SAS/Graph to help data Dose Concentration consistency review

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SAS/Graph

Agenda

- Why a graph macro?
- Plot 1 : Dose vs concentration time
- Plot 2 : Overall concentration
- Plot 3 : Subject profile
- More options
- Questions
Why a graph macro

- Help validation process
- Check data quality and data issues
- Find outlier
Macro prerequisite

- Data must be merged in one dataset
- A time column must exist
Plot 1 : Dose vs concentration time

- Show dose and concentration date/time relation
- Ease finding missing dose or incorrect event time
- Display number of sample for each subject
Plot 1: Dose vs concentration time
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Plot 1: Dose vs concentration time

*Extract of SAS code*

```sas
proc sgplot data=work._dsPlotg1;
by _msbreak;
format _yaxisDose1 _yaxisPk1 _msgrph. ;

series x=_timeDose1 y=_yaxisDose1 / group=_yaxisDose1 lineattrs=(pattern=solid color=black) markers markerattrs=(symbol=squareFilled color=red) name ="GX1" ;
series x=_timePk1 y=_yaxisPk1 / group=_yaxisPk1
   lineattrs=(pattern=solid color=black)
   markers markerattrs=(symbol=circle color=blue) name ="GY1" ;
yaxis type=discrete label="id (Nbr Sample)" ;
xaxis label="time" ;

run ;
```

- Column _msBreak limit the number of subject per page
- Format _msgrph display subject and number of samples
- Both series overlap each other but use different symbol
Plot 2: Overall concentration

- Help find outlier
- Ensure concentration levels are consistent
Plot 2: Overall concentration
Plot 2: Overall concentration
Plot 2: Overall concentration

**SAS code**

```sas
proc sgplot data=work._dsPlotg2;
    series x=_plot2xaxis_pk1 y=_plot2yaxis_pk1 /
        lineattrs=(color=white) markers
        markerattrs=(symbol=circle color=blue);
run;
```
Plot 3 : Subject profile

- Allow detail review of all subjects
- Help find patterns
Plot 3 : Subject profile
Plot 3 : Subject profile

SAS code

```
proc sgpanel data=work._dsPlotg3 ;
    panelby id / columns=4 rows=3 ;
    series x=_plot3xaxis_pk1 y=_plot3yaxis_pk1 /
        lineattrs=(pattern=solid color=blue)
        markers markerattrs=(symbol=circle color=blue) ;
run ;
```
Global macro options

- Create only some of the graphs
- Multiple compartements, separated by a “/“
- Allow subset
- Allow group by option
Questions ?