



A short introduction to a new perspective on subgroup screening

Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

no selection

Subgroup levels

1

2

3

Plot type

☒ linear ☐ logarithmic

Reference line

7.6

Y Range

5.3

9.5

Selected Subgroups

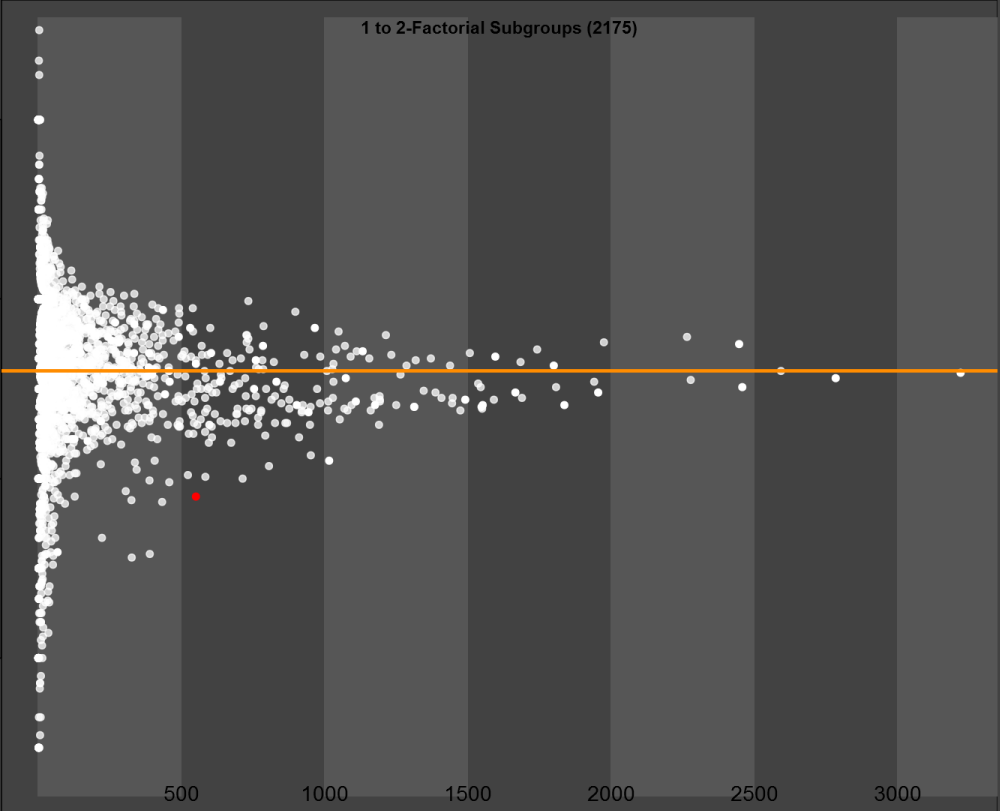
Filtered Subgroups

Show 6 entries

Search:

SGID	number.of.subjects	satisfact	nfactors	smoker	graduat_f
1170	1170	551	6.9	2 Y	elementary school

Showing 1 to 1 of 1 entries



How satisfied are you with your life?

- ▶ Overall satisfaction: 7.56 (out of 10; 3466 in total)
- ▶ 14 Factors:

Age	Employment status
BMI	Graduation
Working hours	Father´s graduation
Going to the doctor p.a.	Mother´s graduation
Net income	Highest degree
Smoker	Father´s highest degree
Gender	Mother´s highest degree

Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number of subjects

Subgroup Filter

no selection

Subgroup Plot

Plot type

Linear

Reference Range

Y Range

500 1000 1500 2000 2500 3000

1170

551

6.9

2 Y

elementary school

Previous

1

Next

1 to 2-Factorial Subgroups (2175)

id	satisfaction	age	bmi	w_hours	todoctor	income	smoker	gender	employed
1359	10	>40	>30	NA	<6 visits	<1000	Y	female	non-working
2455	9	>40	<=30	<35h	<6 visits	<1000	N	female	regular half-time
200	8	30-40	>30	NA	<6 visits	NA	N	male	non-working
1280	8	>40	<=30	>45h	<6 visits	NA	N	male	regular full-time
2384	7	<30	<=30	NA	<6 visits	NA	N	female	non-working
2258	9	<30	<=30	<35h	<6 visits	NA	N	male	regular half-time
837	8	>40	<=30	>45h	<6 visits	>=3000	N	male	regular full-time
1343	9	<30	<=30	NA	<6 visits	<1000	N	male	part-time job
3129	8	>40	<=30	35-45h	<6 visits	1000- <2000	N	male	regular full-time

Subgroup Explorer

Target variable (Y-Axis)

satisfact

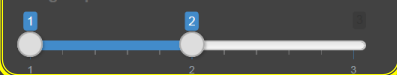
Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

no selection

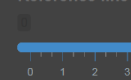
Subgroup levels



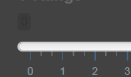
Plot type

☐ linear ☒ log

Reference line

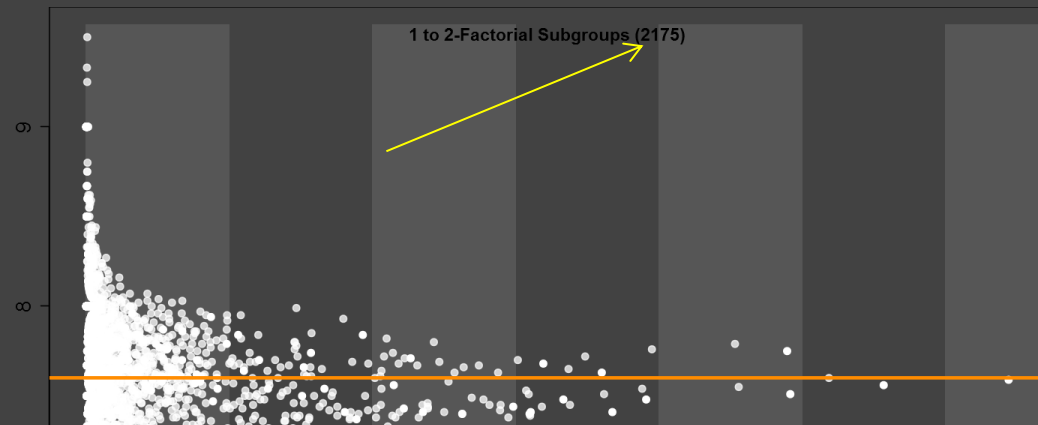


Y Range



Selected Subgroup

Show 6



id	satisfaction	age	bmi	w_hours	todoctor	income	smoker	gender	employed
1359	10	>40	>30	NA	<6 visits	<1000	Y	female	non-working
2455	9	>40	<=30	<35h	<6 visits	<1000	N	female	regular half-time
200	8	30-40	>30	NA	<6 visits	NA	N	male	non-working
1280	8	>40	<=30	>45h	<6 visits	NA	N	male	regular full-time
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1170 1170 551 6.9 2 Y elementary school

Showing 1 to 1 of 1 entries

Previous

1

Next

Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

no selection

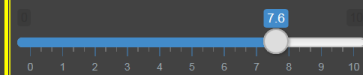
Subgroup levels



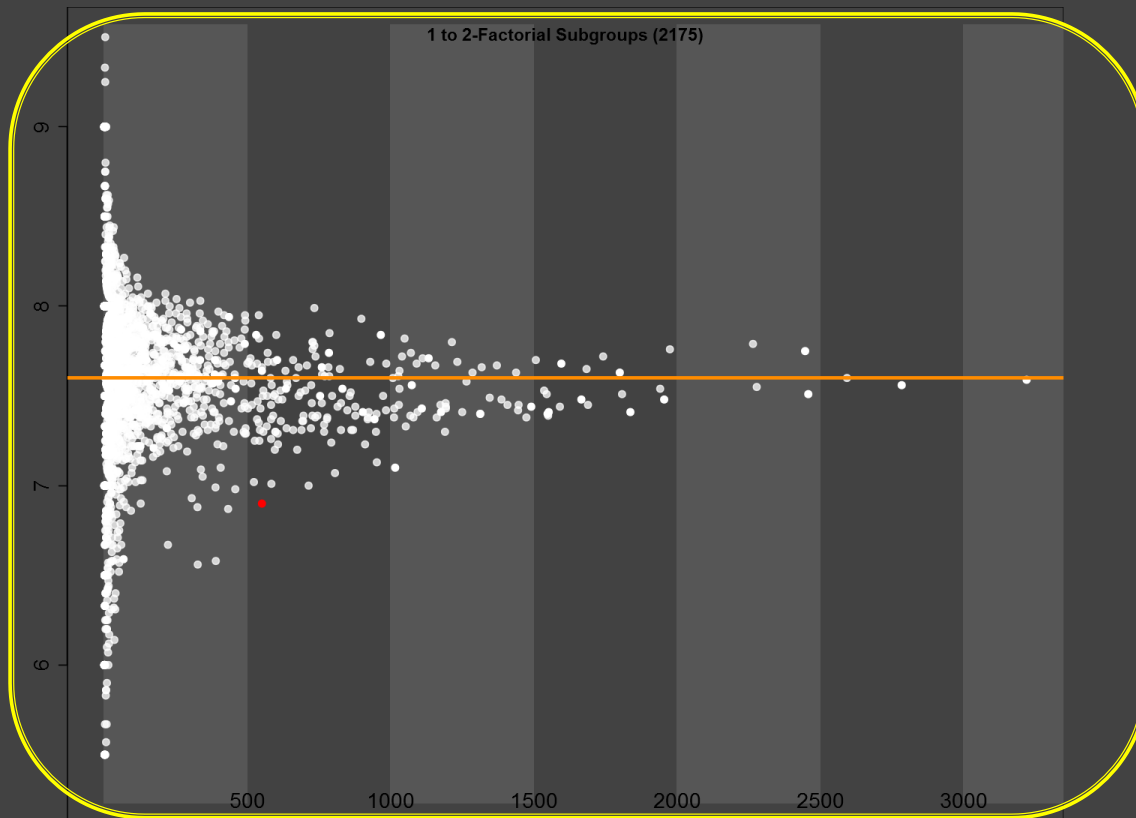
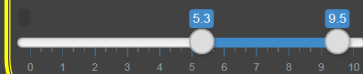
Plot type

☐ linear ☒ logarithmic

Reference line



Y Range



Selected Subgroups

Filtered Subgroups

SGID	number.of.subjects	satisfact	nfactors	smoker	graduat_f	
1170	1170	551	6.9	2	Y	elementary school

Showing 1 to 1 of 1 entries

Previous

1

Next

Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

employed

no selection

gender

employed

smoker

graduat

graduat_f

graduat_m

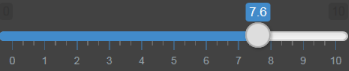
high_grad

Plot type

linear

logarithmic

Reference line

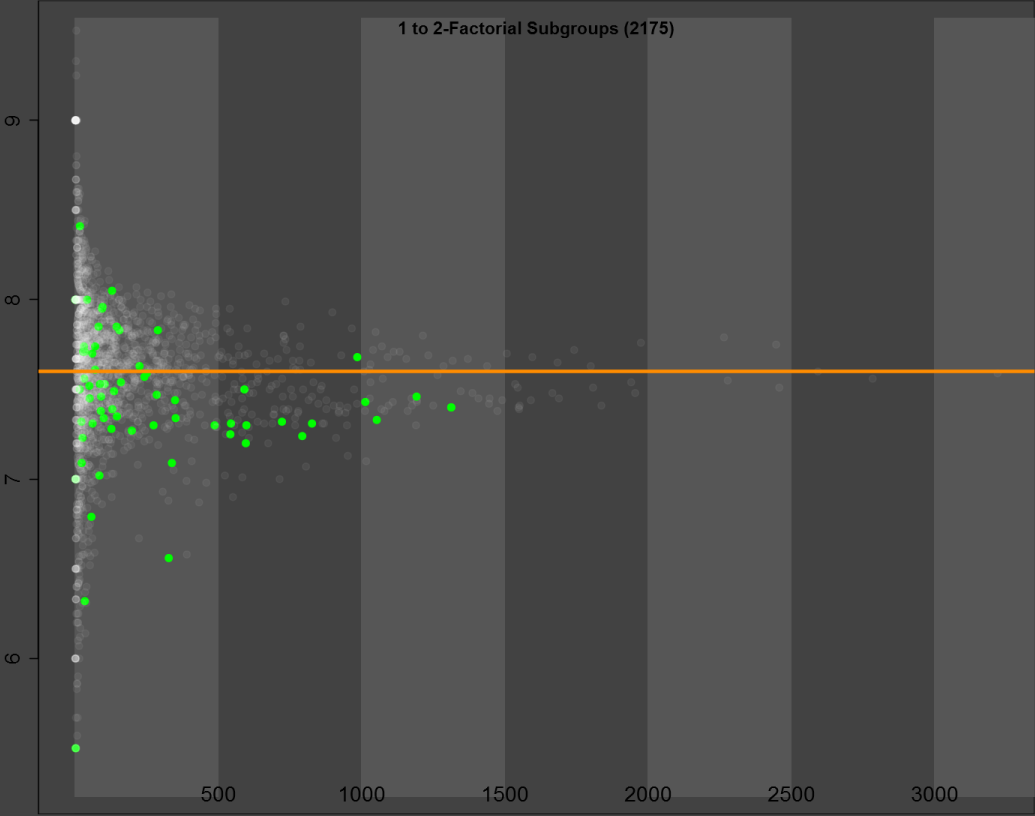


Y Range



Selected Subgroups

Filtered Subgroups



Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

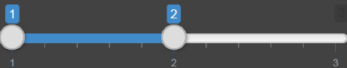
Subgroup Filter

employed

Choose a value

non-working

Subgroup levels



Plot type

☐ linear ☒ logarithmic

Reference line



Y Range



Selected Subgroups

Filtered Subgroups



Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

employed

Choose a value

non-working

Subgroup levels



Plot type

☐ linear ☒ logarithmic

Reference line

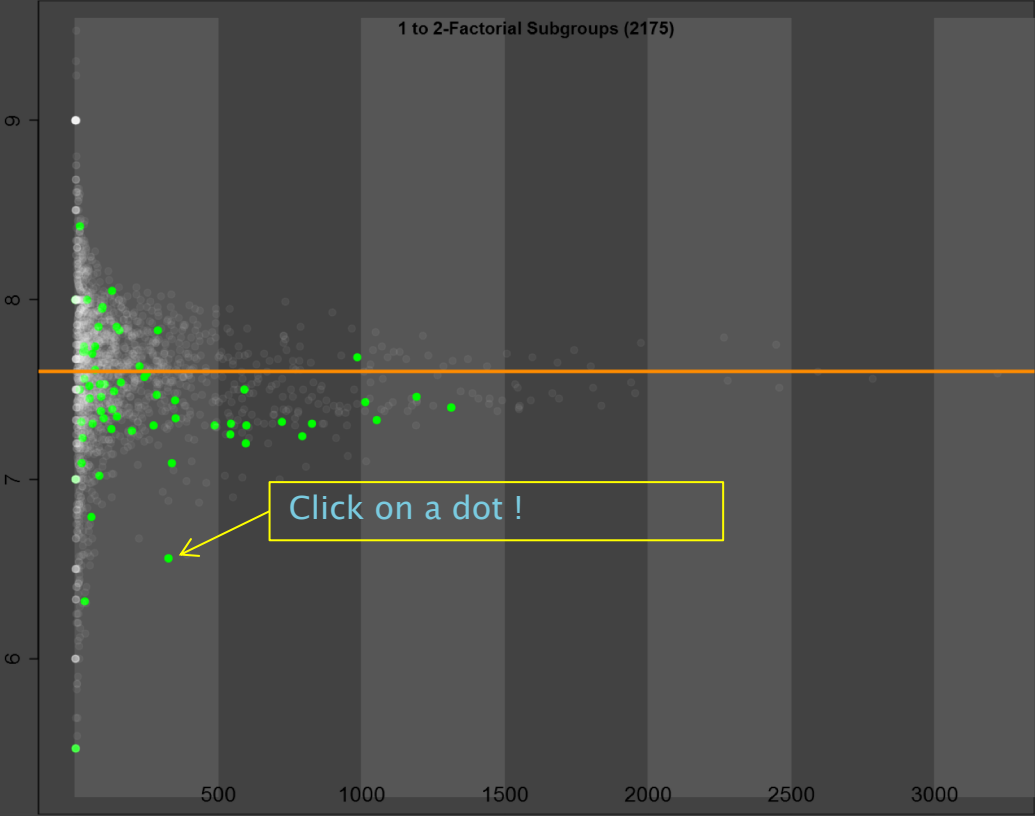


Y Range



Selected Subgroups

Filtered Subgroups



Subgroup Explorer

Target variable (Y-Axis)

satisfact

Reference variable (X-Axis)

number.of.subjects

Subgroup Filter

employed

Choose a value

non-working

Subgroup levels

1

2

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Plot type

☐ linear ☒ logarithmic

Reference line

7.6

Y Range

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9.5

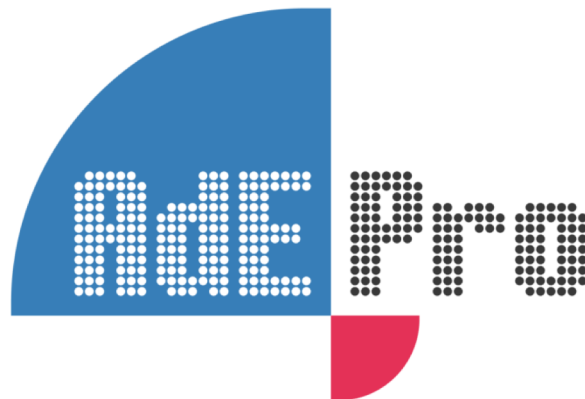
Selected Subgroups

Filtered Subgroups

Show 6 entries

SGID	number.of.subjects	satisfact	nfactors	employed	smoker
1143	1143	327	6.56	2 non-working	Y





A short introduction to a new perspective on animation of adverse events

AdEPro - Introduction

Animation of Adverse Event Profiles



Objective:

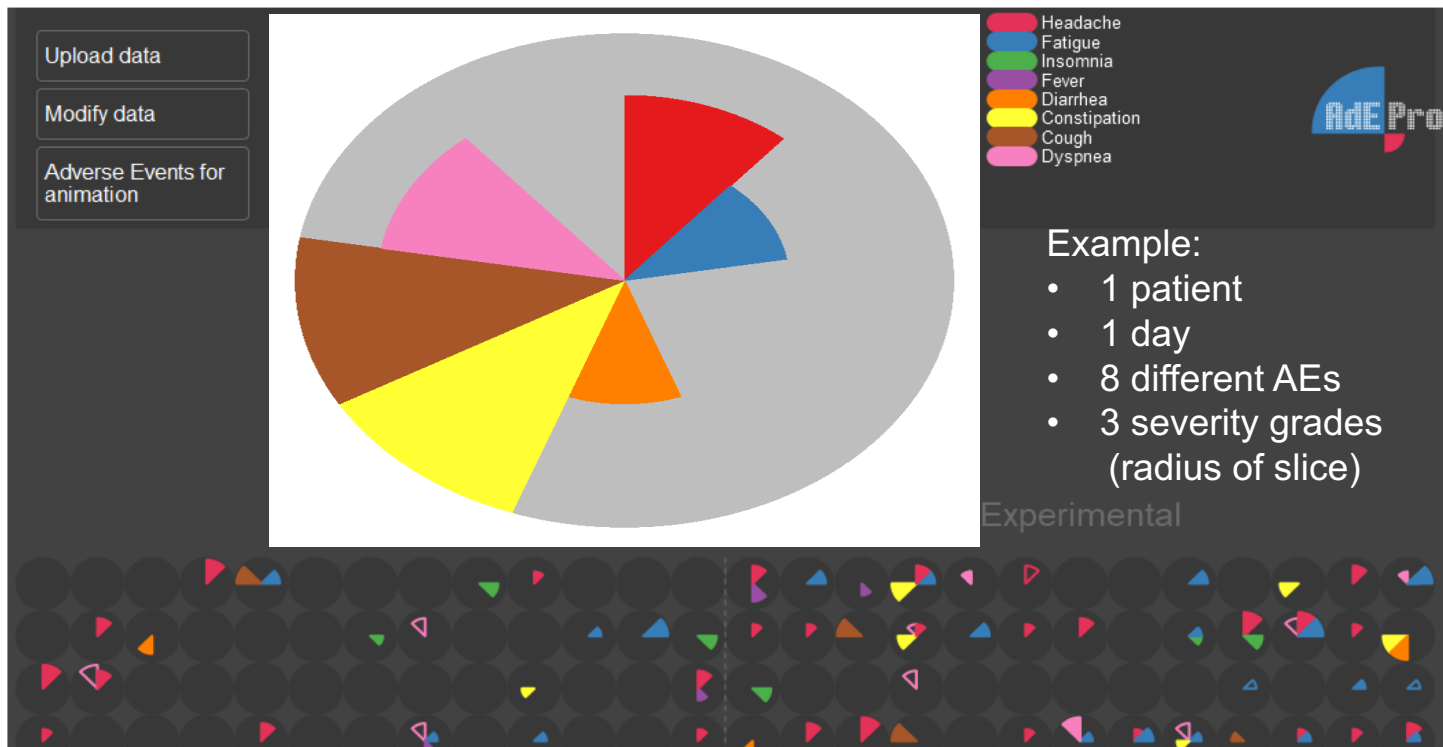
- Audio-visualization of Adverse Event Profiles “experiencing” Adverse Event Profiles →
- Giving clinicians and statisticians a different view on adverse events of clinical trials
- Possibility to look at all patients at the same time
- Temporal progress of the study shown in a movie

Challenges:

- Large numbers of AEs difficult to display simultaneously
- Showing all dimensions at once (patient, time, type and severity of an AE) while still allowing a good overview



Visualization – Our Approach



Input Data



day_start	day_end	patient	ae	sev	trtem	ser	nonser	studrel
3	127	12345023	Fatigue	3	1	0	1	0
36	81	12345279	Hypomagn	2	1	0	1	0
36	137	12345154	Constipati	3	1	0	1	0
79	121	12345200	Anemia	1	1	0	1	1
68	76	12345095	Dyspnea	2	1	1	0	1
54	95	12345265	Fever	2	1	0	1	1
74	77	12345272	Cough	3	1	0	1	1
40	45	12345148	Thromboe	1	1	1	0	0
69	76	12345283	Thromboe	1	1	1	0	0

AE Data

28

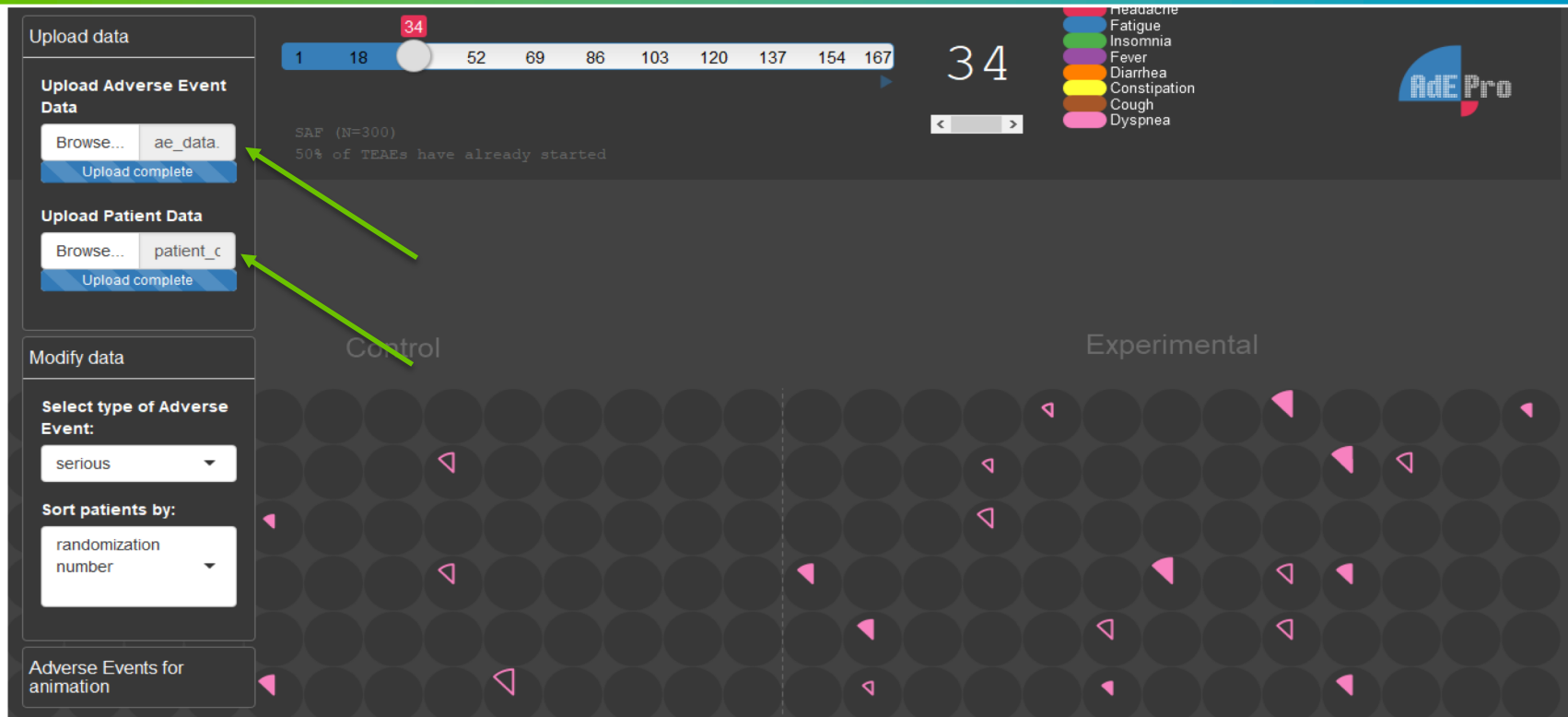


- Headache
- Fatigue
- Insomnia
- Fever
- Diarrhea
- Constipation
- Cough
- Dyspnea



Patient Data

ps	treat	end	death	age	gender	region
12345001	Control	80	99999	67	female	Europe
12345002	Control	79	99999	25	female	USA
12345003	Control	51	99999	47	male	Asia
12345004	Control	75	75	30	male	Asia
12345005	Control	145	99999	32	female	Asia
12345006	Control	54	54	55	male	Europe
12345007	Control	140	99999	42	female	USA
12345008	Control	114	99999	52	male	Asia
12345009	Control	157	99999	65	female	USA
12345010	Control	85	99999	69	female	USA
12345011	Control	153	99999	31	female	USA



Functionality – Modify Panel



1 18 52 69 86 103 120 137 154 167 34

SAF (N=300)
50% of TEAEs have already started

Control

Upload Adverse Event Data
Browse... ae_data.
Upload complete

Upload Patient Data
Browse... patient_c
Upload complete

Modify data

Select type of Adverse Event:
serious

Sort patients by:
randomization number
randomization number
age
gender
region
ae_frequency

Functionality – Adverse Events Panel

Adverse Events for animation

Choose Adverse Events for display (max. 8):

Dyspnea

Thromboembolic event

Sepsis

Edema limbs

Choose Adverse Event for audio:

Sepsis

Choose Treatment Group for first sound:

- none -

Choose Treatment Group for second sound:

- none -

1

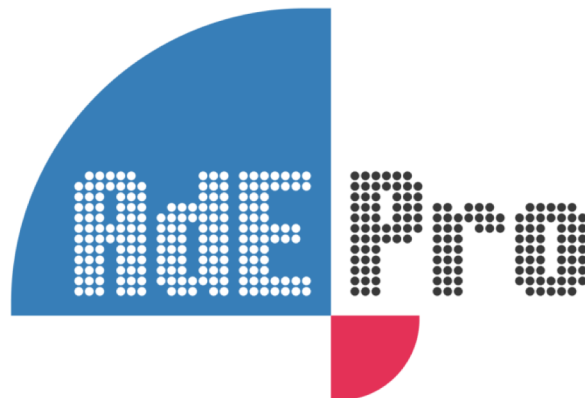
18 35 52 69 86 103 120 137 154 167

SAP (N=300)

4% of TEAEs have already started

- Headache
- Fatigue
- Insomnia
- Fever
- Diarrhea
- Constipation
- Cough
- Dyspnea

AdePro





DOWNLOAD: <https://cran.r-project.org/web/packages/subscreen/index.html>

DOWNLOAD: <https://cran.r-project.org/web/packages/adepto/index.html>

DATA: GESIS – Leibniz-Institut für Sozialwissenschaften (2016): German General Social Survey – ALLBUS 2014. GESIS Datenarchiv, Köln. ZA5242 Datenfile Version 1.0.0, <http://dx.doi.org/10.4232/1.12437>