The CONTENTS Procedure

Data Set Name	WORK.DAT	Observations	188
Member Type	DATA	Variables	8
Engine	V9	Indexes	0
Created	05/05/2019 13:24:20	Observation Length	48
Last Modified	05/05/2019 13:24:20	Deleted Observations	0
Protection		Compressed	NO
Data Set Type		Sorted	NO
Label			
Data Representation	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
Encoding	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information					
Data Set Page Size	131072				
Number of Data Set Pages	1				
First Data Page	1				
Max Obs per Page	2722				
Obs in First Data Page	188				
Number of Data Set Repairs	0				
Filename	/saswork/SAS_workF6CA00011F3B_odaws01-prod-us/SAS_workE83500011F3B_odaws01-prod-us/dat.sas7bdat				
Release Created	9.0401M5				
Host Created	Linux				
Inode Number	604181				
Access Permission	rw-rr-				
Owner Name	sk43820				
File Size	256KB				
File Size (bytes)	262144				

	Alphabetic List of Variables and Attributes						
#	Variable	Туре	Len	Format	Informat		
3	Age	Num	8	BEST12.	BEST32.		
6	Day	Char	3	\$3.	\$3.		
4	Gender	Char	3	\$3.	\$3.		
7	MEM_Comp	Num	8	BEST12.	BEST32.		
2	Subject_ID	Num	8	BEST12.	BEST32.		
5	Treatment_Group	Char	3	\$3.	\$3.		
1	VAR1	Char	4	\$4.	\$4.		
8	missing	Num	8	BEST12.	BEST32.		

The LOGISTIC Procedure

Model Information					
Data Set	WORK.DAT				
Response Variable	missing				
Number of Response Levels	2				
Model	binary logit				
Optimization Technique	Fisher's scoring				

Number of Observations Read	141
Number of Observations Used	141

Response Profile					
Ordered Value	Total Frequency				
1	0	111			
2	1	30			

Probability modeled is missing='0'.

Class Level Information						
Class	Value	Design Variables				
Gender	F	0				
	М	1				
Treatment_Group	Α	0 (
	В	1	0			
	С	0	1			
Day	19	1	0			
	5	0	0			
	90	0	1			

	Model Convergence Status
Co	onvergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics						
Criterion	Intercept Only	Intercept and Covariates				
AIC	147.963	140.866				
sc	150.912	161.507				
-2 Log L	145.963	126.866				

The LOGISTIC Procedure

Testing Global Null Hypothesis: BETA=0							
Test Chi-Square DF Pr > ChiSq							
Likelihood Ratio	19.0969	6	0.0040				
Score	16.1971	6	0.0127				
Wald	12.5055	6	0.0516				

Type 3 Analysis of Effects						
Effect DF Chi-Square Pr > ChiSq						
Age	1	1.3188	0.2508			
Gender	1	1.1468	0.2842			
Treatment_Group	2	0.2457	0.8844			
Day	2	9.9767	0.0068			

Analysis of Maximum Likelihood Estimates							
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	
Intercept		1	1.9158	1.2183	2.4726	0.1158	
Age		1	0.0288	0.0251	1.3188	0.2508	
Gender	М	1	0.4825	0.4506	1.1468	0.2842	
Treatment_Group	В	1	-0.2685	0.5457	0.2420	0.6227	
Treatment_Group	С	1	-0.1027	0.5357	0.0368	0.8479	
Day	19	1	-2.0763	0.8012	6.7148	0.0096	
Day	90	1	-2.4990	0.7913	9.9728	0.0016	

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
Age	1.029	0.980	1.081
Gender M vs F	1.620	0.670	3.918
Treatment_Group B vs A	0.765	0.262	2.228
Treatment_Group C vs A	0.902	0.316	2.578
Day 19 vs 5	0.125	0.026	0.603
Day 90 vs 5	0.082	0.017	0.388

The LOGISTIC Procedure

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	73.2	Somers' D	0.466
Percent Discordant	26.7	Gamma	0.466
Percent Tied	0.1	Tau-a	0.157
Pairs	3330	С	0.733

The Mixed Procedure

Model Information		
Data Set	WORK.DAT	
Dependent Variable	MEM_Comp	
Covariance Structure	Unstructured	
Subject Effect	Subject_ID	
Estimation Method	REML	
Residual Variance Method	Profile	
Fixed Effects SE Method	Empirical	
Degrees of Freedom Method	Containment	

Dimensions	
Covariance Parameters	2
Columns in X	16
Columns in Z per Subject	1
Subjects	188
Max Obs per Subject	1

Number of Observations	
Number of Observations Read	188
Number of Observations Used	158
Number of Observations Not Used	30

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	433.12920769	
1	1	433.12920769	0.00000000

Convergence criteria met.

Covariance Parameter Estimates			
Cov Parm	Subject	Estimate	
UN(1,1)	Subject_ID	0.4084	
Residual		0.4667	

The Mixed Procedure

Fit Statistics		
-2 Res Log Likelihood	433.1	
AIC (Smaller is Better)	437.1	
AICC (Smaller is Better)	437.2	
BIC (Smaller is Better)	443.6	

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
1	0.00	1.0000

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
Age	1	0	2.41	
Gender	1	0	0.11	
Treatment_Group*Day	11	0	0.72	

The CONTENTS Procedure

Data Set Name	WORK.DAT_BASELINE	Observations	188
Member Type	DATA	Variables	9
Engine	V9	Indexes	0
Created	05/05/2019 13:24:42	Observation Length	72
Last Modified	05/05/2019 13:24:42	Deleted Observations	0
Protection		Compressed	NO
Data Set Type		Sorted	NO
Label			
Data Representation	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
Encoding	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information		
Data Set Page Size	131072	
Number of Data Set Pages	1	
First Data Page	1	
Max Obs per Page	1816	
Obs in First Data Page	188	
Number of Data Set Repairs	0	
Filename	/saswork/SAS_workF6CA00011F3B_odaws01-prod-us/SAS_workE83500011F3B_odaws01-prod-us/dat_baseline.sas7bdat	
Release Created	9.0401M5	
Host Created	Linux	
Inode Number	599721	
Access Permission	rw-rr-	
Owner Name	sk43820	
File Size	256KB	
File Size (bytes)	262144	

Al	Alphabetic List of Variables and Attributes							
#	Variable	Туре	Len					
3	Age	Num	8					
7	Day	Char	8					
4	Gender	Char	8					
1	ID	Num	8					
8	MEM_Comp	Num	8					
2	Subject_ID	Num	8					
5	Treatment_Group	Char	8					

The CONTENTS Procedure

Alphabetic List of Variables and Attributes						
#	Variable	Туре	Len			
6	baseline	Num	8			
9	missing	Num	8			

Determining MCAR vs. MAR

The MI Procedure

Model Information						
Data Set	WORK.DAT_BASELINE					
Method	FCS					
Number of Imputations	5					
Number of Burn-in Iterations	20					
Seed for random number generator	2019					

FCS Model Specification				
Method	Imputed Variables			
Regression	MEM_Comp			
Discriminant Function	Day			

Missing Data Patterns								
		Group Means						
Group	Day	MEM_Comp	Freq	Percent	MEM_Comp			
1	Х	х	158	84.04	-0.012913			
2	Х		30	15.96				

Regression Models for FCS Method									
			Imputation						
Imputed Variable	Effect	Day	1	2	3	4	5		
MEM_Comp	Intercept		-0.068385	0.008215	-0.148354	-0.083327	0.087489		
MEM_Comp	Day	19	-0.215014	-0.012135	0.255442	0.318149	-0.068269		
MEM_Comp	Day	5	0.083516	-0.009356	-0.063220	-0.225990	0.110098		
MEM_Comp	Day	90	0.057480	-0.116168	-0.165625	-0.225153	-0.205206		

Variance Information (5 Imputations)										
	Variance									
Variable	Between	Within	Total	DF	Relative Increase in Variance	Fraction Missing Information	Relative Efficiency			
MEM_Comp	0.001119	0.004697	0.006040	51.787	0.285927	0.240887	0.954037			

Parameter Estimates (5 Imputations)										
Variable	Mean	Std Error	95% Confidence Limits		DF	Minimum	Maximum	Mu0	t for H0: Mean=Mu0	Pr > t
MEM_Comp	-0.036897	0.077720	-0.19287	0.119074	51.787	-0.093731	-0.006559	0	-0.47	0.6370

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First 10 Observations of Imputed Dataset, MAR

Obs	_Imputation_	ID	Subject_ID	Age	Gender	Treatment_Group	baseline	Day	MEM_Comp	missing
1	1	1	1021	44	М	С	-0.03390	bl	-0.03390	0
2	1	2	1022	40	М	В	-0.12181	bl	-0.12181	0
3	1	3	1023	52	F	Α	0.85595	bl	0.85595	0
4	1	4	1024	50	М	Α	0.72367	bl	0.72367	0
5	1	5	1026	44	F	Α	0.54926	bl	0.54926	0
6	1	6	1027	46	М	С	-0.53130	bl	-0.53130	0
7	1	7	1028	34	М	В	1.63589	bl	1.63589	0
8	1	8	1029	48	М	В	-0.70933	bl	-0.70933	0
9	1	9	1030	40	F	В	-0.86834	bl	-0.86834	0
10	1	10	1031	38	F	С	0.30716	bl	0.30716	0

First 10 Observations of Imputed Dataset, MAR

The MI Procedure

Model Information						
Data Set	WORK.DAT_BASELINE					
Method	FCS					
Number of Imputations	5					
Number of Burn-in Iterations	20					
Seed for random number generator	2019					

FCS Model Specification				
Method Imputed Variable				
Regression	baseline MEM_Comp			

Missing Data Patterns									
					Group Means				
Group	baseline	MEM_Comp	Freq	Percent	baseline	MEM_Comp			
1	Х	х	158	84.04	-0.030195	-0.012913			
2	Х		30	15.96	0.159028				

Regression Models for FCS Method								
	Imputation							
Imputed Variable	Effect	1	2	3	4	5		
MEM_Comp	Intercept	0.095943	0.029090	0.024337	0.005097	-0.021157		
MEM_Comp	baseline	0.818376	0.913654	0.820355	0.819874	0.869816		

Variance Information (5 Imputations)									
		Variance							
Variable	Between	Within	Total	DF	Relative Increase in Variance	Fraction Missing Information	Relative Efficiency		
MEM_Comp	0.000338	0.004612	0.005018	133.02	0.088054	0.083923	0.983493		

Parameter Estimates (5 Imputations)										
Variable	Mean	Std Error	95% Confid	ence Limits	DF	Minimum	Maximum	Mu0	t for H0: Mean=Mu0	Pr > t
MEM_Comp	0.027512	0.070837	-0.11260	0.167626	133.02	0.004122	0.049167	0	0.39	0.6984

First 10 Observations of Imputed Dataset, MNAR

Obs	_Imputation_	ID	Subject_ID	Age	Gender	Treatment_Group	baseline	Day	MEM_Comp	missing
1	1	1	1021	44	М	С	-0.03390	bl	-0.03390	0
2	1	2	1022	40	М	В	-0.12181	bl	-0.12181	0
3	1	3	1023	52	F	Α	0.85595	bl	0.85595	0
4	1	4	1024	50	М	А	0.72367	bl	0.72367	0
5	1	5	1026	44	F	Α	0.54926	bl	0.54926	0
6	1	6	1027	46	М	С	-0.53130	bl	-0.53130	0
7	1	7	1028	34	М	В	1.63589	bl	1.63589	0
8	1	8	1029	48	М	В	-0.70933	bl	-0.70933	0
9	1	9	1030	40	F	В	-0.86834	bl	-0.86834	0
10	1	10	1031	38	F	С	0.30716	bl	0.30716	0