mean	0.00000	Std Deviation	0.34592
Median	-0.02449	Variance	0.11966
Mode	.	Range	1.59323
		Interquartile Range	0.21550

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	-2	Pr >= |M|	0.4545
Signed Rank	S	-10	Pr >= |S|	0.6322

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 6: Huntington Study No. 1
Time = 240 minutes
Checking Residuals for Study 6 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test	--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.860026	Pr < W	0.0192
Kolmogorov-Smirnov	D	0.184501	Pr > D	0.1496
Cramer-von Mises	W-Sq	0.135783	Pr > W-Sq	0.0341
Anderson-Darling	A-Sq	0.832761	Pr > A-Sq	0.0244

Quantiles (Definition 5)

Quantile	Estimate
100% Max	1.0152952
99%	1.0152952
95%	1.0152952
90%	0.2365971
75% Q3	0.1048996
50% Median	-0.0244863
25% Q1	-0.1105969
10%	-0.4324423
5%	-0.5779362
1%	-0.5779362
0% Min	-0.5779362

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 6: Huntington Study No. 1
Time = 240 minutes
Checking Residuals for Study 6 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

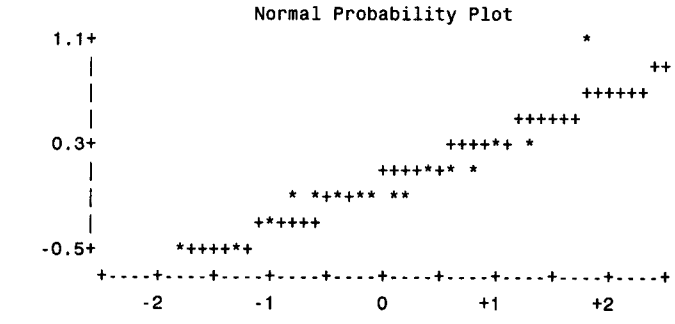
Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.577936	6005	3	0.067287	6031	10
-0.432442	6041	13	0.142512	6017	7
-0.270296	6001	1	0.208523	6008	4
-0.115365	6013	6	0.236597	6040	12
-0.105829	6048	16	1.015295	6026	9

Stem	Leaf	#	Boxplot
10	2	1	*
8			
6			
4			
2	14	2	|
0	674	3	+--+--+
-0	2107320	7	*-----*
-2	7	1	|
-4	83	2	0

----+----+----+----+

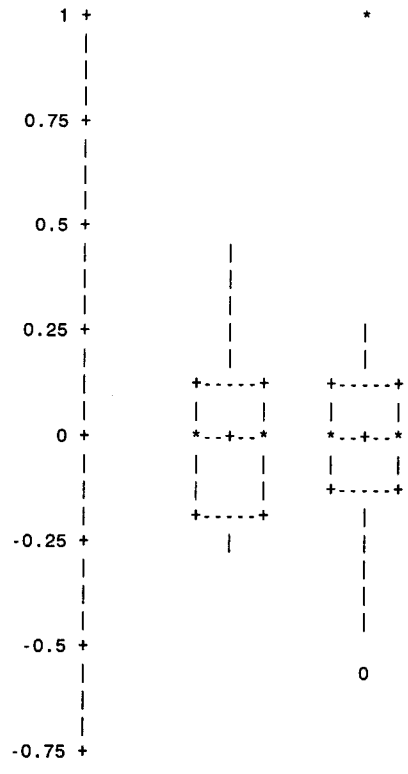
Multiply Stem.Leaf by 10**-1



Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 6: Huntington Study No. 1
Time = 240 minutes
Checking Residuals for Study 6 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 6: Huntington Study No. 1
Time = 240 minutes
Checking Residuals for Study 6 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots

TREAT	Drug	Placebo

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes

---------- TIME=15 minutes ----------

The Mixed Procedure

Model Information

Data Set	WORK.ALL
Dependent Variable	LNCHANGE
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
TREAT	2	Drug Placebo
PATIENT	25	7001 7002 7003 7007 7008 7010 7014 7016 7017 7018 7020 7021 7025 7027 7028 7030 7031 7033 7034 7036 7041 7042 7044 7048 7050

Dimensions

Covariance Parameters	2
Columns in X	4
Columns in Z	25
Subjects	1
Max Obs Per Subject	50

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes

---------- TIME=15 minutes ----------

The Mixed Procedure

Dimensions

Observations Used	50
Observations Not Used	0
Total Observations	50

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	-18.92121217	
1	2	-26.38909551	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Estimate
PATIENT	0.01473
Residual	0.01359

Fit Statistics

-2 Res Log Likelihood	-26.4
AIC (smaller is better)	-22.4

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes

---------- TIME=15 minutes ----------

The Mixed Procedure

Fit Statistics

AICC (smaller is better)	-22.1
BIC (smaller is better)	-20.0

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASELINE	1	35.6	0.34	0.5656
TREAT	1	24.3	1.13	0.2985

Least Squares Means

Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	0.02832	0.03371	36.6	0.84	0.4064	0.05	-0.04002	0.09665
TREAT	Placebo	-0.00695	0.03371	36.6	-0.21	0.8377	0.05	-0.07529	0.06138

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	0.03527	0.03320	24.3	1.06	0.2985	0.05	-0.03321	0.1038

Appendix 2 14:50 Thursday, December 14, 2006 1910

Phenylephrine vs. Placebo

LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)

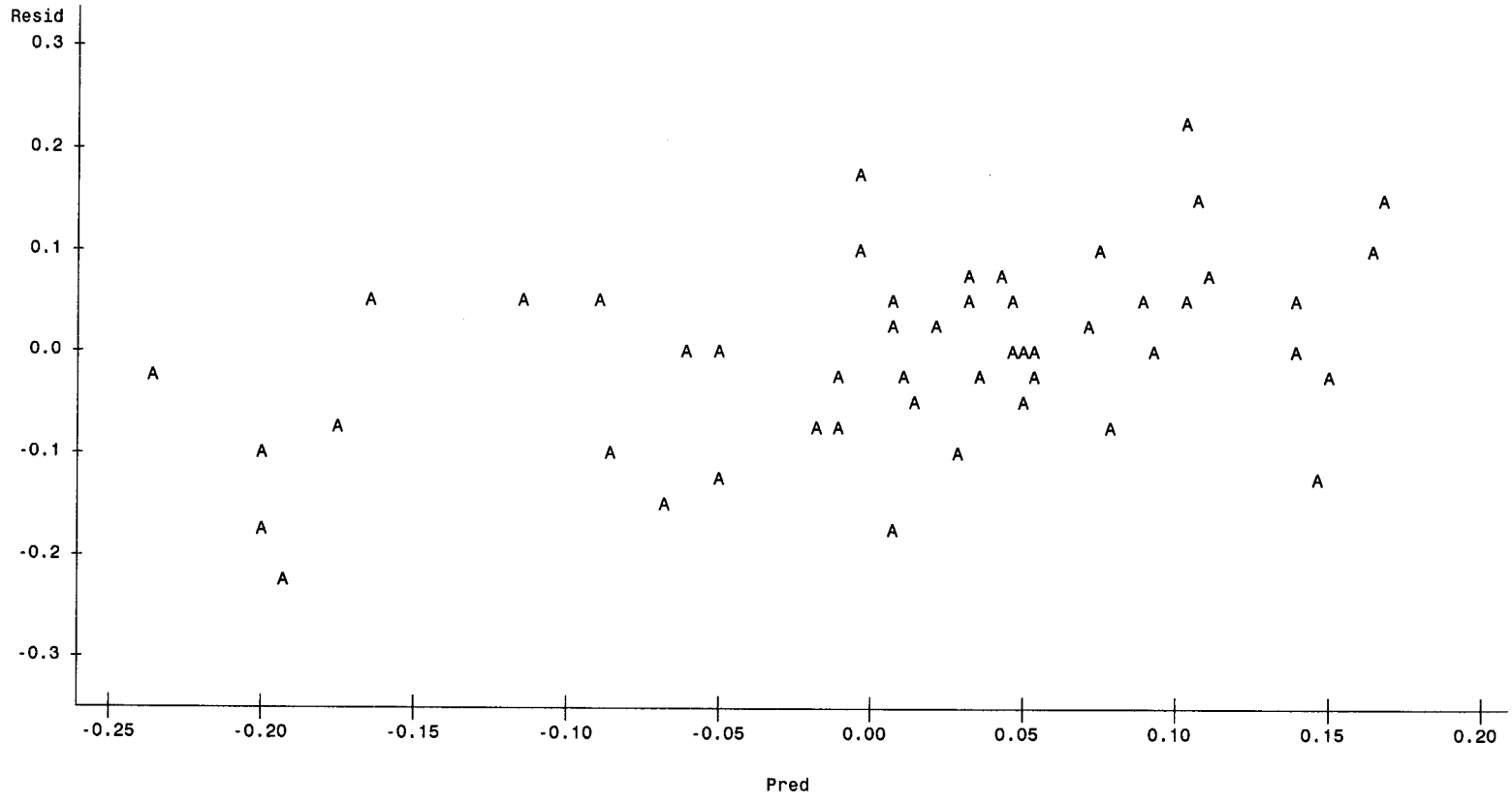
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR

Patient Is Random

Study 7: Huntington Study No. 2

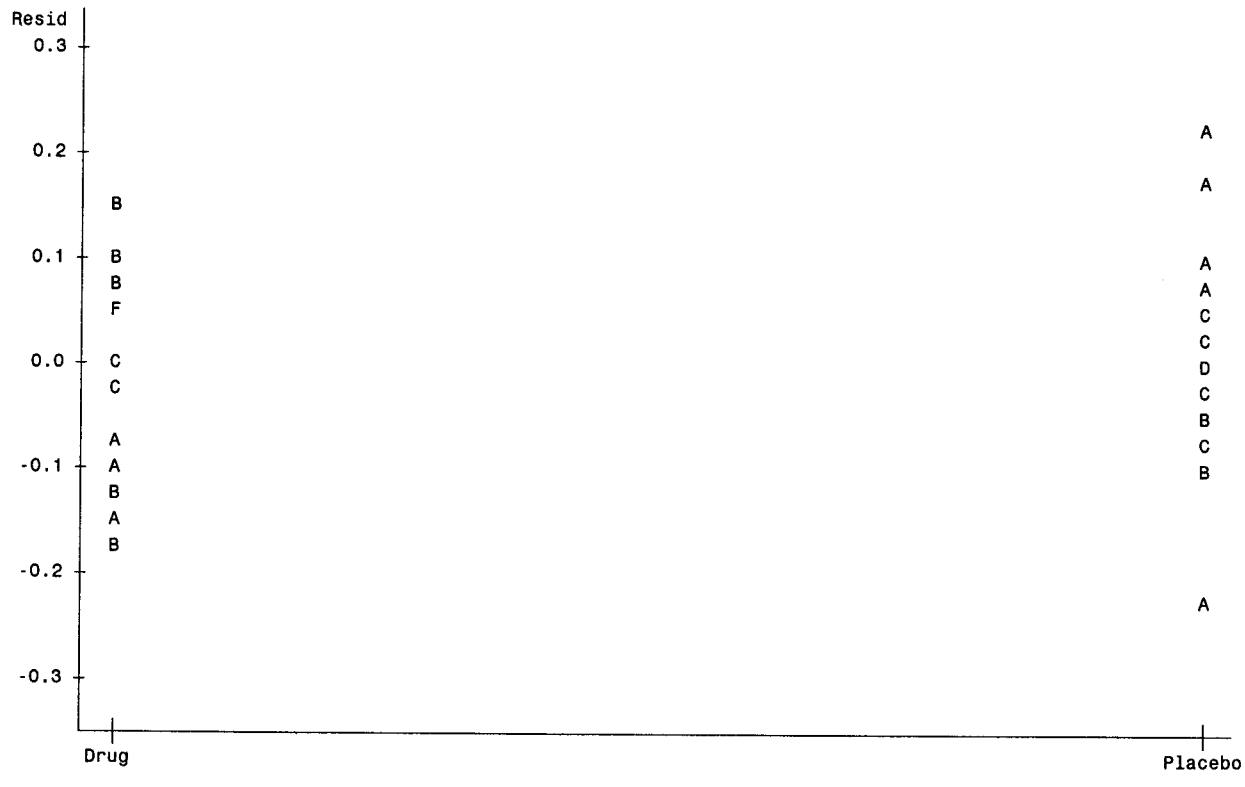
Time = 15 minutes

Plot of Resid*Pred. Legend: A = 1 obs, B = 2 obs, etc.



Appendix 2 14:50 Thursday, December 14, 2006 1911
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes

Plot of Resid*TREAT. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.09870838	Variance	0.00974334
Skewness	-0.4483392	Kurtosis	-0.6839456
Uncorrected SS	0.23384026	Corrected SS	0.23384026
Coeff Variation	.	Std Error Mean	0.01974168

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.09871
Median	0.010973	Variance	0.00974
Mode	.	Range	0.34712
		Interquartile Range	0.14563

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	1.5	Pr >= |M|	0.6900
Signed Rank	S	5.5	Pr >= |S|	0.8859

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test	--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.943556	Pr < W	0.1788
Kolmogorov-Smirnov	D	0.173576	Pr > D	0.0497
Cramer-von Mises	W-Sq	0.1026	Pr > W-Sq	0.0985
Anderson-Darling	A-Sq	0.570689	Pr > A-Sq	0.1294

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.1606716
99%	0.1606716
95%	0.1487501
90%	0.1061070
75% Q3	0.0589525
50% Median	0.0109726
25% Q1	-0.0866778
10%	-0.1536132
5%	-0.1797844
1%	-0.1864461
0% Min	-0.1864461

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

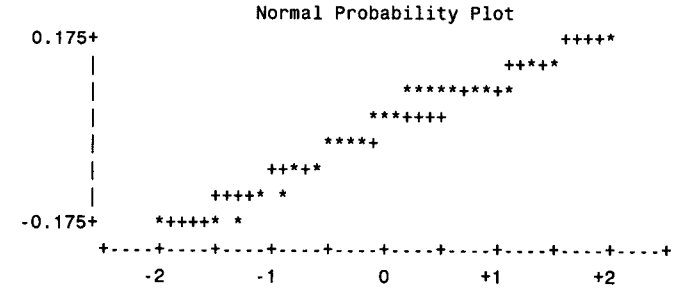
The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.186446	7041	21	0.0716458	7003	3
-0.179784	7017	9	0.0996775	7031	17
-0.153613	7030	16	0.1061070	7002	2
-0.126121	7028	15	0.1487501	7021	12
-0.113712	7008	5	0.1606716	7018	10

Stem	Leaf	#	Boxplot
1	56	2	
1	01	2	
0	55566677	8	+-----+
0	11	2	*--+--*
-0	2221	4	| |
-0	99	2	+-----+
-1	31	2	
-1	985	3	

Multiply Stem.Leaf by 10**-1



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.08872816	Variance	0.00787269
Skewness	0.31730364	Kurtosis	1.97284788
Uncorrected SS	0.18894446	Corrected SS	0.18894446
Coeff Variation	.	Std Error Mean	0.01774563

Basic Statistical Measures

Location		Variability	
Mean	0.00000	Std Deviation	0.08873
Median	-0.00760	Variance	0.00787
Mode	.	Range	0.44895
		Interquartile Range	0.09658

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	-2.5	Pr >= |M|	0.4244
Signed Rank	S	-11.5	Pr >= |S|	0.7639

Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.948705	Pr < W	0.2344
Kolmogorov-Smirnov	D	0.118868	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.076144	Pr > W-Sq	0.2284
Anderson-Darling	A-Sq	0.526762	Pr > A-Sq	0.1682

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.22719929
99%	0.22719929
95%	0.16899124
90%	0.10045534
75% Q3	0.04079345
50% Median	-0.00759715
25% Q1	-0.05578517
10%	-0.08798138
5%	-0.08865030
1%	-0.22175153
0% Min	-0.22175153

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

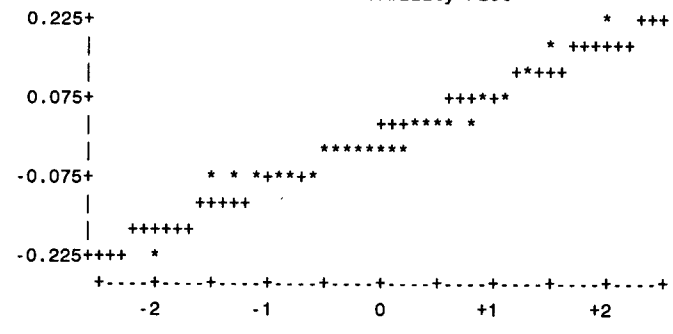
Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.2217515	7014	7	0.0536115	7030	16
-0.0886503	7027	14	0.0732371	7033	18
-0.0879814	7048	24	0.1004553	7025	13
-0.0683908	7021	12	0.1689912	7017	9
-0.0648267	7016	8	0.2271993	7028	15

Stem	Leaf	#	Boxplot
2	3	1	0
1	7	1	|
1	0	1	|
0	557	3	|
0	2234	4	+--+--+
-0	3221110	7	*-----*
-0	9976665	7	+-----+
-1			
-1			
-2	2	1	0

Multiply Stem.Leaf by 10**-1

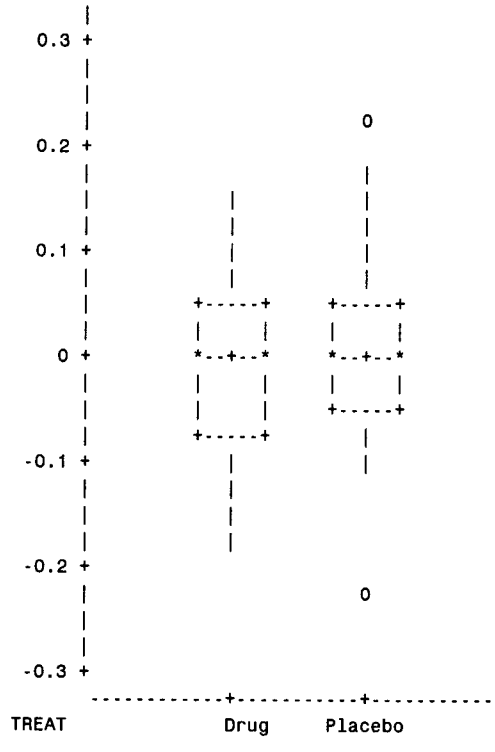
Normal Probability Plot



Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 15 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes

---------- TIME=30 minutes ----------

The Mixed Procedure

Model Information

Data Set	WORK.ALL
Dependent Variable	LNCHANGE
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
TREAT	2	Drug Placebo
PATIENT	25	7001 7002 7003 7007 7008 7010 7014 7016 7017 7018 7020 7021 7025 7027 7028 7030 7031 7033 7034 7036 7041 7042 7044 7048 7050

Dimensions

Covariance Parameters	2
Columns in X	4
Columns in Z	25
Subjects	1
Max Obs Per Subject	50

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes

---------- TIME=30 minutes ----------

The Mixed Procedure

Dimensions

Observations Used	50
Observations Not Used	0
Total Observations	50

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	12.07381756	
1	2	11.73885284	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Estimate
PATIENT	0.006551
Residual	0.04793

Fit Statistics

-2 Res Log Likelihood	11.7
AIC (smaller is better)	15.7

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes

---------- TIME=30 minutes ----------

The Mixed Procedure

Fit Statistics

AICC (smaller is better)	16.0
BIC (smaller is better)	18.2

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASELINE	1	28.1	1.01	0.3234
TREAT	1	23.9	0.08	0.7816

Least Squares Means

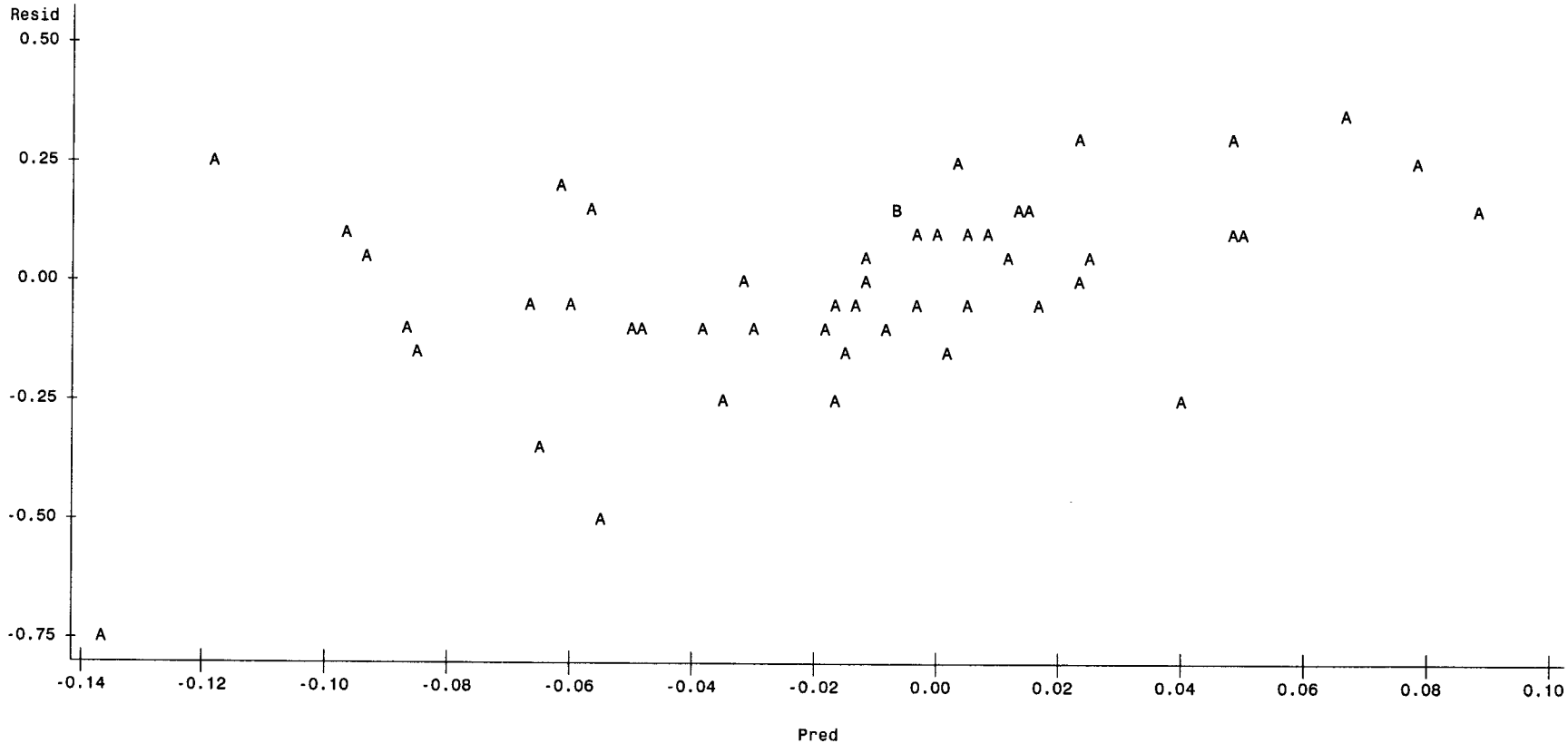
Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-0.02414	0.04674	46.1	-0.52	0.6081	0.05	-0.1182	0.06995
TREAT	Placebo	-0.00672	0.04674	46.1	-0.14	0.8862	0.05	-0.1008	0.08736

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	-0.01741	0.06211	23.9	-0.28	0.7816	0.05	-0.1456	0.1108

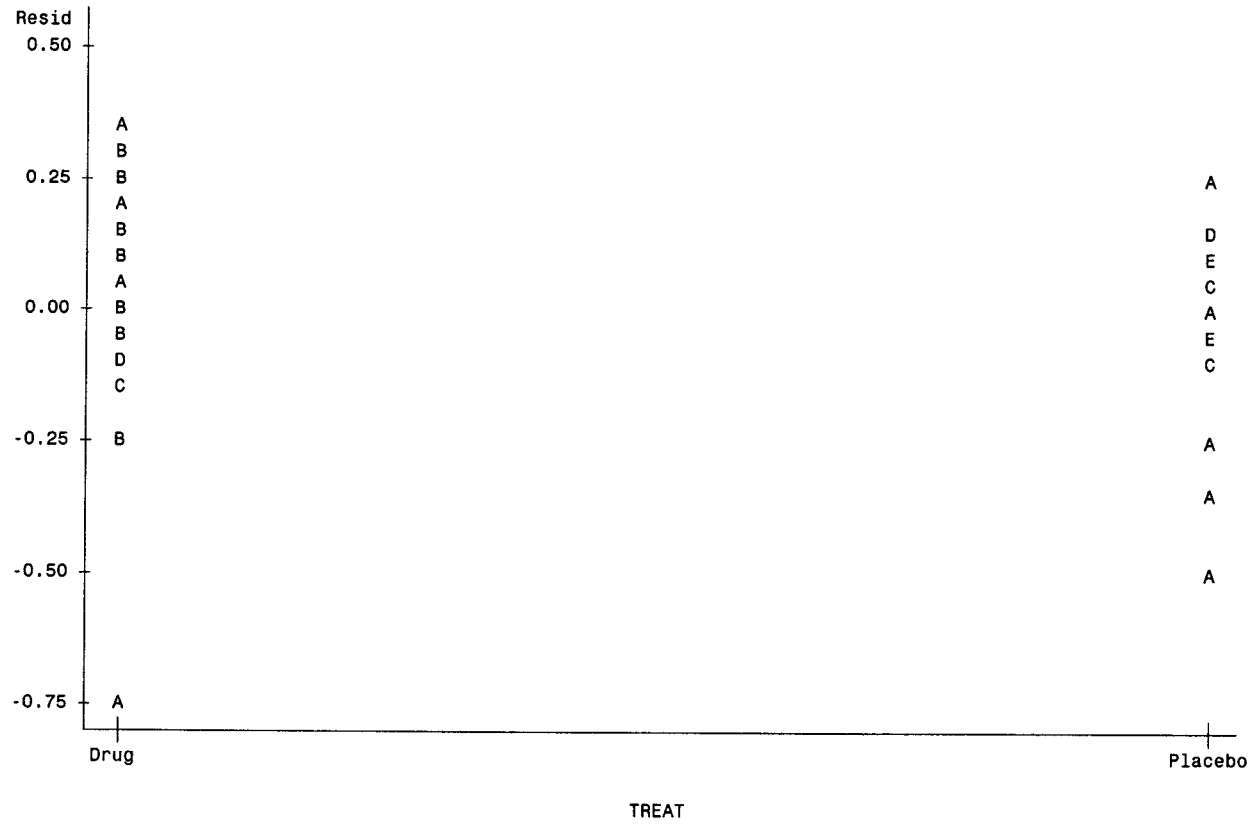
Appendix 2 14:50 Thursday, December 14, 2006 1922
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes

Plot of Resid*Pred. Legend: A = 1 obs, B = 2 obs, etc.



Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes

Plot of Resid*TREAT. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.23631641	Variance	0.05584545
Skewness	-1.1430901	Kurtosis	3.02047012
Uncorrected SS	1.34029072	Corrected SS	1.34029072
Coeff Variation	.	Std Error Mean	0.04726328

Basic Statistical Measures

Location		Variability	
Mean	0.00000	Std Deviation	0.23632
Median	-0.02032	Variance	0.05585
Mode	.	Range	1.09970
		Interquartile Range	0.26842

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	-0.5	Pr >= |M|	1.0000
Signed Rank	S	10.5	Pr >= |S|	0.7840

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.909652	Pr < W		0.0299
Kolmogorov-Smirnov	D	0.129921	Pr > D		>0.1500
Cramer-von Mises	W-Sq	0.054824	Pr > W-Sq		>0.2500
Anderson-Darling	A-Sq	0.497588	Pr > A-Sq		0.2013

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.3452623
99%	0.3452623
95%	0.3015989
90%	0.2988851
75% Q3	0.1584031
50% Median	-0.0203222
25% Q1	-0.1100194
10%	-0.2520218
5%	-0.2578268
1%	-0.7544364
0% Min	-0.7544364

Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes
Checking Residuals for Study 7 at The Minutes Specified

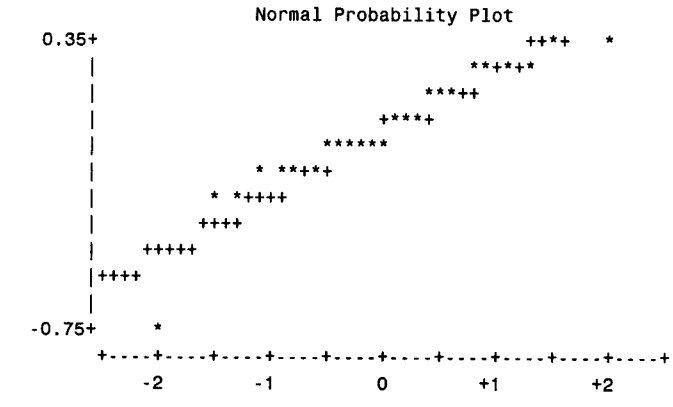
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.754436	7030	16	0.240292	7042	22
-0.257827	7017	9	0.242946	7033	18
-0.252022	7001	1	0.298885	7034	19
-0.159451	7050	25	0.301599	7021	12
-0.150202	7016	8	0.345262	7018	10

```
Stem Leaf                #    Boxplot
   3 005                 3       |
   2 144                 3       |
   1 256                 3       +-----+
   0 139                 3       |  +  |
  -0 99632               5       *-----*
  -1 65310               5       +-----+
  -2 65                  2       |
  -3                             |
  -4                             |
  -5                             |
  -6                             |
  -7 5                   1       0
     ----+----+----+----+
 Multiply Stem.Leaf by 10**-1
```



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.16765249	Variance	0.02810736
Skewness	-1.2373761	Kurtosis	2.1199201
Uncorrected SS	0.67457661	Corrected SS	0.67457661
Coeff Variation	.	Std Error Mean	0.0335305

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.16765
Median	0.032030	Variance	0.02811
Mode	.	Range	0.76294
		Interquartile Range	0.14527

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	1.5	Pr >= |M|	0.6900
Signed Rank	S	23.5	Pr >= |S|	0.5382

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test	--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.913671	Pr < W	0.0368
Kolmogorov-Smirnov	D	0.152413	Pr > D	0.1370
Cramer-von Mises	W-Sq	0.109104	Pr > W-Sq	0.0834
Anderson-Darling	A-Sq	0.712612	Pr > A-Sq	0.0564

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.2737934
99%	0.2737934
95%	0.1738685
90%	0.1692111
75% Q3	0.0994957
50% Median	0.0320304
25% Q1	-0.0457749
10%	-0.2266815
5%	-0.3358207
1%	-0.4891450
0% Min	-0.4891450

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes
Checking Residuals for Study 7 at The Minutes Specified

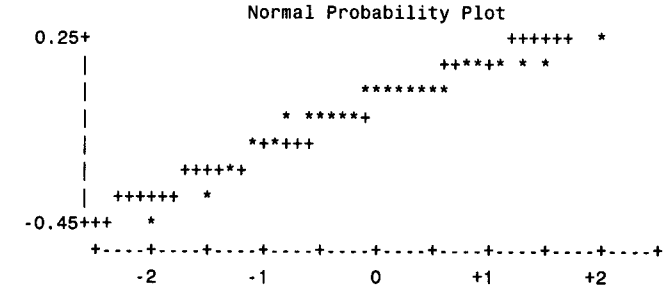
---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.489145	7014	7	0.133839	7017	9
-0.335821	7041	21	0.146246	7036	20
-0.226682	7034	19	0.169211	7020	11
-0.123828	7048	24	0.173868	7033	18
-0.101555	7016	8	0.273793	7001	1

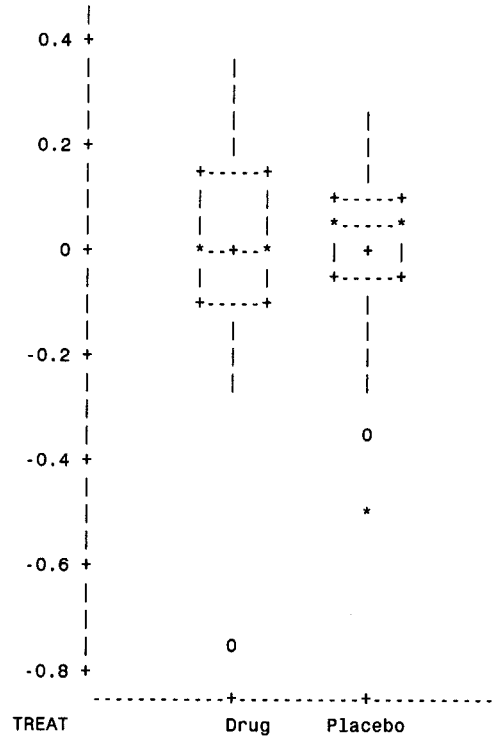
```
Stem Leaf                #    Boxplot
   2 7                   1       |
   1 00023577            8       +-----+
   0 13478               5       *--+--*
  -0 955433              6       +-----+
  -1 20                  2       |
  -2 3                   1       |
  -3 4                   1       0
  -4 9                   1       *
     ----+----+----+----+
 Multiply Stem.Leaf by 10**-1
```



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 30 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes

---------- TIME=45 minutes ----------

The Mixed Procedure

Model Information

Data Set	WORK.ALL
Dependent Variable	LNCHANGE
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
TREAT	2	Drug Placebo
PATIENT	25	7001 7002 7003 7007 7008 7010 7014 7016 7017 7018 7020 7021 7025 7027 7028 7030 7031 7033 7034 7036 7041 7042 7044 7048 7050

Dimensions

Covariance Parameters	2
Columns in X	4
Columns in Z	25
Subjects	1
Max Obs Per Subject	50

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes

---------- TIME=45 minutes ----------

The Mixed Procedure

Dimensions

Observations Used	50
Observations Not Used	0
Total Observations	50

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	18.13422895	
1	2	9.39822867	0.00011543
2	1	9.39364711	0.00000027
3	1	9.39363661	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Estimate
PATIENT	0.03788
Residual	0.02634

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes

---------- TIME=45 minutes ----------

The Mixed Procedure

Fit Statistics

-2 Res Log Likelihood	9.4
AIC (smaller is better)	13.4
AICC (smaller is better)	13.7
BIC (smaller is better)	15.8

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASELINE	1	36	0.31	0.5824
TREAT	1	21.5	1.36	0.2555

Least Squares Means

Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-0.03997	0.05077	32.3	-0.79	0.4369	0.05	-0.1433	0.06341
TREAT	Placebo	-0.09403	0.05077	32.3	-1.85	0.0732	0.05	-0.1974	0.009347

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes

---------- TIME=45 minutes ----------

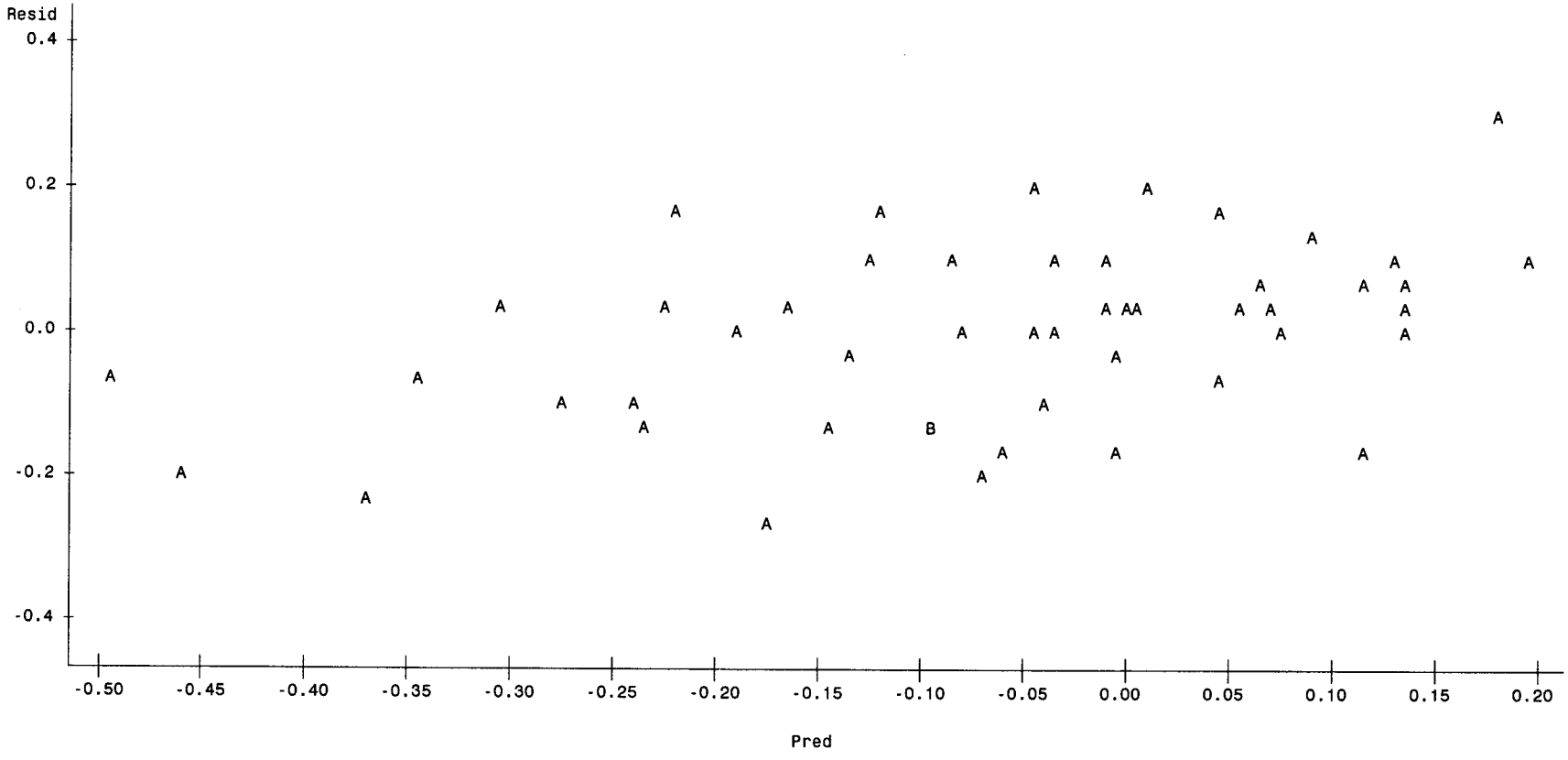
The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	0.05406	0.04627	21.5	1.17	0.2555	0.05	-0.04205	0.1502

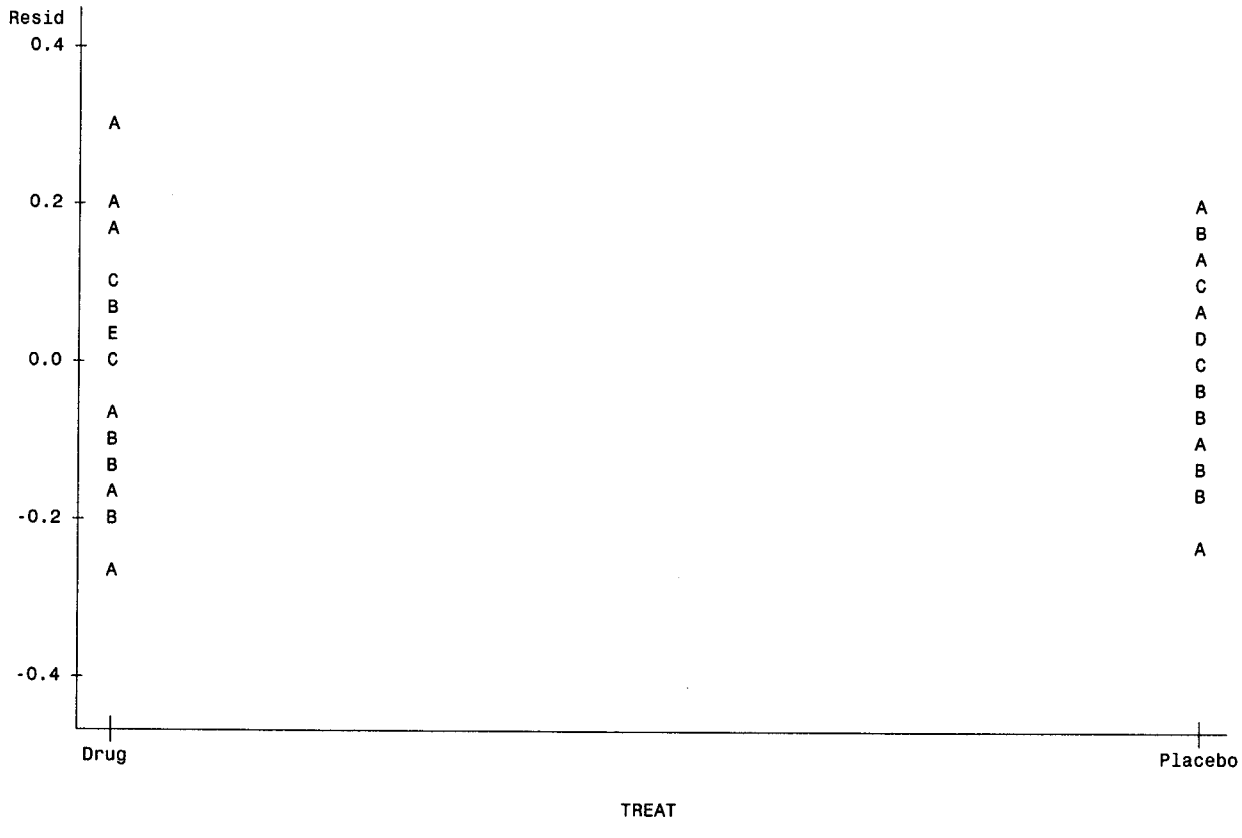
Appendix 2 14:50 Thursday, December 14, 2006 1935
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes

Plot of Resid*Pred. Legend: A = 1 obs, B = 2 obs, etc.



Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes

Plot of Resid*TREAT. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.13662735	Variance	0.01866703
Skewness	0.08835995	Kurtosis	-0.0193764
Uncorrected SS	0.44800876	Corrected SS	0.44800876
Coeff Variation	.	Std Error Mean	0.02732547

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.13663
Median	0.029305	Variance	0.01867
Mode	.	Range	0.57466
		Interquartile Range	0.16857

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	2.5	Pr >= |M|	0.4244
Signed Rank	S	1.5	Pr >= |S|	0.9688

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test	--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.979379	Pr < W	0.8725
Kolmogorov-Smirnov	D	0.107948	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.050528	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.270379	Pr > A-Sq	>0.2500

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.3166275
99%	0.3166275
95%	0.2069646
90%	0.1546229
75% Q3	0.0740398
50% Median	0.0293055
25% Q1	-0.0945253
10%	-0.1900217
5%	-0.2149882
1%	-0.2580355
0% Min	-0.2580355

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes
Checking Residuals for Study 7 at The Minutes Specified

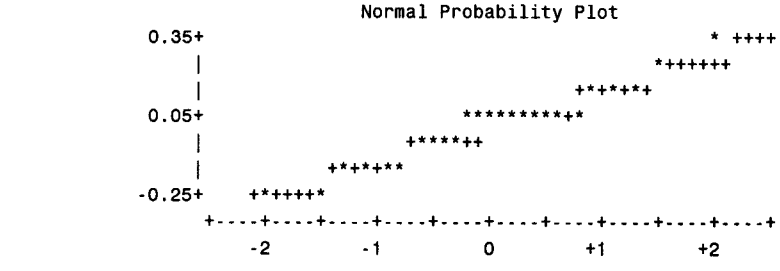
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.258035	7020	11	0.111527	7033	18
-0.214988	7030	16	0.112049	7044	23
-0.190022	7050	25	0.154623	7042	22
-0.155891	7001	1	0.206965	7003	3
-0.130485	7016	8	0.316627	7021	12

```
Stem Leaf                #    Boxplot
   3 2                   1       |
   2 1                   1       |
   1 0115                4       |
   0 013345577           9       +--+--+
  -0 9971                4       +-----+
  -1 9633                4       |
  -2 61                  2       |
     ----+----+----+----+
 Multiply Stem.Leaf by 10**-1
```



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.11818561	Variance	0.01396784
Skewness	-0.3167955	Kurtosis	-0.6829106
Uncorrected SS	0.3352281	Corrected SS	0.3352281
Coeff Variation	.	Std Error Mean	0.02363712

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.11819
Median	0.013013	Variance	0.01397
Mode	.	Range	0.43280
		Interquartile Range	0.15826

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	0.5	Pr >= |M|	1.0000
Signed Rank	S	7.5	Pr >= |S|	0.8448

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test	--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.971938	Pr < W	0.6945
Kolmogorov-Smirnov	D	0.076899	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.026427	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.200232	Pr > A-Sq	>0.2500

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.1857713
99%	0.1857713
95%	0.1665342
90%	0.1585793
75% Q3	0.0861241
50% Median	0.0130135
25% Q1	-0.0721401
10%	-0.1746613
5%	-0.1773776
1%	-0.2470297
0% Min	-0.2470297

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

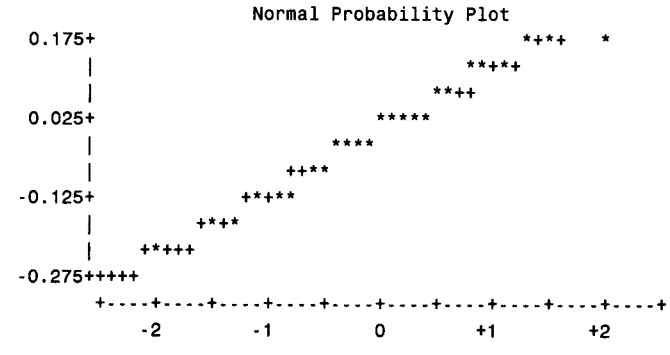
The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.247030	7014	7	0.114939	7034	19
-0.177378	7003	3	0.139532	7028	15
-0.174661	7021	12	0.158579	7050	25
-0.149897	7027	14	0.166534	7020	11
-0.129165	7033	18	0.185771	7001	1

Stem	Leaf	#	Boxplot
1	679	3	
1	114	3	
0	589	3	+-----+
0	1344	4	*--+--*
-0	4320	4	| |
-0	77	2	+-----+
-1	30	2	
-1	875	3	
-2			
-2	5	1	

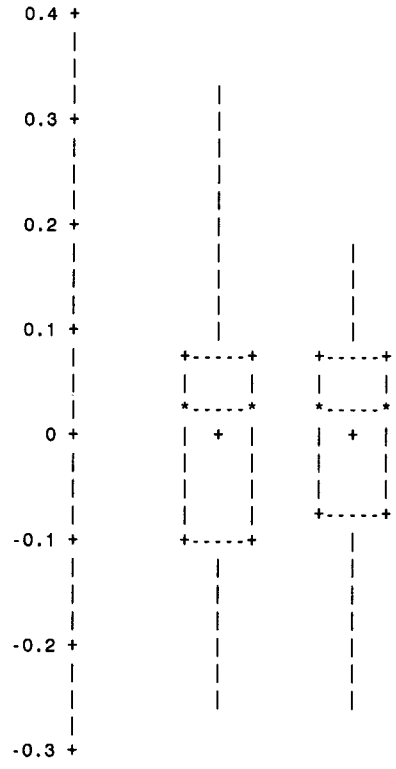
----+----+----+----+
Multiply Stem.Leaf by 10**-1



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 45 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots

TREAT	Drug	Placebo

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes

---------- TIME=60 minutes ----------

The Mixed Procedure

Model Information

Data Set	WORK.ALL
Dependent Variable	LNCHANGE
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
TREAT	2	Drug Placebo
PATIENT	25	7001 7002 7003 7007 7008 7010 7014 7016 7017 7018 7020 7021 7025 7027 7028 7030 7031 7033 7034 7036 7041 7042 7044 7048 7050

Dimensions

Covariance Parameters	2
Columns in X	4
Columns in Z	25
Subjects	1
Max Obs Per Subject	50

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes

---------- TIME=60 minutes ----------

The Mixed Procedure

Dimensions

Observations Used	50
Observations Not Used	0
Total Observations	50

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	30.13199125	
1	1	30.13199125	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Estimate
PATIENT	0
Residual	0.07982

Fit Statistics

-2 Res Log Likelihood	30.1
AIC (smaller is better)	32.1

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes

---------- TIME=60 minutes ----------

The Mixed Procedure

Fit Statistics

AICC (smaller is better)	32.2
BIC (smaller is better)	33.4

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASELINE	1	47	0.21	0.6494
TREAT	1	47	0.09	0.7619

Least Squares Means

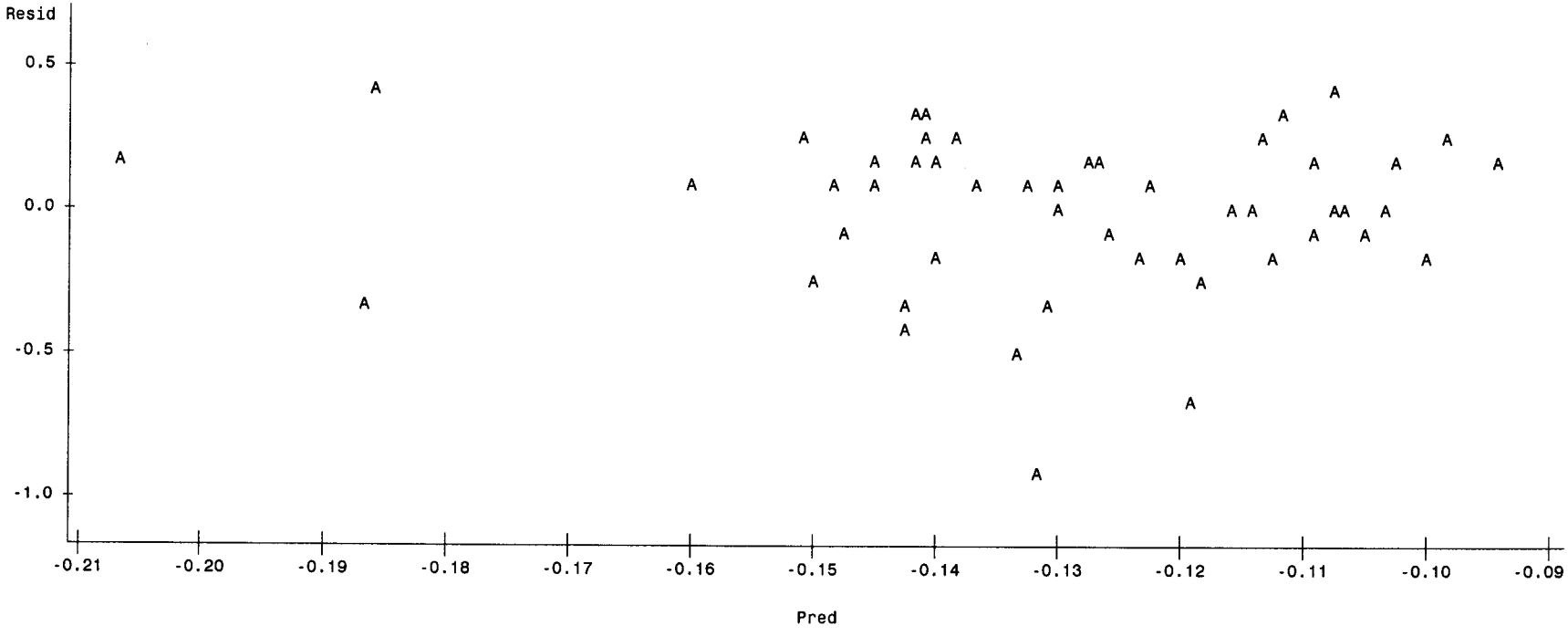
Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-0.1181	0.05657	47	-2.09	0.0423	0.05	-0.2319	-0.00426
TREAT	Placebo	-0.1425	0.05657	47	-2.52	0.0152	0.05	-0.2563	-0.02867

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	0.02442	0.08010	47	0.30	0.7619	0.05	-0.1367	0.1856

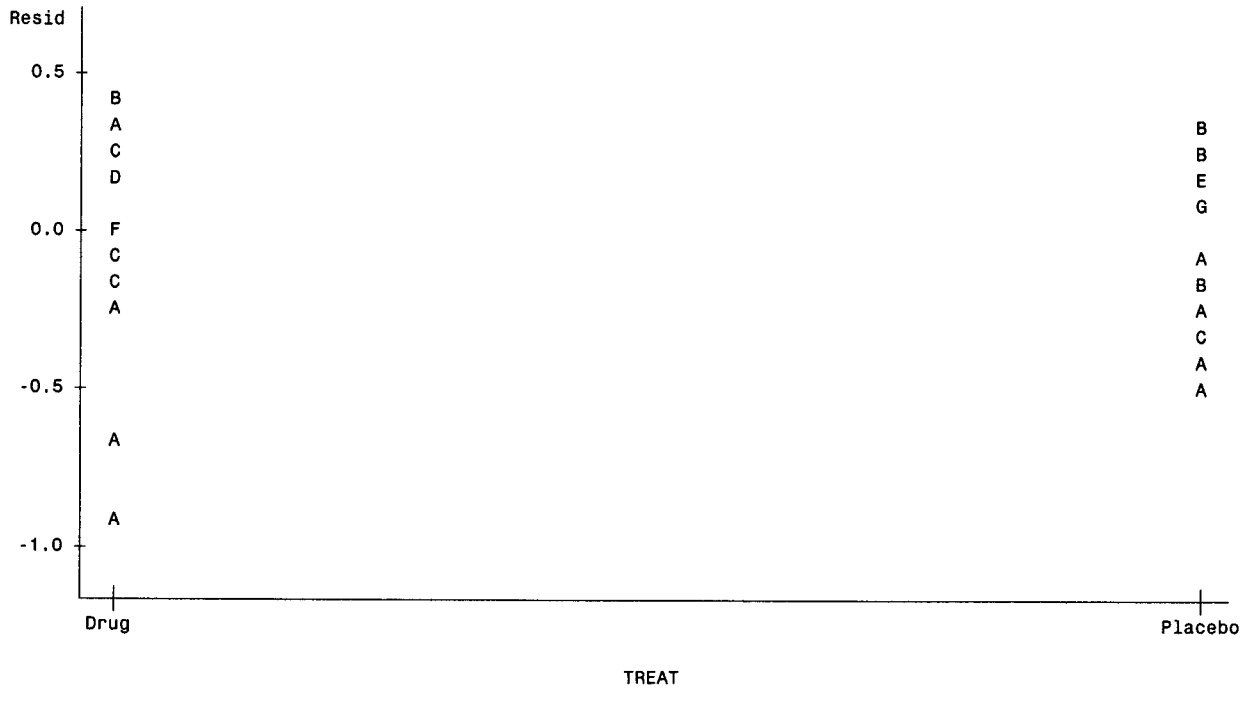
Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes

Plot of Resid*Pred. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes

Plot of Resid*TREAT. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.30722236	Variance	0.09438558
Skewness	-1.4752765	Kurtosis	3.25297699
Uncorrected SS	2.2652539	Corrected SS	2.2652539
Coeff Variation	.	Std Error Mean	0.06144447

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.30722
Median	0.008775	Variance	0.09439
Mode	.	Range	1.36885
		Interquartile Range	0.32704

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	0.5	Pr >= |M|	1.0000
Signed Rank	S	24.5	Pr >= |S|	0.5209

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.871594	Pr < W	0.0047
Kolmogorov-Smirnov	D	0.208752	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.140107	Pr > W-Sq	0.0308
Anderson-Darling	A-Sq	0.953199	Pr > A-Sq	0.0146

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.42208023
99%	0.42208023
95%	0.38487300
90%	0.36635417
75% Q3	0.20415428
50% Median	0.00877459
25% Q1	-0.12288356
10%	-0.26708492
5%	-0.67952627
1%	-0.94677010
0% Min	-0.94677010

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes
Checking Residuals for Study 7 at The Minutes Specified

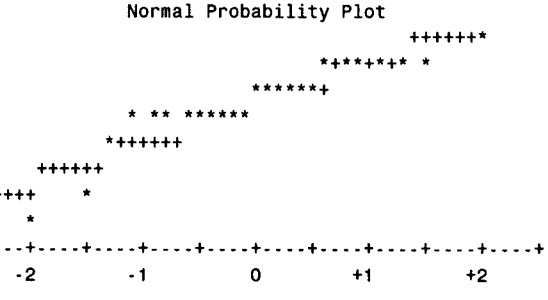
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.946770	7016	8	0.220871	7034	19
-0.679526	7020	11	0.287685	7003	3
-0.267085	7036	20	0.366354	7044	23
-0.136211	7008	5	0.384873	7042	22
-0.135992	7014	7	0.422080	7021	12

```
Stem Leaf                #    Boxplot
   4 2                   1       |
   2 022978              6       +-----+
   0 112467              6       *--+--*
  -0 443286321           9       +-----+
  -2 7                   1       |
  -4                             |
  -6 8                   1       0
  -8 5                   1       0
     ----+----+----+----+
 Multiply Stem.Leaf by 10**-1
```



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.24885399	Variance	0.06192831
Skewness	-0.6189441	Kurtosis	-0.612729
Uncorrected SS	1.48627935	Corrected SS	1.48627935
Coeff Variation	.	Std Error Mean	0.0497708

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.24885
Median	0.085103	Variance	0.06193
Mode	.	Range	0.91267
		Interquartile Range	0.36026

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	3.5	Pr >= |M|	0.2295
Signed Rank	S	5.5	Pr >= |S|	0.8859

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.916156	Pr < W	0.0419
Kolmogorov-Smirnov	D	0.260434	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.207874	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.010378	Pr > A-Sq	0.0096

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.373027
99%	0.373027
95%	0.347718
90%	0.278312
75% Q3	0.154962
50% Median	0.085103
25% Q1	-0.205301
10%	-0.358252
5%	-0.402408
1%	-0.539641
0% Min	-0.539641

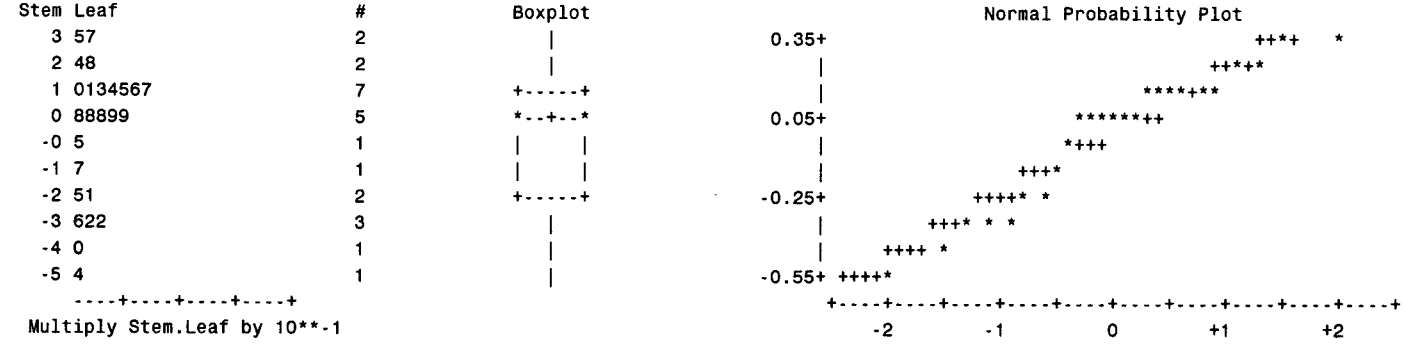
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

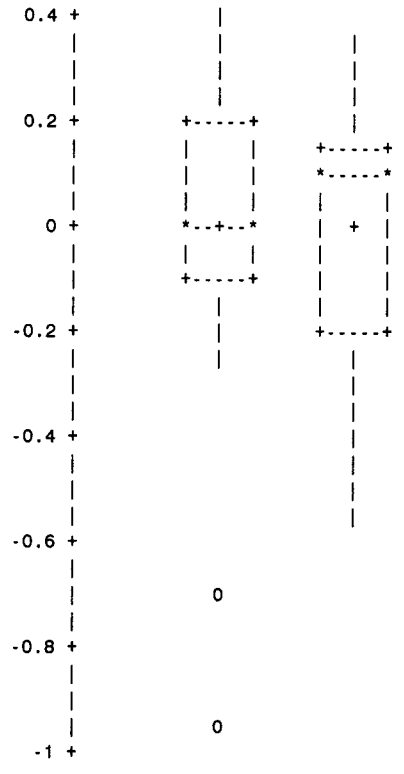
----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.539641	7025	13	0.169590	7044	23
-0.402408	7030	16	0.235745	7021	12
-0.358252	7002	2	0.278312	7001	1
-0.319581	7041	21	0.347718	7016	8
-0.315545	7014	7	0.373027	7028	15



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 60 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots

TREAT	Drug	Placebo

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes

---------- TIME=90 minutes ----------

The Mixed Procedure

Model Information

Data Set	WORK.ALL
Dependent Variable	LNCHANGE
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
TREAT	2	Drug Placebo
PATIENT	25	7001 7002 7003 7007 7008 7010 7014 7016 7017 7018 7020 7021 7025 7027 7028 7030 7031 7033 7034 7036 7041 7042 7044 7048 7050

Dimensions

Covariance Parameters	2
Columns in X	4
Columns in Z	25
Subjects	1
Max Obs Per Subject	50

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes

---------- TIME=90 minutes ----------

The Mixed Procedure

Dimensions

Observations Used	50
Observations Not Used	0
Total Observations	50

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	30.94106055	
1	2	30.02054012	0.00000007
2	1	30.02053817	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Estimate
PATIENT	0.01646
Residual	0.06513

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes

---------- TIME=90 minutes ----------

The Mixed Procedure

Fit Statistics

-2 Res Log Likelihood	30.0
AIC (smaller is better)	34.0
AICC (smaller is better)	34.3
BIC (smaller is better)	36.5

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASELINE	1	28.5	0.14	0.7078
TREAT	1	23.3	0.02	0.8958

Least Squares Means

Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-0.09602	0.05721	44.7	-1.68	0.1002	0.05	-0.2113	0.01923
TREAT	Placebo	-0.1056	0.05721	44.7	-1.85	0.0715	0.05	-0.2209	0.009633

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes

---------- TIME=90 minutes ----------

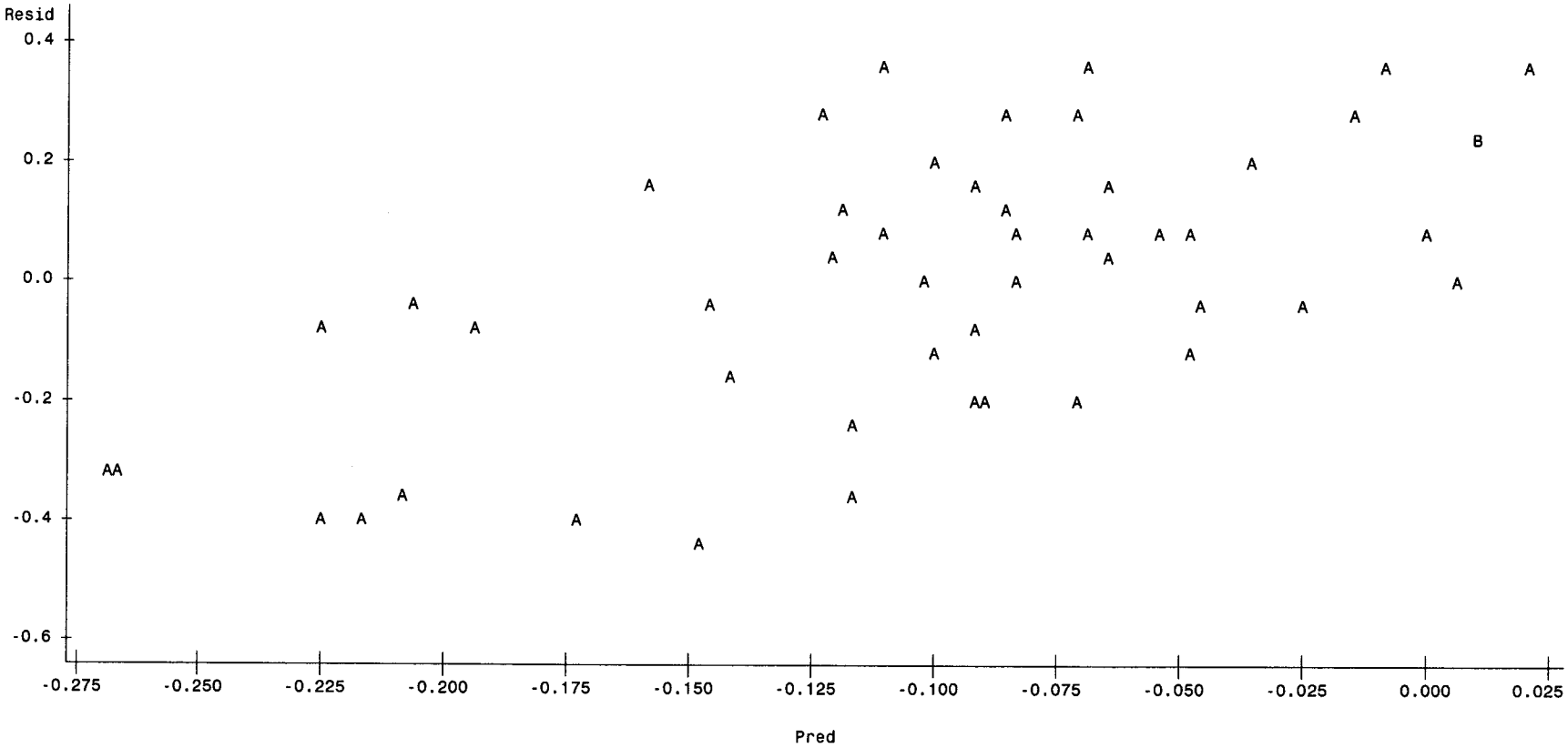
The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	0.009594	0.07244	23.3	0.13	0.8958	0.05	-0.1402	0.1593

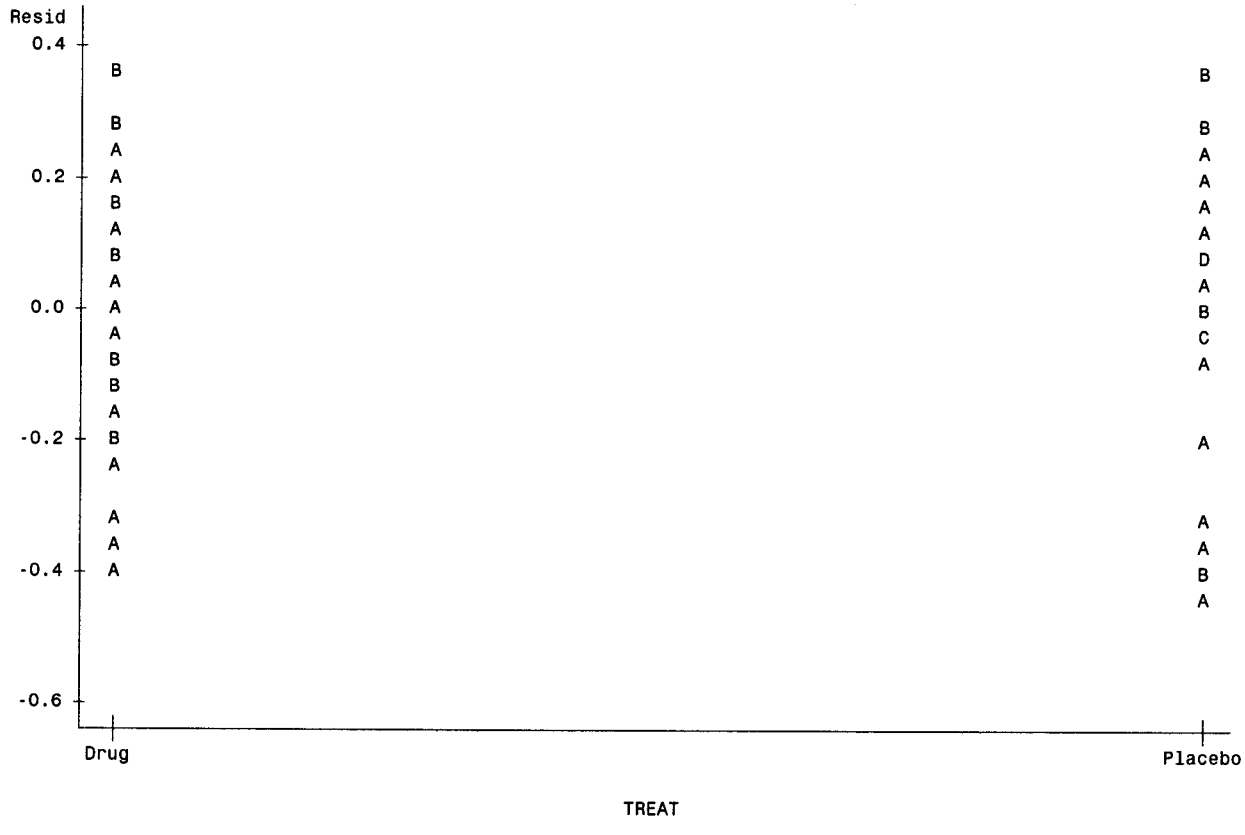
Appendix 2 14:50 Thursday, December 14, 2006 1962
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes

Plot of Resid*Pred. Legend: A = 1 obs, B = 2 obs, etc.



Appendix 2
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes

Plot of Resid*TREAT. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.22409683	Variance	0.05021939
Skewness	-0.0278384	Kurtosis	-0.9661268
Uncorrected SS	1.20526535	Corrected SS	1.20526535
Coeff Variation	.	Std Error Mean	0.04481937

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.22410
Median	0.000277	Variance	0.05022
Mode	.	Range	0.75974
		Interquartile Range	0.31957

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	0.5	Pr >= |M|	1.0000
Signed Rank	S	-0.5	Pr >= |S|	0.9896

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.968331	Pr < W	0.6031
Kolmogorov-Smirnov	D	0.083992	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.031216	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.20986	Pr > A-Sq	>0.2500

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.378780063
99%	0.378780063
95%	0.365893971
90%	0.285341146
75% Q3	0.159623816
50% Median	0.000276755
25% Q1	-0.159942722
10%	-0.310828915
5%	-0.378352858
1%	-0.380958793
0% Min	-0.380958793

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes
Checking Residuals for Study 7 at The Minutes Specified

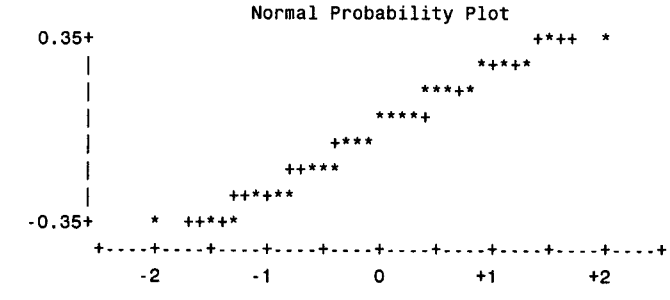
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.380959	7041	21	0.220091	7028	15
-0.378353	7016	8	0.270683	7018	10
-0.310829	7030	16	0.285341	7003	3
-0.239020	7007	4	0.365894	7021	12
-0.217495	7001	1	0.378780	7033	18

```
Stem Leaf                  #        Boxplot
   3 78                    2           |
   2 279                   3           |
   1 3569                  4           +-----+
   0 0589                  4           *--+--*
  -0 885                   3           |     |
  -1 641                   3           +-----+
  -2 421                   3           |
  -3 881                   3           |
     ----+----+----+----+
 Multiply Stem.Leaf by 10**-1
```



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.23719048	Variance	0.05625932
Skewness	-0.4714761	Kurtosis	-0.7021569
Uncorrected SS	1.35022375	Corrected SS	1.35022375
Coeff Variation	.	Std Error Mean	0.0474381

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.23719
Median	0.038250	Variance	0.05626
Mode	.	Range	0.78134
		Interquartile Range	0.24863

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	1.5	Pr >= |M|	0.6900
Signed Rank	S	8.5	Pr >= |S|	0.8244

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test	--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.931576	Pr < W	0.0945
Kolmogorov-Smirnov	D	0.124133	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.080541	Pr > W-Sq	0.2020
Anderson-Darling	A-Sq	0.567009	Pr > A-Sq	0.1321

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.3501351
99%	0.3501351
95%	0.3469372
90%	0.2835714
75% Q3	0.1585380
50% Median	0.0382498
25% Q1	-0.0900873
10%	-0.3897899
5%	-0.3910117
1%	-0.4312010
0% Min	-0.4312010

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

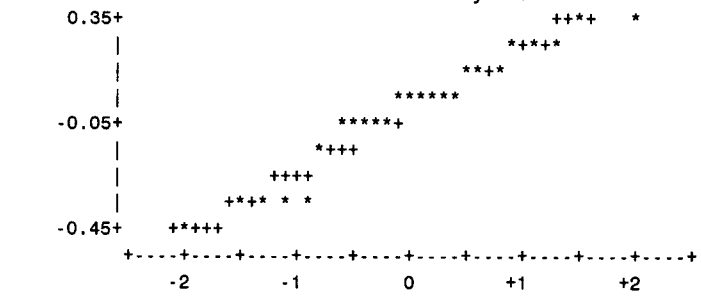
Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.431201	7018	10	0.236560	7028	15
-0.391012	7048	24	0.268309	7044	23
-0.389790	7036	20	0.283571	7017	9
-0.370778	7014	7	0.346937	7001	1
-0.330345	7030	16	0.350135	7016	8

Stem	Leaf	#	Boxplot
3	55	2	
2	0478	4	
1	46	2	+-----+
0	147788	6	*--+--*
-0	96431	5	+-----+
-1			
-2	0	1	
-3	9973	4	
-4	3	1	

Multiply Stem.Leaf by 10**-1

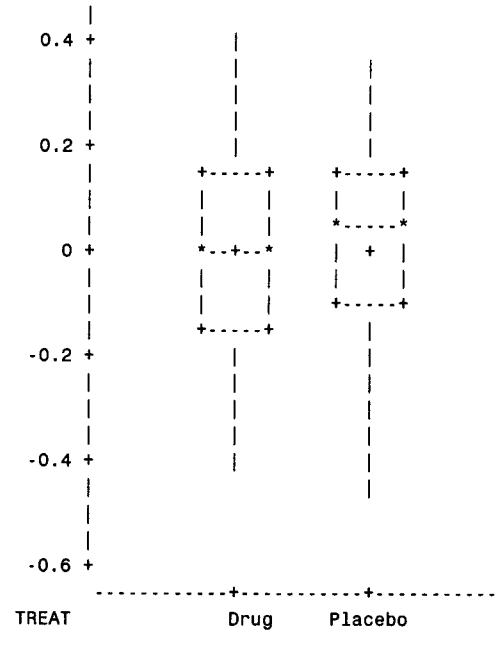
Normal Probability Plot



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 90 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes

---------- TIME=120 minutes ----------

The Mixed Procedure

Model Information

Data Set	WORK.ALL
Dependent Variable	LNCHANGE
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
TREAT	2	Drug Placebo
PATIENT	25	7001 7002 7003 7007 7008 7010 7014 7016 7017 7018 7020 7021 7025 7027 7028 7030 7031 7033 7034 7036 7041 7042 7044 7048 7050

Dimensions

Covariance Parameters	2
Columns in X	4
Columns in Z	25
Subjects	1
Max Obs Per Subject	50

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes

---------- TIME=120 minutes ----------

The Mixed Procedure

Dimensions

Observations Used	50
Observations Not Used	0
Total Observations	50

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	38.25549746	
1	2	37.09404365	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Estimate
PATIENT	0.02083
Residual	0.07439

Fit Statistics

-2 Res Log Likelihood	37.1
AIC (smaller is better)	41.1

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes

---------- TIME=120 minutes ----------

The Mixed Procedure

Fit Statistics

AICC (smaller is better)	41.4
BIC (smaller is better)	43.5

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASELINE	1	29.6	0.04	0.8503
TREAT	1	24.2	2.40	0.1341

Least Squares Means

Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-0.1329	0.06181	44.5	-2.15	0.0370	0.05	-0.2574	-0.00835
TREAT	Placebo	-0.2529	0.06181	44.5	-4.09	0.0002	0.05	-0.3774	-0.1284

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	0.1200	0.07743	24.2	1.55	0.1341	0.05	-0.03971	0.2797

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Phenylephrine vs. Placebo

LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)

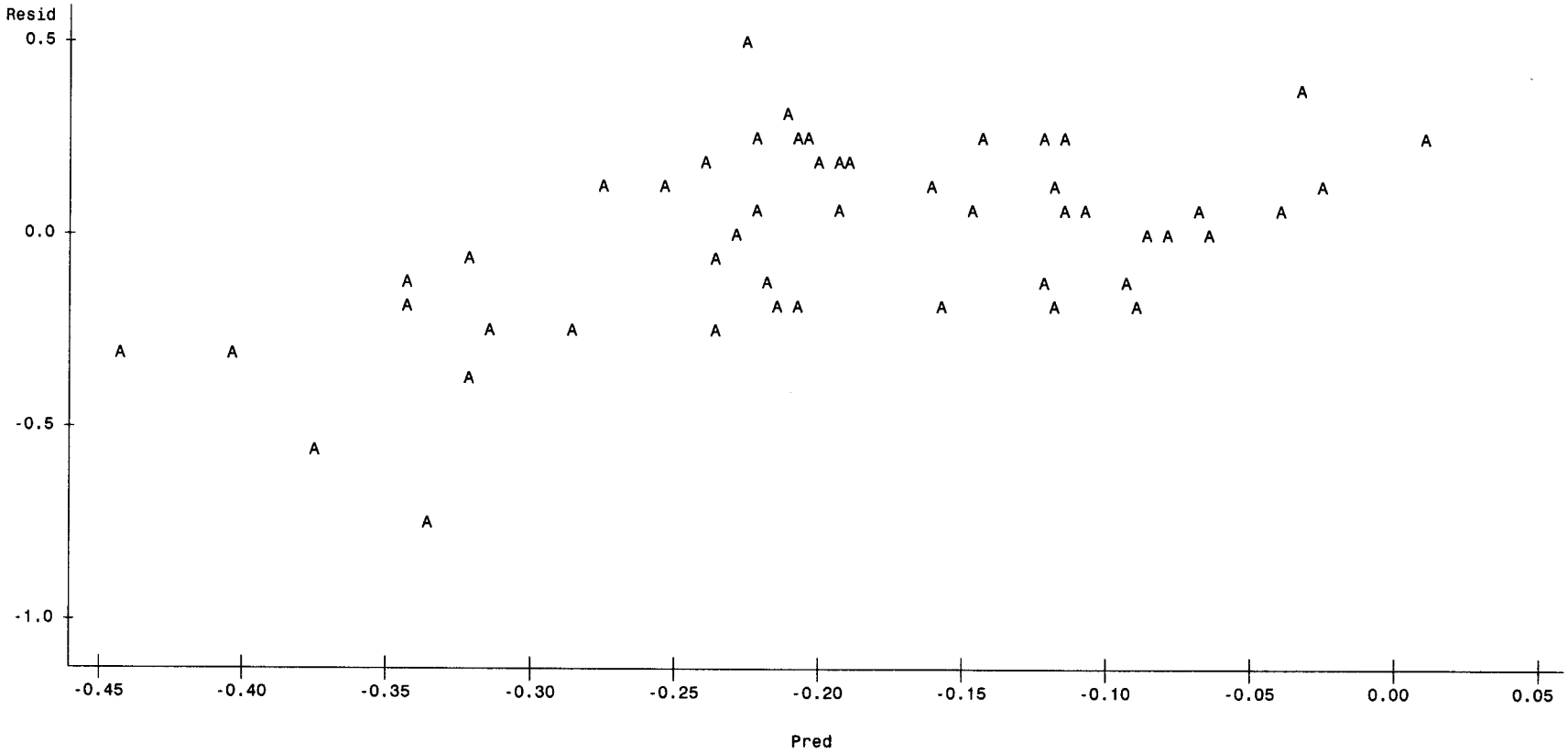
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR

Patient Is Random

Study 7: Huntington Study No. 2

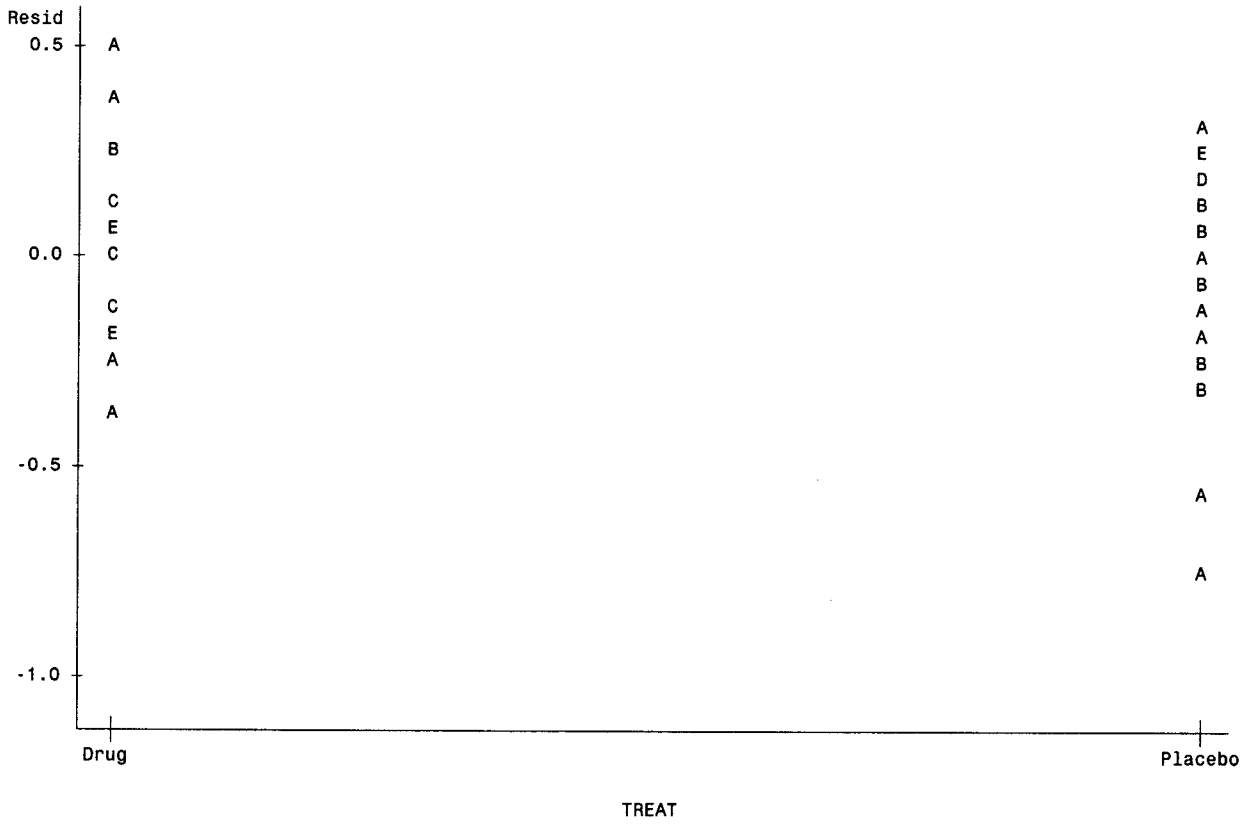
Time = 120 minutes

Plot of Resid*Pred. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes

Plot of Resid*TREAT. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.20377657	Variance	0.04152489
Skewness	0.3776517	Kurtosis	0.03252682
Uncorrected SS	0.99659738	Corrected SS	0.99659738
Coeff Variation	.	Std Error Mean	0.04075531

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.20378
Median	0.023141	Variance	0.04152
Mode	.	Range	0.86895
		Interquartile Range	0.29772

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	0.5	Pr >= |M|	1.0000
Signed Rank	S	-5.5	Pr >= |S|	0.8859

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.978816	Pr < W	0.8607
Kolmogorov-Smirnov	D	0.095148	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.03675	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.245845	Pr > A-Sq	>0.2500

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.478227
99%	0.478227
95%	0.347075
90%	0.259439
75% Q3	0.126404
50% Median	0.023141
25% Q1	-0.171314
10%	-0.215593
5%	-0.258549
1%	-0.390721
0% Min	-0.390721

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes
Checking Residuals for Study 7 at The Minutes Specified

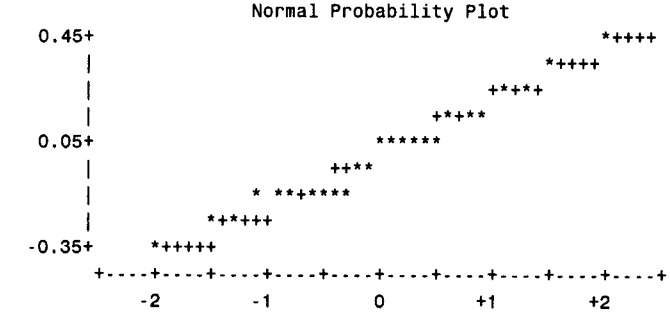
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.390721	7041	21	0.138642	7044	23
-0.258549	7036	20	0.232974	7002	2
-0.215593	7016	8	0.259439	7028	15
-0.198170	7048	24	0.347075	7021	12
-0.194471	7014	7	0.478227	7018	10

```
Stem Leaf                #    Boxplot
   4 8                   1       |
   3 5                   1       |
   2 36                  2       |
   1 344                 3       +-----+
   0 234679              6       *--+--*
  -0 33                  2       |     |
  -1 987510              6       +-----+
  -2 620                 3       |
  -3 9                   1       |
     ----+----+----+----+
 Multiply Stem.Leaf by 10**-1
```



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.28002593	Variance	0.07841452
Skewness	-1.1832058	Kurtosis	1.14981153
Uncorrected SS	1.88194846	Corrected SS	1.88194846
Coeff Variation	.	Std Error Mean	0.05600519

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.28003
Median	0.081639	Variance	0.07841
Mode	.	Range	1.10877
		Interquartile Range	0.37862

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	2.5	Pr >= |M|	0.4244
Signed Rank	S	15.5	Pr >= |S|	0.6854

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.88771	Pr < W	0.0100
Kolmogorov-Smirnov	D	0.148523	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.138336	Pr > W-Sq	0.0328
Anderson-Darling	A-Sq	0.900591	Pr > A-Sq	0.0196

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.3345669
99%	0.3345669
95%	0.2744022
90%	0.2616817
75% Q3	0.2108811
50% Median	0.0816389
25% Q1	-0.1677354
10%	-0.2903191
5%	-0.5654394
1%	-0.7742078
0% Min	-0.7742078

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes
Checking Residuals for Study 7 at The Minutes Specified

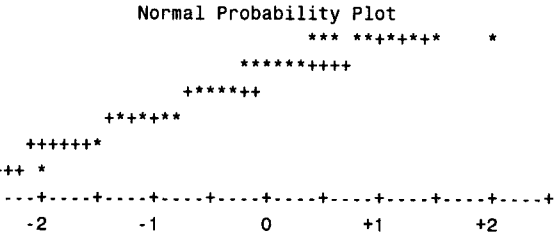
---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.774208	7018	10	0.236483	7028	15
-0.565439	7020	11	0.256705	7044	23
-0.290319	7041	21	0.261682	7017	9
-0.289712	7036	20	0.274402	7027	14
-0.248466	7034	19	0.334567	7008	5

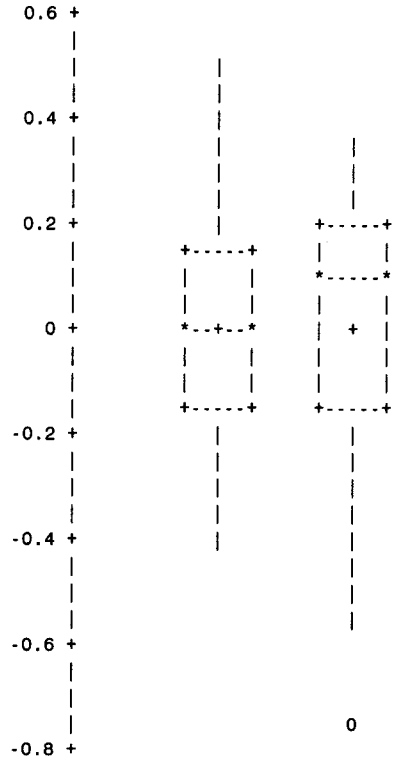
```
Stem Leaf                  #        Boxplot
   2 011346673             9        +-----+
   0 238129                6        *--+--*
  -0 7053                  4        +-----+
  -2 9954                  4           |
  -4 7                     1           |
  -6 7                     1           0
     ----+----+----+----+
 Multiply Stem.Leaf by 10**-1
```



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 120 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots

TREAT	Drug	Placebo

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes

---------- TIME=180 minutes ----------

The Mixed Procedure

Model Information

Data Set	WORK.ALL
Dependent Variable	LNCHANGE
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
TREAT	2	Drug Placebo
PATIENT	25	7001 7002 7003 7007 7008 7010 7014 7016 7017 7018 7020 7021 7025 7027 7028 7030 7031 7033 7034 7036 7041 7042 7044 7048 7050

Dimensions

Covariance Parameters	2
Columns in X	4
Columns in Z	25
Subjects	1
Max Obs Per Subject	50

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes

---------- TIME=180 minutes ----------

The Mixed Procedure

Dimensions

Observations Used	50
Observations Not Used	0
Total Observations	50

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	54.66125527	
1	2	42.26533851	0.00000062
2	1	42.26532476	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Estimate
PATIENT	0.08850
Residual	0.04840

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes

---------- TIME=180 minutes ----------

The Mixed Procedure

Fit Statistics

-2 Res Log Likelihood	42.3
AIC (smaller is better)	46.3
AICC (smaller is better)	46.5
BIC (smaller is better)	48.7

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASELINE	1	39.7	0.21	0.6500
TREAT	1	23.6	2.06	0.1646

Least Squares Means

Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-0.2151	0.07412	32.4	-2.90	0.0066	0.05	-0.3660	-0.06415
TREAT	Placebo	-0.3051	0.07412	32.4	-4.12	0.0002	0.05	-0.4560	-0.1542

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes

---------- TIME=180 minutes ----------

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	0.09006	0.06280	23.6	1.43	0.1646	0.05	-0.03966	0.2198

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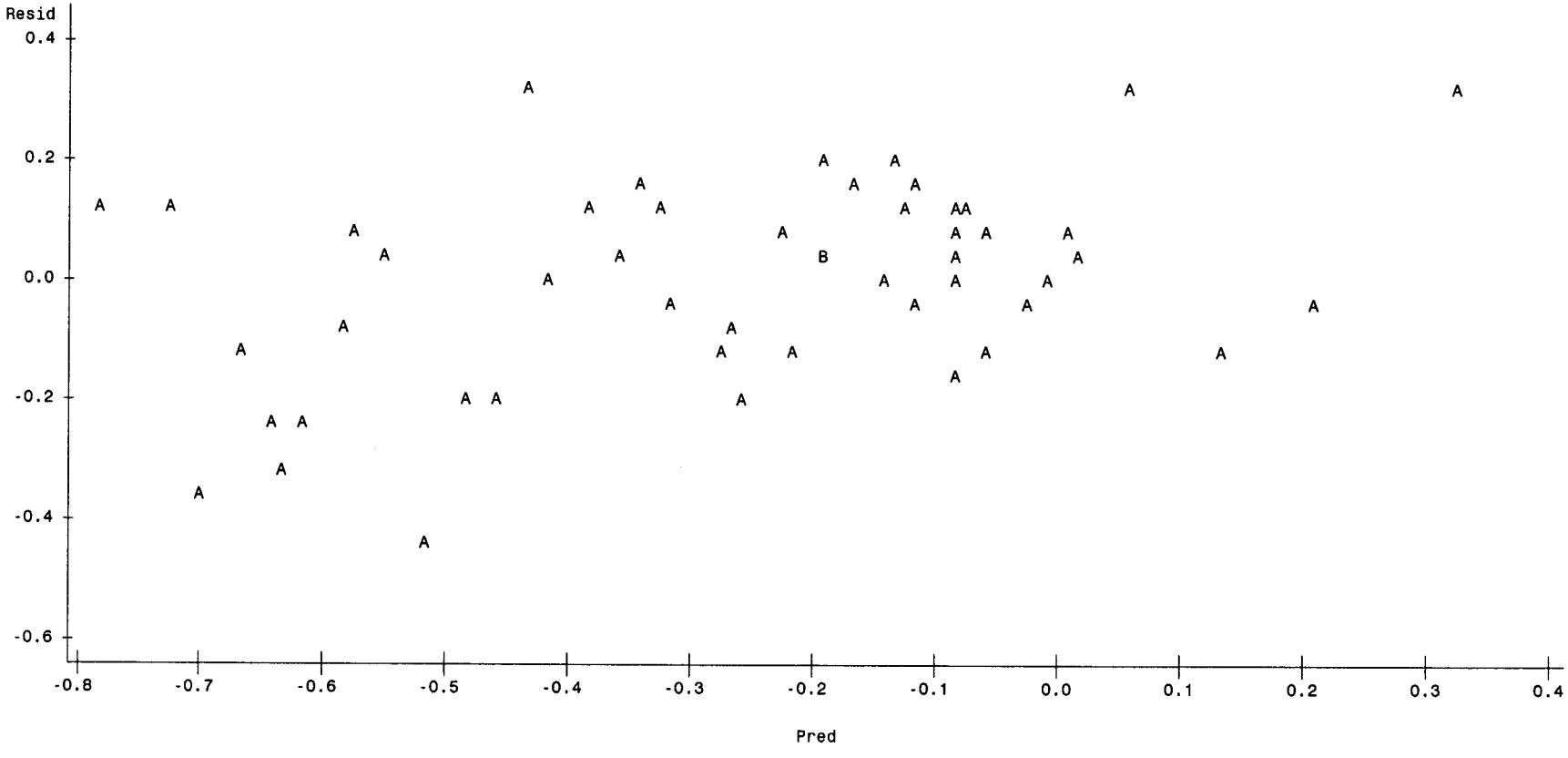
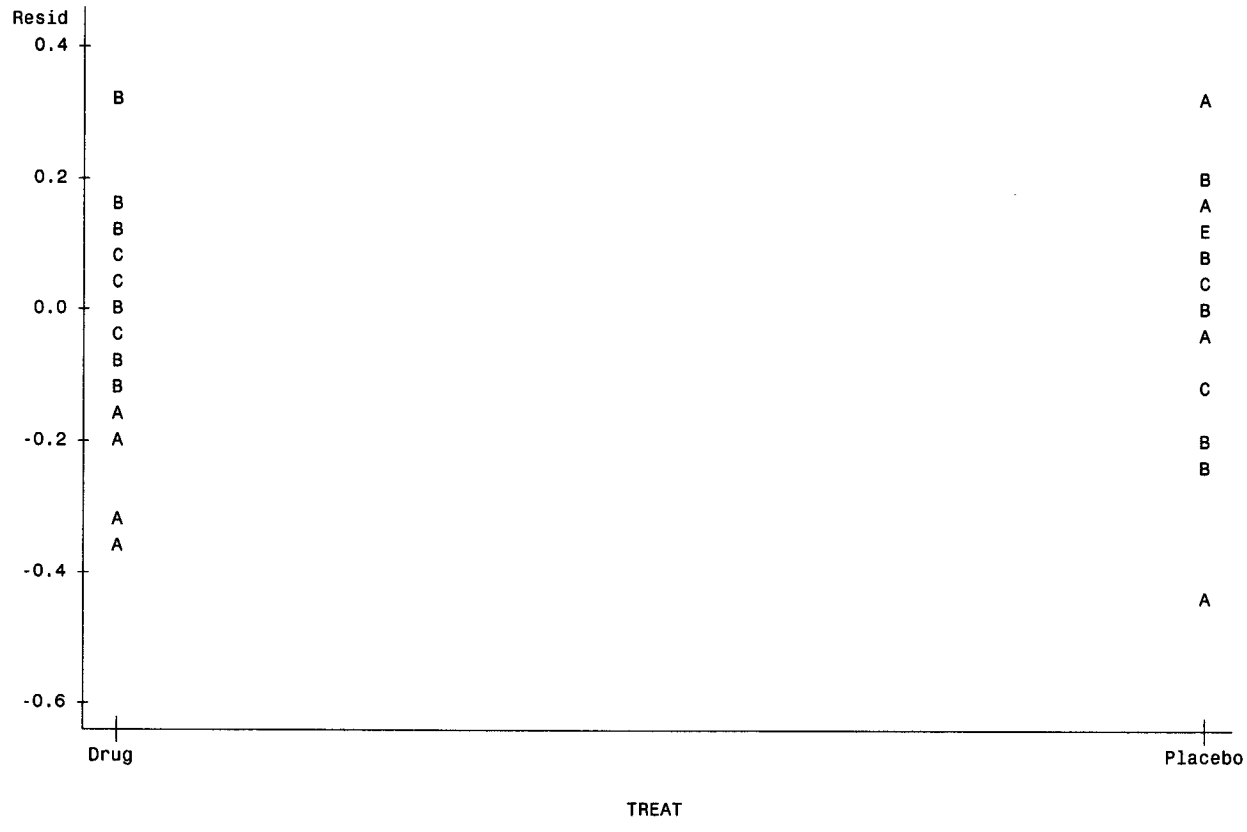
Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes

Plot of Resid*Pred. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes

Plot of Resid*TREAT. Legend: A = 1 obs, B = 2 obs, etc.



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.16664494	Variance	0.02777054
Skewness	-0.2622059	Kurtosis	0.66676976
Uncorrected SS	0.66649289	Corrected SS	0.66649289
Coeff Variation	.	Std Error Mean	0.03332899

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.16664
Median	0.009188	Variance	0.02777
Mode	.	Range	0.70462
		Interquartile Range	0.16221

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	0.5	Pr >= |M|	1.0000
Signed Rank	S	7.5	Pr >= |S|	0.8448

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test	--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.968681	Pr < W	0.6118
Kolmogorov-Smirnov	D	0.103114	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.042901	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.315083	Pr > A-Sq	>0.2500

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.32908728
99%	0.32908728
95%	0.31351620
90%	0.16617423
75% Q3	0.07082408
50% Median	0.00918774
25% Q1	-0.09138328
10%	-0.20050994
5%	-0.33804831
1%	-0.37552916
0% Min	-0.37552916

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

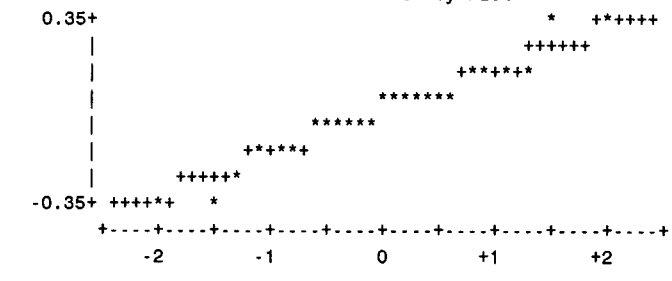
Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.375529	7020	11	0.124995	7017	9
-0.338048	7036	20	0.166149	7021	12
-0.200510	7008	5	0.166174	7002	2
-0.153730	7010	6	0.313516	7034	19
-0.105615	7028	15	0.329087	7018	10

Stem	Leaf	#	Boxplot
3	13	2	0
2			|
1	1277	4	|
0	1445677	7	+--+--+
-0	966420	6	+-----+
-1	510	3	|
-2	0	1	|
-3	84	2	0

----+----+----+----+
Multiply Stem.Leaf by 10**-1

Normal Probability Plot



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Moments

N	25	Sum Weights	25
Mean	0	Sum Observations	0
Std Deviation	0.17353811	Variance	0.03011548
Skewness	-0.6855786	Kurtosis	0.38885931
Uncorrected SS	0.72277145	Corrected SS	0.72277145
Coeff Variation	.	Std Error Mean	0.03470762

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	0.17354
Median	0.027710	Variance	0.03012
Mode	.	Range	0.75201
		Interquartile Range	0.22401

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	3.5	Pr >= |M|	0.2295
Signed Rank	S	9.5	Pr >= |S|	0.8041

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.956376	Pr < W	0.3470
Kolmogorov-Smirnov	D	0.14605	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.086913	Pr > W-Sq	0.1638
Anderson-Darling	A-Sq	0.474884	Pr > A-Sq	0.2271

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.3047474
99%	0.3047474
95%	0.2190643
90%	0.1919377
75% Q3	0.1118288
50% Median	0.0277097
25% Q1	-0.1121804
10%	-0.2249397
5%	-0.2500823
1%	-0.4472675
0% Min	-0.4472675

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes
Checking Residuals for Study 7 at The Minutes Specified

---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

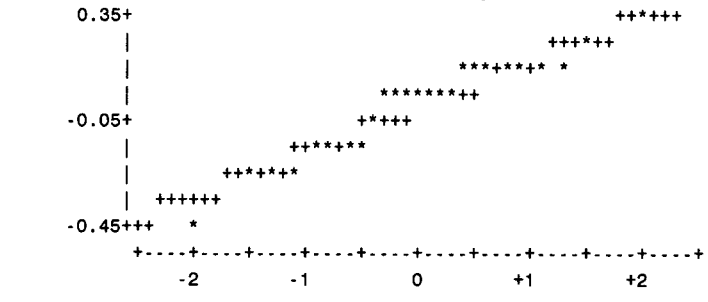
Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-0.447268	7034	19	0.113506	7007	4
-0.250082	7016	8	0.170252	7008	5
-0.224940	7030	16	0.191938	7001	1
-0.212249	7014	7	0.219064	7010	6
-0.194839	7017	9	0.304747	7028	15

Stem	Leaf	#	Boxplot
3	0	1	
2	2	1	
1	0111179	7	+-----+
0	0033588	7	*--+--*
-0	4	1	| |
-1	9211	4	+-----+
-2	521	3	|
-3			|
-4	5	1	|

----+----+----+----+
Multiply Stem.Leaf by 10**-1

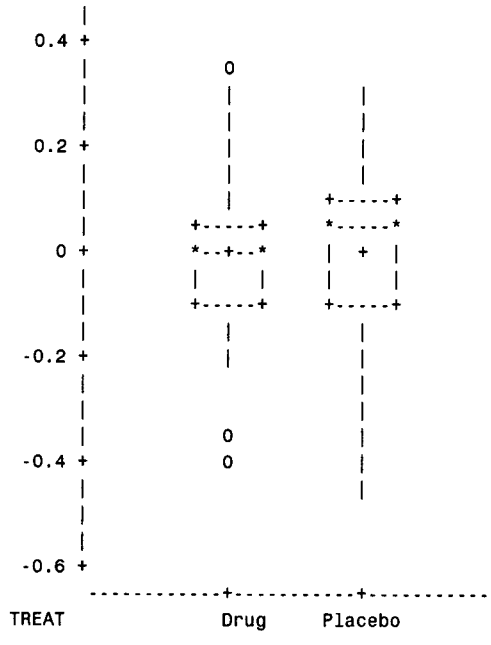
Normal Probability Plot



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 180 minutes
Checking Residuals for Study 7 at The Minutes Specified

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 240 minutes

---------- TIME=240 minutes ----------

The Mixed Procedure

Model Information

Data Set	WORK.ALL
Dependent Variable	LNCHANGE
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
TREAT	2	Drug Placebo
PATIENT	25	7001 7002 7003 7007 7008 7010 7014 7016 7017 7018 7020 7021 7025 7027 7028 7030 7031 7033 7034 7036 7041 7042 7044 7048 7050

Dimensions

Covariance Parameters	2
Columns in X	4
Columns in Z	25
Subjects	1
Max Obs Per Subject	50

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 240 minutes

---------- TIME=240 minutes ----------

The Mixed Procedure

Dimensions

Observations Used	50
Observations Not Used	0
Total Observations	50

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	55.40012067	
1	2	54.02724038	0.00000008
2	1	54.02723901	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Estimate
PATIENT	0.03346
Residual	0.1039

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 240 minutes

---------- TIME=240 minutes ----------

The Mixed Procedure

Fit Statistics

-2 Res Log Likelihood	54.0
AIC (smaller is better)	58.0
AICC (smaller is better)	58.3
BIC (smaller is better)	60.5

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
BASELINE	1	29.2	1.13	0.2970
TREAT	1	23.5	0.22	0.6443

Least Squares Means

Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-0.2170	0.07425	43.8	-2.92	0.0055	0.05	-0.3667	-0.06738
TREAT	Placebo	-0.2598	0.07425	43.8	-3.50	0.0011	0.05	-0.4095	-0.1102

Phenylephrine vs. Placebo
LN-Ratio (Post-baseline Nasal Airflow Resistance / Baseline Nasal Airflow Resistance)
Performing Analysis of Covariance by Study and Time Point, Adjusting for Baseline NAR
Patient Is Random
Study 7: Huntington Study No. 2
Time = 240 minutes

---------- TIME=240 minutes ----------

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	0.04281	0.09155	23.5	0.47	0.6443	0.05	-0.1463	0.2320