Analysis of blood lead levels -- Multivariate Normal Model

Model Information	
Data Set	WORK.ANALYSIS_DATA
Dependent Variable	bloodlevel
Covariance Structure	Unstructured
Subject Effect	id
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Kenward-Roger2
Degrees of Freedom Method	Kenward-Roger2

Class Level Information		
Class	**Levels**	**Values**
trt	2	A P
week	4	0 1 4 6

Dimensions	
Covariance Parameters	10
Columns in X	8
Columns in Z	0
Subjects	100
Max Obs per Subject	4

Number of Observations	
Number of Observations Read	400
Number of Observations Used	400
Number of Observations Not Used	0

Iteration History			
Iteration	**Evaluations**	**-2 Res Log Like**	**Criterion**
0	1	2626.25517748	
1	1	2416.07594087	0.00000000

Convergence criteria met.

Estimated R Matrix for Subject 1				
Row	**Col1**	**Col2**	**Col3**	**Col4**
1	25.2257	19.1074	19.6995	22.2016
2	19.1074	44.3458	35.5351	29.6750
3	19.6995	35.5351	47.3778	30.6205
4	22.2016	29.6750	30.6205	58.6510

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Covariance Parameter Estimates		
Cov Parm	Subject	Estimate
UN(1,1)	id	25.2257
UN(2,1)	id	19.1074
UN(2,2)	id	44.3458
UN(3,1)	id	19.6995
UN(3,2)	id	35.5351
UN(3,3)	id	47.3778
UN(4,1)	id	22.2016
UN(4,2)	id	29.6750
UN(4,3)	id	30.6205
UN(4,4)	id	58.6510

Fit Statistics	
-2 Res Log Likelihood	2416.1
AIC (Smaller is Better)	2436.1
AICC (Smaller is Better)	2436.7
BIC (Smaller is Better)	2462.1

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
9	210.18	<.0001

Solution for Fixed Effects							
Effect	trt	week	Estimate	Standard Error	DF	t Value	Pr > |t|
trt*week	A	0	26.5400	0.7103	98	37.36	<.0001
trt*week	A	1	13.5220	0.9418	98	14.36	<.0001
trt*week	A	4	15.5140	0.9734	98	15.94	<.0001
trt*week	A	6	20.7620	1.0831	98	19.17	<.0001
trt*week	P	0	26.2720	0.7103	98	36.99	<.0001
trt*week	P	1	24.6600	0.9418	98	26.18	<.0001
trt*week	P	4	24.0700	0.9734	98	24.73	<.0001
trt*week	P	6	23.6460	1.0831	98	21.83	<.0001

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
trt*week	8	134	346.85	<.0001

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Estimates					
Label	Estimate	Standard Error	DF	t Value	Pr > |t|
Week 1	-11.1380	1.3319	98	-8.36	<.0001
Week 4	-8.5560	1.3766	98	-6.22	<.0001
Week 6	-2.8840	1.5317	98	-1.88	0.0627

Contrasts				
Label	Num DF	Den DF	F Value	Pr > F
Treatment Effect	3	96	27.32	<.0001

Residuals for bloodlevel
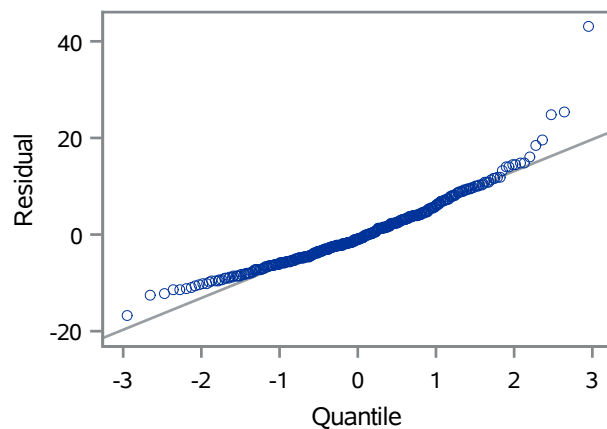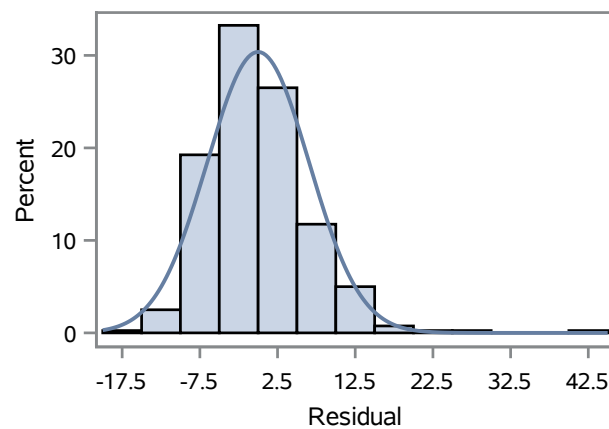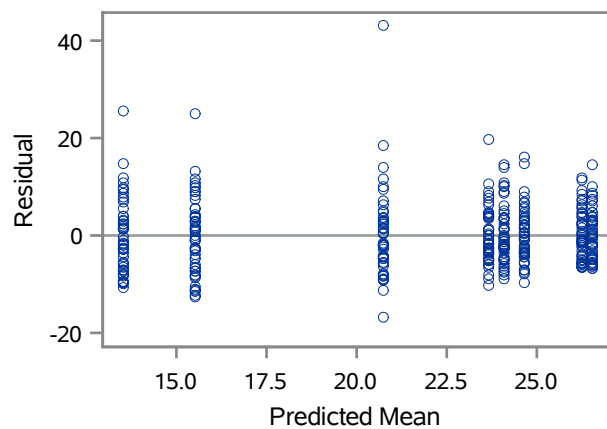
Residual Statistics	
Observations	400
Minimum	-16.66
Mean	5E-14
Maximum	43.138
Std Dev	6.5673

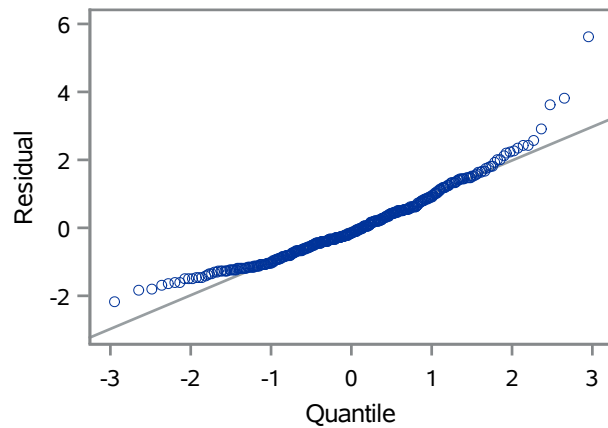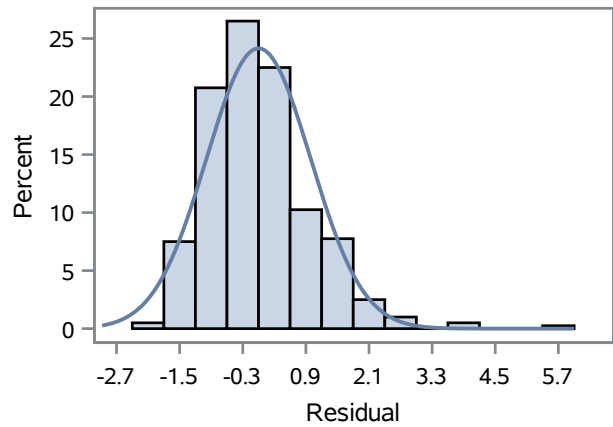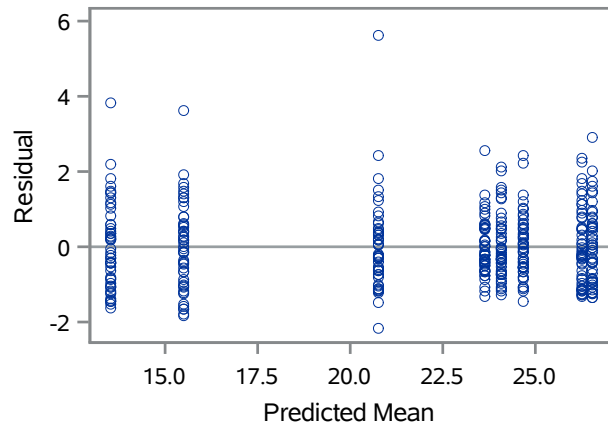| Fit Statistics	
Objective	2416.1
AIC	2436.1
AICC	2436.7
BIC	2462.1

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Studentized Residuals for bloodlevel
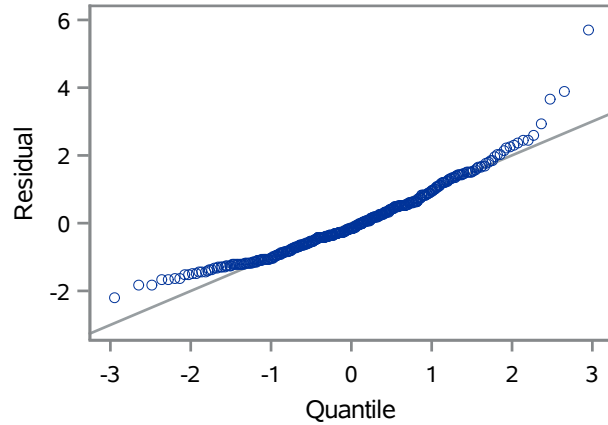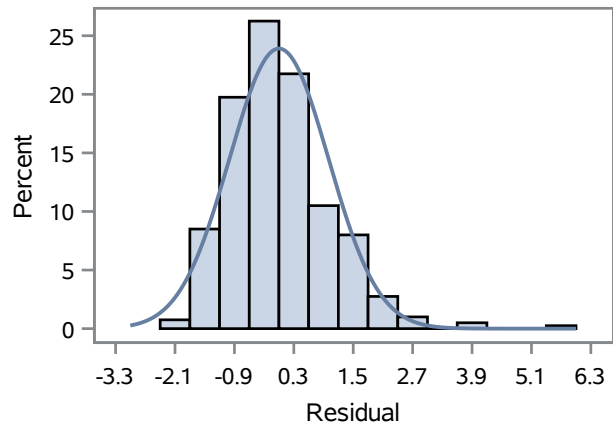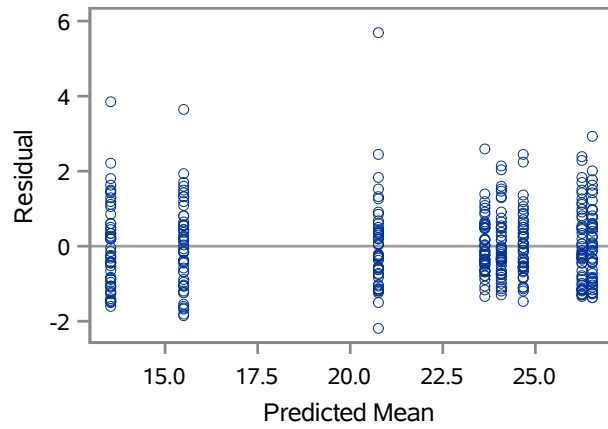
Residual Statistics	
Observations	400
Minimum	-2.198
Mean	76E-16
Maximum	5.69
Std Dev	1.0013
Fit Statistics	
Objective	2416.1
AIC	2436.1
AICC	2436.7
BIC	2462.1

Pearson Residuals for bloodlevel

Residual Statistics	
Observations	400
Minimum	-2.176
Mean	75E-16
Maximum	5.6328
Std Dev	0.9912
Fit Statistics	
Objective	2416.1
AIC	2436.1
AICC	2436.7
BIC	2462.1

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Scaled Residuals for bloodlevel

Residual Statistics	
Observations	400
Minimum	-3.986
Mean	45E-16
Maximum	6.9349
Std Dev	0.9912
Fit Statistics	
Objective	2416.1
AIC	2436.1
AICC	2436.7
BIC	2462.1
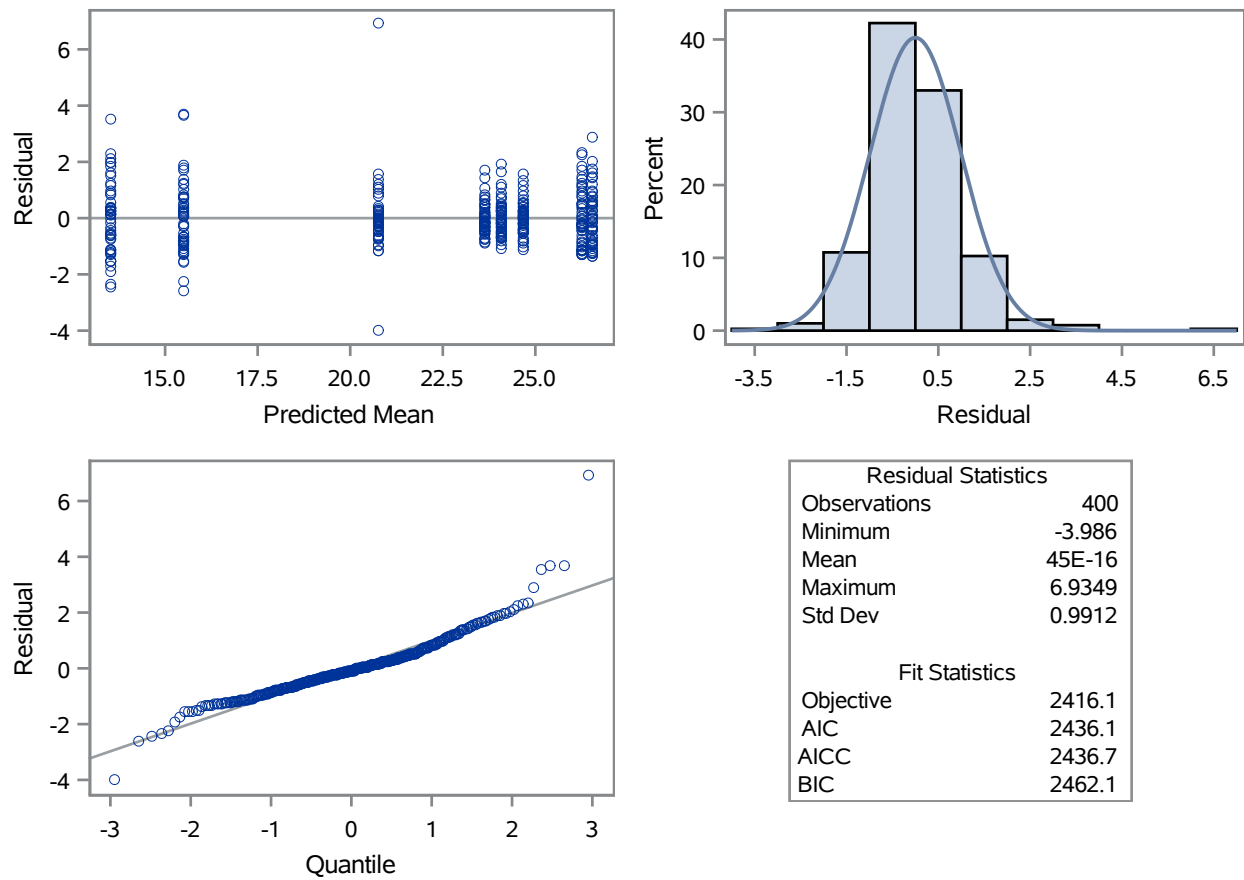
Distribution of Residuals for bloodlevel

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Distribution of Residuals for bloodlevel