

Analysis of blood lead levels -- Generalized Estimating Equations

Model Information	
Data Set	WORK.ANALYSIS_DATA
Distribution	Normal
Link Function	Identity
Dependent Variable	bloodlevel

Number of Observations Read	400
Number of Observations Used	400

Class Level Information		
Class	Levels	Values
trt	2	A P
week	4	0 1 4 6
id	100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 ...

Parameter Information			
Parameter	Effect	trt	week
Prm1	Intercept		
Prm2	trt*week	A	0
Prm3	trt*week	A	1
Prm4	trt*week	A	4
Prm5	trt*week	A	6
Prm6	trt*week	P	0
Prm7	trt*week	P	1
Prm8	trt*week	P	4
Prm9	trt*week	P	6

Algorithm converged.

GEE Model Information	
Correlation Structure	AR(1)
Subject Effect	id (100 levels)
Number of Clusters	100
Correlation Matrix Dimension	4
Maximum Cluster Size	4
Minimum Cluster Size	4

Algorithm converged.

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Working Correlation Matrix				
	Col1	Col2	Col3	Col4
Row1	1.0000	0.6518	0.4249	0.2770
Row2	0.6518	1.0000	0.6518	0.4249
Row3	0.4249	0.6518	1.0000	0.6518
Row4	0.2770	0.4249	0.6518	1.0000

GEE Fit Criteria	
QIC	407.6800
QICu	408.0000

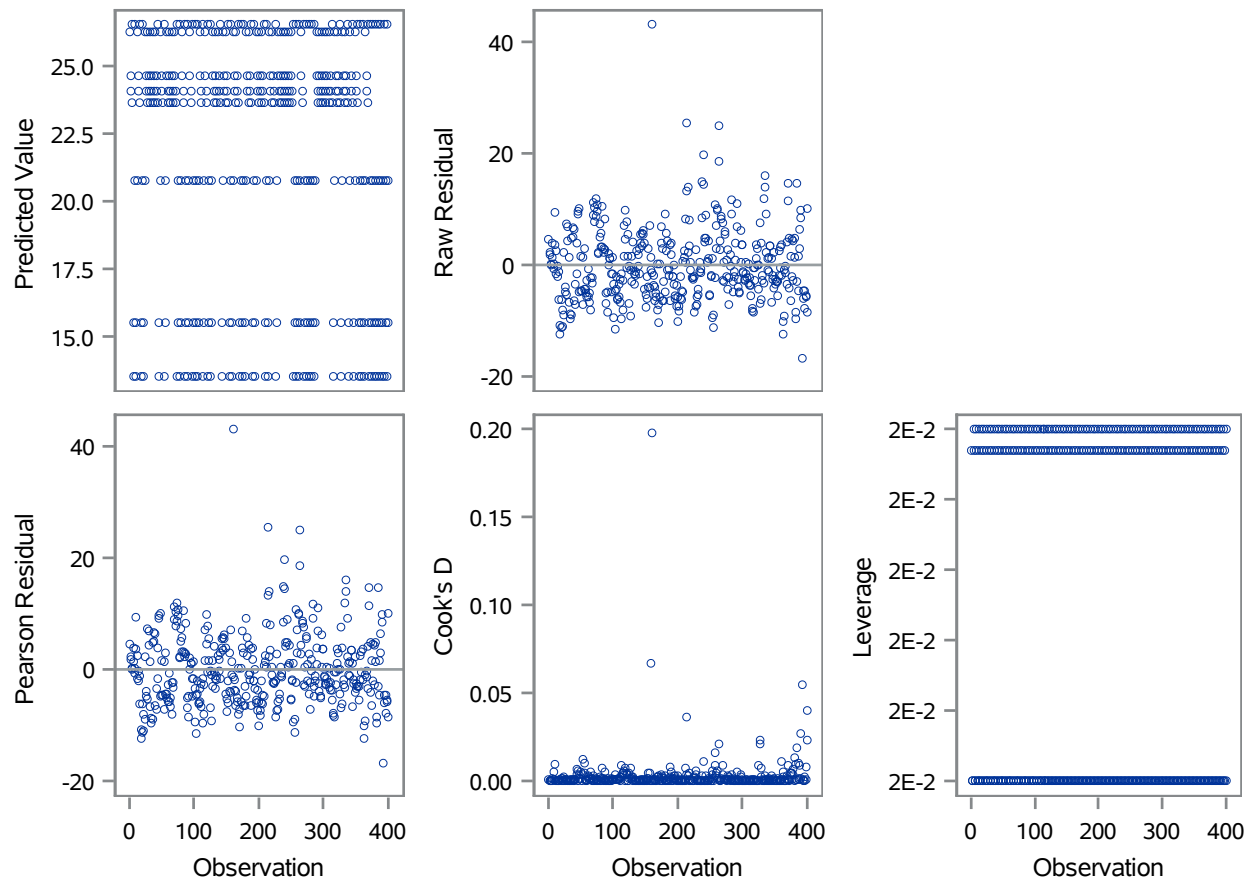
Analysis Of GEE Parameter Estimates								
Empirical Standard Error Estimates								
Parameter			Estimate	Standard Error	95% Confidence Limits		Z	Pr > Z
Intercept			0.0000	0.0000	0.0000	0.0000	.	.
trt*week	A	0	26.5400	0.7029	25.1623	27.9177	37.76	<.0001
trt*week	A	1	13.5220	1.0741	11.4167	15.6273	12.59	<.0001
trt*week	A	4	15.5140	1.0993	13.3594	17.6686	14.11	<.0001
trt*week	A	6	20.7620	1.2945	18.2249	23.2991	16.04	<.0001
trt*week	P	0	26.2720	0.7034	24.8934	27.6506	37.35	<.0001
trt*week	P	1	24.6600	0.7646	23.1615	26.1585	32.25	<.0001
trt*week	P	4	24.0700	0.8054	22.4914	25.6486	29.88	<.0001
trt*week	P	6	23.6460	0.7896	22.0985	25.1935	29.95	<.0001

Contrast Estimate Results										
Label	Mean Estimate	Mean		L'Beta Estimate	Standard Error	Alpha	L'Beta		Chi-Square	Pr > ChiSq
		Confidence Limits					Confidence Limits			
Week 1	-11.1380	-13.7221	-8.5539	-11.1380	1.3185	0.05	-13.7221	-8.5539	71.36	<.0001
Week 4	-8.5560	-11.2270	-5.8850	-8.5560	1.3628	0.05	-11.2270	-5.8850	39.42	<.0001
Week 6	-2.8840	-5.8559	0.0879	-2.8840	1.5163	0.05	-5.8559	0.0879	3.62	0.0572

Contrast Results for GEE Analysis				
Contrast	DF	Chi-Square	Pr > ChiSq	Type
Treatment Effect	3	46.05	<.0001	Score

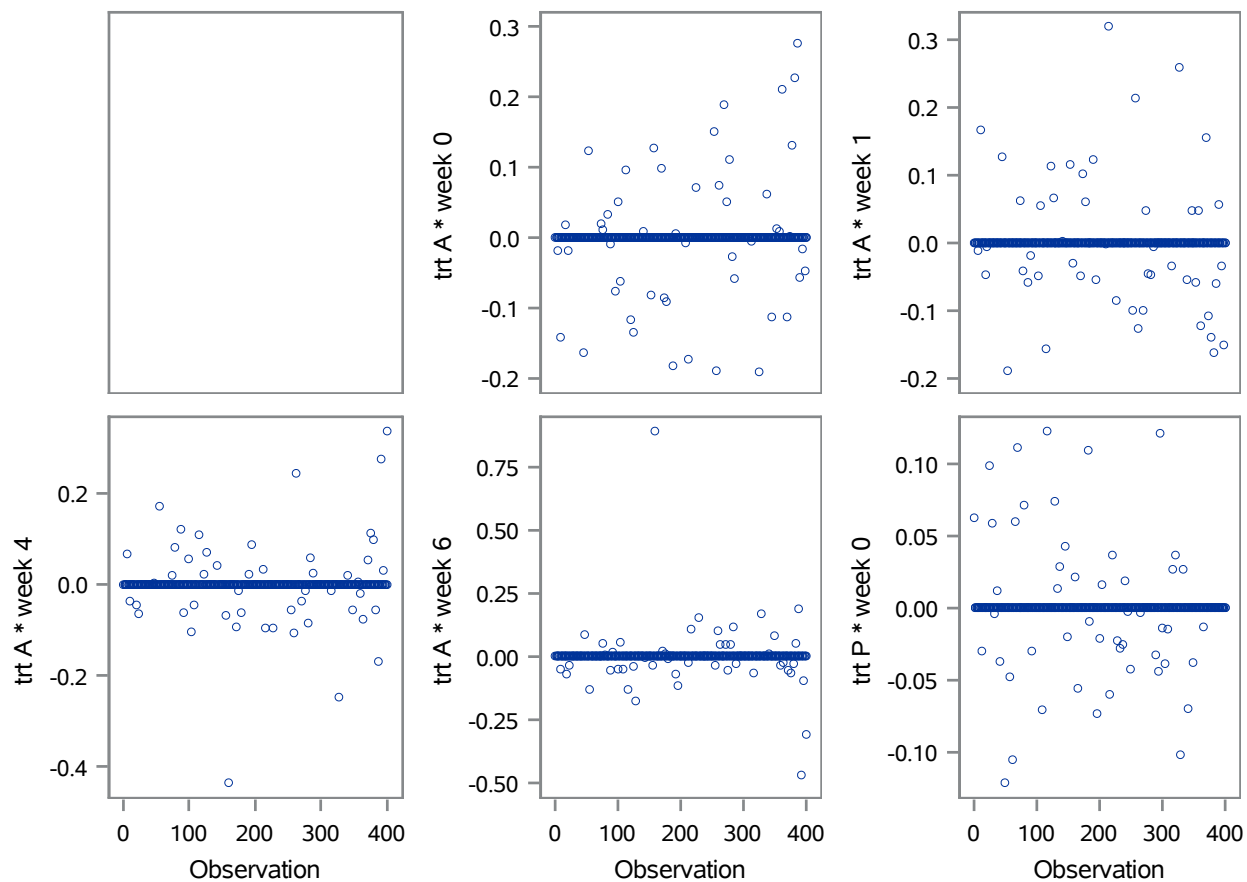
Analysis of blood lead levels -- Generalized Estimating Equations

Diagnostic Statistics for bloodlevel

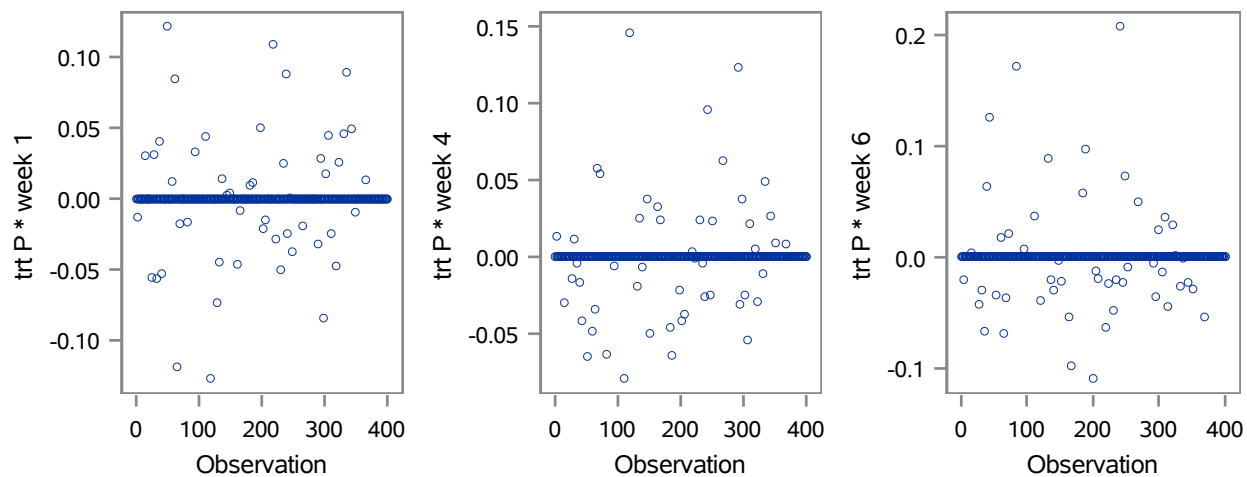


Analysis of blood lead levels -- Generalized Estimating Equations

Unstandardized DFBETA Plots for bloodlevel

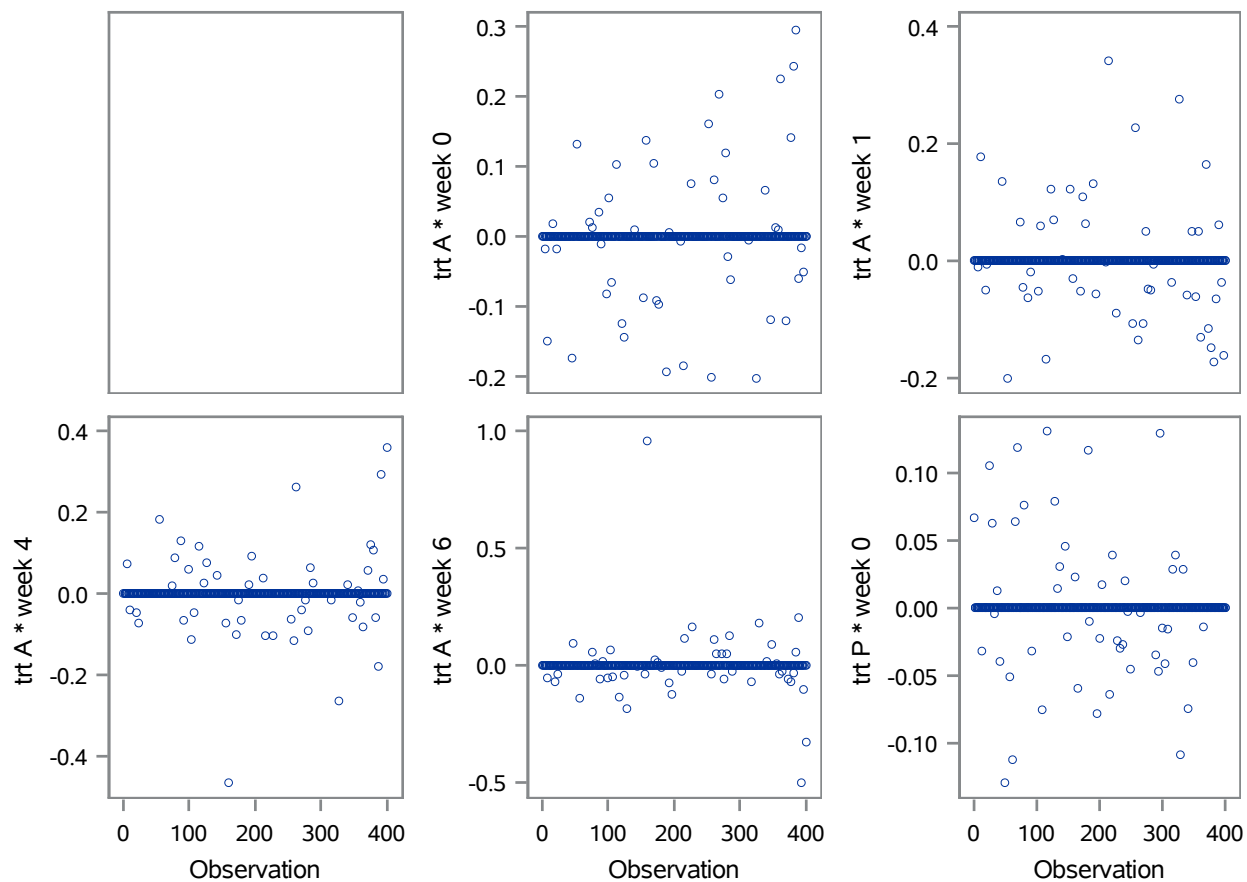


Unstandardized DFBETA Plots for bloodlevel

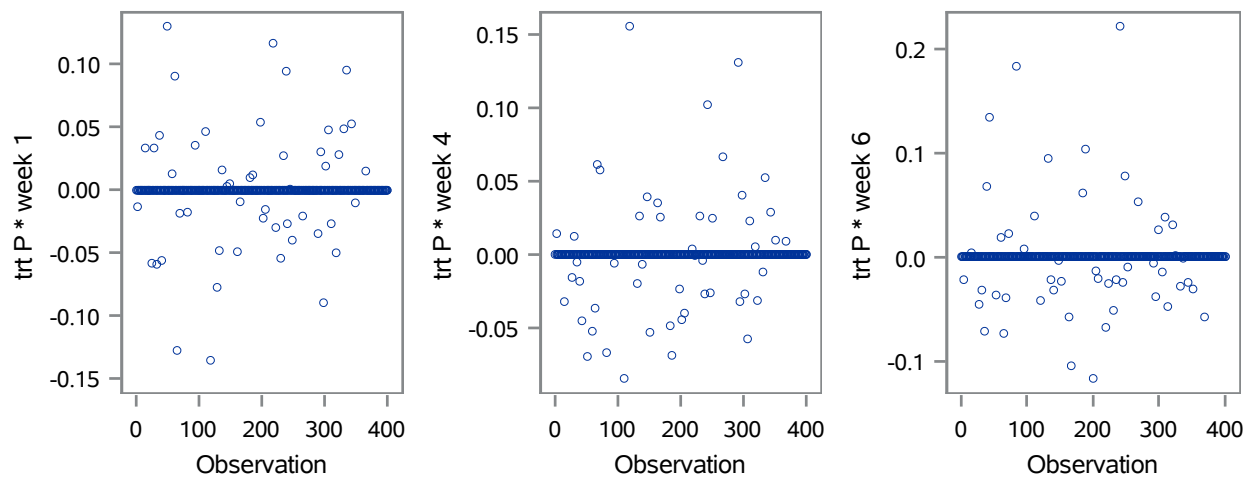


Analysis of blood lead levels -- Generalized Estimating Equations

Standardized DFBETA Plots for bloodlevel

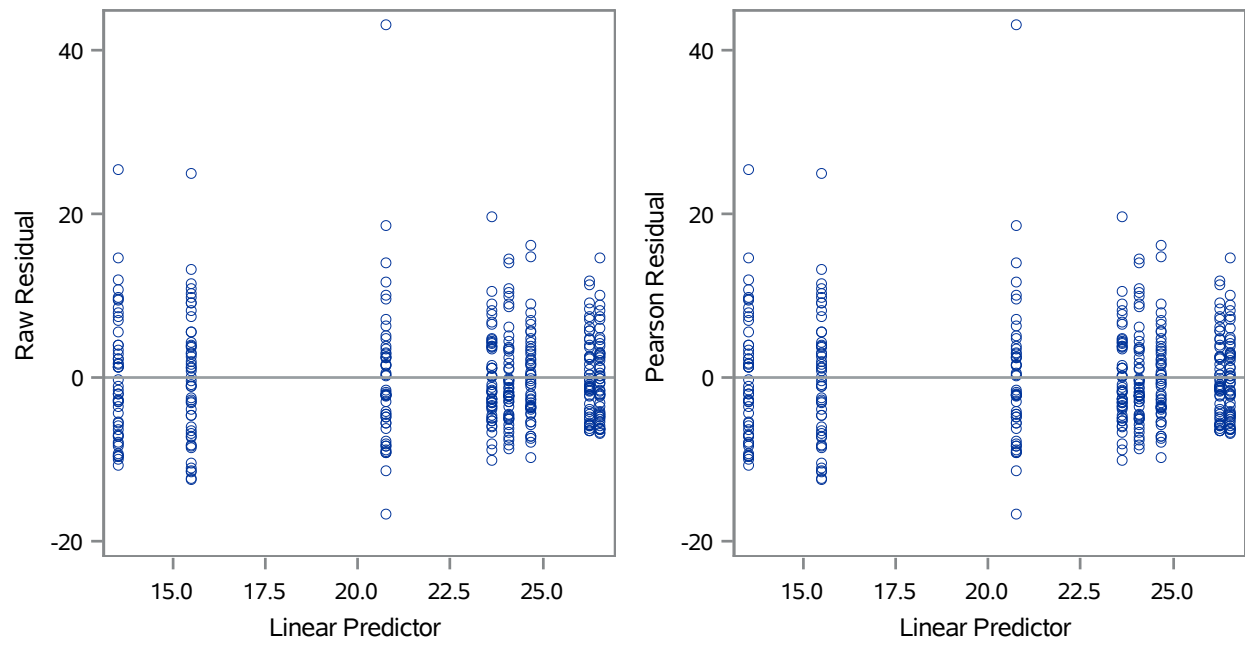


Standardized DFBETA Plots for bloodlevel



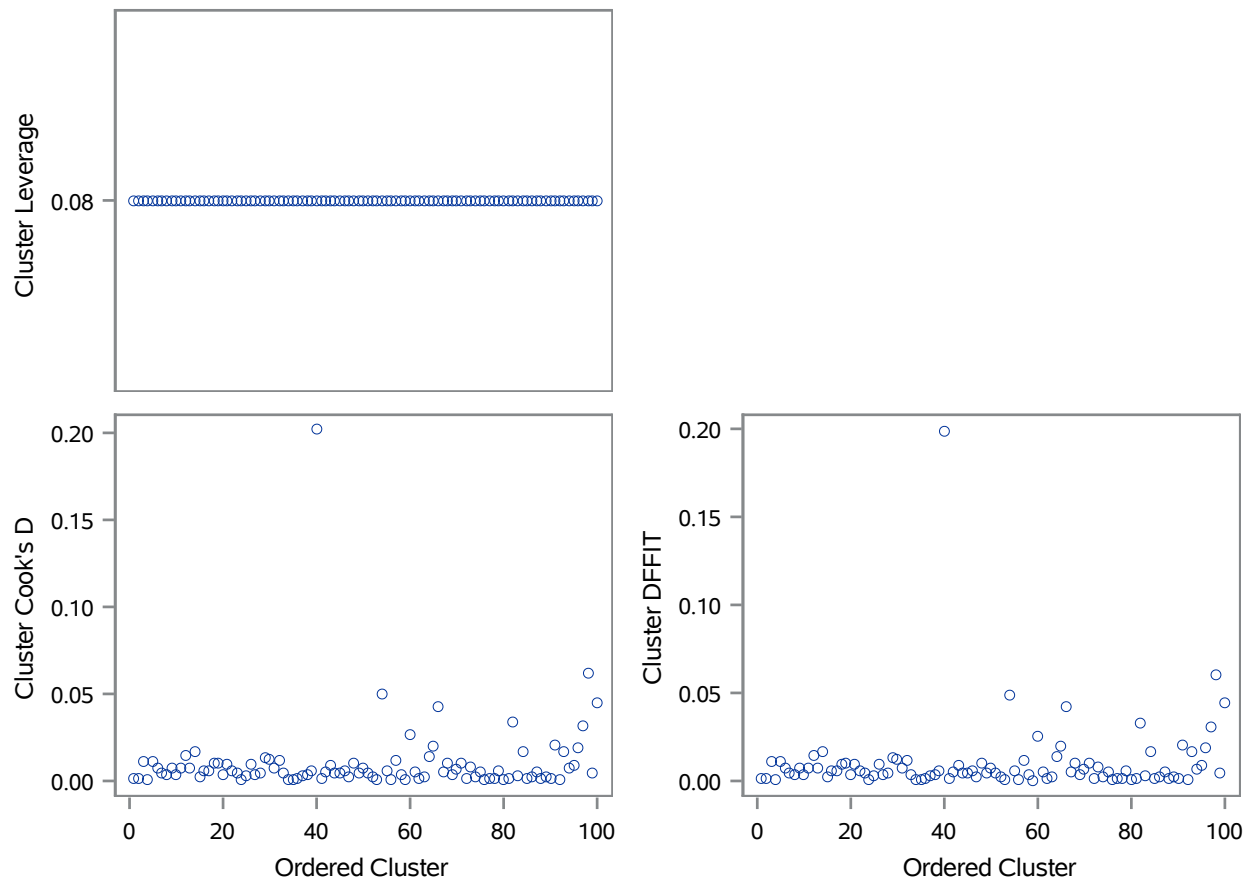
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Diagnostic Statistics for bloodlevel



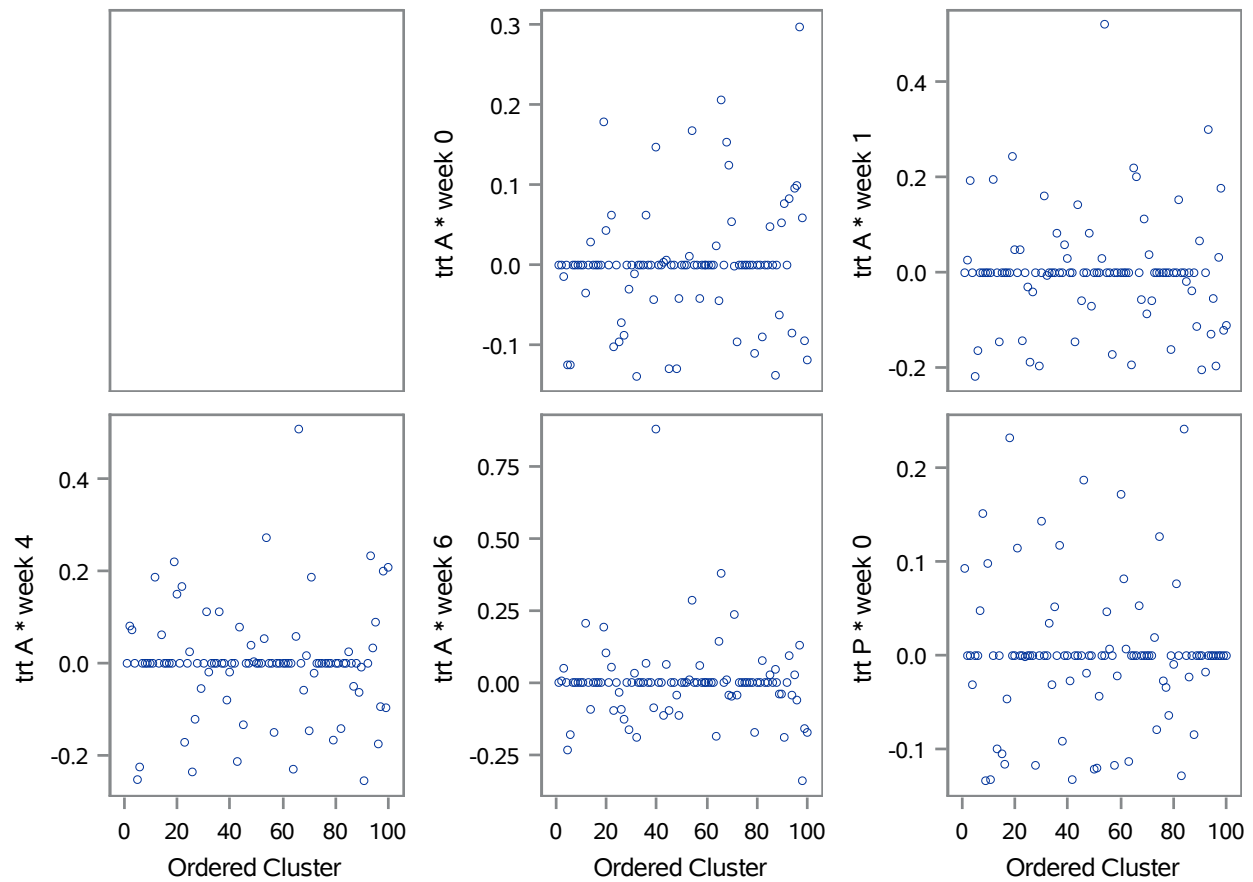
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GEE Diagnostic Statistics for bloodlevel

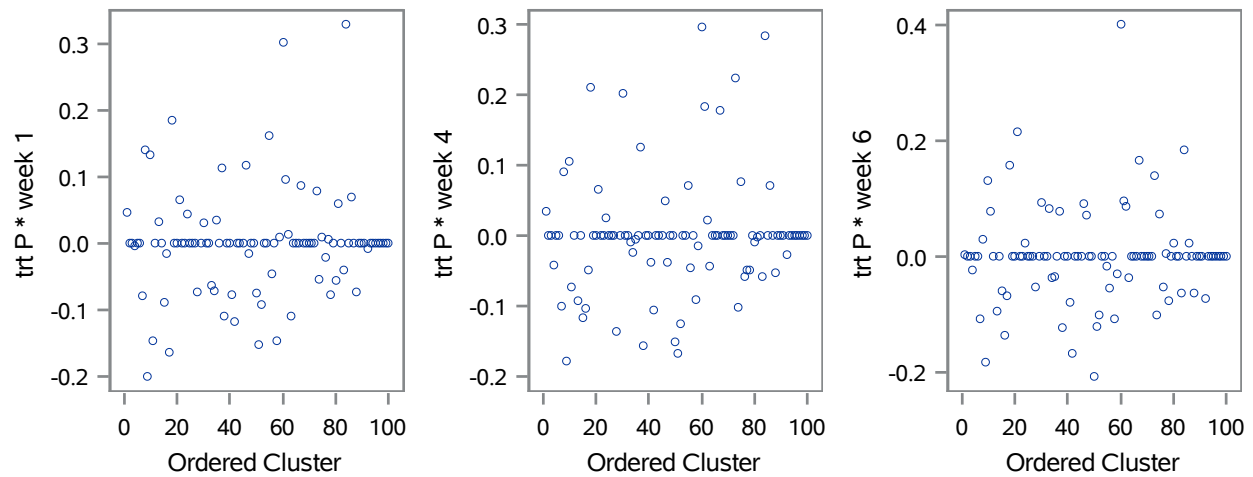


Analysis of blood lead levels -- Generalized Estimating Equations

Unstandardized Cluster DFBETA Plots for bloodlevel

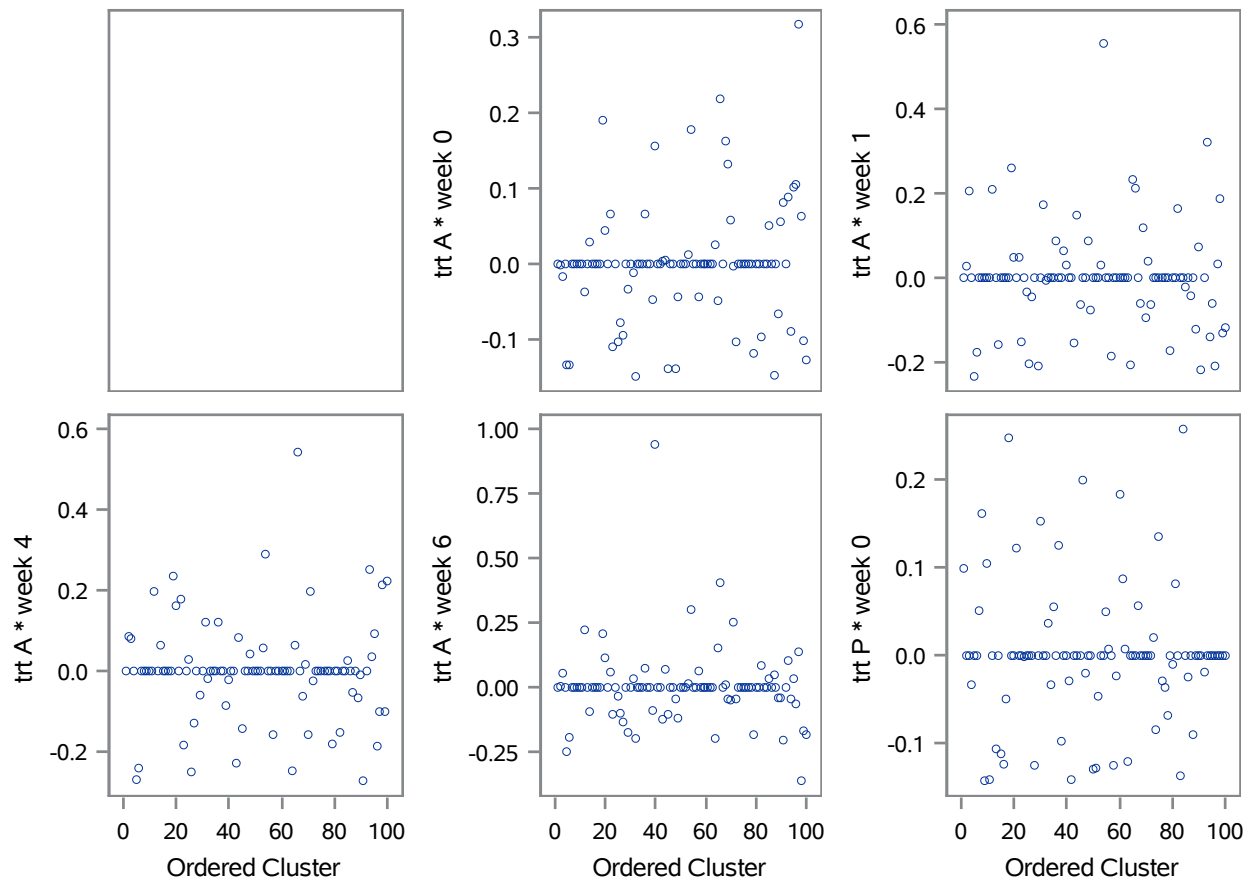


Unstandardized Cluster DFBETA Plots for bloodlevel



Analysis of blood lead levels -- Generalized Estimating Equations

Standardized Cluster DFBETA Plots for bloodlevel



Standardized Cluster DFBETA Plots for bloodlevel

