Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Covariance Parameter Estimates

Cov Parm	Subject	Group	Estimate
CS	PATIENT(STUDY)	STUDY 4	1.0861
Variance	PATIENT(STUDY)	STUDY 5	23.0924
CS	PATIENT(STUDY)	STUDY 5	-8.2007
Variance	PATIENT(STUDY)	STUDY 6	42.7572
CS	PATIENT(STUDY)	STUDY 6	-8.0806
Variance	PATIENT(STUDY)	STUDY 7	71.5348
CS	PATIENT(STUDY)	STUDY 7	-9.5586

Fit Statistics

-2 Res Log Likelihood	1257.4
AIC (smaller is better)	1285.4
AICC (smaller is better)	1287.5
BIC (smaller is better)	1323.6

Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
13	107.61	<.0001

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
T0	1	110	15.76	0.0001
STUDY	6	44.9	2.03	0.0818
TREAT	1	16.9	119.74	<.0001

Least Squares Means

Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-4.6498	0.3207	90	-14.50	<.0001	0.05	-5.2870	-4.0126
TREAT	Placebo	-0.9655	0.3220	90.1	-3.00	0.0035	0.05	-1.6053	-0.3258

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	-3.6843	0.3367	16.9	-10.94	<.0001	0.05	-4.3948	-2.9737

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

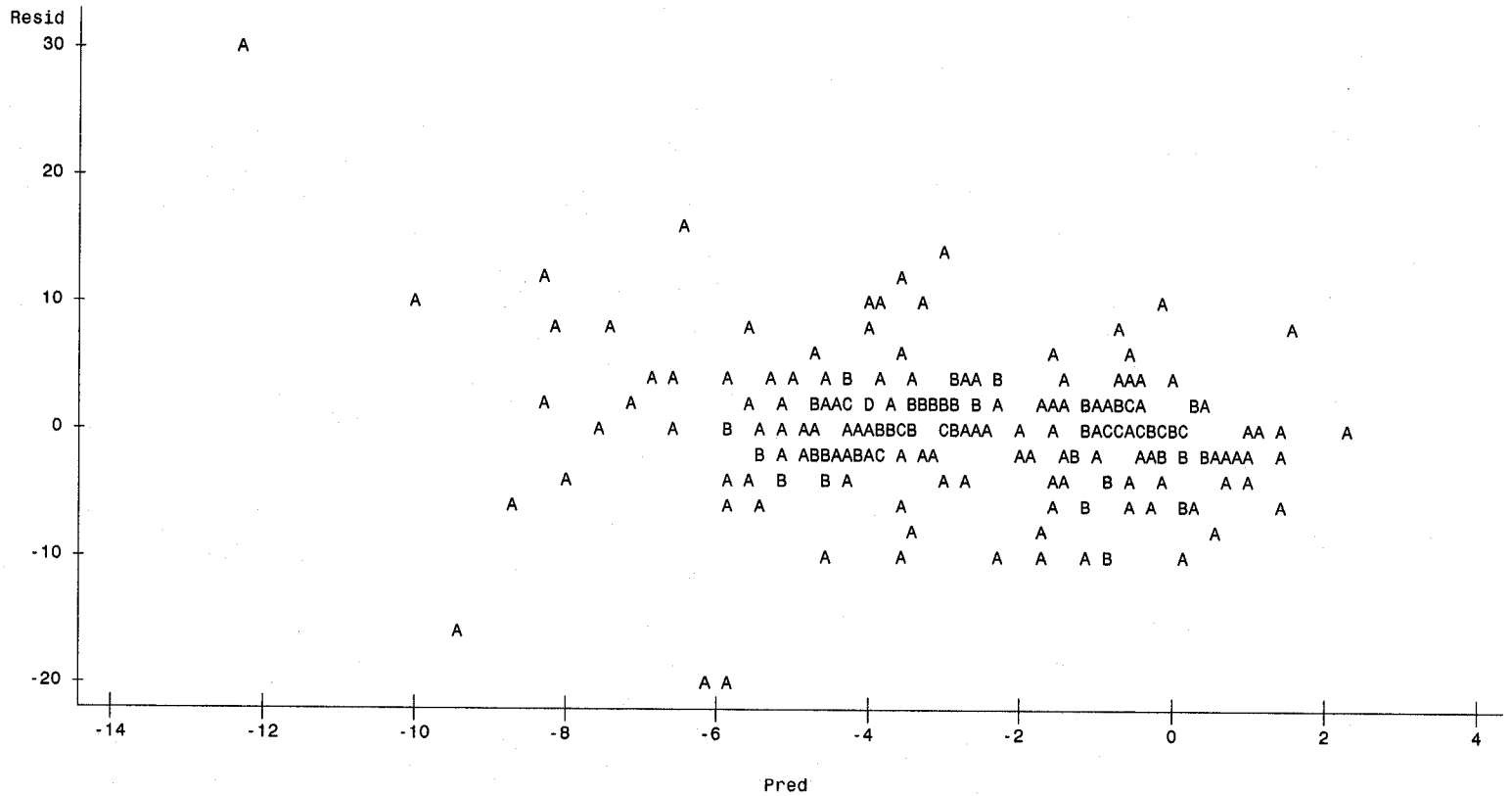
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction

Patient Is Random

Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies

T0 = Baseline (A Covariate)

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



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

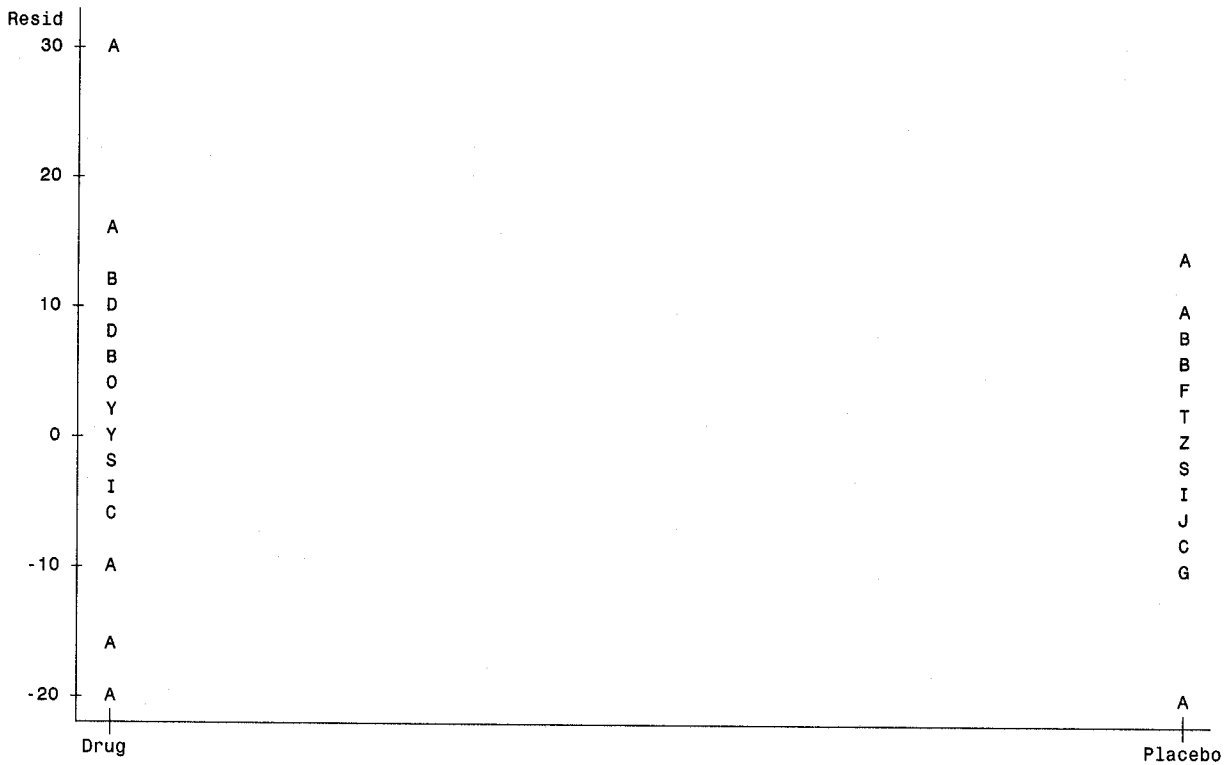
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction

Patient Is Random

Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies

T0 = Baseline (A Covariate)

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



NOTE: 6 obs hidden.

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	1.16796267	Sum Observations	131.979782
Std Deviation	5.48634653	Variance	30.0999983
Skewness	0.87800767	Kurtosis	7.68000013
Uncorrected SS	3525.34726	Corrected SS	3371.19981
Coeff Variation	469.736462	Std Error Mean	0.51611207

Basic Statistical Measures

Location		Variability	
Mean	1.167963	Std Deviation	5.48635
Median	0.788521	Variance	30.10000
Mode	.	Range	48.55006
		Interquartile Range	4.65139

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	2.263002	Pr > |t|	0.0256
Sign	M	13.5	Pr >= |M|	0.0141
Signed Rank	S	848.5	Pr >= |S|	0.0144

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.870521	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.131343	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.656224	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	3.705622	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	29.527361
99%	15.731625
95%	10.458609
90%	7.495008
75% Q3	3.056864
50% Median	0.788521
25% Q1	-1.594523
10%	-3.294136
5%	-5.563399
1%	-15.379762
0% Min	-19.022703

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

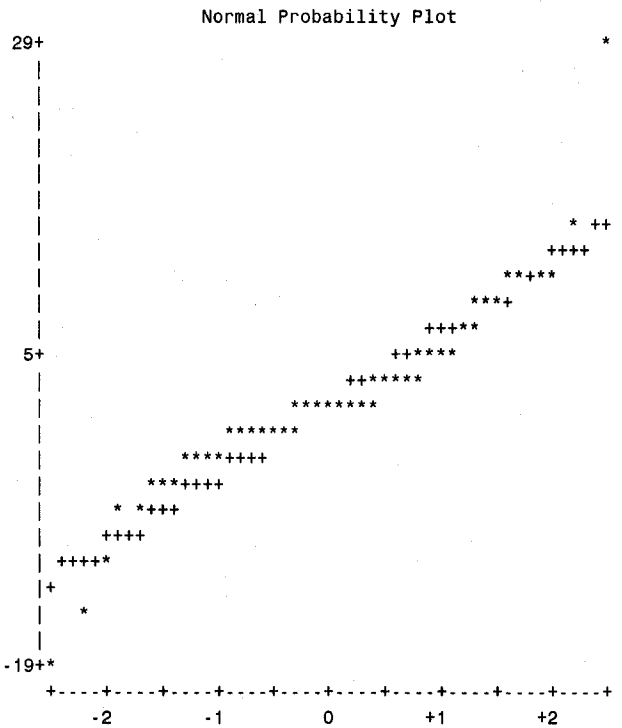
----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-19.02270	7016	49	10.5674	7021	53
-15.37976	3001	67	11.6195	5027	90
-10.99647	7020	52	11.9124	7002	43
-6.26061	6003	17	15.7316	6046	30
-6.09002	5013	85	29.5274	7042	63

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

TREAT=Drug

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
28	5	1	*
26			
24			
22			
20			
18			
16			
14	7	1	0
12			
10	35669	5	0
8	3670	4	|
6	275	3	|
4	012224778	9	|
2	00023334690123578	17	+-----+
0	11122233333448891122355566678	30	*--+--*
-0	988877766632200977654431	24	+-----+
-2	533105542	9	|
-4	67554	5	|
-6	31	2	|
-8			
-10	0	1	0
-12			
-14	4	1	0
-16			
-18	0	1	*



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	-1.1679627	Sum Observations	-131.97978
Std Deviation	4.62450736	Variance	21.3860683
Skewness	-0.4406895	Kurtosis	2.27540863
Uncorrected SS	2549.38711	Corrected SS	2395.23965
Coeff Variation	-395.9465	Std Error Mean	0.43503706

Basic Statistical Measures

Location		Variability	
Mean	-1.16796	Std Deviation	4.62451
Median	-0.55036	Variance	21.38607
Mode	.	Range	33.26549
		Interquartile Range	4.59798

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	-2.68474	Pr > |t|	0.0084
Sign	M	-9.5	Pr >= |M|	0.0900
Signed Rank	S	-814.5	Pr >= |S|	0.0189

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.957356	Pr < W	0.0012
Kolmogorov-Smirnov	D	0.102374	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.294402	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.581437	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	13.784441
99%	9.380570
95%	6.497363
90%	3.071261
75% Q3	1.261801
50% Median	-0.550359
25% Q1	-3.336175
10%	-6.696509
5%	-9.417964
1%	-10.805792
0% Min	-19.481052

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-19.48105	7002	43	6.70204	7016	49
-10.80579	6046	30	7.86719	7028	56
-10.77643	7030	57	8.26375	6026	24
-10.56196	7025	54	9.38057	4037	13
-9.98349	6003	17	13.78444	3026	75

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

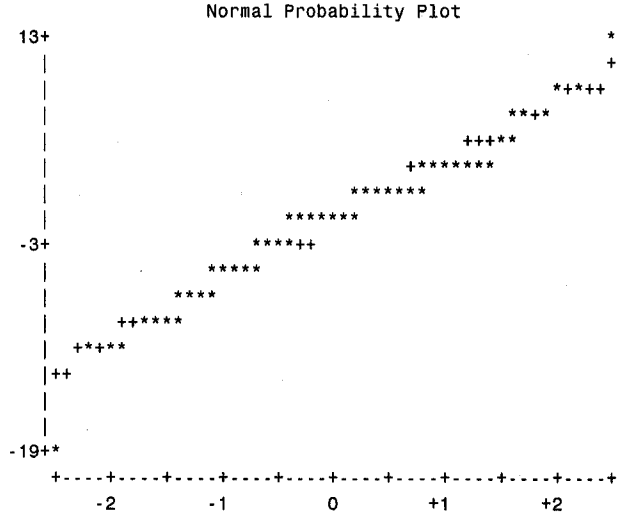
---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
12	8	1	0
10			
8	34	2	0
6	579	3	|
4	18	2	|
2	355577888901226	15	|
0	01225667778888012333445	24	+-----+
-0	66644210998766665444433321	25	*--+--*
-2	73198854433100	14	+-----+
-4	97431988532	11	|
-6	7475521	7	|
-8	4308	4	|
-10	8860	4	0
-12			
-14			
-16			
-18	5	1	*

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

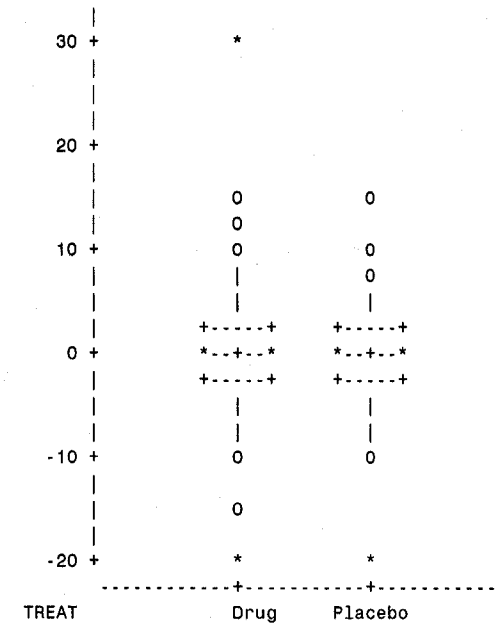
Normal Probability Plot



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR

Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance

Patient, Study, and Study by Treatment Interaction Are Random

T0 = Baseline (A Covariate)

The Mixed Procedure

Model Information

Data Set	WORK.TEN_MG
Dependent Variable	T60CHG
Covariance Structures	Variance Components, Compound Symmetry
Subject Effect	PATIENT(STUDY)
Group Effect	STUDY
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
STUDY	7	1 2 3 4 5 6 7
TREAT	2	Drug Placebo

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

The Mixed Procedure

Class Level Information

Class	Levels	Values
PATIENT	113	1002 1007 1008 1011 1013 1016 1017 1018 1020 1026 1030 1031 1034 1035 1037 1038 2001 2005 2007 2012 2014 2018 2020 2021 2023 2024 3001 3003 3005 3008 3009 3015 3018 3023 3026 3032 3036 3039 3041 3044 3046 3048 4001 4003 4007 4010 4012 4017 4024 4026 4027 4030 4032 4034 4037 4039 4044 5001 5010 5013 5015 5021 5022 5025 5027 5029 5030 5032 5034 5035 5043 5046 6001 6003 6005 6008 6010 6013 6017 6023 6026 6031 6034 6040 6041 6044 6046 6048 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	16
Columns in X	4
Columns in Z	21
Subjects	1
Max Obs Per Subject	226
Observations Used	226
Observations Not Used	0

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

The Mixed Procedure

Dimensions

Total Observations	226

Parameter Search

CovP1	CovP2	CovP3	CovP4	CovP5	CovP6	CovP7	CovP8	CovP9	CovP10	CovP11	CovP12	CovP13	CovP14	CovP15
0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000

Parameter Search

CovP16	Res Log Like	-2 Res Log Like
0.2000	-9640.1568	19280.3136

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
1	2	13041.63963379	0.49100269
2	1	8910.17534208	0.48185938
3	1	6182.79996615	0.46651876
4	1	4390.45990849	0.44213819
5	1	3220.06765753	0.40572962
6	3	2041.33220873	0.30201505
7	1	1715.14554591	0.23238388
8	1	1514.93132624	0.16330877
9	1	1396.32124165	0.10375110
10	1	1329.44310246	0.05912268
11	1	1294.20307044	0.02977142

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

The Mixed Procedure

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
12	1	1277.32323691	0.01297498
13	1	1270.21616316	0.00457817
14	1	1267.79616817	0.00109324
15	1	1267.24910396	0.00010919
16	1	1267.19896447	0.00000149
17	1	1267.19831880	0.00000000

Convergence criteria met.

Estimated R Matrix
for Subject 1

Row	Col1	Col2
1	3.5243	-0.3619
2	-0.3619	3.5243

Covariance Parameter Estimates

Cov Parm	Subject	Group	Estimate
STUDY			3.93E-17
STUDY*TREAT			1.7214
Variance	PATIENT(STUDY)	STUDY 1	3.8862
CS	PATIENT(STUDY)	STUDY 1	-0.3619
Variance	PATIENT(STUDY)	STUDY 2	0.6812
CS	PATIENT(STUDY)	STUDY 2	0.01671

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

The Mixed Procedure

Covariance Parameter Estimates

Cov Parm	Subject	Group	Estimate
Variance	PATIENT(STUDY)	STUDY 3	32.9954
CS	PATIENT(STUDY)	STUDY 3	-4.7208
Variance	PATIENT(STUDY)	STUDY 4	16.3303
CS	PATIENT(STUDY)	STUDY 4	0.9341
Variance	PATIENT(STUDY)	STUDY 5	18.3262
CS	PATIENT(STUDY)	STUDY 5	-5.8965
Variance	PATIENT(STUDY)	STUDY 6	32.8841
CS	PATIENT(STUDY)	STUDY 6	-3.1688
Variance	PATIENT(STUDY)	STUDY 7	63.2900
CS	PATIENT(STUDY)	STUDY 7	-6.6551

Fit Statistics

-2 Res Log Likelihood	1267.2
AIC (smaller is better)	1297.2
AICC (smaller is better)	1299.5
BIC (smaller is better)	1296.4

PARMS Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
15	18013.12	<.0001

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR

Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance

Patient, Study, and Study by Treatment Interaction Are Random

T0 = Baseline (A Covariate)

The Mixed Procedure

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
T0	1	93.3	15.23	0.0002
TREAT	1	10.3	6.24	0.0308

Least Squares Means

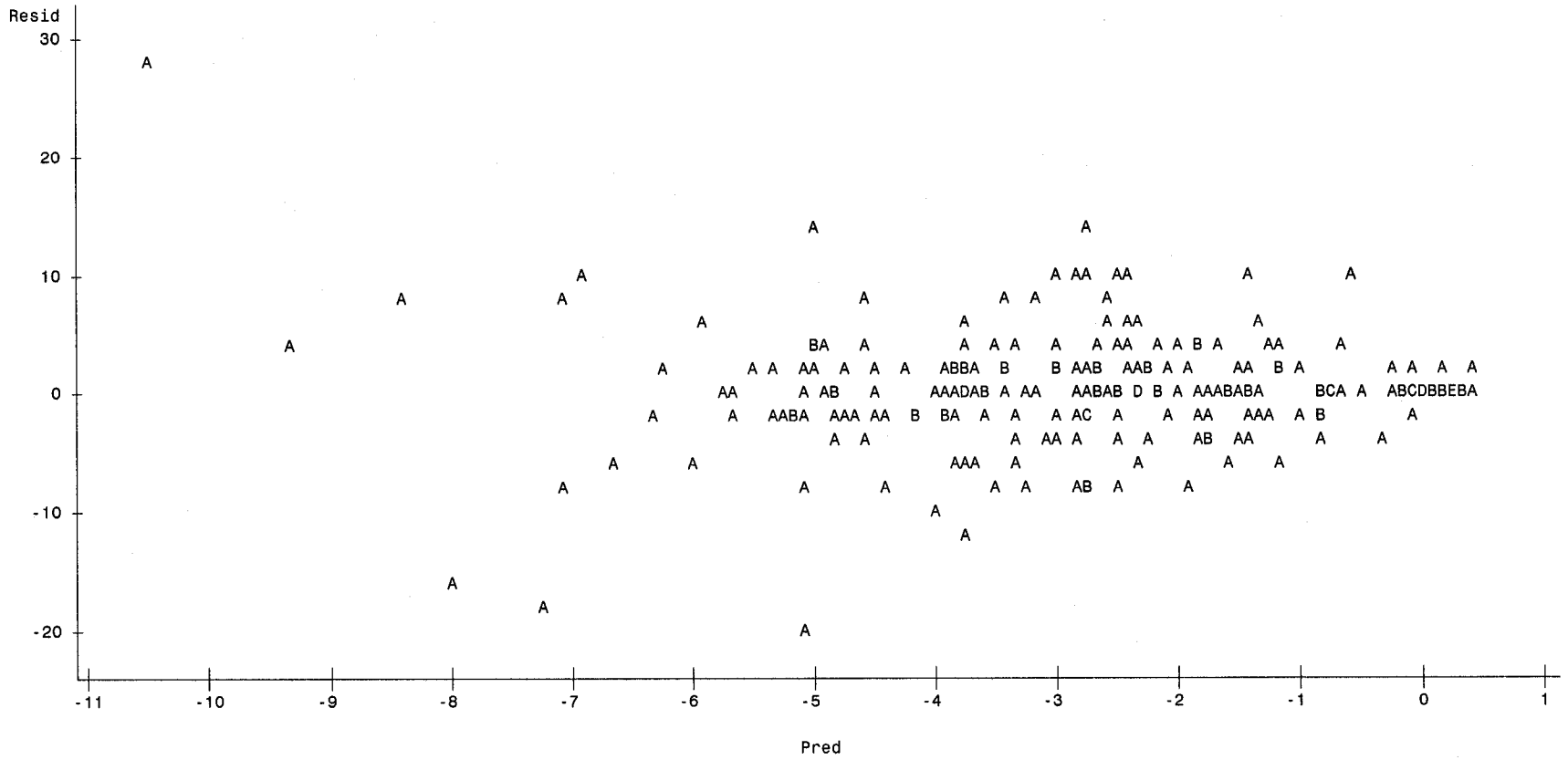
Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-4.0250	0.6368	10.1	-6.32	<.0001	0.05	-5.4420	-2.6080
TREAT	Placebo	-1.7241	0.6382	10.2	-2.70	0.0218	0.05	-3.1419	-0.3064

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	-2.3009	0.9207	10.3	-2.50	0.0308	0.05	-4.3434	-0.2583

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

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



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR

Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance

Patient, Study, and Study by Treatment Interaction Are Random

T0 = Baseline (A Covariate)

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

NOTE: 20 obs hidden.

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	0.50665571	Sum Observations	57.252095
Std Deviation	5.37704746	Variance	28.9126394
Skewness	0.60412258	Kurtosis	7.64805102
Uncorrected SS	3267.22271	Corrected SS	3238.21561
Coeff Variation	1061.28232	Std Error Mean	0.50583008

Basic Statistical Measures

Location		Variability	
Mean	0.506656	Std Deviation	5.37705
Median	0.245119	Variance	28.91264
Mode	.	Range	47.82511
		Interquartile Range	4.04568

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	1.001632	Pr > |t|	0.3187
Sign	M	5.5	Pr >= |M|	0.3469
Signed Rank	S	327.5	Pr >= |S|	0.3504

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test	--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.866741	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.141039	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.721838	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	3.982128	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	27.722435
99%	14.316732
95%	9.651619
90%	5.957180
75% Q3	2.415801
50% Median	0.245119
25% Q1	-1.629884
10%	-4.275145
5%	-5.785621
1%	-16.855563
0% Min	-20.102679

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-20.10268	7016	49	9.82005	7021	53
-16.85556	3001	67	10.47106	5027	90
-11.90108	7020	52	10.58118	7002	43
-7.94487	6003	17	14.31673	6046	30
-7.49881	5013	85	27.72244	7042	63

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

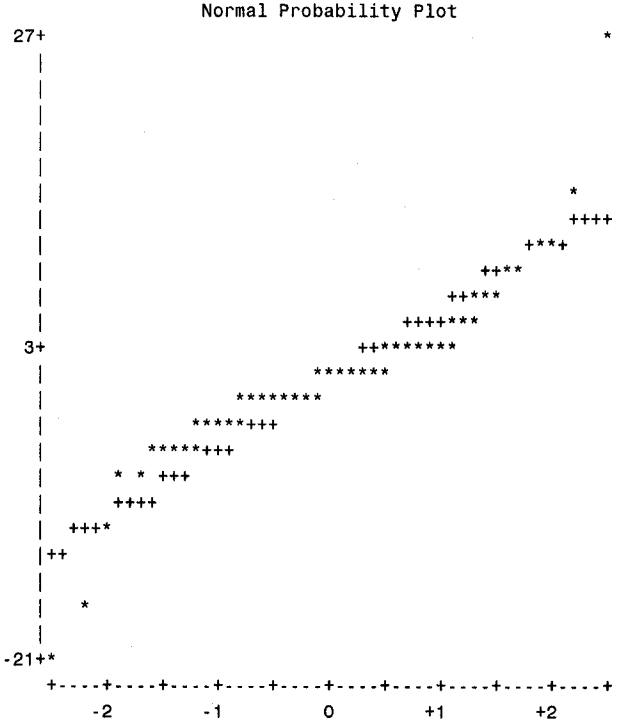
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
26	7	1	*
24			
22			
20			
18			
16			
14	3	1	0
12			
10	56	2	0
8	278	3	0
6	03568	5	|
4	918	3	|
2	0124444579022444569	19	+-----+
0	012222344455777888911123334 7	28	*--+--*
-0	998766542211100998877664432	27	+-----+
-2	79876644321	11	|
-4	88330531	8	|
-6	95	2	0
-8			
-10	9	1	0
-12			
-14			
-16	9	1	*
-18			
-20	1	1	*

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

Normal Probability Plot



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	-0.2642781	Sum Observations	-29.863424
Std Deviation	4.4763956	Variance	20.0381176
Skewness	-0.237599	Kurtosis	2.46962114
Uncorrected SS	2252.16142	Corrected SS	2244.26917
Coeff Variation	-1693.8202	Std Error Mean	0.42110388

Basic Statistical Measures

Location		Variability	
Mean	-0.26428	Std Deviation	4.47640
Median	-0.01196	Variance	20.03812
Mode	.	Range	31.69330
		Interquartile Range	4.05982

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	-0.62758	Pr > |t|	0.5316
Sign	M	-1.5	Pr >= |M|	0.8509
Signed Rank	S	-125.5	Pr >= |S|	0.7209

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.951703	Pr < W	0.0005
Kolmogorov-Smirnov	D	0.119179	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.346644	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.83958	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	13.5552358
99%	10.6123210
95%	8.3199393
90%	4.1327461
75% Q3	1.6651573
50% Median	-0.0119599
25% Q1	-2.3946580
10%	-5.5858843
5%	-8.0008473
1%	-9.0609536
0% Min	-18.1380598

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-18.13806	7002	43	8.65970	7016	49
-9.06095	6046	30	9.80858	7028	56
-8.84046	7030	57	10.45694	6026	24
-8.51029	7025	54	10.61232	4037	13
-8.38870	6003	17	13.55524	3026	75

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

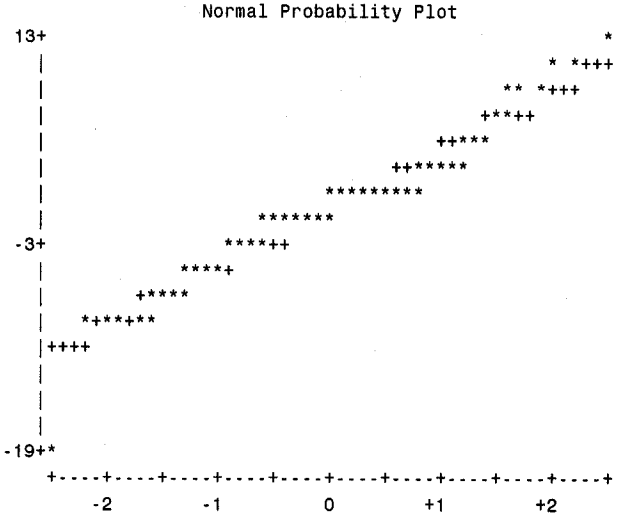
---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
12	6	1	0
10	56	2	0
8	378	3	0
6	11	2	|
4	01232	5	|
2	0357780334569	13	|
0	00133455566778890013334566778	29	+-----+
-0	873210099777666554432221000	27	*--+--*
-2	765544995431	12	+-----+
-4	63296533	8	|
-6	76554	5	|
-8	18540	5	0
-10			
-12			
-14			
-16			
-18	1	1	*

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

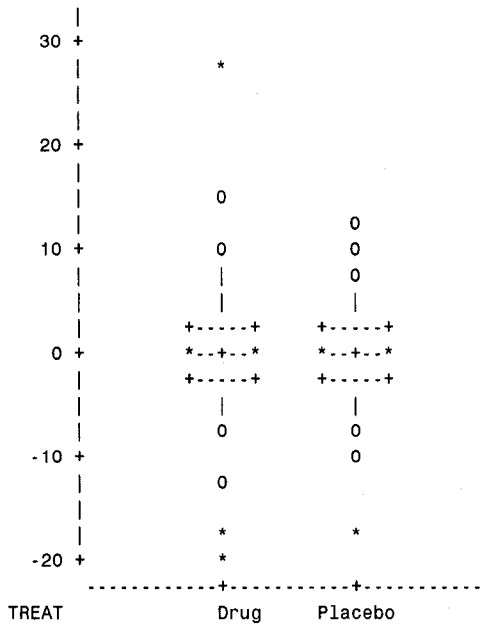
Normal Probability Plot



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance) at 60 Minutes, Adjusting for Baseline NAR
Model 3: Random Effects Model, Adjusting for Baseline Nasal Airflow Resistance
Patient, Study, and Study by Treatment Interaction Are Random
T0 = Baseline (A Covariate)

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Model Information

Data Set	WORK.TEN_MG
Dependent Variable	T60CHG
Covariance Structure	Variance Components
Group Effect	STUDY
Estimation Method	REML
Residual Variance Method	None
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
STUDY	7	1 2 3 4 5 6 7

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Class Level Information

Class	Levels	Values
PATIENT	113	1002 1007 1008 1011 1013 1016 1017 1018 1020 1026 1030 1031 1034 1035 1037 1038 2001 2005 2007 2012 2014 2018 2020 2021 2023 2024 3001 3003 3005 3008 3009 3015 3018 3023 3026 3032 3036 3039 3041 3044 3046 3048 4001 4003 4007 4010 4012 4017 4024 4026 4027 4030 4032 4034 4037 4039 4044 5001 5010 5013 5015 5021 5022 5025 5027 5029 5030 5032 5034 5035 5043 5046 6001 6003 6005 6008 6010 6013 6017 6023 6026 6031 6034 6040 6041 6044 6046 6048 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	7
Columns in X	138
Columns in Z	0
Subjects	226
Max Obs Per Subject	1

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Dimensions

Observations Used	226
Observations Not Used	0
Total Observations	226

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	742.09983545	
1	2	686.29959976	0.00000010
2	1	686.29957411	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Group	Estimate
Residual	STUDY 1	3.0605
Residual	STUDY 2	0.9139
Residual	STUDY 3	34.1794
Residual	STUDY 4	14.8240
Residual	STUDY 5	12.4150
Residual	STUDY 6	31.3292
Residual	STUDY 7	56.9691

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Fit Statistics

-2 Res Log Likelihood	686.3
AIC (smaller is better)	700.3
AICC (smaller is better)	701.5
BIC (smaller is better)	724.2

Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
6	55.80	<.0001

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
T0	1	87.7	22.22	<.0001
PATIENT(STUDY)	106	32.8	0.88	0.6862
STUDY	6	48.4	3.48	0.0061
TREAT	1	79	7.28	0.0085
TREAT*STUDY	6	40.7	4.71	0.0010

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Least Squares Means

Effect	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
STUDY		1	-6.5221	0.8821	88.2	-7.39	<.0001	0.05	-8.2749	-4.7692
STUDY		2	-5.9158	0.8896	87.7	-6.65	<.0001	0.05	-7.6837	-4.1479
STUDY		3	-4.3674	1.0351	14.8	-4.22	0.0008	0.05	-6.5759	-2.1589
STUDY		4	-0.7173	0.8612	24	-0.83	0.4131	0.05	-2.4949	1.0603
STUDY		5	-2.3545	0.6477	13.5	-3.64	0.0028	0.05	-3.7482	-0.9609
STUDY		6	-1.4126	1.0099	15.5	-1.40	0.1815	0.05	-3.5587	0.7335
STUDY		7	-0.1850	1.1911	32.8	-0.16	0.8775	0.05	-2.6089	2.2390
TREAT	Drug		-3.8620	0.4216	79.6	-9.16	<.0001	0.05	-4.7011	-3.0228
TREAT	Placebo		-2.2737	0.4277	80.3	-5.32	<.0001	0.05	-3.1247	-1.4226
TREAT*STUDY	Drug	1	-9.2605	0.9203	74.8	-10.06	<.0001	0.05	-11.0938	-7.4272
TREAT*STUDY	Drug	2	-7.7983	0.9034	80.7	-8.63	<.0001	0.05	-9.5959	-6.0007
TREAT*STUDY	Drug	3	-5.7707	1.4617	14.8	-3.95	0.0013	0.05	-8.8905	-2.6508
TREAT*STUDY	Drug	4	-1.3520	1.1405	20.2	-1.19	0.2496	0.05	-3.7294	1.0253
TREAT*STUDY	Drug	5	-2.4438	0.9138	13.5	-2.67	0.0187	0.05	-4.4113	-0.4763
TREAT*STUDY	Drug	6	-0.5677	1.4193	15.3	-0.40	0.6947	0.05	-3.5881	2.4527
TREAT*STUDY	Drug	7	0.1591	1.5724	26.9	0.10	0.9201	0.05	-3.0675	3.3857
TREAT*STUDY	Placebo	1	-3.7837	0.9492	76.9	-3.99	0.0002	0.05	-5.6738	-1.8935
TREAT*STUDY	Placebo	2	-4.0333	0.9264	81.7	-4.35	<.0001	0.05	-5.8763	-2.1903
TREAT*STUDY	Placebo	3	-2.9641	1.4680	14.9	-2.02	0.0618	0.05	-6.0941	0.1659
TREAT*STUDY	Placebo	4	-0.08264	1.0856	17.7	-0.08	0.9402	0.05	-2.3657	2.2004
TREAT*STUDY	Placebo	5	-2.2653	0.9120	13.4	-2.48	0.0270	0.05	-4.2298	-0.3007
TREAT*STUDY	Placebo	6	-2.2575	1.4092	15	-1.60	0.1300	0.05	-5.2610	0.7460
TREAT*STUDY	Placebo	7	-0.5291	1.6307	29.9	-0.32	0.7479	0.05	-3.8599	2.8018

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
STUDY		1		2	-0.6063	0.3778	24	-1.60	0.1216	0.05	-1.3860	0.1734
STUDY		1		3	-2.1547	1.3243	29.1	-1.63	0.1145	0.05	-4.8627	0.5534
STUDY		1		4	-5.8048	1.5303	69.3	-3.79	0.0003	0.05	-8.8574	-2.7521
STUDY		1		5	-4.1675	1.0359	41	-4.02	0.0002	0.05	-6.2596	-2.0755
STUDY		1		6	-5.1095	1.4599	38.1	-3.50	0.0012	0.05	-8.0647	-2.1543
STUDY		1		7	-6.3371	1.7521	77.5	-3.62	0.0005	0.05	-9.8256	-2.8486
STUDY		2		3	-1.5484	1.3277	28.6	-1.17	0.2532	0.05	-4.2657	1.1688
STUDY		2		4	-5.1985	1.5468	68.5	-3.36	0.0013	0.05	-8.2846	-2.1124
STUDY		2		5	-3.5613	1.0396	40.4	-3.43	0.0014	0.05	-5.6618	-1.4607
STUDY		2		6	-4.5032	1.4696	37.6	-3.06	0.0040	0.05	-7.4793	-1.5271
STUDY		2		7	-5.7308	1.7671	77.4	-3.24	0.0017	0.05	-9.2493	-2.2123
STUDY		3		4	-3.6501	1.3678	31.4	-2.67	0.0119	0.05	-6.4380	-0.8621
STUDY		3		5	-2.0129	1.2175	24.8	-1.65	0.1109	0.05	-4.5215	0.4958
STUDY		3		6	-2.9548	1.4542	29.9	-2.03	0.0511	0.05	-5.9248	0.01525
STUDY		3		7	-4.1824	1.5973	43.8	-2.62	0.0121	0.05	-7.4020	-0.9629
STUDY		4		5	1.6372	1.1118	36.6	1.47	0.1494	0.05	-0.6164	3.8908
STUDY		4		6	0.6953	1.2492	27.9	0.56	0.5823	0.05	-1.8641	3.2547
STUDY		4		7	-0.5324	1.2785	37.2	-0.42	0.6795	0.05	-3.1222	2.0575
STUDY		5		6	-0.9419	1.2123	26.8	-0.78	0.4440	0.05	-3.4304	1.5466
STUDY		5		7	-2.1696	1.3848	45.3	-1.57	0.1242	0.05	-4.9582	0.6191
STUDY		6		7	-1.2276	1.4917	39.9	-0.82	0.4154	0.05	-4.2427	1.7874
TREAT	Drug		Placebo		-1.5883	0.5888	79	-2.70	0.0085	0.05	-2.7603	-0.4163
TREAT*STUDY	Drug	1	Drug	2	-1.4622	0.5333	23.9	-2.74	0.0114	0.05	-2.5631	-0.3613
TREAT*STUDY	Drug	1	Drug	3	-3.4898	1.7372	24.3	-2.01	0.0558	0.05	-7.0728	0.09317
TREAT*STUDY	Drug	1	Drug	4	-7.9085	1.7473	53.7	-4.53	<.0001	0.05	-11.4120	-4.4050
TREAT*STUDY	Drug	1	Drug	5	-6.8167	1.2419	30.1	-5.49	<.0001	0.05	-9.3527	-4.2807
TREAT*STUDY	Drug	1	Drug	6	-8.6928	1.8017	28.8	-4.82	<.0001	0.05	-12.3790	-5.0066

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT*STUDY	Drug	1	Drug	7	-9.4196	2.0080	52.8	-4.69	<.0001	0.05	-13.4476	-5.3916
TREAT*STUDY	Drug	1	Placebo	1	-5.4768	0.6194	14.8	-8.84	<.0001	0.05	-6.7989	-4.1547
TREAT*STUDY	Drug	1	Placebo	2	-5.2272	0.5357	24.2	-9.76	<.0001	0.05	-6.3324	-4.1219
TREAT*STUDY	Drug	1	Placebo	3	-6.2963	1.6674	21.9	-3.78	0.0010	0.05	-9.7550	-2.8377
TREAT*STUDY	Drug	1	Placebo	4	-9.1778	1.6528	49.1	-5.55	<.0001	0.05	-12.4989	-5.8568
TREAT*STUDY	Drug	1	Placebo	5	-6.9952	1.2548	30.7	-5.57	<.0001	0.05	-9.5552	-4.4352
TREAT*STUDY	Drug	1	Placebo	6	-7.0030	1.7612	27.3	-3.98	0.0005	0.05	-10.6145	-3.3915
TREAT*STUDY	Drug	1	Placebo	7	-8.7314	2.1225	59.5	-4.11	0.0001	0.05	-12.9778	-4.4850
TREAT*STUDY	Drug	2	Drug	3	-2.0276	1.7288	23.4	-1.17	0.2527	0.05	-5.6009	1.5456
TREAT*STUDY	Drug	2	Drug	4	-6.4463	1.7518	52.5	-3.68	0.0006	0.05	-9.9607	-2.9318
TREAT*STUDY	Drug	2	Drug	5	-5.3545	1.2266	28.6	-4.37	0.0002	0.05	-7.8645	-2.8444
TREAT*STUDY	Drug	2	Drug	6	-7.2306	1.7987	27.8	-4.02	0.0004	0.05	-10.9160	-3.5452
TREAT*STUDY	Drug	2	Drug	7	-7.9574	2.0095	52.2	-3.96	0.0002	0.05	-11.9894	-3.9255
TREAT*STUDY	Drug	2	Placebo	1	-4.0146	0.5317	23.7	-7.55	<.0001	0.05	-5.1128	-2.9165
TREAT*STUDY	Drug	2	Placebo	2	-3.7650	0.4282	8.64	-8.79	<.0001	0.05	-4.7399	-2.7900
TREAT*STUDY	Drug	2	Placebo	3	-4.8342	1.6547	20.9	-2.92	0.0082	0.05	-8.2763	-1.3921
TREAT*STUDY	Drug	2	Placebo	4	-7.7157	1.6545	47.9	-4.66	<.0001	0.05	-11.0424	-4.3889
TREAT*STUDY	Drug	2	Placebo	5	-5.5330	1.2403	29.3	-4.46	0.0001	0.05	-8.0687	-2.9974
TREAT*STUDY	Drug	2	Placebo	6	-5.5408	1.7564	26.4	-3.15	0.0040	0.05	-9.1486	-1.9330
TREAT*STUDY	Drug	2	Placebo	7	-7.2692	2.1274	59	-3.42	0.0012	0.05	-11.5261	-3.0124
TREAT*STUDY	Drug	3	Drug	4	-4.4186	1.8477	28.4	-2.39	0.0236	0.05	-8.2008	-0.6365
TREAT*STUDY	Drug	3	Drug	5	-3.3269	1.7249	24.9	-1.93	0.0653	0.05	-6.8804	0.2267
TREAT*STUDY	Drug	3	Drug	6	-5.2029	2.0350	29.3	-2.56	0.0160	0.05	-9.3630	-1.0428
TREAT*STUDY	Drug	3	Drug	7	-5.9298	2.1426	38.9	-2.77	0.0086	0.05	-10.2637	-1.5959
TREAT*STUDY	Drug	3	Placebo	1	-1.9870	1.7531	24.9	-1.13	0.2678	0.05	-5.5986	1.6246
TREAT*STUDY	Drug	3	Placebo	2	-1.7373	1.7412	23.8	-1.00	0.3284	0.05	-5.3327	1.8581
TREAT*STUDY	Drug	3	Placebo	3	-2.8065	2.0730	14.9	-1.35	0.1960	0.05	-7.2281	1.6150

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT*STUDY	Drug	3	Placebo	4	-5.6880	1.8157	27.3	-3.13	0.0041	0.05	-9.4114	-1.9647
TREAT*STUDY	Drug	3	Placebo	5	-3.5054	1.7237	24.8	-2.03	0.0528	0.05	-7.0567	0.04590
TREAT*STUDY	Drug	3	Placebo	6	-3.5132	2.0286	29.1	-1.73	0.0939	0.05	-7.6614	0.6351
TREAT*STUDY	Drug	3	Placebo	7	-5.2416	2.1840	40.7	-2.40	0.0211	0.05	-9.6534	-0.8298
TREAT*STUDY	Drug	4	Drug	5	1.0918	1.4941	33.3	0.73	0.4701	0.05	-1.9470	4.1305
TREAT*STUDY	Drug	4	Drug	6	-0.7843	1.7463	27.2	-0.45	0.6569	0.05	-4.3661	2.7975
TREAT*STUDY	Drug	4	Drug	7	-1.5112	1.8114	37.4	-0.83	0.4094	0.05	-5.1801	2.1578
TREAT*STUDY	Drug	4	Placebo	1	2.4317	1.7731	54.9	1.37	0.1758	0.05	-1.1218	5.9851
TREAT*STUDY	Drug	4	Placebo	2	2.6813	1.7715	53.4	1.51	0.1360	0.05	-0.8712	6.2338
TREAT*STUDY	Drug	4	Placebo	3	1.6121	1.8997	30.2	0.85	0.4028	0.05	-2.2663	5.4905
TREAT*STUDY	Drug	4	Placebo	4	-1.2694	1.4113	14.1	-0.90	0.3835	0.05	-4.2938	1.7550
TREAT*STUDY	Drug	4	Placebo	5	0.9132	1.4848	32.9	0.62	0.5428	0.05	-2.1080	3.9344
TREAT*STUDY	Drug	4	Placebo	6	0.9055	1.7609	27.7	0.51	0.6112	0.05	-2.7032	4.5142
TREAT*STUDY	Drug	4	Placebo	7	-0.8230	1.8084	37.2	-0.46	0.6517	0.05	-4.4863	2.8404
TREAT*STUDY	Drug	5	Drug	6	-1.8761	1.7002	26.3	-1.10	0.2798	0.05	-5.3689	1.6167
TREAT*STUDY	Drug	5	Drug	7	-2.6029	1.8394	39.4	-1.42	0.1649	0.05	-6.3223	1.1164
TREAT*STUDY	Drug	5	Placebo	1	1.3399	1.2613	31.1	1.06	0.2963	0.05	-1.2323	3.9121
TREAT*STUDY	Drug	5	Placebo	2	1.5895	1.2419	29.4	1.28	0.2106	0.05	-0.9491	4.1281
TREAT*STUDY	Drug	5	Placebo	3	0.5203	1.7223	24.8	0.30	0.7651	0.05	-3.0285	4.0691
TREAT*STUDY	Drug	5	Placebo	4	-2.3612	1.4453	31.2	-1.63	0.1124	0.05	-5.3079	0.5856
TREAT*STUDY	Drug	5	Placebo	5	-0.1786	1.2868	13.3	-0.14	0.8917	0.05	-2.9520	2.5949
TREAT*STUDY	Drug	5	Placebo	6	-0.1863	1.6880	25.9	-0.11	0.9130	0.05	-3.6566	3.2840
TREAT*STUDY	Drug	5	Placebo	7	-1.9147	1.8976	42.3	-1.01	0.3187	0.05	-5.7434	1.9139
TREAT*STUDY	Drug	6	Drug	7	-0.7268	2.0683	38.2	-0.35	0.7272	0.05	-4.9132	3.4595
TREAT*STUDY	Drug	6	Placebo	1	3.2160	1.8209	29.4	1.77	0.0877	0.05	-0.5058	6.9377
TREAT*STUDY	Drug	6	Placebo	2	3.4656	1.8135	28.3	1.91	0.0662	0.05	-0.2471	7.1784
TREAT*STUDY	Drug	6	Placebo	3	2.3964	2.0578	30	1.16	0.2534	0.05	-1.8062	6.5991

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT*STUDY	Drug	6	Placebo	4	-0.4851	1.7279	26.6	-0.28	0.7811	0.05	-4.0329	3.0628
TREAT*STUDY	Drug	6	Placebo	5	1.6975	1.6962	26.2	1.00	0.3261	0.05	-1.7878	5.1828
TREAT*STUDY	Drug	6	Placebo	6	1.6898	1.9802	14.8	0.85	0.4071	0.05	-2.5370	5.9165
TREAT*STUDY	Drug	6	Placebo	7	-0.03865	2.0930	39.2	-0.02	0.9854	0.05	-4.2715	4.1942
TREAT*STUDY	Drug	7	Placebo	1	3.9428	2.0286	54	1.94	0.0572	0.05	-0.1242	8.0098
TREAT*STUDY	Drug	7	Placebo	2	4.1925	2.0252	53.1	2.07	0.0433	0.05	0.1306	8.2543
TREAT*STUDY	Drug	7	Placebo	3	3.1233	2.1790	40.5	1.43	0.1594	0.05	-1.2790	7.5256
TREAT*STUDY	Drug	7	Placebo	4	0.2418	1.8075	37.2	0.13	0.8943	0.05	-3.4199	3.9034
TREAT*STUDY	Drug	7	Placebo	5	2.4244	1.8333	39.1	1.32	0.1937	0.05	-1.2835	6.1323
TREAT*STUDY	Drug	7	Placebo	6	2.4166	2.0765	38.5	1.16	0.2517	0.05	-1.7851	6.6184
TREAT*STUDY	Drug	7	Placebo	7	0.6882	2.1421	24.2	0.32	0.7508	0.05	-3.7313	5.1076
TREAT*STUDY	Placebo	1	Placebo	2	0.2497	0.5327	23.8	0.47	0.6436	0.05	-0.8502	1.3495
TREAT*STUDY	Placebo	1	Placebo	3	-0.8195	1.6809	22.4	-0.49	0.6306	0.05	-4.3021	2.6630
TREAT*STUDY	Placebo	1	Placebo	4	-3.7010	1.6776	50.4	-2.21	0.0320	0.05	-7.0699	-0.3321
TREAT*STUDY	Placebo	1	Placebo	5	-1.5184	1.2745	31.7	-1.19	0.2423	0.05	-4.1154	1.0785
TREAT*STUDY	Placebo	1	Placebo	6	-1.5262	1.7795	28	-0.86	0.3984	0.05	-5.1715	2.1191
TREAT*STUDY	Placebo	1	Placebo	7	-3.2546	2.1447	60.8	-1.52	0.1343	0.05	-7.5435	1.0343
TREAT*STUDY	Placebo	2	Placebo	3	-1.0692	1.6654	21.3	-0.64	0.5277	0.05	-4.5300	2.3916
TREAT*STUDY	Placebo	2	Placebo	4	-3.9507	1.6735	48.8	-2.36	0.0223	0.05	-7.3140	-0.5874
TREAT*STUDY	Placebo	2	Placebo	5	-1.7681	1.2559	30.1	-1.41	0.1694	0.05	-4.3328	0.7966
TREAT*STUDY	Placebo	2	Placebo	6	-1.7758	1.7706	26.9	-1.00	0.3248	0.05	-5.4097	1.8580
TREAT*STUDY	Placebo	2	Placebo	7	-3.5043	2.1443	60	-1.63	0.1074	0.05	-7.7934	0.7849
TREAT*STUDY	Placebo	3	Placebo	4	-2.8815	1.8582	28.8	-1.55	0.1319	0.05	-6.6831	0.9201
TREAT*STUDY	Placebo	3	Placebo	5	-0.6989	1.7231	24.8	-0.41	0.6885	0.05	-4.2491	2.8513
TREAT*STUDY	Placebo	3	Placebo	6	-0.7066	2.0460	29.6	-0.35	0.7323	0.05	-4.8873	3.4740
TREAT*STUDY	Placebo	3	Placebo	7	-2.4351	2.2323	42.7	-1.09	0.2815	0.05	-6.9378	2.0677
TREAT*STUDY	Placebo	4	Placebo	5	2.1826	1.4375	30.9	1.52	0.1391	0.05	-0.7496	5.1148

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

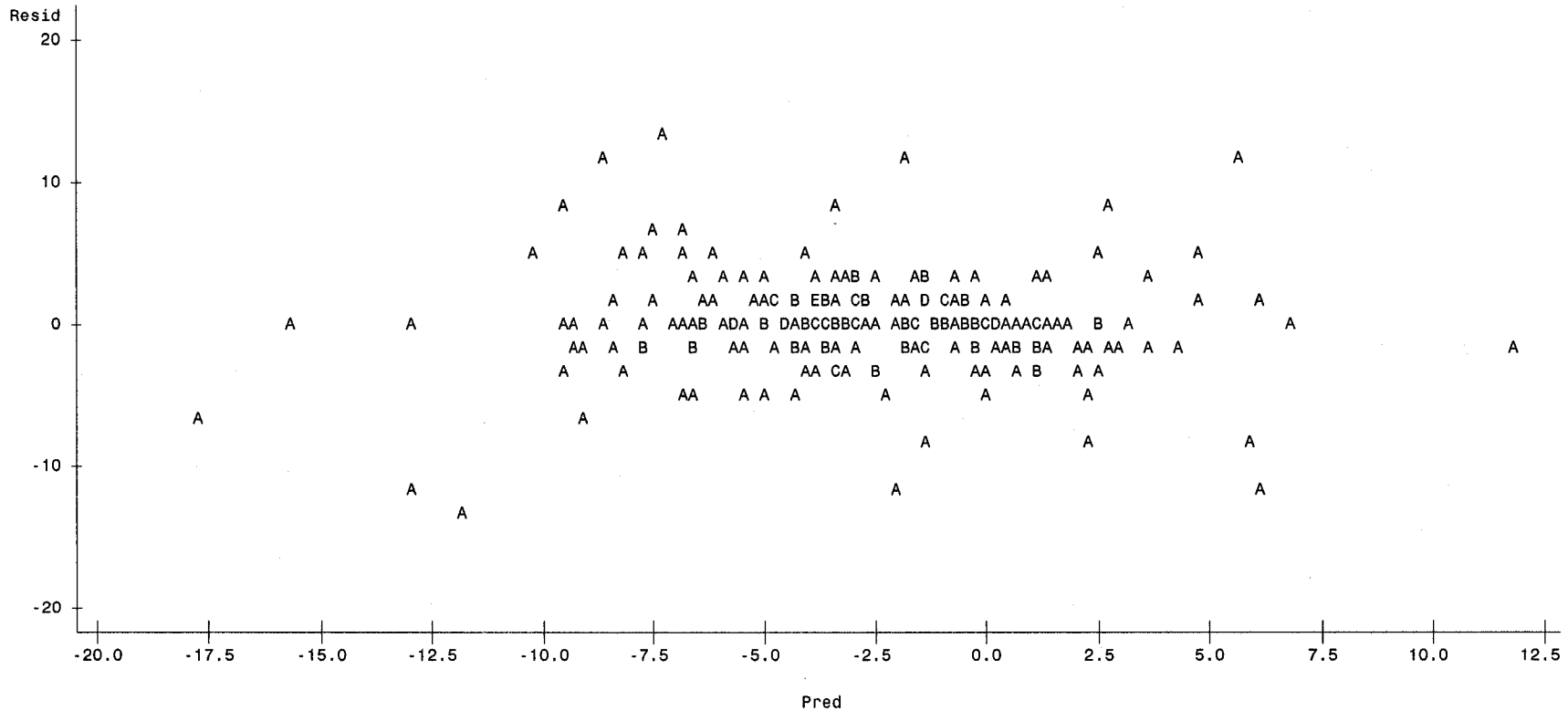
The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT*STUDY	Placebo	4	Placebo	6	2.1749	1.7376	26.9	1.25	0.2215	0.05	-1.3908	5.7405
TREAT*STUDY	Placebo	4	Placebo	7	0.4464	1.8165	37.7	0.25	0.8072	0.05	-3.2320	4.1248
TREAT*STUDY	Placebo	5	Placebo	6	-0.00774	1.6849	25.8	-0.00	0.9964	0.05	-3.4722	3.4567
TREAT*STUDY	Placebo	5	Placebo	7	-1.7362	1.8896	41.9	-0.92	0.3635	0.05	-5.5498	2.0775
TREAT*STUDY	Placebo	6	Placebo	7	-1.7284	2.1071	39.8	-0.82	0.4169	0.05	-5.9878	2.5309

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

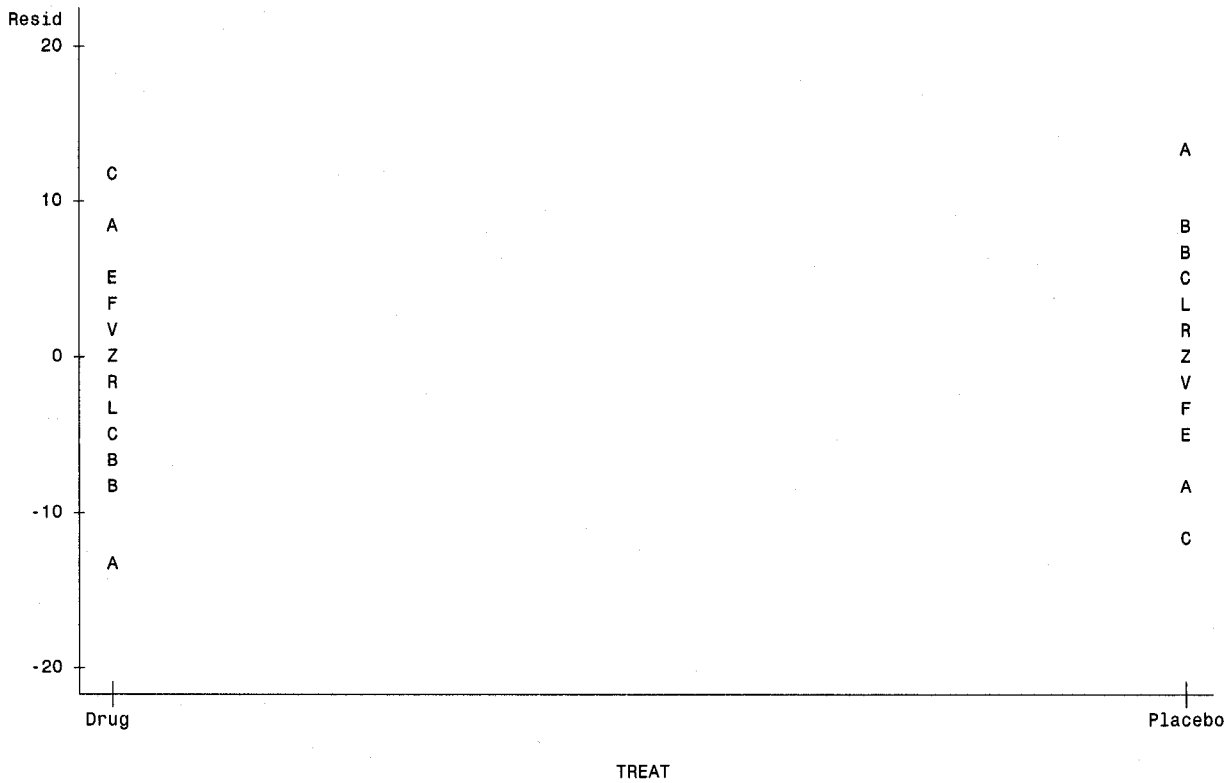
Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

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



NOTE: 24 obs hidden.

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	0	Sum Observations	0
Std Deviation	3.51176876	Variance	12.3325198
Skewness	0.29273677	Kurtosis	3.97482728
Uncorrected SS	1381.24222	Corrected SS	1381.24222
Coeff Variation	.	Std Error Mean	0.33035942

Basic Statistical Measures

Location		Variability	
Mean	0.00000	Std Deviation	3.51177
Median	-0.17213	Variance	12.33252
Mode	.	Range	25.67819
		Interquartile Range	2.85763

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	-3.5	Pr >= |M|	0.5727
Signed Rank	S	-91.5	Pr >= |S|	0.7945

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.910625	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.12012	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.525356	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	3.052356	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	12.306549
99%	11.477561
95%	5.410712
90%	3.048553
75% Q3	1.655338
50% Median	-0.172133
25% Q1	-1.202295
10%	-3.778496
5%	-4.994747
1%	-8.309402
0% Min	-13.371639

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-13.37164	7016	49	5.62159	5027	90
-8.30940	6017	22	8.71053	3018	73
-8.15803	3026	75	11.08334	6046	30
-7.05388	3001	67	11.47756	7042	63
-6.42678	7020	52	12.30655	7002	43

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

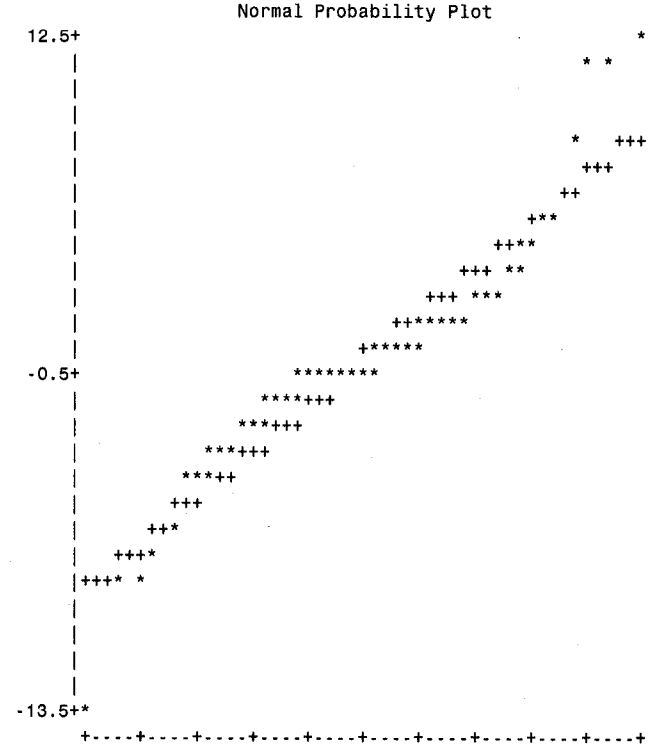
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
12	3	1	*
11	15	2	*
10			
9			
8	7	1	0
7			
6			
5	046	3	|
4	77	2	|
3	024	3	|
2	00001334678	11	|
1	00012266777899	14	+-----+
0	0122344455566668	16	| + |
-0	99988777777666555443332211	26	*-----*
-1	776654210000	12	+-----+
-2	99876610	8	|
-3	8865	4	|
-4	8420	4	|
-5	0	1	|
-6	4	1	0
-7	1	1	0
-8	32	2	0
-9			
-10			
-11			
-12			
-13	4	1	*

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

Normal Probability Plot



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure

Variable: Resid

-2 -1 0 +1 +2

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	0	Sum Observations	0
Std Deviation	3.51176876	Variance	12.3325198
Skewness	-0.2927368	Kurtosis	3.97482728
Uncorrected SS	1381.24222	Corrected SS	1381.24222
Coeff Variation	.	Std Error Mean	0.33035942

Basic Statistical Measures

Location		Variability	
Mean	0.000000	Std Deviation	3.51177
Median	0.172133	Variance	12.33252
Mode	.	Range	25.67819
		Interquartile Range	2.85763

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	3.5	Pr >= |M|	0.5727
Signed Rank	S	91.5	Pr >= |S|	0.7945

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.910625	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.12012	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.525356	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	3.052356	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	13.371639
99%	8.309402
95%	4.994747
90%	3.778496
75% Q3	1.202295
50% Median	0.172133
25% Q1	-1.655338
10%	-3.048553
5%	-5.410712
1%	-11.477561
0% Min	-12.306549

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-12.30655	7002	43	6.42678	7020	52
-11.47756	7042	63	7.05388	3001	67
-11.08334	6046	30	8.15803	3026	75
-8.71053	3018	73	8.30940	6017	22
-5.62159	5027	90	13.37164	7016	49

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

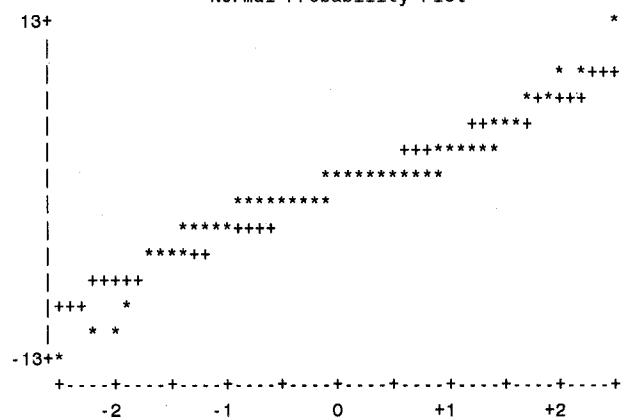
---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
12	4	1	*
10			
8	23	2	0
6	41	2	0
4	02480	5	|
2	016678995688	12	|
0	1122333445556667777778899900012456677	38	+--+--+
-0	998777662210008666655544432210	30	+-----+
-2	42087643310000	14	|
-4	64077	5	|
-6			
-8	7	1	0
-10	51	2	*
-12	3	1	*

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

Normal Probability Plot



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Fixed

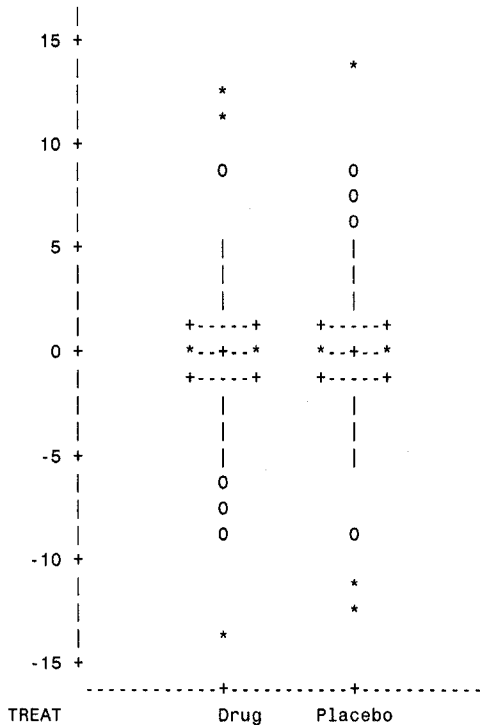
Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The UNIVARIATE Procedure

Variable: Resid

Schematic Plots



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Model Information

Data Set	WORK.TEN_MG
Dependent Variable	T60CHG
Covariance Structure	Variance Components
Group Effect	STUDY
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
STUDY	7	1 2 3 4 5 6 7
TREAT	2	Drug Placebo

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Class Level Information

Class	Levels	Values
PATIENT	113	1002 1007 1008 1011 1013 1016 1017 1018 1020 1026 1030 1031 1034 1035 1037 1038 2001 2005 2007 2012 2014 2018 2020 2021 2023 2024 3001 3003 3005 3008 3009 3015 3018 3023 3026 3032 3036 3039 3041 3044 3046 3048 4001 4003 4007 4010 4012 4017 4024 4026 4027 4030 4032 4034 4037 4039 4044 5001 5010 5013 5015 5021 5022 5025 5027 5029 5030 5032 5034 5035 5043 5046 6001 6003 6005 6008 6010 6013 6017 6023 6026 6031 6034 6040 6041 6044 6046 6048 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	7
Columns in X	124
Columns in Z	0
Subjects	226
Max Obs Per Subject	1
Observations Used	226

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Dimensions

Observations Not Used	0
Total Observations	226

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	774.37263574	
1	2	734.54298600	0.00515147
2	1	731.01081308	0.00942475
3	1	730.03865320	0.00302941
4	1	729.10816951	0.00034490
5	1	729.00893244	0.00000994
6	1	729.00778961	0.00000572
7	1	729.00626032	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Group	Estimate
Residual	STUDY 1	4.8290
Residual	STUDY 2	0.8891
Residual	STUDY 3	32.1752
Residual	STUDY 4	16.4683
Residual	STUDY 5	17.5633
Residual	STUDY 6	42.9078

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
TO = Baseline (A Covariate)

The Mixed Procedure

Covariance Parameter Estimates

Cov Parm	Group	Estimate
Residual	STUDY 7	64.0723

Fit Statistics

-2 Res Log Likelihood	729.0
AIC (smaller is better)	743.0
AICC (smaller is better)	744.1
BIC (smaller is better)	767.0

Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
6	45.37	<.0001

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TO	1	93.4	17.45	<.0001
PATIENT(STUDY)	106	36.7	0.73	0.8859
STUDY	6	49.2	2.65	0.0264
TREAT	1	19.7	92.24	<.0001

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Least Squares Means

Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-4.8260	0.3754	96.4	-12.86	<.0001	0.05	-5.5710	-4.0809
TREAT	Placebo	-1.2781	0.3829	96.6	-3.34	0.0012	0.05	-2.0382	-0.5180

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	-3.5479	0.3694	19.7	-9.60	<.0001	0.05	-4.3193	-2.7765

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

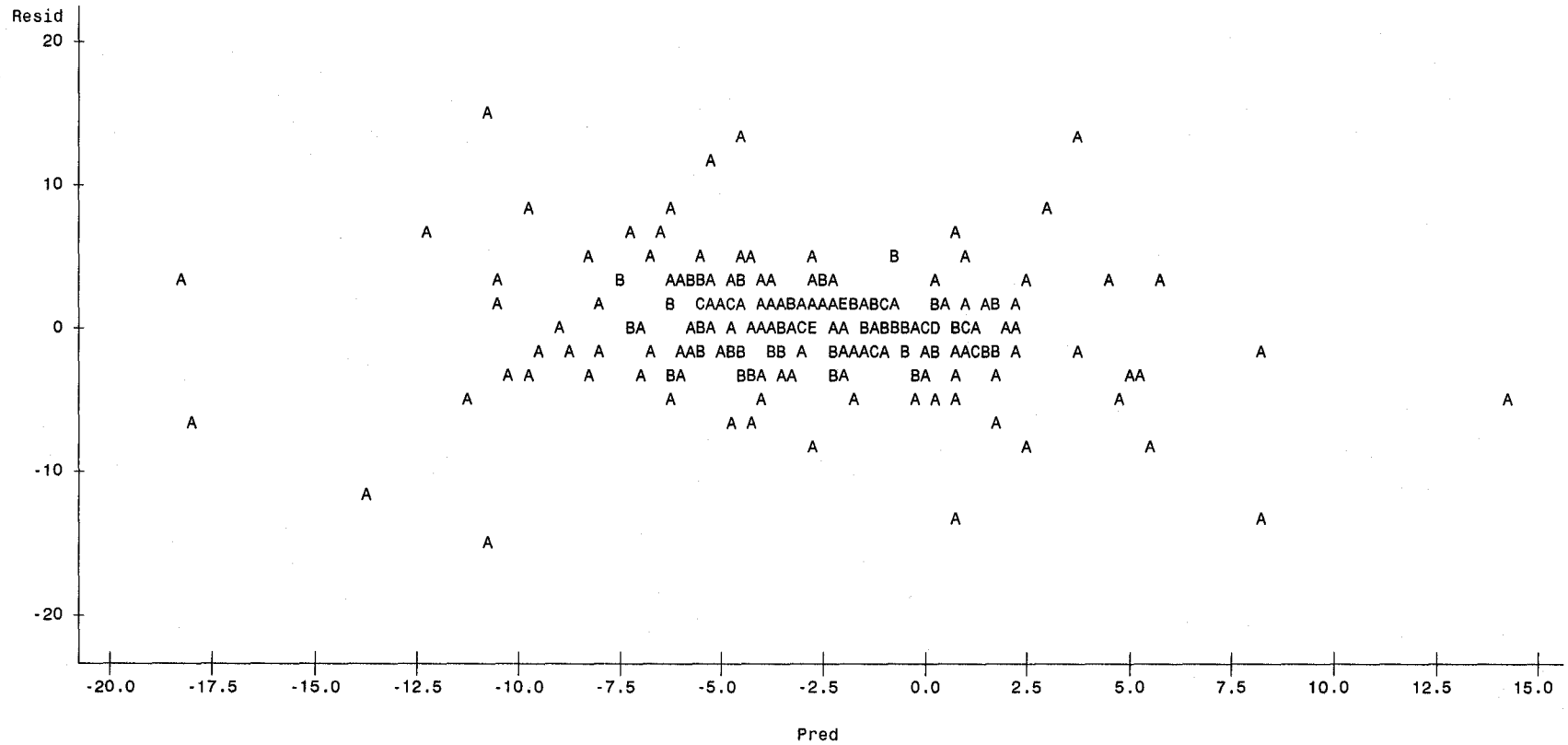
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

TO = Baseline (A Covariate)

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



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes

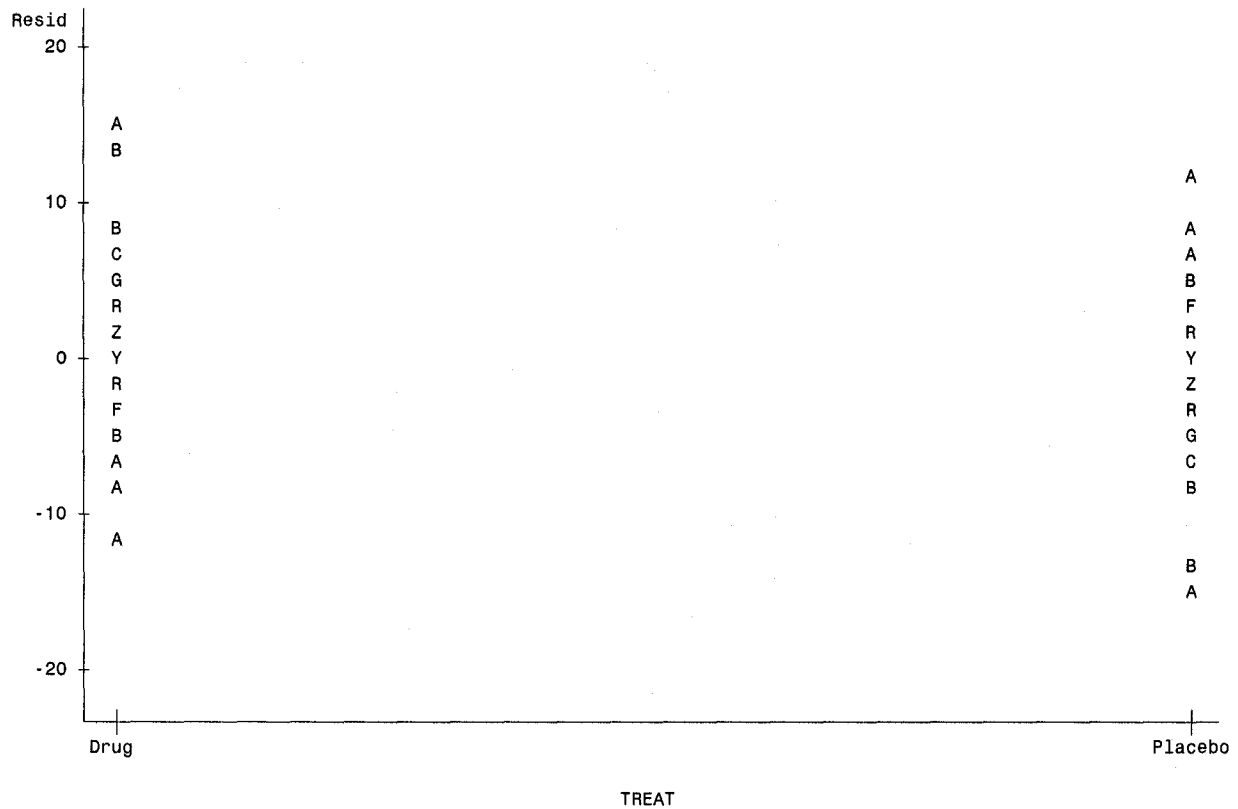
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction

Patient Is Fixed

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

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



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	1.11932351	Sum Observations	126.483556
Std Deviation	3.70960298	Variance	13.7611543
Skewness	0.66657924	Kurtosis	3.45819562
Uncorrected SS	1682.8253	Corrected SS	1541.24928
Coeff Variation	331.41473	Std Error Mean	0.34897009

Basic Statistical Measures

Location		Variability	
Mean	1.119324	Std Deviation	3.70960
Median	0.908506	Variance	13.76115
Mode	.	Range	25.85298
		Interquartile Range	3.80647

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	3.207506	Pr > |t|	0.0017
Sign	M	16.5	Pr >= |M|	0.0025
Signed Rank	S	1152.5	Pr >= |S|	0.0008

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------	
Shapiro-Wilk	W	0.928031	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.099545	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.27301	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.923685	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	14.497648
99%	13.671747
95%	7.356695
90%	4.774848
75% Q3	2.730836
50% Median	0.908506
25% Q1	-1.075629
10%	-2.424499
5%	-3.422118
1%	-7.667334
0% Min	-11.355336

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-11.35534	7016	49	7.53137	7025	54
-7.66733	3026	75	8.90033	3018	73
-6.84494	3001	67	13.57300	7042	63
-5.68360	6017	22	13.67175	6046	30
-4.35395	7020	52	14.49765	7002	43

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

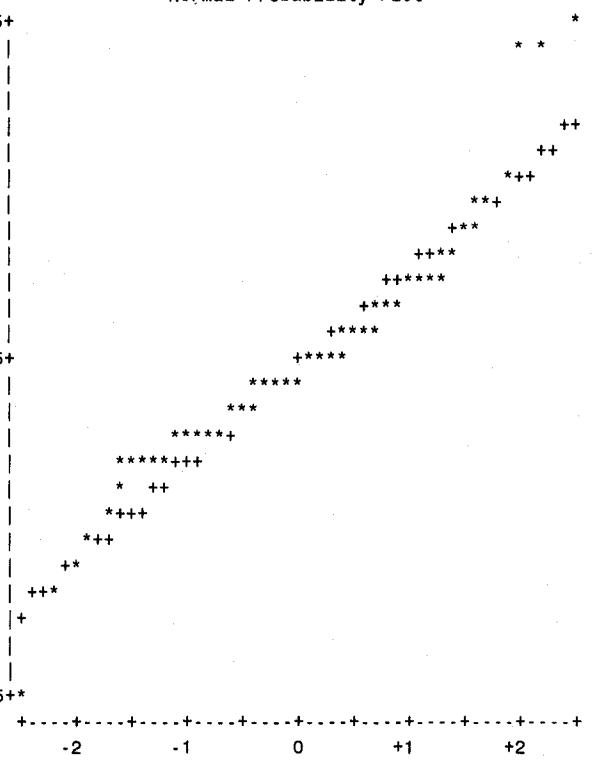
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
14	5	1	*
13	67	2	0
12			
11			
10			
9			
8	9	1	0
7	45	2	|
6	27	2	|
5	134	3	|
4	00112358	8	|
3	12356779	8	|
2	0011234577778	13	+-----+
1	001122244557779	15	| + |
0	011113333445568999	18	*-----*
-0	88887643322	11	| |
-1	99987765554311	14	+-----+
-2	766654330	9	|
-3	4	1	|
-4	4	1	|
-5	7	1	|
-6	8	1	0
-7	7	1	0
-8			
-9			
-10			
-11	4	1	0

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

Normal Probability Plot



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	-1.1193235	Sum Observations	-126.48356
Std Deviation	3.70960298	Variance	13.7611543
Skewness	-0.6665792	Kurtosis	3.45819562
Uncorrected SS	1682.8253	Corrected SS	1541.24928
Coeff Variation	-331.41473	Std Error Mean	0.34897009

Basic Statistical Measures

Location		Variability	
Mean	-1.11932	Std Deviation	3.70960
Median	-0.90851	Variance	13.76115
Mode	.	Range	25.85298
		Interquartile Range	3.80647

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	-3.20751	Pr > |t|	0.0017
Sign	M	-16.5	Pr >= |M|	0.0025
Signed Rank	S	-1152.5	Pr >= |S|	0.0008

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.928031	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.099545	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.27301	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.923685	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	11.355336
99%	7.667334
95%	3.422118
90%	2.424499
75% Q3	1.075629
50% Median	-0.908506
25% Q1	-2.730836
10%	-4.774848
5%	-7.356695
1%	-13.671747
0% Min	-14.497648

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

Lowest			Highest		
Value	PATIENT	Obs	Value	PATIENT	Obs
-14.49765	7002	43	4.35395	7020	52
-13.67175	6046	30	5.68360	6017	22
-13.57300	7042	63	6.84494	3001	67
-8.90033	3018	73	7.66733	3026	75
-7.53137	7025	54	11.35534	7016	49

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

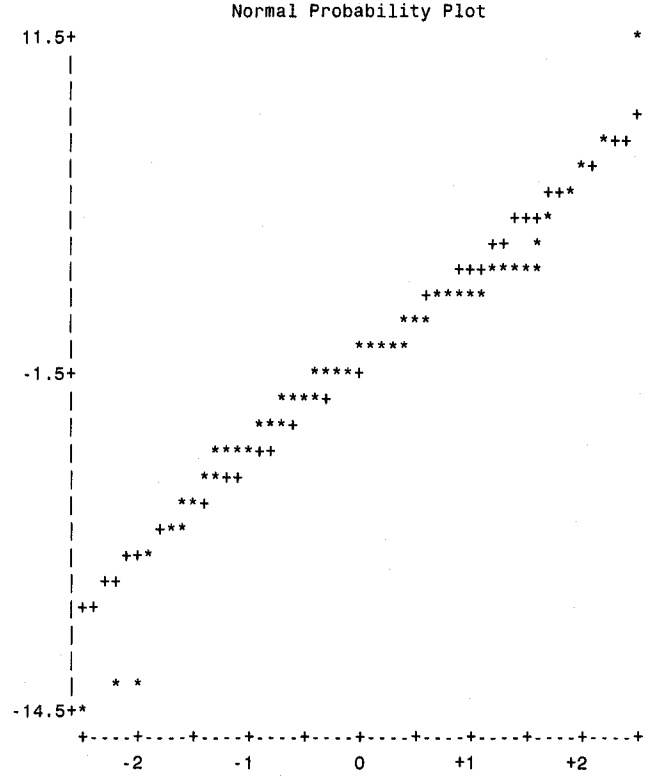
---------- TREAT=Placebo ----------

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
11	4	1	0
10			
9			
8			
7	7	1	0
6	8	1	0
5	7	1	|
4	4	1	|
3	4	1	|
2	033456667	9	|
1	11345556778999	14	+-----+
0	22334678888	11	| |
-0	999865544333311110	18	*-----*
-1	977755442221100	15	| + |
-2	8777754321100	13	+-----+
-3	97765321	8	|
-4	85321100	8	|
-5	431	3	|
-6	72	2	|
-7	54	2	|
-8	9	1	0
-9			
-10			
-11			
-12			
-13	76	2	0
-14	5	1	*

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

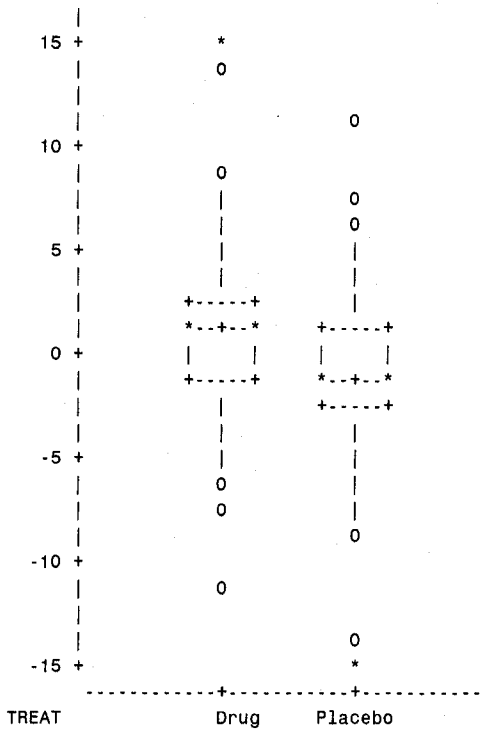
Normal Probability Plot



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 60 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Fixed
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Model Information

Data Set	WORK.TEN_MG
Dependent Variable	T90CHG
Covariance Structure	Variance Components
Subject Effect	PATIENT(STUDY)
Group Effects	STUDY, STUDY
Estimation Method	REML
Residual Variance Method	None
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
STUDY	7	1 2 3 4 5 6 7

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Class Level Information

Class	Levels	Values
PATIENT	113	1002 1007 1008 1011 1013 1016 1017 1018 1020 1026 1030 1031 1034 1035 1037 1038 2001 2005 2007 2012 2014 2018 2020 2021 2023 2024 3001 3003 3005 3008 3009 3015 3018 3023 3026 3032 3036 3039 3041 3044 3046 3048 4001 4003 4007 4010 4012 4017 4024 4026 4027 4030 4032 4034 4037 4039 4044 5001 5010 5013 5015 5021 5022 5025 5027 5029 5030 5032 5034 5035 5043 5046 6001 6003 6005 6008 6010 6013 6017 6023 6026 6031 6034 6040 6041 6044 6046 6048 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	14
Columns in X	25
Columns in Z Per Subject	7
Subjects	113
Max Obs Per Subject	2

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Dimensions

Observations Used	226
Observations Not Used	0
Total Observations	226

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1351.13336950	
1	2	1240.08768826	0.00227018
2	2	1239.03496039	0.00017906
3	1	1238.95348146	0.00000250
4	1	1238.95240439	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Group	Estimate
Intercept	PATIENT(STUDY)	STUDY 1	0
Intercept	PATIENT(STUDY)	STUDY 2	0
Intercept	PATIENT(STUDY)	STUDY 3	0
Intercept	PATIENT(STUDY)	STUDY 4	0
Intercept	PATIENT(STUDY)	STUDY 5	0
Intercept	PATIENT(STUDY)	STUDY 6	11.1732
Intercept	PATIENT(STUDY)	STUDY 7	22.7114

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Covariance Parameter Estimates

Cov Parm	Subject	Group	Estimate
Residual		STUDY 1	3.7360
Residual		STUDY 2	0.6131
Residual		STUDY 3	31.8230
Residual		STUDY 4	19.5029
Residual		STUDY 5	16.4156
Residual		STUDY 6	26.0944
Residual		STUDY 7	36.4490

Fit Statistics

-2 Res Log Likelihood	1239.0
AIC (smaller is better)	1257.0
AICC (smaller is better)	1257.8
BIC (smaller is better)	1281.5

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
T0	1	170	23.00	<.0001
STUDY	6	69.7	1.82	0.1081
TREAT	1	119	9.95	0.0020
TREAT*STUDY	6	65.1	3.46	0.0050

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Least Squares Means

Effect	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
STUDY		1	-4.0414	0.5125	95.2	-7.89	<.0001	0.05	-5.0588	-3.0240
STUDY		2	-3.3015	0.4360	147	-7.57	<.0001	0.05	-4.1631	-2.4399
STUDY		3	-5.0807	0.9976	30	-5.09	<.0001	0.05	-7.1181	-3.0433
STUDY		4	-2.9338	0.8385	30.4	-3.50	0.0015	0.05	-4.6453	-1.2222
STUDY		5	-3.2313	0.7405	28.1	-4.36	0.0002	0.05	-4.7480	-1.7145
STUDY		6	-3.8127	1.2339	14	-3.09	0.0080	0.05	-6.4586	-1.1668
STUDY		7	-0.6507	1.3027	22	-0.50	0.6224	0.05	-3.3522	2.0508
TREAT	Drug		-4.1815	0.4386	154	-9.53	<.0001	0.05	-5.0479	-3.3151
TREAT	Placebo		-2.4048	0.4398	154	-5.47	<.0001	0.05	-3.2736	-1.5359
TREAT*STUDY	Drug	1	-6.4457	0.6113	61	-10.54	<.0001	0.05	-7.6680	-5.2233
TREAT*STUDY	Drug	2	-4.7352	0.4651	103	-10.18	<.0001	0.05	-5.6575	-3.8128
TREAT*STUDY	Drug	3	-7.4817	1.4103	30	-5.30	<.0001	0.05	-10.3622	-4.6012
TREAT*STUDY	Drug	4	-2.6860	1.1692	29.3	-2.30	0.0289	0.05	-5.0764	-0.2957
TREAT*STUDY	Drug	5	-3.1557	1.0469	28	-3.01	0.0054	0.05	-5.3000	-1.0114
TREAT*STUDY	Drug	6	-3.8212	1.5301	25.5	-2.50	0.0193	0.05	-6.9692	-0.6733
TREAT*STUDY	Drug	7	-0.9453	1.5517	38.9	-0.61	0.5459	0.05	-4.0841	2.1936
TREAT*STUDY	Placebo	1	-1.6371	0.6207	63.7	-2.64	0.0105	0.05	-2.8772	-0.3970
TREAT*STUDY	Placebo	2	-1.8679	0.4746	107	-3.94	0.0001	0.05	-2.8088	-0.9269
TREAT*STUDY	Placebo	3	-2.6797	1.4117	30	-1.90	0.0673	0.05	-5.5626	0.2033
TREAT*STUDY	Placebo	4	-3.1815	1.1580	28.5	-2.75	0.0103	0.05	-5.5515	-0.8115
TREAT*STUDY	Placebo	5	-3.3069	1.0465	28	-3.16	0.0038	0.05	-5.4506	-1.1632
TREAT*STUDY	Placebo	6	-3.8041	1.5281	25.4	-2.49	0.0197	0.05	-6.9486	-0.6596
TREAT*STUDY	Placebo	7	-0.3562	1.5645	39.8	-0.23	0.8211	0.05	-3.5187	2.8064

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
STUDY		1		2	-0.7399	0.3843	42.4	-1.93	0.0609	0.05	-1.5153	0.03549
STUDY		1		3	1.0393	1.1124	43	0.93	0.3554	0.05	-1.2040	3.2826
STUDY		1		4	-1.1076	1.0684	58.9	-1.04	0.3041	0.05	-3.2455	1.0303
STUDY		1		5	-0.8101	0.8857	49.7	-0.91	0.3648	0.05	-2.5894	0.9692
STUDY		1		6	-0.2287	1.3625	19.6	-0.17	0.8684	0.05	-3.0742	2.6167
STUDY		1		7	-3.3907	1.4651	32	-2.31	0.0272	0.05	-6.3751	-0.4062
STUDY		2		3	1.7792	1.0788	38.3	1.65	0.1073	0.05	-0.4042	3.9626
STUDY		2		4	-0.3677	1.0377	52.1	-0.35	0.7245	0.05	-2.4500	1.7145
STUDY		2		5	-0.07023	0.8430	41.7	-0.08	0.9340	0.05	-1.7719	1.6314
STUDY		2		6	0.5112	1.3368	18.2	0.38	0.7066	0.05	-2.2947	3.3170
STUDY		2		7	-2.6508	1.4430	29.7	-1.84	0.0762	0.05	-5.5990	0.2975
STUDY		3		4	-2.1469	1.3079	58.5	-1.64	0.1060	0.05	-4.7644	0.4706
STUDY		3		5	-1.8494	1.2417	54.3	-1.49	0.1421	0.05	-4.3385	0.6396
STUDY		3		6	-1.2680	1.5883	31.8	-0.80	0.4306	0.05	-4.5039	1.9679
STUDY		3		7	-4.4300	1.6448	44.9	-2.69	0.0099	0.05	-7.7431	-1.1169
STUDY		4		5	0.2975	1.1258	58.2	0.26	0.7925	0.05	-1.9559	2.5509
STUDY		4		6	0.8789	1.4774	26.9	0.59	0.5569	0.05	-2.1532	3.9110
STUDY		4		7	-2.2831	1.5125	35.3	-1.51	0.1401	0.05	-5.3527	0.7866
STUDY		5		6	0.5814	1.4413	24.4	0.40	0.6902	0.05	-2.3905	3.5532
STUDY		5		7	-2.5806	1.5042	36	-1.72	0.0948	0.05	-5.6311	0.4700
STUDY		6		7	-3.1619	1.7816	37.8	-1.77	0.0840	0.05	-6.7692	0.4453
TREAT	Drug		Placebo		-1.7768	0.5632	119	-3.15	0.0020	0.05	-2.8920	-0.6616
TREAT*STUDY	Drug	1	Drug	2	-1.7105	0.5433	42.4	-3.15	0.0030	0.05	-2.8067	-0.6144
TREAT*STUDY	Drug	1	Drug	3	1.0360	1.5395	40.4	0.67	0.5048	0.05	-2.0743	4.1464
TREAT*STUDY	Drug	1	Drug	4	-3.7597	1.3908	49.1	-2.70	0.0094	0.05	-6.5544	-0.9650
TREAT*STUDY	Drug	1	Drug	5	-3.2900	1.1999	44.2	-2.74	0.0088	0.05	-5.7080	-0.8720
TREAT*STUDY	Drug	1	Drug	6	-2.6245	1.6725	34.3	-1.57	0.1258	0.05	-6.0222	0.7733

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT*STUDY	Drug	1	Drug	7	-5.5004	1.7129	53.4	-3.21	0.0022	0.05	-8.9353	-2.0655
TREAT*STUDY	Drug	1	Placebo	1	-4.8086	0.6835	29.3	-7.03	<.0001	0.05	-6.2059	-3.4113
TREAT*STUDY	Drug	1	Placebo	2	-4.5778	0.5438	42.5	-8.42	<.0001	0.05	-5.6749	-3.4807
TREAT*STUDY	Drug	1	Placebo	3	-3.7660	1.5229	39.2	-2.47	0.0178	0.05	-6.8459	-0.6861
TREAT*STUDY	Drug	1	Placebo	4	-3.2641	1.3658	47.1	-2.39	0.0209	0.05	-6.0117	-0.5166
TREAT*STUDY	Drug	1	Placebo	5	-3.1388	1.2028	44.5	-2.61	0.0123	0.05	-5.5621	-0.7155
TREAT*STUDY	Drug	1	Placebo	6	-2.6416	1.6632	33.8	-1.59	0.1216	0.05	-6.0225	0.7393
TREAT*STUDY	Drug	1	Placebo	7	-6.0895	1.7421	55.7	-3.50	0.0009	0.05	-9.5798	-2.5992
TREAT*STUDY	Drug	2	Drug	3	2.7465	1.4876	35.6	1.85	0.0732	0.05	-0.2717	5.7648
TREAT*STUDY	Drug	2	Drug	4	-2.0492	1.3367	42	-1.53	0.1328	0.05	-4.7468	0.6485
TREAT*STUDY	Drug	2	Drug	5	-1.5795	1.1317	36	-1.40	0.1714	0.05	-3.8748	0.7158
TREAT*STUDY	Drug	2	Drug	6	-0.9139	1.6261	31	-0.56	0.5781	0.05	-4.2301	2.4023
TREAT*STUDY	Drug	2	Drug	7	-3.7899	1.6686	47.8	-2.27	0.0277	0.05	-7.1453	-0.4345
TREAT*STUDY	Drug	2	Placebo	1	-3.0981	0.5430	42.3	-5.71	<.0001	0.05	-4.1936	-2.0025
TREAT*STUDY	Drug	2	Placebo	2	-2.8673	0.3504	17.9	-8.18	<.0001	0.05	-3.6036	-2.1310
TREAT*STUDY	Drug	2	Placebo	3	-2.0555	1.4695	34.3	-1.40	0.1708	0.05	-5.0408	0.9298
TREAT*STUDY	Drug	2	Placebo	4	-1.5536	1.3099	40	-1.19	0.2426	0.05	-4.2011	1.0938
TREAT*STUDY	Drug	2	Placebo	5	-1.4283	1.1349	36.3	-1.26	0.2163	0.05	-3.7294	0.8728
TREAT*STUDY	Drug	2	Placebo	6	-0.9311	1.6161	30.5	-0.58	0.5688	0.05	-4.2295	2.3674
TREAT*STUDY	Drug	2	Placebo	7	-4.3790	1.6996	50.1	-2.58	0.0130	0.05	-7.7927	-0.9654
TREAT*STUDY	Drug	3	Drug	4	-4.7957	1.8306	57.2	-2.62	0.0112	0.05	-8.4611	-1.1303
TREAT*STUDY	Drug	3	Drug	5	-4.3260	1.7566	54.4	-2.46	0.0170	0.05	-7.8473	-0.8047
TREAT*STUDY	Drug	3	Drug	6	-3.6605	2.0804	53.5	-1.76	0.0842	0.05	-7.8323	0.5114
TREAT*STUDY	Drug	3	Drug	7	-6.5364	2.0959	69.2	-3.12	0.0026	0.05	-10.7175	-2.3554
TREAT*STUDY	Drug	3	Placebo	1	-5.8446	1.5433	40.7	-3.79	0.0005	0.05	-8.9621	-2.7272
TREAT*STUDY	Drug	3	Placebo	2	-5.6139	1.4907	35.8	-3.77	0.0006	0.05	-8.6377	-2.5900
TREAT*STUDY	Drug	3	Placebo	3	-4.8020	1.9958	30	-2.41	0.0225	0.05	-8.8779	-0.7261

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT*STUDY	Drug	3	Placebo	4	-4.3002	1.8237	56.7	-2.36	0.0219	0.05	-7.9525	-0.6478
TREAT*STUDY	Drug	3	Placebo	5	-4.1748	1.7564	54.3	-2.38	0.0210	0.05	-7.6956	-0.6540
TREAT*STUDY	Drug	3	Placebo	6	-3.6776	2.0791	53.4	-1.77	0.0826	0.05	-7.8470	0.4918
TREAT*STUDY	Drug	3	Placebo	7	-7.1256	2.1051	69.9	-3.38	0.0012	0.05	-11.3241	-2.9270
TREAT*STUDY	Drug	4	Drug	5	0.4697	1.5759	57	0.30	0.7668	0.05	-2.6861	3.6254
TREAT*STUDY	Drug	4	Drug	6	1.1352	1.9109	49.7	0.59	0.5552	0.05	-2.7035	4.9740
TREAT*STUDY	Drug	4	Drug	7	-1.7407	1.9156	61.9	-0.91	0.3670	0.05	-5.5701	2.0887
TREAT*STUDY	Drug	4	Placebo	1	-1.0489	1.3977	49.7	-0.75	0.4565	0.05	-3.8568	1.7590
TREAT*STUDY	Drug	4	Placebo	2	-0.8182	1.3423	42.4	-0.61	0.5454	0.05	-3.5262	1.8898
TREAT*STUDY	Drug	4	Placebo	3	-0.00634	1.8419	58	-0.00	0.9973	0.05	-3.6933	3.6807
TREAT*STUDY	Drug	4	Placebo	4	0.4955	1.6136	27.4	0.31	0.7611	0.05	-2.8128	3.8038
TREAT*STUDY	Drug	4	Placebo	5	0.6209	1.5741	56.9	0.39	0.6947	0.05	-2.5313	3.7730
TREAT*STUDY	Drug	4	Placebo	6	1.1181	1.9137	49.9	0.58	0.5617	0.05	-2.7260	4.9622
TREAT*STUDY	Drug	4	Placebo	7	-2.3299	1.9150	61.9	-1.22	0.2284	0.05	-6.1581	1.4984
TREAT*STUDY	Drug	5	Drug	6	0.6656	1.8563	45.9	0.36	0.7216	0.05	-3.0713	4.4024
TREAT*STUDY	Drug	5	Drug	7	-2.2104	1.8762	64.3	-1.18	0.2431	0.05	-5.9581	1.5373
TREAT*STUDY	Drug	5	Placebo	1	-1.5186	1.2042	44.6	-1.26	0.2138	0.05	-3.9446	0.9074
TREAT*STUDY	Drug	5	Placebo	2	-1.2878	1.1353	36.3	-1.13	0.2641	0.05	-3.5896	1.0140
TREAT*STUDY	Drug	5	Placebo	3	-0.4760	1.7561	54.3	-0.27	0.7874	0.05	-3.9963	3.0443
TREAT*STUDY	Drug	5	Placebo	4	0.02587	1.5662	56.3	0.02	0.9869	0.05	-3.1112	3.1630
TREAT*STUDY	Drug	5	Placebo	5	0.1512	1.4795	28	0.10	0.9193	0.05	-2.8795	3.1819
TREAT*STUDY	Drug	5	Placebo	6	0.6484	1.8540	45.7	0.35	0.7281	0.05	-3.0840	4.3809
TREAT*STUDY	Drug	5	Placebo	7	-2.7995	1.8885	65.3	-1.48	0.1430	0.05	-6.5708	0.9718
TREAT*STUDY	Drug	6	Drug	7	-2.8760	2.1690	66.6	-1.33	0.1894	0.05	-7.2057	1.4538
TREAT*STUDY	Drug	6	Placebo	1	-2.1841	1.6769	34.6	-1.30	0.2014	0.05	-5.5899	1.2217
TREAT*STUDY	Drug	6	Placebo	2	-1.9534	1.6296	31.2	-1.20	0.2397	0.05	-5.2759	1.3691
TREAT*STUDY	Drug	6	Placebo	3	-1.1416	2.0852	53.8	-0.55	0.5863	0.05	-5.3225	3.0393

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT*STUDY	Drug	6	Placebo	4	-0.6397	1.9073	49.5	-0.34	0.7387	0.05	-4.4717	3.1923
TREAT*STUDY	Drug	6	Placebo	5	-0.5143	1.8556	45.8	-0.28	0.7829	0.05	-4.2497	3.2210
TREAT*STUDY	Drug	6	Placebo	6	-0.01713	1.8063	14.9	-0.01	0.9926	0.05	-3.8703	3.8360
TREAT*STUDY	Drug	6	Placebo	7	-3.4651	2.1740	66.9	-1.59	0.1157	0.05	-7.8045	0.8744
TREAT*STUDY	Drug	7	Placebo	1	0.6918	1.7180	53.8	0.40	0.6888	0.05	-2.7529	4.1365
TREAT*STUDY	Drug	7	Placebo	2	0.9226	1.6727	48.1	0.55	0.5838	0.05	-2.4405	4.2856
TREAT*STUDY	Drug	7	Placebo	3	1.7344	2.1039	69.8	0.82	0.4125	0.05	-2.4620	5.9308
TREAT*STUDY	Drug	7	Placebo	4	2.2363	1.9148	61.9	1.17	0.2473	0.05	-1.5916	6.0641
TREAT*STUDY	Drug	7	Placebo	5	2.3616	1.8749	64.2	1.26	0.2124	0.05	-1.3836	6.1069
TREAT*STUDY	Drug	7	Placebo	6	2.8588	2.1706	66.7	1.32	0.1923	0.05	-1.4742	7.1918
TREAT*STUDY	Drug	7	Placebo	7	-0.5891	1.7096	23.9	-0.34	0.7334	0.05	-4.1181	2.9399
TREAT*STUDY	Placebo	1	Placebo	2	0.2308	0.5432	42.3	0.42	0.6731	0.05	-0.8652	1.3267
TREAT*STUDY	Placebo	1	Placebo	3	1.0426	1.5261	39.4	0.68	0.4985	0.05	-2.0431	4.1283
TREAT*STUDY	Placebo	1	Placebo	4	1.5444	1.3723	47.6	1.13	0.2660	0.05	-1.2153	4.3042
TREAT*STUDY	Placebo	1	Placebo	5	1.6698	1.2072	44.9	1.38	0.1734	0.05	-0.7617	4.1013
TREAT*STUDY	Placebo	1	Placebo	6	2.1670	1.6674	34	1.30	0.2025	0.05	-1.2215	5.5555
TREAT*STUDY	Placebo	1	Placebo	7	-1.2809	1.7479	56.2	-0.73	0.4667	0.05	-4.7822	2.2203
TREAT*STUDY	Placebo	2	Placebo	3	0.8118	1.4721	34.5	0.55	0.5849	0.05	-2.1782	3.8018
TREAT*STUDY	Placebo	2	Placebo	4	1.3137	1.3151	40.4	1.00	0.3238	0.05	-1.3434	3.9708
TREAT*STUDY	Placebo	2	Placebo	5	1.4390	1.1386	36.6	1.26	0.2143	0.05	-0.8687	3.7468
TREAT*STUDY	Placebo	2	Placebo	6	1.9362	1.6195	30.7	1.20	0.2410	0.05	-1.3681	5.2406
TREAT*STUDY	Placebo	2	Placebo	7	-1.5117	1.7041	50.4	-0.89	0.3792	0.05	-4.9339	1.9105
TREAT*STUDY	Placebo	3	Placebo	4	0.5019	1.8328	57.4	0.27	0.7852	0.05	-3.1678	4.1716
TREAT*STUDY	Placebo	3	Placebo	5	0.6272	1.7563	54.3	0.36	0.7224	0.05	-2.8934	4.1478
TREAT*STUDY	Placebo	3	Placebo	6	1.1244	2.0827	53.7	0.54	0.5915	0.05	-3.0518	5.3007
TREAT*STUDY	Placebo	3	Placebo	7	-2.3235	2.1158	70.6	-1.10	0.2759	0.05	-6.5428	1.8957
TREAT*STUDY	Placebo	4	Placebo	5	0.1254	1.5646	56.2	0.08	0.9364	0.05	-3.0088	3.2595

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

The Mixed Procedure

Differences of Least Squares Means

Effect	TREAT	STUDY	TREAT	STUDY	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT*STUDY	Placebo	4	Placebo	6	0.6226	1.9092	49.6	0.33	0.7457	0.05	-3.2129	4.4581
TREAT*STUDY	Placebo	4	Placebo	7	-2.8254	1.9167	62	-1.47	0.1455	0.05	-6.6568	1.0060
TREAT*STUDY	Placebo	5	Placebo	6	0.4972	1.8534	45.7	0.27	0.7897	0.05	-3.2341	4.2285
TREAT*STUDY	Placebo	5	Placebo	7	-2.9507	1.8868	65.1	-1.56	0.1227	0.05	-6.7188	0.8173
TREAT*STUDY	Placebo	6	Placebo	7	-3.4479	2.1769	67.1	-1.58	0.1179	0.05	-7.7930	0.8971

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

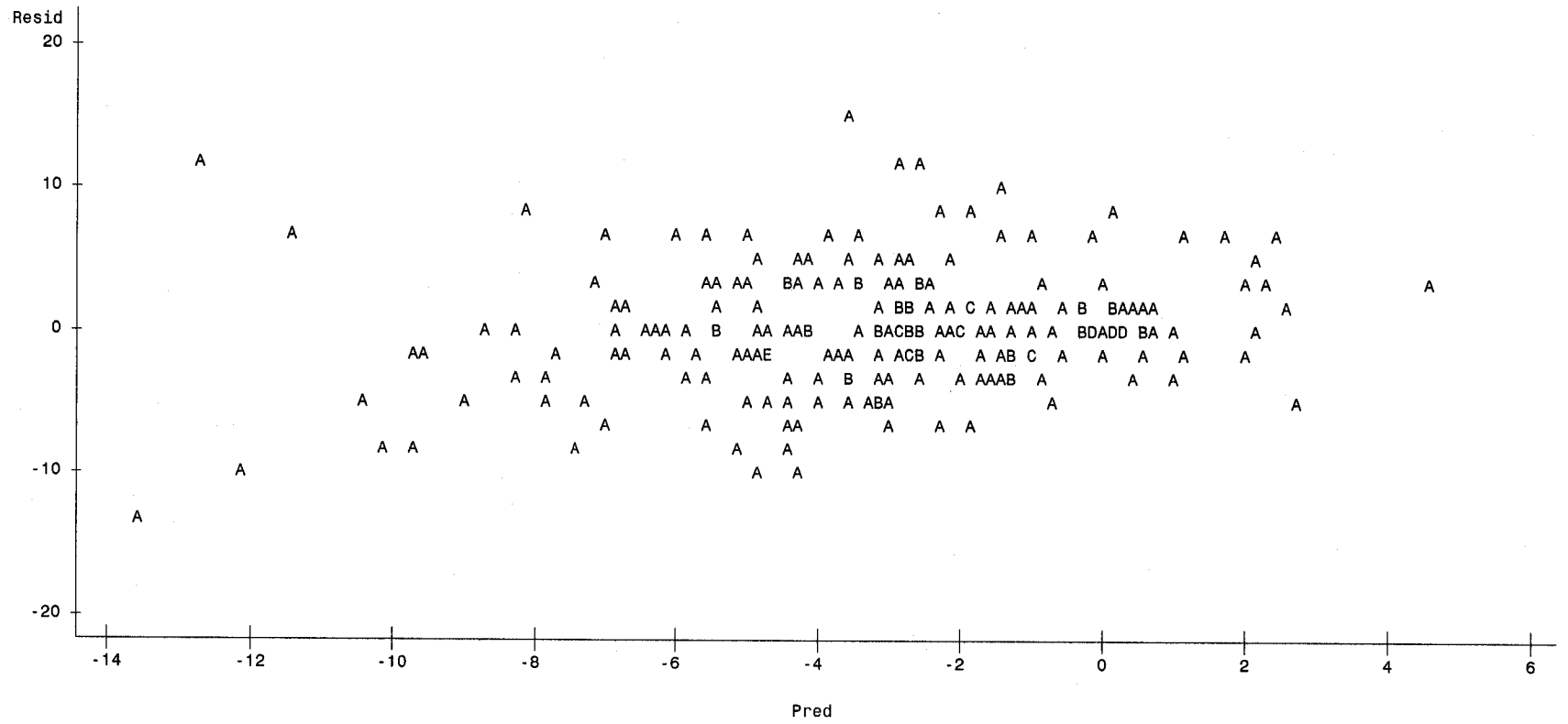
Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

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



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

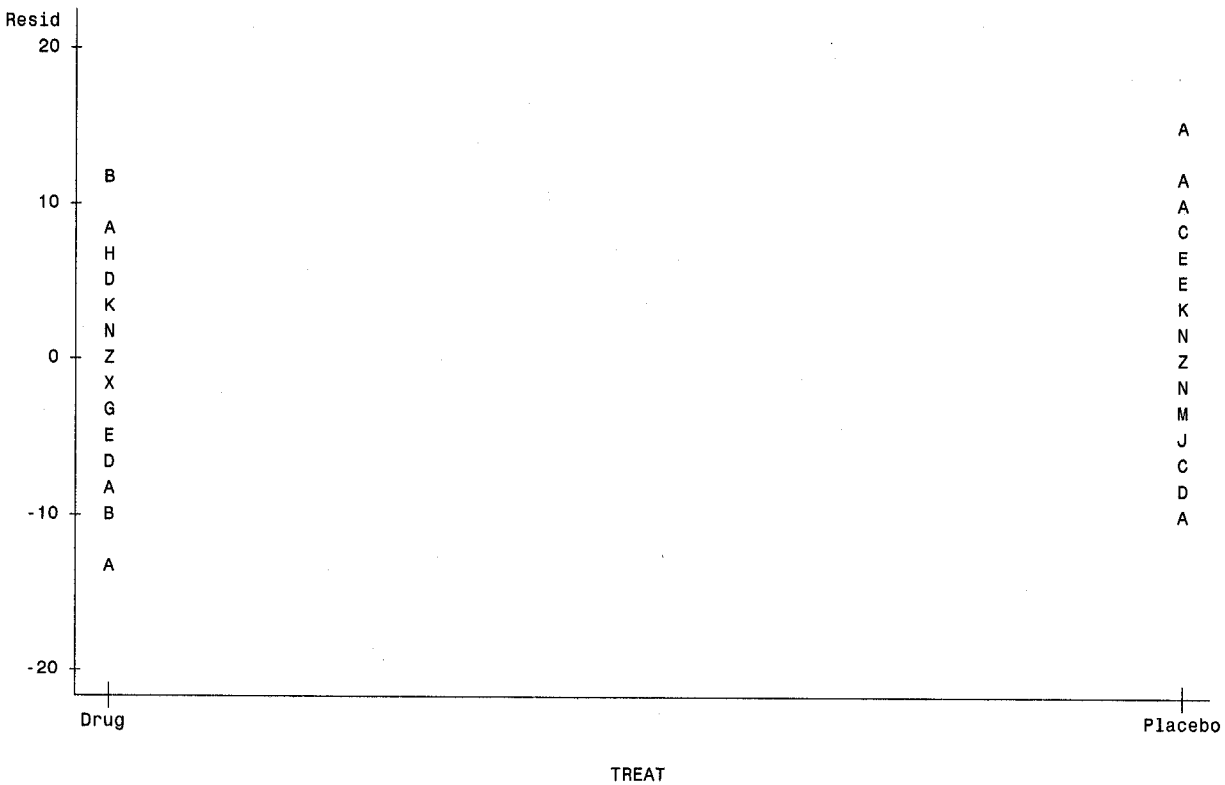
Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

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



NOTE: 4 obs hidden.

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	0	Sum Observations	0
Std Deviation	4.07269631	Variance	16.5868552
Skewness	-0.1105832	Kurtosis	1.53974122
Uncorrected SS	1857.72778	Corrected SS	1857.72778
Coeff Variation	.	Std Error Mean	0.38312704

Basic Statistical Measures

Location		Variability	
Mean	0.00000	Std Deviation	4.07270
Median	-0.16338	Variance	16.58686
Mode	.	Range	25.54653
		Interquartile Range	4.09600

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	-7.5	Pr >= |M|	0.1876
Signed Rank	S	-76.5	Pr >= |S|	0.8276

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.968625	Pr < W	0.0093
Kolmogorov-Smirnov	D	0.108039	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.267442	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.390331	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	11.791578
99%	11.265979
95%	6.693025
90%	4.735333
75% Q3	2.299644
50% Median	-0.163377
25% Q1	-1.796358
10%	-4.657492
5%	-6.105744
1%	-10.527252
0% Min	-13.754952

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-13.75495	6003	17	6.84109	7003	44
-10.52725	3001	67	7.27888	7042	63
-9.97511	7016	49	8.63549	4017	6
-8.60183	3005	69	11.26598	5027	90
-7.28843	5013	85	11.79158	3018	73

Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction

Checking the Treatment by Study Interaction Term to Test for Heterogeneity

Patient Is Random

Assuming Within Subject Variance Component Differs Across Studies

T0 = Baseline (A Covariate)

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

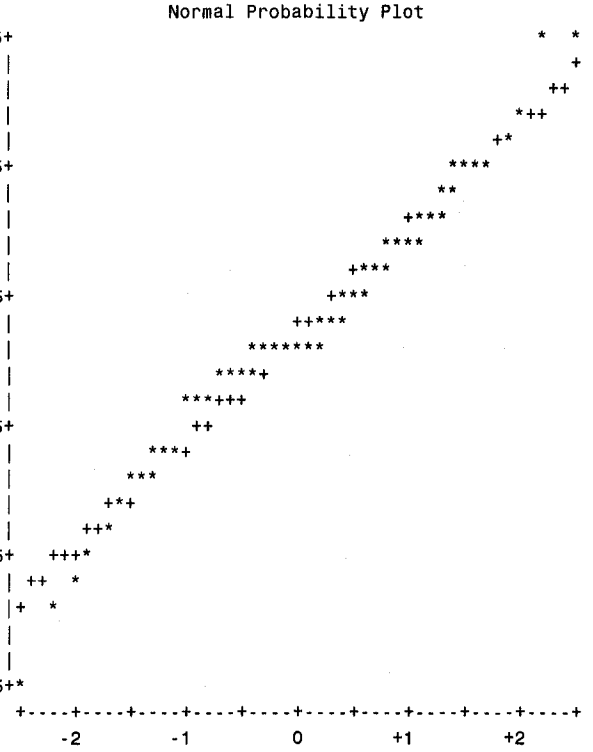
The UNIVARIATE Procedure

Variable: Resid

Stem	Leaf	#	Boxplot
11	38	2	0
10			
9			
8	6	1	0
7	3	1	|
6	56678	5	|
5	99	2	|
4	04457	5	|
3	2223457	7	|
2	1335578	7	+-----+
1	001455779	9	| |
0	0003355779	10	| + |
-0	99988876553322222111100	23	*-----*
-1	8766654331110	13	+-----+
-2	9633221000	10	|
-3	0	1	|
-4	731111	6	|
-5	875	3	|
-6	110	3	|
-7	3	1	|
-8	6	1	0
-9			
-10	50	2	0
-11			
-12			
-13	8	1	0

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

Normal Probability Plot



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	0	Sum Observations	0
Std Deviation	4.30317339	Variance	18.5173012
Skewness	0.53902843	Kurtosis	1.22272046
Uncorrected SS	2073.93774	Corrected SS	2073.93774
Coeff Variation	.	Std Error Mean	0.4048085

Basic Statistical Measures

Location		Variability	
Mean	0.00000	Std Deviation	4.30317
Median	-0.19976	Variance	18.51730
Mode	.	Range	25.33065
		Interquartile Range	5.10899

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	0	Pr > |t|	1.0000
Sign	M	-2.5	Pr >= |M|	0.7069
Signed Rank	S	-135.5	Pr >= |S|	0.6997

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.976426	Pr < W	0.0431
Kolmogorov-Smirnov	D	0.079645	Pr > D	0.0781
Cramer-von Mises	W-Sq	0.130784	Pr > W-Sq	0.0439
Anderson-Darling	A-Sq	0.723659	Pr > A-Sq	0.0597

Quantiles (Definition 5)

Quantile	Estimate
100% Max	15.391970
99%	12.079696
95%	7.531961
90%	5.664618
75% Q3	2.313038
50% Median	-0.199758
25% Q1	-2.795953
10%	-4.716551
5%	-7.074198
1%	-8.759991
0% Min	-9.938677

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

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

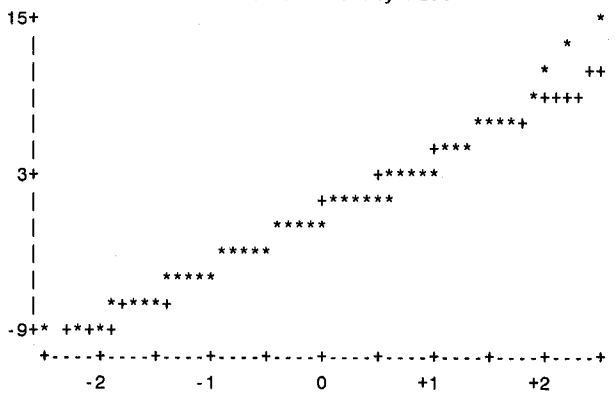
The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-9.93868	3044	80	7.80144	7001	42
-8.75999	7036	61	8.99372	7016	49
-8.67430	7018	51	10.27804	7017	50
-7.99236	6013	21	12.07970	4037	13
-7.95740	7048	65	15.39197	3026	75

Stem	Leaf	#	Boxplot
14	4	1	0
12	1	1	0
10	3	1	0
8	0	1	|
6	224758	6	|
4	0791479	7	|
2	1336666801248	13	+-----+
0	011333346778890003335677	24	| + |
-0	6322211877555443222211	22	*-----*
-2	775521109876333100	18	+-----+
-4	65176654330	11	|
-6	111	3	|
-8	98700	5	|

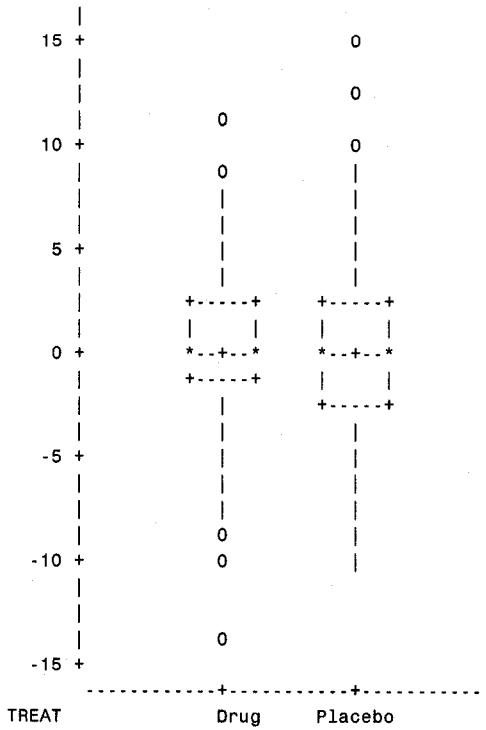
----+----+----+----+----



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 1: Fixed Effects Model to Test Heterogeneity, Adjusting for Baseline NAR (Nasal Airflow Resistance and Study with Treatment by Study Interaction
Checking the Treatment by Study Interaction Term to Test for Heterogeneity
Patient Is Random
Assuming Within Subject Variance Component Differs Across Studies
T0 = Baseline (A Covariate)

The UNIVARIATE Procedure
Variable: Resid

Schematic Plots



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Model Information

Data Set	WORK.TEN_MG
Dependent Variable	T90CHG
Covariance Structure	Compound Symmetry
Subject Effect	PATIENT(STUDY)
Group Effect	STUDY
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Prasad-Rao-Jeske-Kackar-Harville
Degrees of Freedom Method	Kenward-Roger

Class Level Information

Class	Levels	Values
STUDY	7	1 2 3 4 5 6 7
TREAT	2	Drug Placebo

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Class Level Information

Class	Levels	Values
PATIENT	113	1002 1007 1008 1011 1013 1016 1017 1018 1020 1026 1030 1031 1034 1035 1037 1038 2001 2005 2007 2012 2014 2018 2020 2021 2023 2024 3001 3003 3005 3008 3009 3015 3018 3023 3026 3032 3036 3039 3041 3044 3046 3048 4001 4003 4007 4010 4012 4017 4024 4026 4027 4030 4032 4034 4037 4039 4044 5001 5010 5013 5015 5021 5022 5025 5027 5029 5030 5032 5034 5035 5043 5046 6001 6003 6005 6008 6010 6013 6017 6023 6026 6031 6034 6040 6041 6044 6046 6048 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	14
Columns in X	11
Columns in Z	0
Subjects	113
Max Obs Per Subject	2
Observations Used	226

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Dimensions

Observations Not Used	0
Total Observations	226

Iteration History

Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	1381.29466155	
1	2	1259.74055804	0.00096416
2	1	1259.30826657	0.00005223
3	1	1259.28457087	0.00000047
4	1	1259.28436762	0.00000000

Convergence criteria met.

Covariance Parameter Estimates

Cov Parm	Subject	Group	Estimate
Variance	PATIENT(STUDY)	STUDY 1	7.6139
CS	PATIENT(STUDY)	STUDY 1	-2.9008
Variance	PATIENT(STUDY)	STUDY 2	0.7120
CS	PATIENT(STUDY)	STUDY 2	-0.1183
Variance	PATIENT(STUDY)	STUDY 3	37.0082
CS	PATIENT(STUDY)	STUDY 3	-4.9914
Variance	PATIENT(STUDY)	STUDY 4	31.5830
CS	PATIENT(STUDY)	STUDY 4	-10.8219
Variance	PATIENT(STUDY)	STUDY 5	27.0711

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Covariance Parameter Estimates

Cov Parm	Subject	Group	Estimate
CS	PATIENT(STUDY)	STUDY 5	-9.1721
Variance	PATIENT(STUDY)	STUDY 6	29.0057
CS	PATIENT(STUDY)	STUDY 6	11.6354
Variance	PATIENT(STUDY)	STUDY 7	38.2999
CS	PATIENT(STUDY)	STUDY 7	18.5522

Fit Statistics

-2 Res Log Likelihood	1259.3
AIC (smaller is better)	1287.3
AICC (smaller is better)	1289.4
BIC (smaller is better)	1325.5

Null Model Likelihood Ratio Test

DF	Chi-Square	Pr > ChiSq
13	122.01	<.0001

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
T0	1	83.5	20.04	<.0001
STUDY	6	44.2	2.36	0.0463

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

The Mixed Procedure

Type 3 Tests of Fixed Effects

Effect	Num DF	Den DF	F Value	Pr > F
TREAT	1	16.4	64.69	<.0001

Least Squares Means

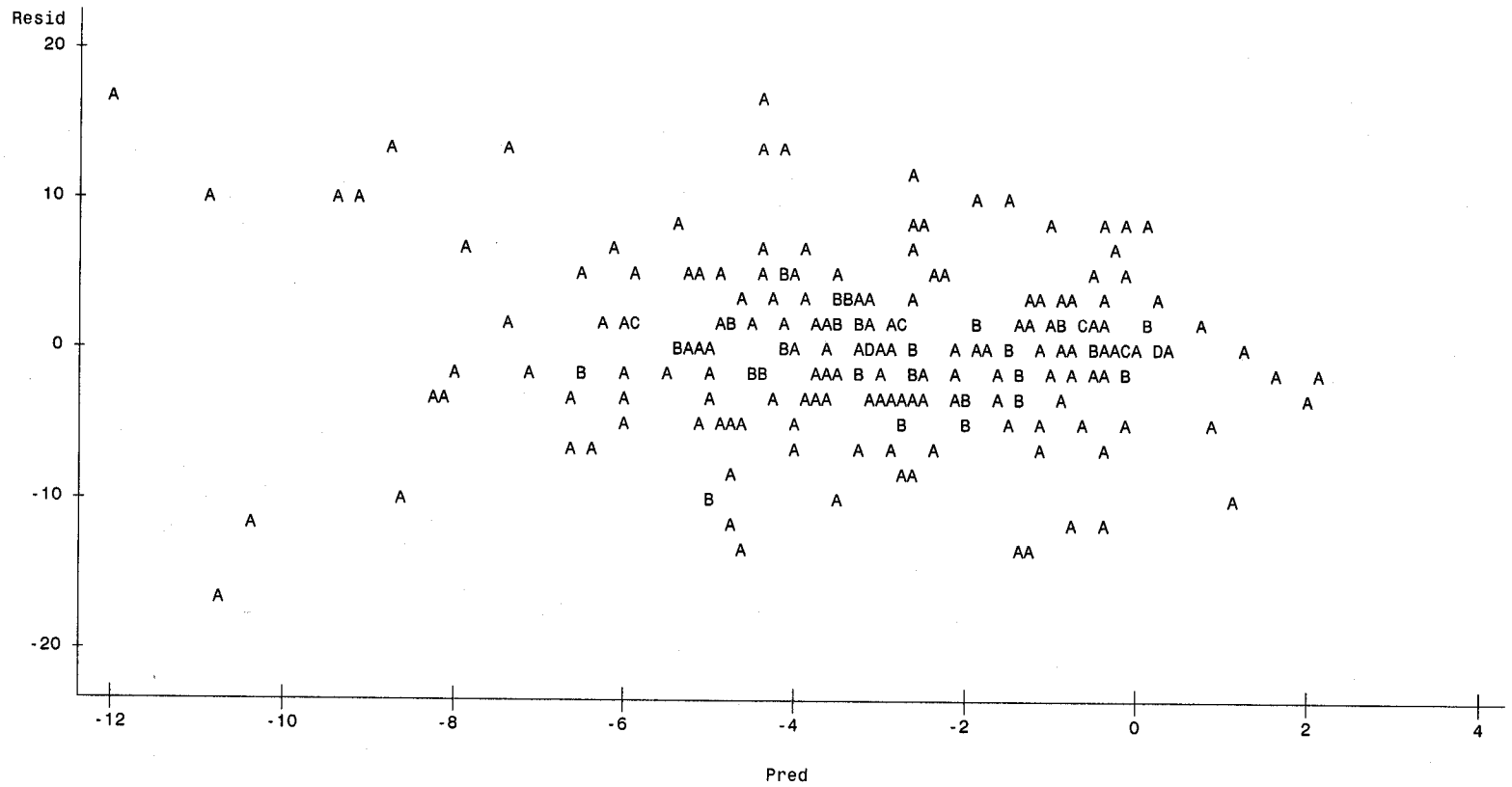
Effect	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	-4.6626	0.3562	81.9	-13.09	<.0001	0.05	-5.3713	-3.9539
TREAT	Placebo	-1.8617	0.3572	82.3	-5.21	<.0001	0.05	-2.5722	-1.1512

Differences of Least Squares Means

Effect	TREAT	TREAT	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
TREAT	Drug	Placebo	-2.8009	0.3483	16.4	-8.04	<.0001	0.05	-3.5377	-2.0641

Appendix 3
Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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



Meta-Analysis of Phenylephrine vs. Placebo

Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes

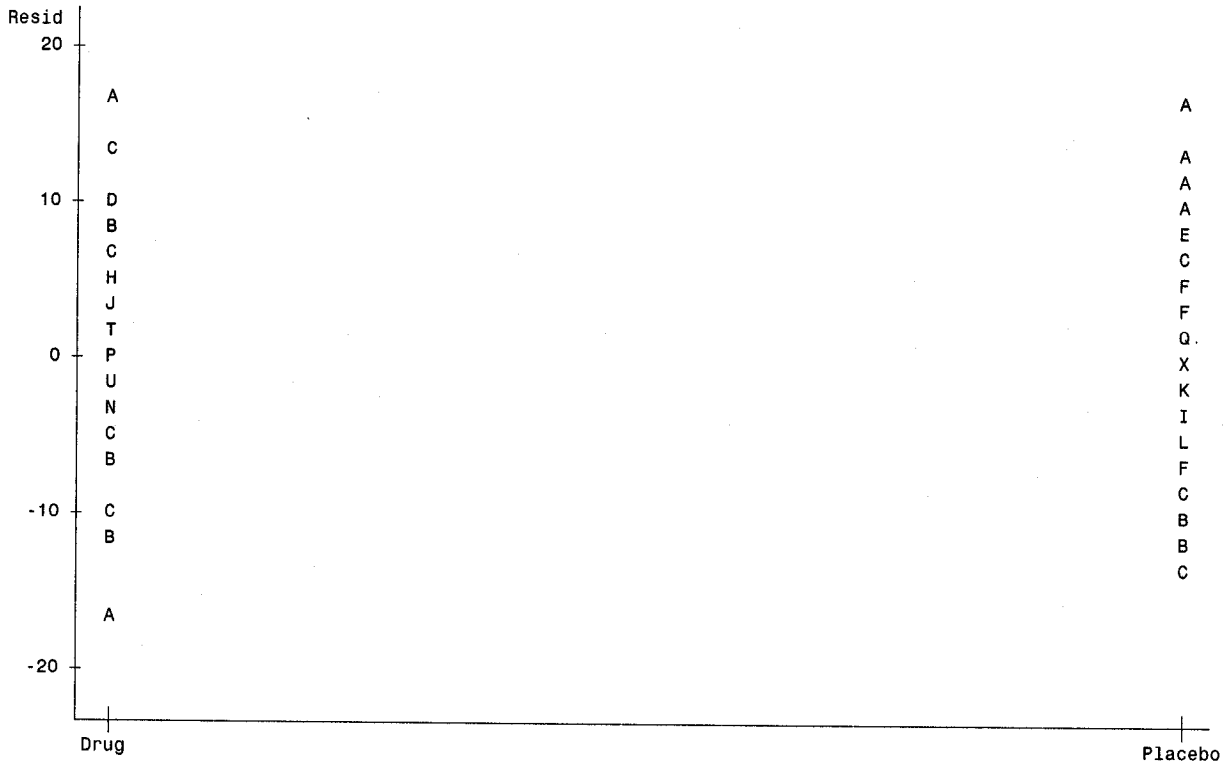
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction

Patient Is Random

Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies

T0 = Baseline (A Covariate)

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



Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	0.56725195	Sum Observations	64.0994704
Std Deviation	5.12292581	Variance	26.2443689
Skewness	0.05634578	Kurtosis	1.73602081
Uncorrected SS	2975.72986	Corrected SS	2939.36931
Coeff Variation	903.112949	Std Error Mean	0.48192432

Basic Statistical Measures

Location		Variability	
Mean	0.567252	Std Deviation	5.12293
Median	0.265693	Variance	26.24437
Mode	.	Range	32.47032
		Interquartile Range	4.64845

Tests for Location: Mu0=0

Test		-Statistic-	-----p Value------	
Student's t	t	1.177056	Pr > |t|	0.2417
Sign	M	2.5	Pr >= |M|	0.7069
Signed Rank	S	368.5	Pr >= |S|	0.2931

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Tests for Normality

Test		--Statistic---		-----p Value------
Shapiro-Wilk	W	0.958441	Pr < W	0.0014
Kolmogorov-Smirnov	D	0.095812	Pr > D	0.0118
Cramer-von Mises	W-Sq	0.281189	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.719315	Pr > A-Sq	<0.0050

Quantiles (Definition 5)

Quantile	Estimate
100% Max	15.889562
99%	13.369339
95%	10.260213
90%	6.639946
75% Q3	2.773230
50% Median	0.265693
25% Q1	-1.875225
10%	-4.133814
5%	-9.660002
1%	-12.311334
0% Min	-16.580757

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Extreme Observations

----------Lowest----------			----------Highest----------		
Value	PATIENT	Obs	Value	PATIENT	Obs
-16.5808	6003	17	10.3031	7021	53
-12.3113	3001	67	12.6349	7002	43
-11.3404	7030	57	12.7991	5027	90
-10.0512	3005	69	13.3693	7028	56
-9.8352	7016	49	15.8896	7042	63

Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

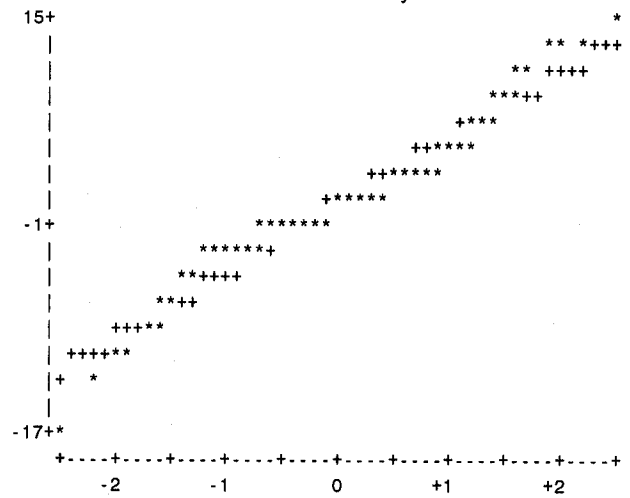
---------- TREAT=Drug ----------

The UNIVARIATE Procedure
Variable: Resid

Stem	Leaf	#	Boxplot
14	9	1	0
12	684	3	0
10	33	2	0
8	569	3	0
6	1647	4	|
4	45990225	8	|
2	00123346780046889	17	+-----+
0	223456669900144455679	21	*--+--*
-0	99987765532220099977753222	26	+-----+
-2	8644330876665310	16	|
-4	3721	4	|
-6	52	2	|
-8	87	2	0
-10	31	2	0
-12	3	1	0
-14			
-16	6	1	*

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

Normal Probability Plot



Appendix 3
Meta-Analysis of Phenylephrine vs. Placebo
Performing Analysis of Covariance by Time Point: Change from Baseline Nasal Airflow Resistance (NAR) at 90 Minutes
Model 2: Fixed Effects Model, Adjusting for Baseline Nasal Airflow Resistance and Study without Treatment by Study Interaction
Patient Is Random
Assuming Within Subject Variance Component and Between Subject Variance Component Differ Across Studies
T0 = Baseline (A Covariate)

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

The UNIVARIATE Procedure
Variable: Resid

Moments

N	113	Sum Weights	113
Mean	-0.567252	Sum Observations	-64.09947
Std Deviation	5.40493983	Variance	29.2133745
Skewness	0.13876173	Kurtosis	0.86836453
Uncorrected SS	3308.2585	Corrected SS	3271.89795
Coeff Variation	-952.82878	Std Error Mean	0.50845397

Basic Statistical Measures

Location		Variability	
Mean	-0.56725	Std Deviation	5.40494
Median	-0.14057	Variance	29.21337
Mode	.	Range	30.15484
		Interquartile Range	6.12792

Tests for Location: Mu0=0

Test	-Statistic-		-----p Value------	
Student's t	t	-1.11564	Pr > |t|	0.2670
Sign	M	-3.5	Pr >= |M|	0.5727
Signed Rank	S	-404.5	Pr >= |S|	0.2483