The CONTENTS Procedure

Data Set Name	WORK.IMPORT	Observations	1979
Member Type	DATA	Variables	24
Engine	V9	Indexes	0
Created	11/29/2019 00:51:52	Observation Length	192
Last Modified	11/29/2019 00:51:52	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	65536
Number of Data Set Pages	6
First Data Page	1
Max Obs per Page	340
Obs in First Data Page	315
Number of Data Set Repairs	0
Filename	/tmp/SAS_work8F3900000A78_localhost.localdomain/SAS_work5E7E00000A78_localhost.localdomain/import.sas7bdat
Release Created	9.0401M6
Host Created	Linux
Inode Number	671623
Access Permission	rw-rw-r--
Owner Name	sasdemo
File Size	448KB
File Size (bytes)	458752

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
8	BMI	Num	8	BEST12.	BEST32.
20	ID	Num	8	BEST12.	BEST32.
24	OPTIMAL	Num	8	BEST12.	BEST32.
6	age	Num	8	BEST12.	BEST32.
3	death	Num	8	BEST12.	BEST32.
14	event_season2	Num	8	BEST12.	BEST32.
15	event_season3	Num	8	BEST12.	BEST32.
16	event_season4	Num	8	BEST12.	BEST32.
10	fev1fvcratio	Num	8	BEST12.	BEST32.

The CONTENTS Procedure

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
9	fev1pp	Num	8	BEST12.	BEST32.
1	gaptime	Num	8	BEST12.	BEST32.
21	male	Num	8	BEST12.	BEST32.
22	nowsmk	Num	8	BEST12.	BEST32.
17	num_re1	Num	8	BEST12.	BEST32.
18	num_re2	Num	8	BEST12.	BEST32.
19	num_re3	Num	8	BEST12.	BEST32.
23	oxygen	Num	8	BEST12.	BEST32.
7	packyears	Num	8	BEST12.	BEST32.
11	rand_season2	Num	8	BEST12.	BEST32.
12	rand_season3	Num	8	BEST12.	BEST32.
13	rand_season4	Num	8	BEST12.	BEST32.
2	recurrent_event	Num	8	BEST12.	BEST32.
4	trtSal	Num	8	BEST12.	BEST32.
5	trtSal_Flu	Num	8	BEST12.	BEST32.

The CONTENTS Procedure

Data Set Name	WORK.COPD	Observations	1979
Member Type	DATA	Variables	24
Engine	V9	Indexes	0
Created	11/29/2019 00:51:52	Observation Length	192
Last Modified	11/29/2019 00:51:52	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	65536
Number of Data Set Pages	6
First Data Page	1
Max Obs per Page	340
Obs in First Data Page	315
Number of Data Set Repairs	0
Filename	/tmp/SAS_work8F3900000A78_localhost.localdomain/SAS_work5E7E00000A78_localhost.localdomain/copd.sas7bdat
Release Created	9.0401M6
Host Created	Linux
Inode Number	671624
Access Permission	rw-rw-r--
Owner Name	sasdemo
File Size	448KB
File Size (bytes)	458752

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
8	BMI	Num	8	BEST12.	BEST32.
20	ID	Num	8	BEST12.	BEST32.
24	OPTIMAL	Num	8	BEST12.	BEST32.
6	age	Num	8	BEST12.	BEST32.
3	death	Num	8	BEST12.	BEST32.
14	event_season2	Num	8	BEST12.	BEST32.
15	event_season3	Num	8	BEST12.	BEST32.
16	event_season4	Num	8	BEST12.	BEST32.
10	fev1fvcratio	Num	8	BEST12.	BEST32.

The CONTENTS Procedure

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
9	fev1pp	Num	8	BEST12.	BEST32.
1	gaptime	Num	8	BEST12.	BEST32.
21	male	Num	8	BEST12.	BEST32.
22	nowsmk	Num	8	BEST12.	BEST32.
17	num_re1	Num	8	BEST12.	BEST32.
18	num_re2	Num	8	BEST12.	BEST32.
19	num_re3	Num	8	BEST12.	BEST32.
23	oxygen	Num	8	BEST12.	BEST32.
7	packyears	Num	8	BEST12.	BEST32.
11	rand_season2	Num	8	BEST12.	BEST32.
12	rand_season3	Num	8	BEST12.	BEST32.
13	rand_season4	Num	8	BEST12.	BEST32.
2	recurrent_event	Num	8	BEST12.	BEST32.
4	trtSal	Num	8	BEST12.	BEST32.
5	trtSal_Flu	Num	8	BEST12.	BEST32.

The NLMIXED Procedure

Specifications	
Data Set	WORK.COPD
Dependent Variable	gaptime
Distribution for Dependent Variable	General
Random Effects	z
Distribution for Random Effects	Normal
Subject Variable	ID
Optimization Technique	Dual Quasi-Newton
Integration Method	Adaptive Gaussian Quadrature

Dimensions	
Observations Used	1979
Observations Not Used	0
Total Observations	1979
Subjects	1521
Max Obs per Subject	9
Parameters	22
Quadrature Points	5

Initial Parameters										
ln_gamma	**b_0**	**b_trtSal**	**b_trtSal_Flu**	**b_age**	**b_BMI**	**b_fev1pp**	**b_fev1fvcratio**	**b_rand_season2**	**b_rand_season3**	**b_rand_season4**
0.118	-0.8	0.3127	0.2507	-0.5213	-1.0989	-1.4856	0.2384	-0.4905	-0.2933	-0.1329

Initial Parameters									
b_num_re1	**b_num_re2**	**b_num_re3**	**b_event_season2**	**b_event_season3**	**b_event_season4**	**b_male**	**b_nowsmk**	**b_oxygen**	**b_OPTIMAL**
-0.4762	-0.3804	-0.9259	-0.1268	-0.3455	-0.3801	0.0057	0.0614	0.4871	0.1067

Initial Parameters	
ln_v	**Negative Log Likelihood**
0.7565	844.442835

Iteration History					
Iteration	**Calls**	**Negative Log Likelihood**	**Difference**	**Maximum Gradient**	**Slope**
1	5	844.0442	0.398667	9.61732	-60.9168
2	7	843.5714	0.47276	6.59586	-3.33639
3	9	843.4883	0.083108	9.75142	-0.53220
4	13	843.2416	0.246701	0.78453	-0.45522

The NLMIXED Procedure

Iteration History					
Iteration	**Calls**	**Negative Log Likelihood**	**Difference**	**Maximum Gradient**	**Slope**
5	17	843.2262	0.015388	0.46276	-0.01301
6	20	843.2161	0.010139	0.65187	-0.00646
7	22	843.2081	0.007938	1.02433	-0.00536
8	25	843.2029	0.005222	0.22167	-0.00660
9	27	843.2002	0.00271	0.24287	-0.00227
10	29	843.1979	0.002298	0.13089	-0.00415
11	32	843.1969	0.000968	0.10022	-0.00115
12	34	843.1957	0.0012	0.091893	-0.00054
13	36	843.1945	0.001271	0.11930	-0.00048
14	38	843.1940	0.000482	0.18051	-0.00063
15	40	843.1932	0.000819	0.095726	-0.00142
16	43	843.1926	0.000567	0.074301	-0.00059
17	45	843.1919	0.000711	0.063647	-0.00038
18	47	843.1913	0.000625	0.089918	-0.00016
19	50	843.1908	0.00041	0.058624	-0.00031
20	52	843.1903	0.000567	0.046701	-0.00030
21	55	843.1901	0.000184	0.036557	-0.00019
22	58	843.1900	0.000072	0.028051	-0.00005
23	60	843.1900	0.000062	0.035694	-0.00004
24	62	843.1899	0.00005	0.024574	-0.00005
25	64	843.1898	0.000071	0.021391	-0.00006
26	66	843.1898	0.000049	0.029523	-0.00005
27	68	843.1897	0.000048	0.020544	-0.00006
28	70	843.1897	0.000074	0.026498	-0.00004
29	72	843.1896	0.000091	0.045180	-0.00007
30	74	843.1895	0.000126	0.018552	-0.00006
31	77	843.1894	0.00003	0.008120	-0.00004
32	80	843.1894	2.055E-6	0.002196	-2.14E-6
33	83	843.1894	3.489E-7	0.000394	-4.92E-7
34	86	843.1894	7.97E-9	0.000174	-3.09E-9
35	89	843.1894	1.356E-9	0.000141	-1.36E-9
36	91	843.1894	2.127E-9	0.000058	-689E-12
37	94	843.1894	1.97E-10	0.000026	-376E-12
38	98	843.1894	7.33E-10	0.000056	-214E-13

The NLMIXED Procedure

Iteration History					
Iteration	Calls	Negative Log Likelihood	Difference	Maximum Gradient	Slope
39	101	843.1894	5.01E-10	0.000018	-688E-12
40	104	843.1894	2.32E-11	1.16E-7	-376E-13

NOTE: FCONV convergence criterion satisfied.

Fit Statistics	
-2 Log Likelihood	1686.4
AIC (smaller is better)	1730.4
AICC (smaller is better)	1730.9
BIC (smaller is better)	1847.6

Parameter Estimates						95% Confidence Limits		
Parameter	Estimate	Standard Error	DF	t Value	Pr > |t|			Gradient
ln_gamma	0.1191	0.04734	1520	2.52	0.0120	0.02623	0.2119	-1.1E-7
b_0	-0.9514	0.6799	1520	-1.40	0.1619	-2.2851	0.3823	-1.16E-7
b_trtSal	0.3078	0.1382	1520	2.23	0.0261	0.03669	0.5789	-6.15E-8
b_trtSal_Flu	0.2332	0.2879	1520	0.81	0.4180	-0.3315	0.7980	-1.07E-8
b_age	-0.4685	0.8389	1520	-0.56	0.5766	-2.1141	1.1771	-7.43E-8
b_BMI	-1.0401	1.1400	1520	-0.91	0.3617	-3.2763	1.1961	-3.21E-8
b_fev1pp	-1.4066	0.6652	1520	-2.11	0.0346	-2.7115	-0.1018	-4.19E-8
b_fev1fvcratio	0.1943	0.7609	1520	0.26	0.7985	-1.2982	1.6868	-4.25E-8
b_rand_season2	-0.5673	0.2140	1520	-2.65	0.0081	-0.9872	-0.1475	-3.78E-8
b_rand_season3	-0.1935	0.2243	1520	-0.86	0.3884	-0.6334	0.2464	-3.92E-8
b_rand_season4	-0.01160	0.2072	1520	-0.06	0.9553	-0.4180	0.3948	-1.82E-8
b_num_re1	-0.4388	0.1712	1520	-2.56	0.0105	-0.7747	-0.1029	-3.28E-8
b_num_re2	-0.2980	0.2331	1520	-1.28	0.2013	-0.7553	0.1592	-1.33E-8
b_num_re3	-0.9089	0.2730	1520	-3.33	0.0009	-1.4445	-0.3734	7.24E-10
b_event_season2	0.05244	0.1593	1520	0.33	0.7420	-0.2600	0.3648	-6.91E-8
b_event_season3	-0.3586	0.1754	1520	-2.04	0.0411	-0.7028	-0.01450	-1.73E-8
b_event_season4	-0.4110	0.1635	1520	-2.51	0.0121	-0.7318	-0.09018	-979E-12
b_male	0.06546	0.1355	1520	0.48	0.6290	-0.2003	0.3312	-8.61E-8
b_nowsmk	0.07281	0.1699	1520	0.43	0.6683	-0.2605	0.4061	-2.44E-8
b_oxygen	0.4852	0.1584	1520	3.06	0.0022	0.1746	0.7958	-7.73E-8

The NLMIXED Procedure

Parameter Estimates						95% Confidence Limits		Gradient
Parameter	Estimate	Standard Error	DF	t Value	Pr > |t|			
b_OPTIMAL	0.1116	0.1964	1520	0.57	0.5700	-0.2736	0.4968	-1.79E-8
ln_v	0.7277	0.1554	1520	4.68	<.0001	0.4228	1.0326	-1.1E-7

Additional Estimates								
Label	Estimate	Standard Error	DF	t Value	Pr > |t|	Alpha	Lower	Upper
v	2.0703	0.3218	1520	6.43	<.0001	0.05	1.4390	2.7015
gamma	1.1265	0.05332	1520	21.12	<.0001	0.05	1.0219	1.2311
re_trtSal	0.3467	0.1558	1520	2.22	0.0262	0.05	0.04102	0.6524
re_trtSal_Flu	0.2627	0.3245	1520	0.81	0.4183	0.05	-0.3738	0.8993
re_age	-0.5277	0.9447	1520	-0.56	0.5765	0.05	-2.3807	1.3252
re_BMI	-1.1717	1.2841	1520	-0.91	0.3617	0.05	-3.6904	1.3471
re_fev1pp	-1.5845	0.7518	1520	-2.11	0.0352	0.05	-3.0592	-0.1098
re_fev1fvcratio	0.2189	0.8572	1520	0.26	0.7985	0.05	-1.4626	1.9003
re_rand_season2	-0.6391	0.2423	1520	-2.64	0.0084	0.05	-1.1143	-0.1638
re_rand_season3	-0.2179	0.2532	1520	-0.86	0.3895	0.05	-0.7146	0.2787
re_rand_season4	-0.01307	0.2334	1520	-0.06	0.9553	0.05	-0.4708	0.4447
re_num_re1	-0.4943	0.1985	1520	-2.49	0.0129	0.05	-0.8836	-0.1050
re_num_re2	-0.3357	0.2661	1520	-1.26	0.2073	0.05	-0.8578	0.1863
re_num_re3	-1.0239	0.3178	1520	-3.22	0.0013	0.05	-1.6473	-0.4005
re_event_season2	0.05907	0.1795	1520	0.33	0.7421	0.05	-0.2930	0.4112
re_event_season3	-0.4040	0.1966	1520	-2.05	0.0401	0.05	-0.7897	-0.01834
re_event_season4	-0.4630	0.1843	1520	-2.51	0.0121	0.05	-0.8245	-0.1014
re_male	0.07374	0.1526	1520	0.48	0.6289	0.05	-0.2255	0.3730
re_nowsmk	0.08202	0.1915	1520	0.43	0.6684	0.05	-0.2935	0.4576
re_oxygen	0.5466	0.1788	1520	3.06	0.0023	0.05	0.1958	0.8974
re_OPTIMAL	0.1257	0.2212	1520	0.57	0.5700	0.05	-0.3083	0.5596