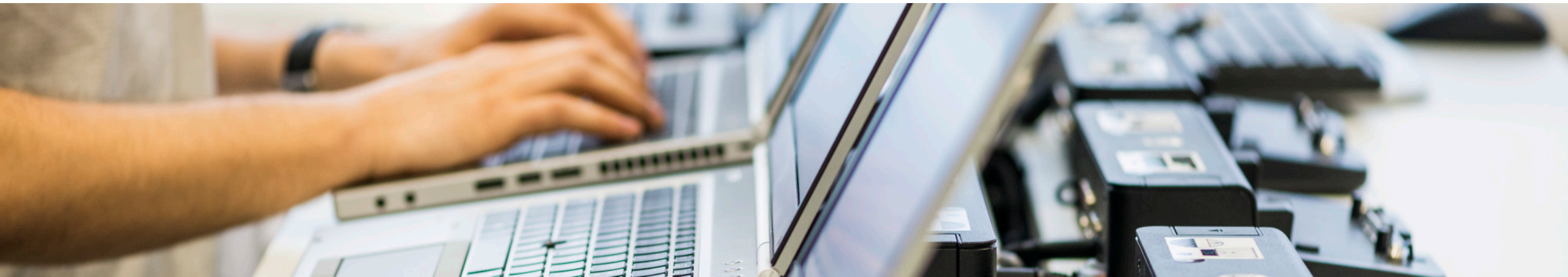

Data Visualization: Where to Start?

PhUSE EU Connect 2019

Emma Moore, Roche



Agenda

- Why the move to Data Visualisation?
- Selecting the 'right' tool
- General Tips
- R Shiny
- Spotfire
- Concluding Comments



Why the move to Data Visualisation?

- “A picture is worth a thousand words”
 - Information processed faster
 - Trends identified at a glance
- Data Consolidation
- Empowering Stakeholders
 - Faster Decisions
 - Drugs to patients quicker
- Appearance



Selecting the 'right' tool

TIBCO Spotfire

- Intuitive
- Point & Click
- Visualisation Suggestions
- Delve into details



R Shiny

- Analyses within apps
- Control
- Complex Visuals
- Reproducible



adsl - TIBCO Spotfire

File Edit View Insert Tools Help

adsl

+

Data

adsl

Type to search columns

NUMBERS

Age

Analysis Age

End of Study Relative Day

Relative Day of Death

Relative day of death fro...

Source Sequence Numb...

Study Day of Collection

Total Treatment Duration ...

TIME

Anchor Date 1

Anchor Date 2 (Month 6 ...

Anchor Date 3 (Month 12...

Anchor Date 4 (Month 18...

Anchor Date 5 (Month 24...

Date Last Known Alive

Date of Data Cut

Date of Data Extraction

Date of Death

Date of Enrollment

Date of First Exposure in ...

Date of First Exposure to ...

Date of Informed Consent

Date of Last Exposure in ...

Date of Last Exposure to ...

Date of Randomization

Datetime of First Exposur...

Datetime of First Exposur...

Datetime of Last Exposur...

Datetime of Last Exposur...

End of Study Date

Imputed Birth Date

Period 01 End Date

Period 01 End Datetime

Period 01 Start Date

Period 01 Start Datetime

Period 01 Subperiod 1 En...

Recommended visualizations

Histogram – Anchor Date 1

Histogram – Anchor Date 1

Row Count per Anchor Date 1

Row Count per Anchor Date 1

1 column from adsl

☐ Do not show recommendations automatically. Add default visualization instead.

Close

Online

45 of 45 rows 0 marked 105 columns

rs and Markings

Go to: [Cover Page](#)

Select Stat for AE Bar Graph: Patients

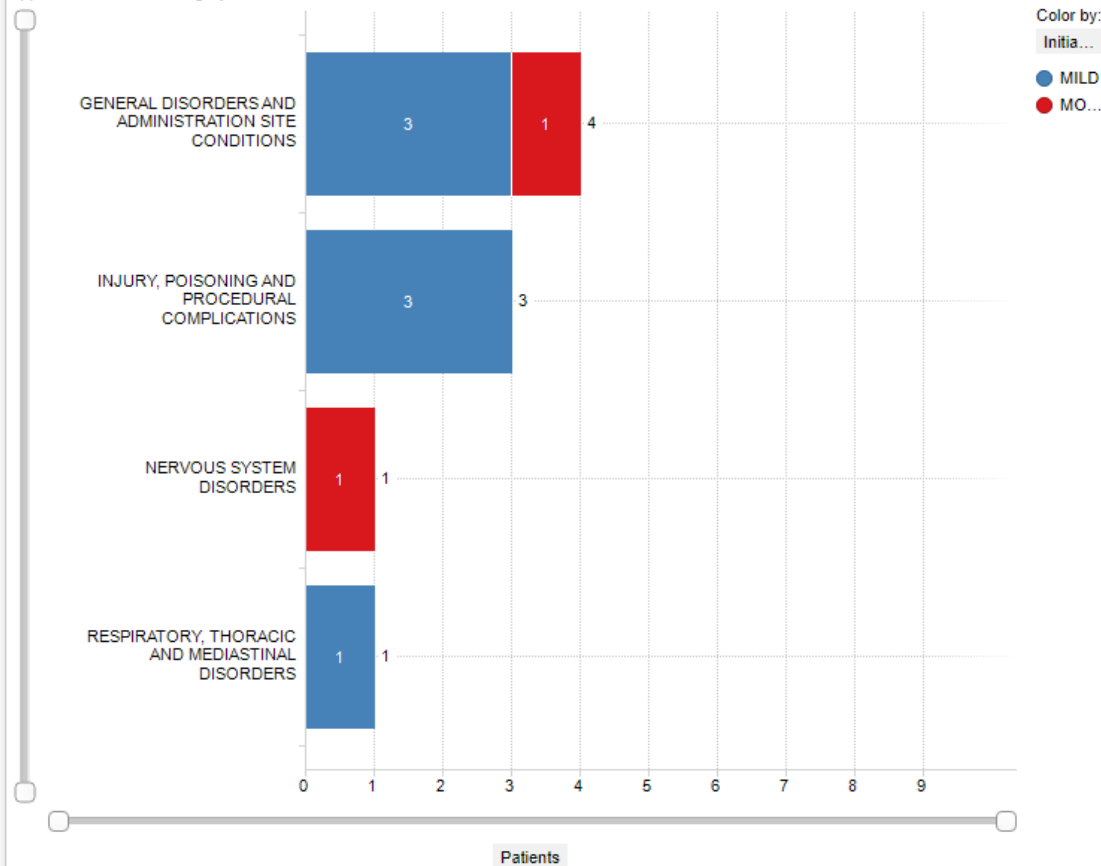
Choose Color BY: Initial Severity/Intensity

ifiedFilters

ers button displays filters
ization

1. Adverse Events by System Organ Class: Safety Evaluable

Note 1) safety evaluation patients with treatment emergent AEs; 2) for total patient counts, a patient may be counted more than once if the patient appears in each sub-category for a stacked bar.



2. Adverse

Note 1) safety
patient appears

Adverse Events (Marked)

Subject ID	Relative Start Day of AE	Start Date/Time of Adverse Event	Relative End Day of AE	End Date/Time of Adverse ...	Derived Numeric AE Duration	Reported Term for the Adverse Event	Seriou s Event	Initial Toxicity Grade	Standard Toxicity Grade	Outcor Advers
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Selecting the 'right' tool

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Total Score ▼

Display Values by:

- ☒ Analysis Days
- ☐ Analysis Visit
- ☐ Age at Assessment

Display Age in: (applies only to Age at Assessment plot)

Months ▼

Value to be displayed:

- ☒ Analysis Value
- ☐ Change from Baseline

Select variable to colour by:

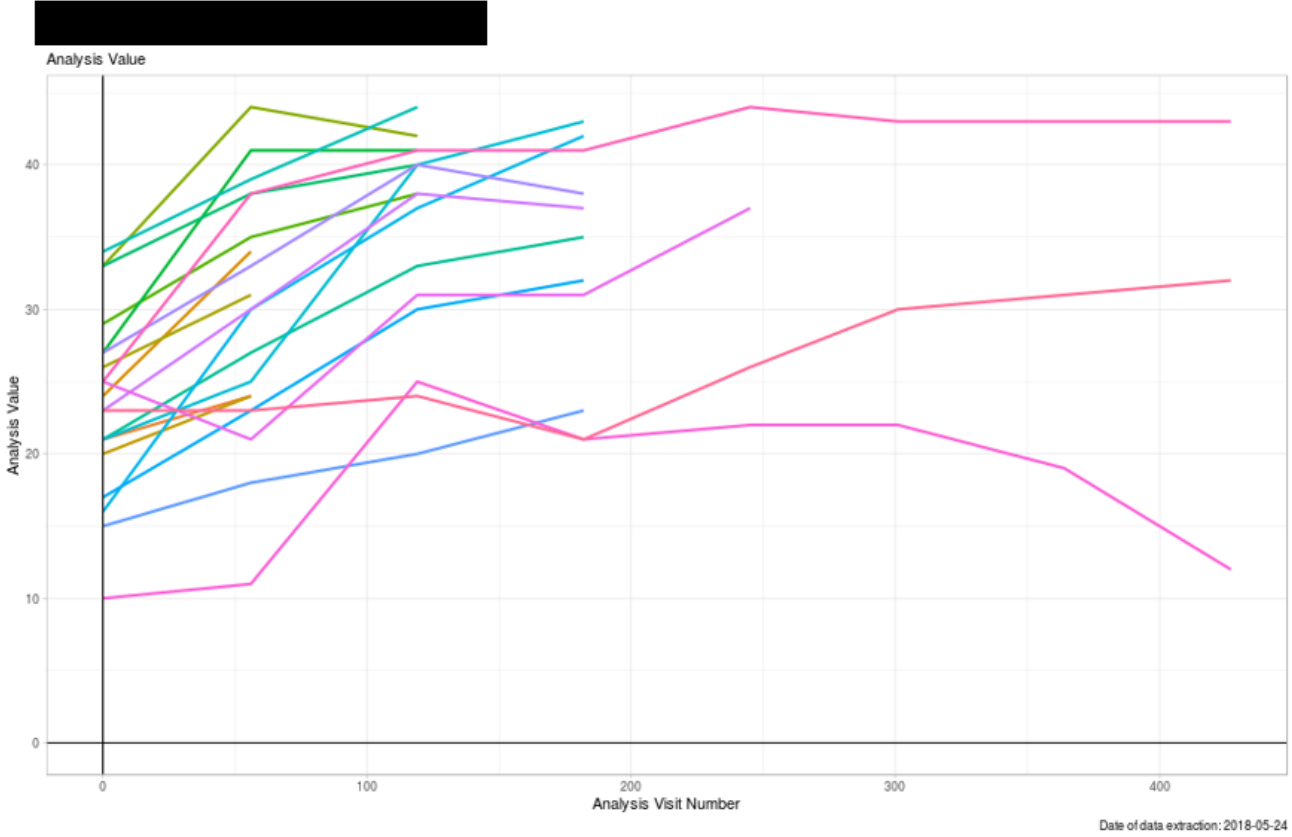
Subject ID ▼

Display Values?

- ☐ Yes
- ☒ No

Display Reference Lines?

- ☐ Yes
- ☒ No



Download

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General Tips

- Set aside time
 - Block out time in calendars
 - Be strict
- Have a clear goal
 - Application in day to day work
 - Set a deadline too



R Shiny

- Learn the basics
 - Start Simple
 - Work step by step
- Find examples
- Online Resources
- Peers & Colleagues



SPOTFIRE



- Be curious
 - Intuitive software
 - Variety of analyses available
- Work step by step
 - One domain/tab at a time
 - Build in added complexities later
- Online resources
- Training courses



CONCLUDING COMMENTS

- Data visuals are powerful in the right hands
- Not the only two tools available
- Reach out to communities & networks
- Be bold & have fun!





***Doing now what patients need
next***