

REPORT QUALITY TABLES WITH SAS

E.Placa , P. Smith (CIBA-GEIGY, BASEL) , G.Stein (ESSEX CHEMIE, LUZERN)

TABULAR OUTPUT OF SAS DATA.

Procedure TABLES.

This procedure provides tabulations of SAS data sets in a form suitable for inclusion as documentation in a Statistical or Clinical Trial Report. Tables can be up to 130 characters in width, and on the laser printer, up to 84 lines per page. The procedure offers the option of printing the table(s) directly or saving them on a "print file", the contents of which can be edited (e.g. addition of footnotes) before printing.

In addition to simple tabulations (patient listings), a special option is available whereby summary statistics (means, standard deviations, frequency counts, percentages etc.) can be tabulated with minimum specification by the user. Also available when using this option is the facility to perform simple one-way "tests of homogeneity" of groups of patients. Details are given later.

To produce tables using this procedure, the user is required to set up two members - one describing the layout of the table and the variables to be printed, and the other containing SAS statements generating a SAS data set of the observations and variables to be tabulated.

Table description member

The table description is set out in a hierarchical structure, within which the table is defined column by column. For example, if a table such as

TABLE OF ADVERSE EFFECTS REPORTED AT VISIT 2
PLAN NR/LT3 TRIAL 10105

TREATMENT	PERSONAL DATA	ADVERSE EFFECTS REPORTED AT VISIT 2
	PATNO AGE SEX	DAY SYMPTOM/SIGN

is required, then the sequence in which the table would be defined is as follows :-

```

Title      TABLE OF ADVERSE EFFECTS REPORTED AT VISIT 2
           PLAN NR/LT3 TRIAL 10105
Title      TREATMENT
Variable   Variable giving the treatment value
Title      PERSONAL DATA
Title      PATNO
Variable   Variable giving the patient number
Title      AGE
Variable   Variable giving the patient's age
Title      SEX
Variable   Variable giving the patient's sex
Title      ADVERSE EFFECT
           REPORTED AT VISIT 2
Title      DAY
Variable   Variable giving the day of report (for each 'repeat')
Title      SYMPTOM/SIGN
Variable   Variable giving the adverse effect (for each 'repeat')
    
```

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TABULAR OUTPUT OF SAS DATA (CONT.)

Procedure TABLES.

Table description member (cont.)

From this, it is clear that only two types of statement are required to define the table fully - TITLE and VARIABLE - and both have the same general form :-

< statement identifier > < space > < statement >

The TITLE type statement has the specific form :-

< level > < space > < free text >

The level identifier can be either A, B, C or D. Up to 5 lines of text may follow a single level identifier, with all continuations beginning in column 3. For example :-

```
Col
1234
A TABLE OF ADVERSE EFFECTS REPORTED
  PLAN NR/LT3 TRIAL 10105
  PREPARATION CGP12,345
```

A level "A" statement is always the first statement for a given table. The "free text" given in the statement is left-justified at the top of the table as a table heading.

Level "B", "C" and "D" statements are used to define column headings within the table. Level "D" statements are subordinate to level "C" statements and similarly level "C" statements are subordinate to level "B". The physical position of a level "B" heading is calculated by the procedure, with consideration of the level "C" and "D" headings subordinate to it, such that the actual text is centred.

The VARIABLE type statement has the following format :-

V <space> |<SAS variable expression>|R/L|BYP/BYL/BY|<SAS format>

The last three fields (R/L, BYP/BYL/BY, <SAS format>) are optional, but if any options are omitted only TRAILING field delimiters can be suppressed. VARIABLE type statements can occur after a level "B", "C" or "D" TITLE statement, and if necessary more than one can be associated with the same TITLE statement.

FIELD DELIMITERS

The delimiter "|" can be changed if this symbol is used elsewhere in the statement (for example, the SAS variable expression may be used to concatenate two or more variables, in which case the symbol "|" is used — e.g. PUT(SYSEP,3.)||'/'|PUT(DIABP,3.)).

The delimiter being used appears in column 3 of the "V" statement, and the same character must be used throughout the same statement. However, different delimiters can be used in different "V" statements within the same table description member.

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TABULAR OUTPUT OF SAS DATA (CONT.)

Procedure TABLES.

Table description member (cont.)

SAS VARIABLE EXPRESSION

Any valid SAS expression is permissible here, for example :-
 AGE PUT(SEX,SEXF.) SUM(HOURS,MINS/60) etc.

R/L

This field allows the variable value to be printed right (R) or left (L) justified under its appropriate heading. This may be omitted, with the default that the value will be centred under the heading.

BYP/BYL/BY

BYP: A new page is started each time the value of the SAS variable expression changes.

BYL: A separating line is printed each time the value of the SAS variable expression changes.

BY: The value of the SAS variable expression is printed only when a change occurs.

The default is that the variable value is printed for each observation on the SAS data set being tabulated.

SAS FORMAT

Any valid SAS format is permissible here, e.g. SEXF. 4.1 \$6. etc.

Example

The example given on page 1 will be used to illustrate the structure of the table description member.

A TABLE OF ADVERSE EFFECTS REPORTED AT VISIT 2
 PLAN NR/LTS TRIAL 10105

B TREATMENT
 V |TRMTNO|LIBYPI\$TRMTNOF.1

Each treatment starts on a new page.
 Variable decoded by format \$TRMTNOF.
 Treatment name left-justified.

B PERSONAL DATA

D PATNO
 V |PATNOIR|114.1

PATNO, AGE and SEX are at level "D" within the level "B" title of PERSONAL DATA. All variables are right-justified in printing.

D AGE
 V |AGEIR|113.1

D SEX
 V |SEXIRI|ISEXF.1

Variable SEX decoded by format SEXF.

B ADVERSE EFFECTS
 REPORTED AT VISIT 2

Continuation of "B" TITLE statement

D DAY
 V |DAYADRA2|R|3.
 V |DAYADRB2|R|3.
 V |DAYADRC2|R|3.

DAY and SYMPTOM/SIGN "D" titles within the "B" title ADVERSE EFFECTS DAYADR(A/B/C)2 are generated in the SAS statements member. ADR(A/B/C)2 are decoded using format \$SYMP. Three repeats of adverse effects at Visit 2 are tabulated.

D SYMPTOM/SIGN
 V |ADRA2|L|3\$SYMP.
 V |ADRB2|L|3\$SYMP.
 V |ADRC2|L|3\$SYMP.

All four TITLE statement levels are not required in every table. In such cases, the levels selected need not be strictly alphabetical, as can be seen from the above example. Note that the level "A" title must always be given, as this denotes the start of the table.

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TABULAR OUTPUT OF SAS DATA (CONT.)

Procedure TABLES.

SAS statements member

Two types of SAS statements member are possible, depending on whether or not the option of tabulating standard summary statistics is to be used. The use of this option is indicated by a membername with "Q" as the first character. Obviously, the standard summary statistics can be obtained by writing a specific SAS program, but in many cases, this can be tedious and repetitive. However, if this option of the procedure is used, only the variables for which summary statistics are required are specified — the procedure writes the SAS program to obtain the summary statistics itself. The more usual type of SAS statements member is considered first.

A. SAS statements member for patient listings etc.

This contains a set of SAS instructions to derive the set of variables and the observations (cases) which are to be tabulated. Usually, it will consist of :-

- a DATA step in which patients to be excluded from the table are dropped and/or new variables are created,
- a FORMAT procedure to decode "multiple choice" responses,
- a SORT procedure to sort the data in the required order.

The major functions of the SAS statements member are :-

1. To obtain only a subset of the patients for a particular tabulation — for example, all patients reporting adverse effects during the trial (IF ADRA2='' THEN DELETE;).
2. To calculate new variables for tabulation — for example, the interval between start of treatment and reporting of adverse effects.
DAYADR = MDY(MMADR,DDADR,YYADR)- MDY(MMT,DDT,YYT);
3. To obtain a patient-by-patient data set rather than a data set organised visit-by-visit (or vice-versa).
4. To specify non-standard formats for decoding 'multiple choice' responses.

The resulting SAS working data set of the observations and variables to be tabulated should always be named DAT.

Example

The SAS statements member required to produce the data for the example on Page 8 would be as follows :-

```
DATA DAT; SET SAS.nrlt3;    * nrlt3 is the name of the SAS data set;
                          * SAS is the DDNAME of the SAS data base;
IF ADRA2='' AND ADRB2='' AND ADRC2='' THEN DELETE;
DAYADRA2=MDY(MMADRA2,DDADRA2,YYADRA2) - MDY(MMT,DDT,YYT);
DAYADRB2=MDY(MMADRB2,DDADRB2,YYADRB2) - MDY(MMT,DDT,YYT);
DAYADRC2=MDY(MMADRC2,DDADRC2,YYADRC2) - MDY(MMT,DDT,YYT);
PROC SORT; BY TRMTNO;
```

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TABULAR OUTPUT OF SAS DATA (CONT.)

Procedure TABLES.

SAS statements member (cont.)

B. Tabulation of standard summary statistics.

The option of the TABLES procedure which permits summary statistics for variables to be tabulated requires that these summary statistics must be tabulated by a "classification" or "sort" variable (see Run Instructions). For example, summary statistics such as

median age, mean height, frequency count of the number of females might be tabulated for subgroups of the patient population (e.g. treatment groups) and for the patient population as a whole (i.e. all treatment groups combined). A maximum of two classification variables are permitted. These are given when submitting the procedure to run.

The SAS statements member must be created according to a number of conventions. The membername must have "a" as the first character, to indicate to the procedure that this option is being used. Then, within the member itself, the conventions adopted are best illustrated by an example.

Example

```
Col
1234567....
AGE D100*(YOB>=YEAR)+(YEAR-YOB)
HEI MHEIGHT
SEX FSEX-SEX+(SEX=2);
@ IF CENTRE=1 THEN DELETE;
BPS MBPS1
BPD MBPD1
SEV FSEVER1-SEVER1+(SEVER1=2 OR SEVER1=3);
@ ARRAY SCALE(I) SCALE1-SCALE20;
@ TOT=0;
@ DO OVER SCALE; TOT = SUM(TOT,SCALE); END;
TOT DTOT
PROC FORMAT;
VALUE TT 1='CGP12,345' 2=PLACEBO
99999='ALL TRTS' 999999='TEST HOM.';
```

Interpretation of the SAS statements member

1. A SAS statement of the form

```
DATA DAT; SET SAS.xxxxx;
```

where xxxxx is the SAS data set name given when submitting the job (see Run Instructions), is inserted automatically by the procedure at the start of the SAS statements member.

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TABULAR OUTPUT OF SAS DATA (CONT.)

Procedure TABLES.

SAS statements member (cont.)

B. Tabulation of standard summary statistics (cont.)

2. Then there are three basic statement types in the SAS statements member, and these are identified according to the contents of columns 1-5 of the line.

a) A permissible SAS variable name in columns 1-5.

In this case, the format of the line is as follows :-

Cols 1-5 : Permissible SAS variable name.

All summary statistics (see later) will be obtained for this variable.

Col 6 : "M" if test of homogeneity of MEANS,

"D" if - - - - - MEDIANS,

"F" if - - - - - FREQUENCIES,

blank if no test of homogeneity is required for that variable.

Cols 7-72 : Any permissible SAS expression used to define the variable named in columns 1-5.

In the example given on the previous page, the first line would be interpreted as follows :-

Summary statistics will be calculated for variable

AGE = 100*(YOB>=YEAR) + (YEAR-YOB);

and a test of homogeneity of the median AGE of subgroups of the patient population (identified by "classification" variables) will be done.

b) The character "@" in column 1.

In this case, the format of the line is :-

Col 1 : @

Cols 2-6 : blank

Cols 7-72 : any SAS statement permissible within the DATA step

This type of statement has three basic functions :-

(1) as a continuation of the previous line, or

(2) to insert some SAS statements to delete certain patients from the analysis (e.g. 4th line of the example) or to create new variables (e.g. lines 8-10 of the example).

(3) to insert any general SAS statements which are permitted within the data step (e.g. ARRAY, IF...THEN..., DO...)

c) Columns 1-5 blank.

Statements of this type can only appear after all type "a" and type "b" statements. The format of the line in this case is :-

Cols 1-6 : blank

Cols 7-72 : SAS procedures or a new DATA step.

In the example, a PROC FORMAT is used to define decoding texts for treatment codes.

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TABULAR OUTPUT OF SAS DATA (CONT.)

Procedure TABLES.

SAS statements member (cont.)

B. Tabulation of standard summary statistics (cont.)

Summary statistics

For each SAS variable name given in columns 1-5 of the SAS statements member, the SAS procedure UNIVARIATE is run to obtain the summary statistics as an output data set. For example, the summary statistics for variable AGE can be tabulated by using the following variable names in the Tables Description member :-

NAGE number of observations on which the calculations are based
MAGE mean AGE
FAGE the sum of AGE (used mainly with binary ("0/1") types of variables)
SAGE the standard deviation of AGE
AAGE the maximum AGE
IAGE the minimum AGE
RAGE the range of AGE
DAGE the median AGE

In addition to those variable names defined in columns 1-5 of the SAS statements member, the variable PAT is also included in the list of variables for which summary statistics are calculated. The variable PAT always has a value for each patient, so that the derived variable NPAT can be used to give the number of observations on the data set.

The UNIVARIATE procedure is run using the "classification" variables when submitting the job (see Run Instructions) as "BY" variables.

The "classification" variables must be numeric. Using two such variables, CENTRE and TREAT, PROC UNIVARIATE is run four times :-

```
PROC UNIVARIATE; BY CENTRE TREAT;  
PROC UNIVARIATE; BY CENTRE;  
PROC UNIVARIATE; BY TREAT;  
PROC UNIVARIATE;
```

and the output data sets from each are combined together. In combining these data sets, a value of TREAT=. refers to "all treatments". In such a case, the value of TREAT is set to 99999 and hence the need for the value 99999='ALL TRTS' in the PROC FORMAT of the example.

Tests of homogeneity.

This is an optional feature available only when the summary statistics are being tabulated. Three possibilities exist :-

1. Homogeneity of means - by an F-test obtained from the parametric one-way analysis of variance given by SAS procedure NPAR1WAY.
2. Homogeneity of medians - by the K-way Kruskal-Wallis test given by the SAS procedure NPAR1WAY.
3. Homogeneity of frequencies - by the Chi-square test (with correction for continuity, where appropriate) given by the SAS procedure FREQ.

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TABULAR OUTPUT OF SAS DATA (CONT.)

Procedure TABLES.

SAS statements member (cont.)

B. Tabulation of standard summary statistics (cont.)

Note that if two "classification" variables are specified, then homogeneity tests are restricted to testing between the levels of the second class variable for each level of the first class variable. For example, with CENTRE as first "class" variable and TREAT as second "class" variable, tests of homogeneity of treatment groups are made separately for each centre.

The result of the test of homogeneity can be included in the tabulation by referring to variables

P1xxxxx and P2xxxxx (xxxxx is the variable name given in columns 1-5 of the SAS stmts member)

in the Tables Description member. The possible values of P1xxxxx and P2xxxxx are :-

P1xxxxx	NOT	SIG	SIG	N/A
P2xxxxx	SIG	5%	1%	blank

"N/A" appears when the warning concerning the appropriateness of the Chi-square statistic due to small expected cell frequencies is given by the SAS procedure FREQ.

Other features of the TABLES procedure

1. More than one table description can be saved on the same member. Care should be taken that the corresponding SAS statements member is suitable for all tables in the tables description member.
2. The tables description and SAS statements members are assumed to be saved in the same library.
3. The tables can be written to a print file if necessary.

The file should be allocated before use, and should have the the following characteristics :-

RECFM	LRECL	BLKSIZE	DSORG	
FB	140	6160	PS	Not numbered

TABLES will add new tables to the tables already on the print file.

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1. Examples of listings.

TABLE 1.5
CONCOMITANT MEDICATIONS AND MEDICAL CONDITIONS (PATIENT LISTING)
TRIAL AB/123

COUNTRY CENTRE	PERSONAL DATA				TRIAL	VISIT	(MED) CONCOMITANT MEDICATIONS (CON) CONCOMITANT MEDICAL CONDITIONS				
	PAT NO.	AGE	SEX	DOSE			START VIS:1	MEDICATION / CONDITION	DOSAGE	START	END
FRANCE	1	101	53	M	20MG	23SEP82	(1) 23SEP82 (1) 23SEP82 (1) 23SEP82 (1) 23SEP82 (1) 23SEP82	MED: TRASICOR R 160 MG MED: PERSANTINR 75 CON: RHEUMATISM NOS CON: APPENDICITIS CON: HERNIA DIAPHRAGMATIC	1 CP/J 3 CP/J	19NOV81 MAY81 29 34 76	
		102	64	F	0MG	10NOV82	(1) 10NOV82 (1) 10NOV82 (1) 10NOV82	MED: OXFRENOLOL HYDROCHLORIDE MED: GINKGO TREE LEAVES EXTRACT CON: HYSTERECTOMY	1C/J 3C/J	1OCT82 OCT81 50	
		103	58	F	15MG	18NOV82	(1) 18NOV82 (1) 18NOV82 (1) 18NOV82 (1) 18NOV82 (1) 18NOV82	MED: ANAFRANIL 25 MED: OXFRENOLOL HYDROCHLORIDE CON: OBESITY CON: POLYP OF CORPUS UTERI CON: DEPRESSIVE DISORDER NOS	2 CP/J 1C/J	75 1OCT82 50 76 75	
		104	60	F	10MG	02DEC82	(1) 2DEC82 (1) 2DEC82 (1) 2DEC82 (1) 2DEC82 (2) 9DEC82 (2) 9DEC82 (2) 9DEC82 (1) 2DEC82	MED: INDAPAMIDE MED: COMPRALGYL MED: TRASICOR R MED: GINKGO TREE LEAVES EXTRACT MED: INDAPAMIDE MED: COMPRALGYL MED: GINKGO TREE LEAVES EXTRACT CON: HERNIA DIAPHRAGMATIC	1 CP 20 CP/MOIS 1 CP/J 150 GOUTTE 1 CP/J 20 CP/MOIS 150 GOUTTE	OCT78 80 21OCT82 80 OCT82 80 80 OCT64	23OCT82 23OCT82 23OCT82
		105	63	F	20MG	06JAN83	(1) 6JAN83	MED: OXFRENOLOL HYDROCHLORIDE	1C/J	10NOV82	
		106	64	F	0MG	11JAN83	(1) 11JAN83 (1) 11JAN83	MED: OXFRENOLOL HYDROCHLORIDE CON: HERNIA DIAPHRAGMATIC	1C/J	1OCT82 75	
		107	58	F	10MG	19MAY83	(1) 19MAY83 (1) 19MAY83 (1) 19MAY83	MED: OXFRENOLOL HYDROCHLORIDE CON: HYSTERECTOMY CON: COMPTRECTOMY	160MG/J	10MAR83 78 70	
		108	64	M	15MG	13JAN83	(1) 13JAN83 (1) 13JAN83	MED: OXFRENOLOL HYDROCHLORIDE MED: TORENTAL 400	1C/J 3C/J	1OCT82 80	

TABLE 3.5
PULSE RATE, BLOOD PRESSURE, BODY WEIGHT, VISITS 1-4 (PATIENT LISTING)
GLOBAL EVALUATION OF THERAPEUTIC EFFECT, VISIT 4
TRIAL AB/123

COUNTRY CENTRE	PERSONAL DATA				VISIT	PULSE RATE (BEATS/MIN)				BLOOD PRESSURE (MM HG)				WEIGHT (KG)	GLOBAL EVALUATION				
						SUPINE		STANDING		SUPINE		STANDING			EFFICACY	TOLER.			
						1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND						
GERMANY	1	1	57	F	20MG	1	11APR83	10:00	72	70	76	76	164/101	162/99	152/98	152/99	64		
						2	18APR83	10:00	66	66	70	70	165/104	162/100	166/105	166/105	63		
						3	25APR83	10:30	74	76	76	78	165/103	160/101	166/107	166/108	64		
						4	PREH DISCONT												
	2	40	M	10MG	1	11APR83	10:00	58	58	60	60	159/98	157/98	154/96	152/98	85			
					2	18APR83	10:00	54	54	58	58	150/98	145/100	145/105	144/105	102			
					3	25APR83	10:00	54	54	60	60	137/88	134/80	137/82	132/82	86	EFFECTIVE	VERY GOOD	
					4	02MAY83	10:00	54	54	66	63	164/90	153/90	163/90	161/90	86			
	3	40	M	0MG	1	18APR83	10:15	70	70	72	74	160/97	162/95	160/105	161/103	72			
					2	25APR83	10:15	74	76	80	83	152/95	150/97	140/97	142/97	74			
					3	02MAY83	10:15	68	70	70	74	144/88	147/90	144/91	140/90	73			
					4	09MAY83	10:15	68	70	70	72	144/84	146/80	144/91	140/93	77	EFFECTIVE	VERY GOOD	
4	58	F	20MG	1	18MAY83	9:45	66	66	72	72	158/102	154/105	157/104	155/104	67				
				2	25MAY83	9:45	66	66	72	72	141/102	146/105	157/105	153/106	67				
				3	01JUN83	9:45	64	64	74	74	147/88	149/88	140/95	141/95	66				
				4	PREH DISCONT														

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2. Example of laboratory data listing.

TABLE 5.1
LABORATORY DATA + INDICATES VALUE ABOVE NORMAL RANGE
 - INDICATES VALUE BELOW NORMAL RANGE

TRIAL AB/123

COUNTRY CENTRE	PERSONAL DATA					BLOOD ANALYSIS				DIFFERENTIAL WBC					PLATELET 10E3/ML ¹³	
	PATNO	AGE	SEX	DOSE		RBC 10E12/L	H-GLOB G/DL	H-CRIT %	WBC 10E3/MM3	NEU %	LYM %	EOS %	MON %	BAS %		
ITALY	2	401	42	M	20MG	BEFORE	5.04	15.0	48.0	6.8	56	40	1	3	:	:
						AFTER	5.00	14.9	48.0	7.4	58	37	1	4	:	:
		402	52	F	10MG	BEFORE	3.95-	12.3	40.0	5.8	58	35	2	4	1	160
						AFTER	3.88-	12.4	40.0	6.7	70	28	2	4	1	230
		403	60	F	15MG	BEFORE	4.10	14.0	43.0	8.3	64	30	2	3	1	:
						AFTER	4.31	14.2	43.0	7.3	60	35	1	3	1	:
		404	48	M	0MG	BEFORE	4.20	14.1	43.0	7.4	70	28	1	2	1	230
						AFTER	4.43	14.3	44.0	8.1	66	32	1	2	1	260
		405	34	M	20MG	BEFORE	5.70	16.8	50.7	9.8	67	30	1	3	:	297
						AFTER	5.55	16.0	50.0	8.6	68	28	1	3	:	215
		406	50	F	15MG	BEFORE	4.90	15.1	47.0	7.6	55	40	2	3	:	:
						AFTER	5.00	14.9	46.0	6.8	58	37	1	4	:	:
		407	41	F	10MG	BEFORE	4.48	13.2	39.0	6.3	66	30	1	2	1	:
						AFTER	4.53	13.4	40.0	6.0	66	32	1	2	1	:
		408	62	M	0MG	BEFORE	4.50	13.6	45.0	6.9	67	30	1	3	:	:
						AFTER	4.61	13.5	45.0	7.9	69	25	1	5	:	:
		409	56	M	20MG	BEFORE	5.20	16.9	52.0	8.0	64	29	1	6	1	190
						AFTER	5.00	16.3	50.0	8.2	65	30	1	4	1	210
		410	51	M	0MG	BEFORE	5.50	16.7	51.0	7.6	55	39	2	4	:	260
						AFTER	5.50	16.5	51.0	8.3	55	38	1	5	:	260
		411	43	M	10MG	BEFORE	4.60	15.0	43.0	5.8	56	40	2	2	:	310
						AFTER	4.50	15.0	42.0	6.3	65	32	2	2	:	290
		412	60	M	15MG	BEFORE	5.40	16.6	54.0	8.6	68	30	:	2	:	240
						AFTER	5.30	16.8	55.0+	8.0	66	32	:	2	:	200

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3. Example of summary statistics.

TABLE 1.1
DEMOGRAPHIC SUMMARY
AB/123

TREATMENT SEQUENCE	AGE			SEX FEMALES			HEIGHT			WEIGHT			NO. OF IN PATS.		BLOOD PRESSURE						PULSE				
															SYSTOLIC			DIASTOLIC							
	MEAN	SD	N	F	%	N	MEAN	SD	N	MEAN	SD	N	F	%	N	MEAN	SD	N	MEAN	SD	N	MEAN	SD	N	
ACT - PLAC	29	16	48	17	9	53	17	166.9	8.07	17	66.6	12.8	17	0	0.0	17	125	13.5	17	77.2	8.08	17	75.1	9.29	17
PLAC - ACT	30	15	58	15	3	20	15	172.7	8.71	15	68.7	12.6	15	2	13	15	133	19.9	15	80.4	9.81	15	71.2	8.44	15
BOTH SEQ.	30	15	58	32	12	38	32	169.7	8.75	32	67.6	12.6	32	2	6.3	32	129	17	32	78.7	8.93	32	73.3	8.98	32
TEST HOM.	NOT SIG			NOT SIG			NOT SIG			NOT SIG			N/A		NOT SIG			NOT SIG			NOT SIG				

TABLE 1.2
EEG TRIAL START SUMMARY
AB/123

TREATMENT SEQUENCE	OVERALL RATING										GENERAL DISTURBANCE									
	NORMAL		EQUIVOCAL		MOD. ABNORMAL		SEVERELY ABNORMAL		MOD/SEV ABNORM.		NORMAL		EQUIVOCAL		MOD. DISTURBED		SEVERELY DISTURBED		MOD/SEV DISTURBED	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
ACT - PLAC N=17	3	18	4	24	8	47	2	12	10	59	3	18	6	35	7	41	1	5.9	8	47
PLAC - ACT N=15	3	20	7	47	4	27	1	6.7	5	33	4	27	7	47	4	27	0	0.0	4	27
BOTH SEQ. N=32	6	19	11	34	12	38	3	9.4	15	47	7	22	13	41	11	34	1	3.1	12	38
TEST HOM.											NOT SIG									

TABLE 3.1A
EFFICACY - PULSE RATE, BLOOD PRESSURE, GLOBAL EVALUATION (BY COUNTRY)
(EXCLUDING PROTOCOL VIOLATORS)
TRIAL AB/123

COUNTRY & DOSE	VISIT	PULSE RATE (BEATS/MIN)						BLOOD PRESSURE (MM HG)												THERAPEUTIC EFFICACY		
		SUPINE			STANDING			SYSTOLIC SUPINE			DIASTOLIC SUPINE			SYSTOLIC STANDING			DIASTOLIC STANDING			EFFECTIVE		
		N	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	MEAN	STD	N	F	%
D, F, I 0.5g N=40	VIS:2	40	69.8	9.2	40	73.8	8.6	40	172.3	18.3	40	104.2	7.6	40	169.9	17.0	40	105.4	6.8	35	9	25.7
	VIS:3	40	69.5	8.4	40	73.4	8.5	40	166.6	18.0	40	101.4	6.2	40	164.4	16.9	40	103.7	11.3			
	VIS:4	38	69.2	7.2	37	74.3	9.1	33	164.6	16.3	33	100.0	6.2	38	161.1	16.3	33	100.9	9.3			
	V2-V4	38	0.9	5.6	37	-0.3	6.0	33	6.5	10.5	38	3.4	7.4	38	8.2	11.2	38	4.5	7.6			
	V2-V4	38	0.9	5.6	37	-0.3	6.0	33	6.5	10.5	38	3.4	7.4	38	8.2	11.2	38	4.5	7.6			
10MG N=39	VIS:2	39	69.1	9.7	38	72.8	8.7	39	169.2	12.8	39	103.9	7.4	39	165.0	14.4	39	105.5	9.6	34	28	82.4
	VIS:3	39	71.3	9.1	39	76.2	9.7	39	154.4	13.2	39	94.2	10.8	39	150.0	13.7	39	94.7	12.0			
	VIS:4	37	71.6	9.8	37	75.6	9.9	37	151.1	10.8	37	92.1	7.8	37	148.6	11.2	37	93.2	9.0			
	V2-V4	37	-2.5	9.2	37	-2.7	10.0	37	17.8	13.8	37	11.8	7.2	37	15.8	14.3	37	12.5	8.7			
	V2-V4	37	-2.5	9.2	37	-2.7	10.0	37	17.8	13.8	37	11.8	7.2	37	15.8	14.3	37	12.5	8.7			
15MG N=40	VIS:2	40	72.8	9.2	39	76.3	10.0	40	168.1	13.3	40	103.1	6.6	39	167.7	12.5	39	103.5	7.0	37	31	83.8
	VIS:3	39	74.6	11.0	39	78.6	12.7	39	154.3	14.0	39	92.1	8.8	39	152.7	14.0	39	93.3	11.0			
	VIS:4	33	72.2	10.1	33	75.9	10.2	38	150.8	12.3	38	89.9	9.6	38	148.8	13.2	38	91.4	10.7			
	V2-V4	38	0.9	7.7	37	0.8	7.1	38	16.5	13.0	38	13.2	9.0	37	18.2	13.3	37	12.4	8.9			
	V2-V4	38	0.9	7.7	37	0.8	7.1	38	16.5	13.0	38	13.2	9.0	37	18.2	13.3	37	12.4	8.9			
20MG N=38	VIS:2	38	68.6	8.4	37	72.0	8.3	38	172.2	15.8	38	104.6	6.6	38	167.6	16.5	38	105.1	9.6	32	27	84.4
	VIS:3	33	70.9	8.0	33	74.7	7.4	38	152.3	16.8	38	89.6	11.3	38	149.3	17.9	38	89.3	11.9			
	VIS:4	33	69.3	7.2	33	73.6	6.6	33	150.9	16.1	33	88.8	9.7	33	146.6	18.0	33	87.7	9.9			
	V2-V4	33	-1.1	6.6	32	-1.9	6.0	33	20.7	10.2	33	16.5	7.6	33	19.8	13.1	33	18.2	8.6			
	V2-V4	33	-1.1	6.6	32	-1.9	6.0	33	20.7	10.2	33	16.5	7.6	33	19.8	13.1	33	18.2	8.6			
ALL N=157	VIS:2	157	70.1	9.2	154	73.8	9.0	157	170.4	15.2	157	103.9	7.0	156	167.6	15.2	156	104.9	8.3	138	95	68.8
	VIS:3	124	71.6	9.4	123	75.7	9.9	124	157.0	16.0	124	94.4	11.1	124	154.2	16.5	124	95.4	12.2			
	VIS:4	146	70.6	8.7	145	74.9	9.4	146	154.5	15.6	146	92.8	9.8	146	151.5	15.8	146	93.5	10.8			
	V2-V4	146	-0.4	7.5	143	-1.0	7.7	146	15.2	13.0	146	11.1	9.1	145	15.3	13.6	145	11.7	9.7			
	V2-V4	146	-0.4	7.5	143	-1.0	7.7	146	15.2	13.0	146	11.1	9.1	145	15.3	13.6	145	11.7	9.7			