Thema 6: Erstellen eines DM-Listings

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3/25/23

suppressPackageStartupMessages(library(tidyverse))  
suppressPackageStartupMessages(library(ggplot2))  
suppressPackageStartupMessages(library(survival))  
suppressPackageStartupMessages(library(survminer))  
suppressPackageStartupMessages(library(flextable))  
suppressPackageStartupMessages(library(officer))  
suppressPackageStartupMessages(library(safetyData))

## Beispieldaten für Teil 6 erstellen

Wir laden die SDTM DM-Datei, die im R-Paket **safetyData** enthalten.

Die ersten Zeilen der SDTM DM-Tabelle sehen wie folgt aus.

data(sdtm\_dm, package = "safetyData")  
df <- sdtm\_dm  
df %>% head()

STUDYID DOMAIN USUBJID SUBJID RFSTDTC RFENDTC RFXSTDTC  
1 CDISCPILOT01 DM 01-701-1015 1015 2014-01-02 2014-07-02 2014-01-02  
2 CDISCPILOT01 DM 01-701-1023 1023 2012-08-05 2012-09-02 2012-08-05  
3 CDISCPILOT01 DM 01-701-1028 1028 2013-07-19 2014-01-14 2013-07-19  
4 CDISCPILOT01 DM 01-701-1033 1033 2014-03-18 2014-04-14 2014-03-18  
5 CDISCPILOT01 DM 01-701-1034 1034 2014-07-01 2014-12-30 2014-07-01  
6 CDISCPILOT01 DM 01-701-1047 1047 2013-02-12 2013-03-29 2013-02-12  
 RFXENDTC RFICDTC RFPENDTC DTHDTC DTHFL SITEID AGE AGEU SEX RACE  
1 2014-07-02 NA 2014-07-02T11:45 <NA> <NA> 701 63 YEARS F WHITE  
2 2012-09-01 NA 2013-02-18 <NA> <NA> 701 64 YEARS M WHITE  
3 2014-01-14 NA 2014-01-14T11:10 <NA> <NA> 701 71 YEARS M WHITE  
4 2014-03-31 NA 2014-09-15 <NA> <NA> 701 74 YEARS M WHITE  
5 2014-12-30 NA 2014-12-30T09:50 <NA> <NA> 701 77 YEARS F WHITE  
6 2013-03-09 NA 2013-07-28 <NA> <NA> 701 85 YEARS F WHITE  
 ETHNIC ARMCD ARM ACTARMCD  
1 HISPANIC OR LATINO Pbo Placebo Pbo  
2 HISPANIC OR LATINO Pbo Placebo Pbo  
3 NOT HISPANIC OR LATINO Xan\_Hi Xanomeline High Dose Xan\_Hi  
4 NOT HISPANIC OR LATINO Xan\_Lo Xanomeline Low Dose Xan\_Lo  
5 NOT HISPANIC OR LATINO Xan\_Hi Xanomeline High Dose Xan\_Hi  
6 NOT HISPANIC OR LATINO Pbo Placebo Pbo  
 ACTARM COUNTRY DMDTC DMDY  
1 Placebo USA 2013-12-26 -7  
2 Placebo USA 2012-07-22 -14  
3 Xanomeline High Dose USA 2013-07-11 -8  
4 Xanomeline Low Dose USA 2014-03-10 -8  
5 Xanomeline High Dose USA 2014-06-24 -7  
6 Placebo USA 2013-01-22 -21

## Auswahl der Variablen

Die Übersicht über die Variablen erhält man mit dem Befehl str().

str(df)

'data.frame': 306 obs. of 25 variables:  
 $ STUDYID : chr "CDISCPILOT01" "CDISCPILOT01" "CDISCPILOT01" "CDISCPILOT01" ...  
 $ DOMAIN : chr "DM" "DM" "DM" "DM" ...  
 $ USUBJID : chr "01-701-1015" "01-701-1023" "01-701-1028" "01-701-1033" ...  
 $ SUBJID : int 1015 1023 1028 1033 1034 1047 1057 1097 1111 1115 ...  
 $ RFSTDTC : chr "2014-01-02" "2012-08-05" "2013-07-19" "2014-03-18" ...  
 $ RFENDTC : chr "2014-07-02" "2012-09-02" "2014-01-14" "2014-04-14" ...  
 $ RFXSTDTC: chr "2014-01-02" "2012-08-05" "2013-07-19" "2014-03-18" ...  
 $ RFXENDTC: chr "2014-07-02" "2012-09-01" "2014-01-14" "2014-03-31" ...  
 $ RFICDTC : logi NA NA NA NA NA NA ...  
 $ RFPENDTC: chr "2014-07-02T11:45" "2013-02-18" "2014-01-14T11:10" "2014-09-15" ...  
 $ DTHDTC : chr NA NA NA NA ...  
 $ DTHFL : chr NA NA NA NA ...  
 $ SITEID : int 701 701 701 701 701 701 701 701 701 701 ...  
 $ AGE : int 63 64 71 74 77 85 59 68 81 84 ...  
 $ AGEU : chr "YEARS" "YEARS" "YEARS" "YEARS" ...  
 $ SEX : chr "F" "M" "M" "M" ...  
 $ RACE : chr "WHITE" "WHITE" "WHITE" "WHITE" ...  
 $ ETHNIC : chr "HISPANIC OR LATINO" "HISPANIC OR LATINO" "NOT HISPANIC OR LATINO" "NOT HISPANIC OR LATINO" ...  
 $ ARMCD : chr "Pbo" "Pbo" "Xan\_Hi" "Xan\_Lo" ...  
 $ ARM : chr "Placebo" "Placebo" "Xanomeline High Dose" "Xanomeline Low Dose" ...  
 $ ACTARMCD: chr "Pbo" "Pbo" "Xan\_Hi" "Xan\_Lo" ...  
 $ ACTARM : chr "Placebo" "Placebo" "Xanomeline High Dose" "Xanomeline Low Dose" ...  
 $ COUNTRY : chr "USA" "USA" "USA" "USA" ...  
 $ DMDTC : chr "2013-12-26" "2012-07-22" "2013-07-11" "2014-03-10" ...  
 $ DMDY : int -7 -14 -8 -8 -7 -21 NA -9 -13 -7 ...

Die folgenden Variablen werden ausgewählt. Für die weitere Darstellung beschränken wir die Liste auf 100 Zeilen.

df2 <- df %>% select(SUBJID, DMDTC, RFSTDTC, RFENDTC, AGE, SEX, ACTARM, DTHDTC) %>% head(100)  
head(df2)

SUBJID DMDTC RFSTDTC RFENDTC AGE SEX ACTARM DTHDTC  
1 1015 2013-12-26 2014-01-02 2014-07-02 63 F Placebo <NA>  
2 1023 2012-07-22 2012-08-05 2012-09-02 64 M Placebo <NA>  
3 1028 2013-07-11 2013-07-19 2014-01-14 71 M Xanomeline High Dose <NA>  
4 1033 2014-03-10 2014-03-18 2014-04-14 74 M Xanomeline Low Dose <NA>  
5 1034 2014-06-24 2014-07-01 2014-12-30 77 F Xanomeline High Dose <NA>  
6 1047 2013-01-22 2013-02-12 2013-03-29 85 F Placebo <NA>

df2$SUBJID <- as.character(df2$SUBJID)  
df2$DTHDTC <- ifelse(is.na(df2$DTHDTC), "", df2$DTHDTC)  
df2$RFSTDTC <- ifelse(is.na(df2$RFSTDTC), "", df2$RFSTDTC)  
df2$RFENDTC <- ifelse(is.na(df2$RFENDTC), "", df2$RFENDTC)  
df2$SEX <- df2$SEX %>% recode(  
 "F" = "Female",  
 "M" = "Male")  
head(df2)

SUBJID DMDTC RFSTDTC RFENDTC AGE SEX ACTARM  
1 1015 2013-12-26 2014-01-02 2014-07-02 63 Female Placebo  
2 1023 2012-07-22 2012-08-05 2012-09-02 64 Male Placebo  
3 1028 2013-07-11 2013-07-19 2014-01-14 71 Male Xanomeline High Dose  
4 1033 2014-03-10 2014-03-18 2014-04-14 74 Male Xanomeline Low Dose  
5 1034 2014-06-24 2014-07-01 2014-12-30 77 Female Xanomeline High Dose  
6 1047 2013-01-22 2013-02-12 2013-03-29 85 Female Placebo  
 DTHDTC  
1   
2   
3   
4   
5   
6

Zunächst wird ein einfaches Flextable-Objekt ohne Änderungen erstellt.

df2 %>% head() %>% flextable()

| SUBJID | DMDTC | RFSTDTC | RFENDTC | AGE | SEX | ACTARM | DTHDTC |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1015 | 2013-12-26 | 2014-01-02 | 2014-07-02 | 63 | Female | Placebo |  |
| 1023 | 2012-07-22 | 2012-08-05 | 2012-09-02 | 64 | Male | Placebo |  |
| 1028 | 2013-07-11 | 2013-07-19 | 2014-01-14 | 71 | Male | Xanomeline High Dose |  |
| 1033 | 2014-03-10 | 2014-03-18 | 2014-04-14 | 74 | Male | Xanomeline Low Dose |  |
| 1034 | 2014-06-24 | 2014-07-01 | 2014-12-30 | 77 | Female | Xanomeline High Dose |  |
| 1047 | 2013-01-22 | 2013-02-12 | 2013-03-29 | 85 | Female | Placebo |  |

ft\_dm <- df2 %>% flextable()

Mit autofit() wird die Breite automatisch eingestellt. Das passiert mit einem internen Algorithmus im Paket. Der passt nicht immer.

ft\_dm <- ft\_dm %>% autofit()  
ft\_dm

| SUBJID | DMDTC | RFSTDTC | RFENDTC | AGE | SEX | ACTARM | DTHDTC |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1015 | 2013-12-26 | 2014-01-02 | 2014-07-02 | 63 | Female | Placebo |  |
| 1023 | 2012-07-22 | 2012-08-05 | 2012-09-02 | 64 | Male | Placebo |  |
| 1028 | 2013-07-11 | 2013-07-19 | 2014-01-14 | 71 | Male | Xanomeline High Dose |  |
| 1033 | 2014-03-10 | 2014-03-18 | 2014-04-14 | 74 | Male | Xanomeline Low Dose |  |
| 1034 | 2014-06-24 | 2014-07-01 | 2014-12-30 | 77 | Female | Xanomeline High Dose |  |
| 1047 | 2013-01-22 | 2013-02-12 | 2013-03-29 | 85 | Female | Placebo |  |
| 1057 | 2013-12-20 |  |  | 59 | Female | Screen Failure |  |
| 1097 | 2013-12-23 | 2014-01-01 | 2014-07-09 | 68 | Male | Xanomeline Low Dose |  |
| 1111 | 2012-08-25 | 2012-09-07 | 2012-09-17 | 81 | Female | Xanomeline Low Dose |  |
| 1115 | 2012-11-23 | 2012-11-30 | 2013-01-23 | 84 | Male | Xanomeline Low Dose |  |
| 1118 | 2014-02-27 | 2014-03-12 | 2014-09-09 | 52 | Male | Placebo |  |
| 1130 | 2014-02-09 | 2014-02-15 | 2014-08-16 | 84 | Male | Placebo |  |
| 1133 | 2012-10-23 | 2012-10-28 | 2013-04-29 | 81 | Female | Xanomeline High Dose |  |
| 1145 | 2013-09-05 |  |  | 57 | Female | Screen Failure |  |
| 1146 | 2013-05-07 | 2013-05-20 | 2013-06-30 | 75 | Female | Xanomeline High Dose |  |
| 1148 | 2013-08-14 | 2013-08-23 | 2014-02-20 | 57 | Male | Xanomeline High Dose |  |
| 1153 | 2013-09-06 | 2013-09-23 | 2014-04-01 | 79 | Female | Placebo |  |
| 1162 | 2013-04-18 |  |  | 82 | Female | Screen Failure |  |
| 1176 | 2012-09-30 |  |  | 62 | Female | Screen Failure |  |
| 1180 | 2013-01-28 | 2013-02-12 | 2013-03-23 | 56 | Male | Xanomeline High Dose |  |
| 1181 | 2013-11-26 | 2013-12-05 | 2013-12-12 | 79 | Female | Xanomeline Low Dose |  |
| 1188 | 2013-02-03 | 2013-02-15 | 2013-03-25 | 71 | Male | Xanomeline Low Dose |  |
| 1192 | 2012-07-08 | 2012-07-22 | 2013-01-20 | 80 | Female | Xanomeline Low Dose |  |
| 1203 | 2013-01-25 | 2013-02-02 | 2013-08-03 | 81 | Female | Placebo |  |
| 1211 | 2012-10-30 | 2012-11-15 | 2013-01-14 | 76 | Female | Xanomeline Low Dose | 2013-01-14 |
| 1234 | 2013-03-20 | 2013-03-30 | 2013-09-22 | 69 | Male | Placebo |  |
| 1239 | 2013-12-28 | 2014-01-11 | 2014-07-11 | 56 | Male | Xanomeline High Dose |  |
| 1240 | 2013-09-22 |  |  | 57 | Female | Screen Failure |  |
| 1275 | 2014-01-25 | 2014-02-07 | 2014-06-14 | 61 | Male | Xanomeline High Dose |  |
| 1287 | 2014-01-17 | 2014-01-25 | 2014-07-26 | 56 | Female | Xanomeline High Dose |  |
| 1294 | 2013-03-17 | 2013-03-24 | 2013-06-14 | 67 | Male | Xanomeline Low Dose |  |
| 1302 | 2013-08-20 | 2013-08-29 | 2013-11-05 | 61 | Male | Xanomeline High Dose |  |
| 1307 | 2013-12-08 |  |  | 80 | Female | Screen Failure |  |
| 1317 | 2014-05-10 | 2014-05-22 | 2014-11-20 | 68 | Male | Xanomeline Low Dose |  |
| 1324 | 2012-09-16 | 2012-10-02 | 2013-04-02 | 79 | Male | Xanomeline Low Dose |  |
| 1341 | 2012-12-22 | 2013-01-05 | 2013-02-07 | 51 | Male | Xanomeline Low Dose |  |
| 1345 | 2013-10-01 | 2013-10-08 | 2014-03-18 | 63 | Female | Placebo |  |
| 1356 | 2014-04-01 |  |  | 54 | Female | Screen Failure |  |
| 1360 | 2013-07-24 | 2013-07-31 | 2013-08-14 | 67 | Male | Xanomeline Low Dose |  |
| 1363 | 2013-05-20 | 2013-05-30 | 2013-11-27 | 81 | Female | Placebo |  |
| 1369 | 2013-09-18 |  |  | 74 | Male | Screen Failure |  |
| 1383 | 2013-01-22 | 2013-02-04 | 2013-08-06 | 72 | Female | Xanomeline High Dose |  |
| 1386 | 2013-12-28 |  |  | 71 | Male | Screen Failure |  |
| 1387 | 2014-02-23 | 2014-03-12 | 2014-03-25 | 87 | Female | Placebo |  |
| 1392 | 2012-10-17 | 2012-10-28 | 2013-04-28 | 78 | Male | Placebo |  |
| 1411 | 2012-11-14 |  |  | 76 | Male | Screen Failure |  |
| 1415 | 2013-09-15 | 2013-09-23 | 2014-03-24 | 85 | Male | Placebo |  |
| 1429 | 2013-02-25 | 2013-03-19 | 2013-04-30 | 84 | Female | Xanomeline Low Dose |  |
| 1440 | 2013-07-24 | 2013-08-08 | 2014-02-05 | 70 | Male | Placebo |  |
| 1442 | 2013-10-17 | 2013-10-26 | 2014-04-26 | 57 | Female | Xanomeline Low Dose |  |
| 1444 | 2012-12-31 | 2013-01-05 | 2013-02-13 | 63 | Male | Xanomeline High Dose |  |
| 1082 | 2013-07-03 | 2013-07-26 | 2013-11-17 | 84 | Female | Xanomeline Low Dose |  |
| 1042 | 2013-02-23 | 2013-03-02 | 2013-08-31 | 64 | Male | Placebo |  |
| 1076 | 2013-10-17 | 2013-10-25 | 2013-12-24 | 69 | Male | Xanomeline High Dose |  |
| 1086 | 2012-08-22 | 2012-09-02 | 2012-12-24 | 71 | Male | Xanomeline Low Dose |  |
| 1096 | 2012-12-19 | 2013-01-25 | 2013-03-29 | 81 | Female | Placebo |  |
| 1100 | 2013-02-28 | 2013-03-13 | 2013-09-14 | 84 | Female | Placebo |  |
| 1119 | 2013-02-02 | 2013-02-20 | 2013-06-13 | 81 | Female | Xanomeline Low Dose |  |
| 1175 | 2013-12-13 | 2013-12-20 | 2013-12-31 | 75 | Male | Placebo |  |
| 1182 | 2013-10-08 | 2013-10-17 | 2013-12-12 | 84 | Male | Xanomeline Low Dose |  |
| 1197 | 2013-06-01 | 2013-06-16 | 2013-07-22 | 76 | Female | Xanomeline Low Dose |  |
| 1210 | 2013-03-08 | 2013-03-16 | 2013-09-06 | 72 | Female | Placebo |  |
| 1258 | 2012-07-10 | 2012-07-20 | 2013-01-21 | 78 | Female | Xanomeline High Dose |  |
| 1279 | 2013-04-27 | 2013-05-13 | 2013-06-22 | 72 | Female | Xanomeline Low Dose |  |
| 1295 | 2013-10-24 | 2013-11-21 | 2014-05-19 | 88 | Female | Xanomeline High Dose |  |
| 1299 | 2012-09-07 | 2012-09-12 | 2013-03-13 | 81 | Female | Placebo |  |
| 1335 | 2014-02-28 | 2014-03-17 | 2014-05-24 | 67 | Female | Xanomeline High Dose |  |
| 1379 | 2013-09-12 | 2013-09-22 | 2014-03-21 | 81 | Female | Xanomeline Low Dose |  |
| 1396 | 2014-02-09 |  |  | 84 | Male | Screen Failure |  |
| 1403 | 2012-12-05 | 2012-12-12 | 2012-12-19 | 67 | Male | Xanomeline Low Dose |  |
| 1439 | 2014-03-04 | 2014-03-12 | 2014-09-11 | 76 | Female | Xanomeline High Dose |  |
| 1008 | 2013-01-06 | 2013-01-13 | 2013-02-25 | 76 | Female | Xanomeline High Dose |  |
| 1009 | 2013-08-20 | 2013-08-27 | 2013-10-02 | 83 | Male | Xanomeline Low Dose |  |
| 1010 | 2014-02-08 | 2014-02-21 | 2014-07-09 | 80 | Male | Placebo |  |
| 1017 | 2013-09-20 | 2013-10-06 | 2013-11-24 | 77 | Male | Xanomeline High Dose |  |
| 1025 | 2013-09-18 | 2013-09-27 | 2013-11-29 | 81 | Female | Xanomeline Low Dose |  |
| 1065 | 2013-10-17 | 2013-10-24 | 2013-12-24 | 75 | Male | Xanomeline High Dose |  |
| 1074 | 2014-01-19 | 2014-01-22 | 2014-03-31 | 80 | Female | Xanomeline High Dose |  |
| 1093 | 2013-02-22 | 2013-03-15 | 2013-06-20 | 79 | Male | Xanomeline High Dose |  |
| 1114 | 2013-01-09 | 2013-01-23 | 2013-07-08 | 77 | Male | Xanomeline Low Dose |  |
| 1120 | 2013-11-18 | 2013-12-02 | 2014-02-03 | 71 | Female | Xanomeline Low Dose |  |
| 1127 | 2013-09-16 | 2013-10-02 | 2014-03-31 | 84 | Female | Placebo |  |
| 1135 | 2013-10-23 | 2013-10-31 | 2014-05-16 | 74 | Female | Xanomeline Low Dose |  |
| 1164 | 2012-09-11 | 2012-09-19 | 2013-04-04 | 67 | Female | Placebo |  |
| 1218 | 2012-11-11 | 2012-11-19 | 2013-05-27 | 81 | Female | Xanomeline Low Dose |  |
| 1233 | 2013-03-08 | 2013-03-21 | 2013-07-14 | 87 | Female | Placebo |  |
| 1241 | 2013-08-14 | 2013-08-25 | 2013-10-31 | 86 | Male | Xanomeline High Dose |  |
| 1260 | 2012-08-23 | 2012-08-30 | 2013-01-18 | 71 | Female | Placebo |  |
| 1266 | 2013-10-05 | 2013-10-13 | 2013-12-06 | 82 | Male | Xanomeline High Dose |  |
| 1323 | 2013-06-13 | 2013-07-08 | 2013-08-08 | 68 | Female | Xanomeline Low Dose |  |
| 1325 | 2014-04-16 | 2014-04-23 | 2014-08-06 | 81 | Male | Xanomeline Low Dose |  |
| 1332 | 2013-11-24 | 2013-12-09 | 2014-02-16 | 80 | Male | Xanomeline High Dose |  |
| 1351 | 2013-09-26 | 2013-10-12 | 2014-04-18 | 70 | Male | Placebo |  |
| 1388 | 2012-11-28 | 2012-12-07 | 2013-06-19 | 81 | Male | Placebo |  |
| 1435 | 2012-11-01 | 2012-11-17 | 2013-01-12 | 74 | Male | Placebo |  |
| 1445 | 2014-05-01 | 2014-05-11 | 2014-11-01 | 75 | Male | Placebo | 2014-11-01 |
| 1011 | 2013-09-01 |  |  | 75 | Female | Screen Failure |  |
| 1018 | 2013-06-30 | 2013-07-05 | 2013-07-12 | 69 | Female | Placebo |  |
| 1031 | 2013-11-17 | 2013-11-27 | 2014-05-11 | 56 | Female | Xanomeline Low Dose |  |
| 1058 | 2013-12-02 |  |  | 89 | Male | Screen Failure |  |

Im nächsten Schritt werden die Spaltenüberschriften geändert und die vertikale Ausrichtung der Headerlabels auf Top geändert.

ft\_dm <- ft\_dm %>%   
 set\_header\_labels(  
 SUBJID = "PatientID",  
 DMDTC = "Study Start",  
 RFSTDTC = "Start of\nTreatment",  
 RFENDTC = "End of\nTreatment",  
 AGE = "Age\n[years]",  
 SEX = "Gender",  
 ACTARM = "Treatment",  
 DTHDTC = "Date of\nDeath"  
 ) %>%  
 valign(i = 1, valign = "top", part = "header") %>%  
 align(i = 1, align = "center", part = "header")  
ft\_dm

| PatientID | Study Start | Start of Treatment | End of Treatment | Age [years] | Gender | Treatment | Date of Death |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1015 | 2013-12-26 | 2014-01-02 | 2014-07-02 | 63 | Female | Placebo |  |
| 1023 | 2012-07-22 | 2012-08-05 | 2012-09-02 | 64 | Male | Placebo |  |
| 1028 | 2013-07-11 | 2013-07-19 | 2014-01-14 | 71 | Male | Xanomeline High Dose |  |
| 1033 | 2014-03-10 | 2014-03-18 | 2014-04-14 | 74 | Male | Xanomeline Low Dose |  |
| 1034 | 2014-06-24 | 2014-07-01 | 2014-12-30 | 77 | Female | Xanomeline High Dose |  |
| 1047 | 2013-01-22 | 2013-02-12 | 2013-03-29 | 85 | Female | Placebo |  |
| 1057 | 2013-12-20 |  |  | 59 | Female | Screen Failure |  |
| 1097 | 2013-12-23 | 2014-01-01 | 2014-07-09 | 68 | Male | Xanomeline Low Dose |  |
| 1111 | 2012-08-25 | 2012-09-07 | 2012-09-17 | 81 | Female | Xanomeline Low Dose |  |
| 1115 | 2012-11-23 | 2012-11-30 | 2013-01-23 | 84 | Male | Xanomeline Low Dose |  |
| 1118 | 2014-02-27 | 2014-03-12 | 2014-09-09 | 52 | Male | Placebo |  |
| 1130 | 2014-02-09 | 2014-02-15 | 2014-08-16 | 84 | Male | Placebo |  |
| 1133 | 2012-10-23 | 2012-10-28 | 2013-04-29 | 81 | Female | Xanomeline High Dose |  |
| 1145 | 2013-09-05 |  |  | 57 | Female | Screen Failure |  |
| 1146 | 2013-05-07 | 2013-05-20 | 2013-06-30 | 75 | Female | Xanomeline High Dose |  |
| 1148 | 2013-08-14 | 2013-08-23 | 2014-02-20 | 57 | Male | Xanomeline High Dose |  |
| 1153 | 2013-09-06 | 2013-09-23 | 2014-04-01 | 79 | Female | Placebo |  |
| 1162 | 2013-04-18 |  |  | 82 | Female | Screen Failure |  |
| 1176 | 2012-09-30 |  |  | 62 | Female | Screen Failure |  |
| 1180 | 2013-01-28 | 2013-02-12 | 2013-03-23 | 56 | Male | Xanomeline High Dose |  |
| 1181 | 2013-11-26 | 2013-12-05 | 2013-12-12 | 79 | Female | Xanomeline Low Dose |  |
| 1188 | 2013-02-03 | 2013-02-15 | 2013-03-25 | 71 | Male | Xanomeline Low Dose |  |
| 1192 | 2012-07-08 | 2012-07-22 | 2013-01-20 | 80 | Female | Xanomeline Low Dose |  |
| 1203 | 2013-01-25 | 2013-02-02 | 2013-08-03 | 81 | Female | Placebo |  |
| 1211 | 2012-10-30 | 2012-11-15 | 2013-01-14 | 76 | Female | Xanomeline Low Dose | 2013-01-14 |
| 1234 | 2013-03-20 | 2013-03-30 | 2013-09-22 | 69 | Male | Placebo |  |
| 1239 | 2013-12-28 | 2014-01-11 | 2014-07-11 | 56 | Male | Xanomeline High Dose |  |
| 1240 | 2013-09-22 |  |  | 57 | Female | Screen Failure |  |
| 1275 | 2014-01-25 | 2014-02-07 | 2014-06-14 | 61 | Male | Xanomeline High Dose |  |
| 1287 | 2014-01-17 | 2014-01-25 | 2014-07-26 | 56 | Female | Xanomeline High Dose |  |
| 1294 | 2013-03-17 | 2013-03-24 | 2013-06-14 | 67 | Male | Xanomeline Low Dose |  |
| 1302 | 2013-08-20 | 2013-08-29 | 2013-11-05 | 61 | Male | Xanomeline High Dose |  |
| 1307 | 2013-12-08 |  |  | 80 | Female | Screen Failure |  |
| 1317 | 2014-05-10 | 2014-05-22 | 2014-11-20 | 68 | Male | Xanomeline Low Dose |  |
| 1324 | 2012-09-16 | 2012-10-02 | 2013-04-02 | 79 | Male | Xanomeline Low Dose |  |
| 1341 | 2012-12-22 | 2013-01-05 | 2013-02-07 | 51 | Male | Xanomeline Low Dose |  |
| 1345 | 2013-10-01 | 2013-10-08 | 2014-03-18 | 63 | Female | Placebo |  |
| 1356 | 2014-04-01 |  |  | 54 | Female | Screen Failure |  |
| 1360 | 2013-07-24 | 2013-07-31 | 2013-08-14 | 67 | Male | Xanomeline Low Dose |  |
| 1363 | 2013-05-20 | 2013-05-30 | 2013-11-27 | 81 | Female | Placebo |  |
| 1369 | 2013-09-18 |  |  | 74 | Male | Screen Failure |  |
| 1383 | 2013-01-22 | 2013-02-04 | 2013-08-06 | 72 | Female | Xanomeline High Dose |  |
| 1386 | 2013-12-28 |  |  | 71 | Male | Screen Failure |  |
| 1387 | 2014-02-23 | 2014-03-12 | 2014-03-25 | 87 | Female | Placebo |  |
| 1392 | 2012-10-17 | 2012-10-28 | 2013-04-28 | 78 | Male | Placebo |  |
| 1411 | 2012-11-14 |  |  | 76 | Male | Screen Failure |  |
| 1415 | 2013-09-15 | 2013-09-23 | 2014-03-24 | 85 | Male | Placebo |  |
| 1429 | 2013-02-25 | 2013-03-19 | 2013-04-30 | 84 | Female | Xanomeline Low Dose |  |
| 1440 | 2013-07-24 | 2013-08-08 | 2014-02-05 | 70 | Male | Placebo |  |
| 1442 | 2013-10-17 | 2013-10-26 | 2014-04-26 | 57 | Female | Xanomeline Low Dose |  |
| 1444 | 2012-12-31 | 2013-01-05 | 2013-02-13 | 63 | Male | Xanomeline High Dose |  |
| 1082 | 2013-07-03 | 2013-07-26 | 2013-11-17 | 84 | Female | Xanomeline Low Dose |  |
| 1042 | 2013-02-23 | 2013-03-02 | 2013-08-31 | 64 | Male | Placebo |  |
| 1076 | 2013-10-17 | 2013-10-25 | 2013-12-24 | 69 | Male | Xanomeline High Dose |  |
| 1086 | 2012-08-22 | 2012-09-02 | 2012-12-24 | 71 | Male | Xanomeline Low Dose |  |
| 1096 | 2012-12-19 | 2013-01-25 | 2013-03-29 | 81 | Female | Placebo |  |
| 1100 | 2013-02-28 | 2013-03-13 | 2013-09-14 | 84 | Female | Placebo |  |
| 1119 | 2013-02-02 | 2013-02-20 | 2013-06-13 | 81 | Female | Xanomeline Low Dose |  |
| 1175 | 2013-12-13 | 2013-12-20 | 2013-12-31 | 75 | Male | Placebo |  |
| 1182 | 2013-10-08 | 2013-10-17 | 2013-12-12 | 84 | Male | Xanomeline Low Dose |  |
| 1197 | 2013-06-01 | 2013-06-16 | 2013-07-22 | 76 | Female | Xanomeline Low Dose |  |
| 1210 | 2013-03-08 | 2013-03-16 | 2013-09-06 | 72 | Female | Placebo |  |
| 1258 | 2012-07-10 | 2012-07-20 | 2013-01-21 | 78 | Female | Xanomeline High Dose |  |
| 1279 | 2013-04-27 | 2013-05-13 | 2013-06-22 | 72 | Female | Xanomeline Low Dose |  |
| 1295 | 2013-10-24 | 2013-11-21 | 2014-05-19 | 88 | Female | Xanomeline High Dose |  |
| 1299 | 2012-09-07 | 2012-09-12 | 2013-03-13 | 81 | Female | Placebo |  |
| 1335 | 2014-02-28 | 2014-03-17 | 2014-05-24 | 67 | Female | Xanomeline High Dose |  |
| 1379 | 2013-09-12 | 2013-09-22 | 2014-03-21 | 81 | Female | Xanomeline Low Dose |  |
| 1396 | 2014-02-09 |  |  | 84 | Male | Screen Failure |  |
| 1403 | 2012-12-05 | 2012-12-12 | 2012-12-19 | 67 | Male | Xanomeline Low Dose |  |
| 1439 | 2014-03-04 | 2014-03-12 | 2014-09-11 | 76 | Female | Xanomeline High Dose |  |
| 1008 | 2013-01-06 | 2013-01-13 | 2013-02-25 | 76 | Female | Xanomeline High Dose |  |
| 1009 | 2013-08-20 | 2013-08-27 | 2013-10-02 | 83 | Male | Xanomeline Low Dose |  |
| 1010 | 2014-02-08 | 2014-02-21 | 2014-07-09 | 80 | Male | Placebo |  |
| 1017 | 2013-09-20 | 2013-10-06 | 2013-11-24 | 77 | Male | Xanomeline High Dose |  |
| 1025 | 2013-09-18 | 2013-09-27 | 2013-11-29 | 81 | Female | Xanomeline Low Dose |  |
| 1065 | 2013-10-17 | 2013-10-24 | 2013-12-24 | 75 | Male | Xanomeline High Dose |  |
| 1074 | 2014-01-19 | 2014-01-22 | 2014-03-31 | 80 | Female | Xanomeline High Dose |  |
| 1093 | 2013-02-22 | 2013-03-15 | 2013-06-20 | 79 | Male | Xanomeline High Dose |  |
| 1114 | 2013-01-09 | 2013-01-23 | 2013-07-08 | 77 | Male | Xanomeline Low Dose |  |
| 1120 | 2013-11-18 | 2013-12-02 | 2014-02-03 | 71 | Female | Xanomeline Low Dose |  |
| 1127 | 2013-09-16 | 2013-10-02 | 2014-03-31 | 84 | Female | Placebo |  |
| 1135 | 2013-10-23 | 2013-10-31 | 2014-05-16 | 74 | Female | Xanomeline Low Dose |  |
| 1164 | 2012-09-11 | 2012-09-19 | 2013-04-04 | 67 | Female | Placebo |  |
| 1218 | 2012-11-11 | 2012-11-19 | 2013-05-27 | 81 | Female | Xanomeline Low Dose |  |
| 1233 | 2013-03-08 | 2013-03-21 | 2013-07-14 | 87 | Female | Placebo |  |
| 1241 | 2013-08-14 | 2013-08-25 | 2013-10-31 | 86 | Male | Xanomeline High Dose |  |
| 1260 | 2012-08-23 | 2012-08-30 | 2013-01-18 | 71 | Female | Placebo |  |
| 1266 | 2013-10-05 | 2013-10-13 | 2013-12-06 | 82 | Male | Xanomeline High Dose |  |
| 1323 | 2013-06-13 | 2013-07-08 | 2013-08-08 | 68 | Female | Xanomeline Low Dose |  |
| 1325 | 2014-04-16 | 2014-04-23 | 2014-08-06 | 81 | Male | Xanomeline Low Dose |  |
| 1332 | 2013-11-24 | 2013-12-09 | 2014-02-16 | 80 | Male | Xanomeline High Dose |  |
| 1351 | 2013-09-26 | 2013-10-12 | 2014-04-18 | 70 | Male | Placebo |  |
| 1388 | 2012-11-28 | 2012-12-07 | 2013-06-19 | 81 | Male | Placebo |  |
| 1435 | 2012-11-01 | 2012-11-17 | 2013-01-12 | 74 | Male | Placebo |  |
| 1445 | 2014-05-01 | 2014-05-11 | 2014-11-01 | 75 | Male | Placebo | 2014-11-01 |
| 1011 | 2013-09-01 |  |  | 75 | Female | Screen Failure |  |
| 1018 | 2013-06-30 | 2013-07-05 | 2013-07-12 | 69 | Female | Placebo |  |
| 1031 | 2013-11-17 | 2013-11-27 | 2014-05-11 | 56 | Female | Xanomeline Low Dose |  |
| 1058 | 2013-12-02 |  |  | 89 | Male | Screen Failure |  |

Es können bestimmte Zellen hervorgehoben werden. Wir suchen die Indizes aller Zeilen, die die hohe Dosis bekommen haben und machen diese fett.

highdose <- df2 %>%   
 mutate(fett = row\_number()) %>%   
 filter(ACTARM == "Xanomeline High Dose") %>%   
 select(fett)  
  
ft\_dm <- ft\_dm %>%  
 bold(i = highdose$fett, bold = TRUE, part = "body")   
ft\_dm

| PatientID | Study Start | Start of Treatment | End of Treatment | Age [years] | Gender | Treatment | Date of Death |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1015 | 2013-12-26 | 2014-01-02 | 2014-07-02 | 63 | Female | Placebo |  |
| 1023 | 2012-07-22 | 2012-08-05 | 2012-09-02 | 64 | Male | Placebo |  |
| **1028** | **2013-07-11** | **2013-07-19** | **2014-01-14** | **71** | **Male** | **Xanomeline High Dose** |  |
| 1033 | 2014-03-10 | 2014-03-18 | 2014-04-14 | 74 | Male | Xanomeline Low Dose |  |
| **1034** | **2014-06-24** | **2014-07-01** | **2014-12-30** | **77** | **Female** | **Xanomeline High Dose** |  |
| 1047 | 2013-01-22 | 2013-02-12 | 2013-03-29 | 85 | Female | Placebo |  |
| 1057 | 2013-12-20 |  |  | 59 | Female | Screen Failure |  |
| 1097 | 2013-12-23 | 2014-01-01 | 2014-07-09 | 68 | Male | Xanomeline Low Dose |  |
| 1111 | 2012-08-25 | 2012-09-07 | 2012-09-17 | 81 | Female | Xanomeline Low Dose |  |
| 1115 | 2012-11-23 | 2012-11-30 | 2013-01-23 | 84 | Male | Xanomeline Low Dose |  |
| 1118 | 2014-02-27 | 2014-03-12 | 2014-09-09 | 52 | Male | Placebo |  |
| 1130 | 2014-02-09 | 2014-02-15 | 2014-08-16 | 84 | Male | Placebo |  |
| **1133** | **2012-10-23** | **2012-10-28** | **2013-04-29** | **81** | **Female** | **Xanomeline High Dose** |  |
| 1145 | 2013-09-05 |  |  | 57 | Female | Screen Failure |  |
| **1146** | **2013-05-07** | **2013-05-20** | **2013-06-30** | **75** | **Female** | **Xanomeline High Dose** |  |
| **1148** | **2013-08-14** | **2013-08-23** | **2014-02-20** | **57** | **Male** | **Xanomeline High Dose** |  |
| 1153 | 2013-09-06 | 2013-09-23 | 2014-04-01 | 79 | Female | Placebo |  |
| 1162 | 2013-04-18 |  |  | 82 | Female | Screen Failure |  |
| 1176 | 2012-09-30 |  |  | 62 | Female | Screen Failure |  |
| **1180** | **2013-01-28** | **2013-02-12** | **2013-03-23** | **56** | **Male** | **Xanomeline High Dose** |  |
| 1181 | 2013-11-26 | 2013-12-05 | 2013-12-12 | 79 | Female | Xanomeline Low Dose |  |
| 1188 | 2013-02-03 | 2013-02-15 | 2013-03-25 | 71 | Male | Xanomeline Low Dose |  |
| 1192 | 2012-07-08 | 2012-07-22 | 2013-01-20 | 80 | Female | Xanomeline Low Dose |  |
| 1203 | 2013-01-25 | 2013-02-02 | 2013-08-03 | 81 | Female | Placebo |  |
| 1211 | 2012-10-30 | 2012-11-15 | 2013-01-14 | 76 | Female | Xanomeline Low Dose | 2013-01-14 |
| 1234 | 2013-03-20 | 2013-03-30 | 2013-09-22 | 69 | Male | Placebo |  |
| **1239** | **2013-12-28** | **2014-01-11** | **2014-07-11** | **56** | **Male** | **Xanomeline High Dose** |  |
| 1240 | 2013-09-22 |  |  | 57 | Female | Screen Failure |  |
| **1275** | **2014-01-25** | **2014-02-07** | **2014-06-14** | **61** | **Male** | **Xanomeline High Dose** |  |
| **1287** | **2014-01-17** | **2014-01-25** | **2014-07-26** | **56** | **Female** | **Xanomeline High Dose** |  |
| 1294 | 2013-03-17 | 2013-03-24 | 2013-06-14 | 67 | Male | Xanomeline Low Dose |  |
| **1302** | **2013-08-20** | **2013-08-29** | **2013-11-05** | **61** | **Male** | **Xanomeline High Dose** |  |
| 1307 | 2013-12-08 |  |  | 80 | Female | Screen Failure |  |
| 1317 | 2014-05-10 | 2014-05-22 | 2014-11-20 | 68 | Male | Xanomeline Low Dose |  |
| 1324 | 2012-09-16 | 2012-10-02 | 2013-04-02 | 79 | Male | Xanomeline Low Dose |  |
| 1341 | 2012-12-22 | 2013-01-05 | 2013-02-07 | 51 | Male | Xanomeline Low Dose |  |
| 1345 | 2013-10-01 | 2013-10-08 | 2014-03-18 | 63 | Female | Placebo |  |
| 1356 | 2014-04-01 |  |  | 54 | Female | Screen Failure |  |
| 1360 | 2013-07-24 | 2013-07-31 | 2013-08-14 | 67 | Male | Xanomeline Low Dose |  |
| 1363 | 2013-05-20 | 2013-05-30 | 2013-11-27 | 81 | Female | Placebo |  |
| 1369 | 2013-09-18 |  |  | 74 | Male | Screen Failure |  |
| **1383** | **2013-01-22** | **2013-02-04** | **2013-08-06** | **72** | **Female** | **Xanomeline High Dose** |  |
| 1386 | 2013-12-28 |  |  | 71 | Male | Screen Failure |  |
| 1387 | 2014-02-23 | 2014-03-12 | 2014-03-25 | 87 | Female | Placebo |  |
| 1392 | 2012-10-17 | 2012-10-28 | 2013-04-28 | 78 | Male | Placebo |  |
| 1411 | 2012-11-14 |  |  | 76 | Male | Screen Failure |  |
| 1415 | 2013-09-15 | 2013-09-23 | 2014-03-24 | 85 | Male | Placebo |  |
| 1429 | 2013-02-25 | 2013-03-19 | 2013-04-30 | 84 | Female | Xanomeline Low Dose |  |
| 1440 | 2013-07-24 | 2013-08-08 | 2014-02-05 | 70 | Male | Placebo |  |
| 1442 | 2013-10-17 | 2013-10-26 | 2014-04-26 | 57 | Female | Xanomeline Low Dose |  |
| **1444** | **2012-12-31** | **2013-01-05** | **2013-02-13** | **63** | **Male** | **Xanomeline High Dose** |  |
| 1082 | 2013-07-03 | 2013-07-26 | 2013-11-17 | 84 | Female | Xanomeline Low Dose |  |
| 1042 | 2013-02-23 | 2013-03-02 | 2013-08-31 | 64 | Male | Placebo |  |
| **1076** | **2013-10-17** | **2013-10-25** | **2013-12-24** | **69** | **Male** | **Xanomeline High Dose** |  |
| 1086 | 2012-08-22 | 2012-09-02 | 2012-12-24 | 71 | Male | Xanomeline Low Dose |  |
| 1096 | 2012-12-19 | 2013-01-25 | 2013-03-29 | 81 | Female | Placebo |  |
| 1100 | 2013-02-28 | 2013-03-13 | 2013-09-14 | 84 | Female | Placebo |  |
| 1119 | 2013-02-02 | 2013-02-20 | 2013-06-13 | 81 | Female | Xanomeline Low Dose |  |
| 1175 | 2013-12-13 | 2013-12-20 | 2013-12-31 | 75 | Male | Placebo |  |
| 1182 | 2013-10-08 | 2013-10-17 | 2013-12-12 | 84 | Male | Xanomeline Low Dose |  |
| 1197 | 2013-06-01 | 2013-06-16 | 2013-07-22 | 76 | Female | Xanomeline Low Dose |  |
| 1210 | 2013-03-08 | 2013-03-16 | 2013-09-06 | 72 | Female | Placebo |  |
| **1258** | **2012-07-10** | **2012-07-20** | **2013-01-21** | **78** | **Female** | **Xanomeline High Dose** |  |
| 1279 | 2013-04-27 | 2013-05-13 | 2013-06-22 | 72 | Female | Xanomeline Low Dose |  |
| **1295** | **2013-10-24** | **2013-11-21** | **2014-05-19** | **88** | **Female** | **Xanomeline High Dose** |  |
| 1299 | 2012-09-07 | 2012-09-12 | 2013-03-13 | 81 | Female | Placebo |  |
| **1335** | **2014-02-28** | **2014-03-17** | **2014-05-24** | **67** | **Female** | **Xanomeline High Dose** |  |
| 1379 | 2013-09-12 | 2013-09-22 | 2014-03-21 | 81 | Female | Xanomeline Low Dose |  |
| 1396 | 2014-02-09 |  |  | 84 | Male | Screen Failure |  |
| 1403 | 2012-12-05 | 2012-12-12 | 2012-12-19 | 67 | Male | Xanomeline Low Dose |  |
| **1439** | **2014-03-04** | **2014-03-12** | **2014-09-11** | **76** | **Female** | **Xanomeline High Dose** |  |
| **1008** | **2013-01-06** | **2013-01-13** | **2013-02-25** | **76** | **Female** | **Xanomeline High Dose** |  |
| 1009 | 2013-08-20 | 2013-08-27 | 2013-10-02 | 83 | Male | Xanomeline Low Dose |  |
| 1010 | 2014-02-08 | 2014-02-21 | 2014-07-09 | 80 | Male | Placebo |  |
| **1017** | **2013-09-20** | **2013-10-06** | **2013-11-24** | **77** | **Male** | **Xanomeline High Dose** |  |
| 1025 | 2013-09-18 | 2013-09-27 | 2013-11-29 | 81 | Female | Xanomeline Low Dose |  |
| **1065** | **2013-10-17** | **2013-10-24** | **2013-12-24** | **75** | **Male** | **Xanomeline High Dose** |  |
| **1074** | **2014-01-19** | **2014-01-22** | **2014-03-31** | **80** | **Female** | **Xanomeline High Dose** |  |
| **1093** | **2013-02-22** | **2013-03-15** | **2013-06-20** | **79** | **Male** | **Xanomeline High Dose** |  |
| 1114 | 2013-01-09 | 2013-01-23 | 2013-07-08 | 77 | Male | Xanomeline Low Dose |  |
| 1120 | 2013-11-18 | 2013-12-02 | 2014-02-03 | 71 | Female | Xanomeline Low Dose |  |
| 1127 | 2013-09-16 | 2013-10-02 | 2014-03-31 | 84 | Female | Placebo |  |
| 1135 | 2013-10-23 | 2013-10-31 | 2014-05-16 | 74 | Female | Xanomeline Low Dose |  |
| 1164 | 2012-09-11 | 2012-09-19 | 2013-04-04 | 67 | Female | Placebo |  |
| 1218 | 2012-11-11 | 2012-11-19 | 2013-05-27 | 81 | Female | Xanomeline Low Dose |  |
| 1233 | 2013-03-08 | 2013-03-21 | 2013-07-14 | 87 | Female | Placebo |  |
| **1241** | **2013-08-14** | **2013-08-25** | **2013-10-31** | **86** | **Male** | **Xanomeline High Dose** |  |
| 1260 | 2012-08-23 | 2012-08-30 | 2013-01-18 | 71 | Female | Placebo |  |
| **1266** | **2013-10-05** | **2013-10-13** | **2013-12-06** | **82** | **Male** | **Xanomeline High Dose** |  |
| 1323 | 2013-06-13 | 2013-07-08 | 2013-08-08 | 68 | Female | Xanomeline Low Dose |  |
| 1325 | 2014-04-16 | 2014-04-23 | 2014-08-06 | 81 | Male | Xanomeline Low Dose |  |
| **1332** | **2013-11-24** | **2013-12-09** | **2014-02-16** | **80** | **Male** | **Xanomeline High Dose** |  |
| 1351 | 2013-09-26 | 2013-10-12 | 2014-04-18 | 70 | Male | Placebo |  |
| 1388 | 2012-11-28 | 2012-12-07 | 2013-06-19 | 81 | Male | Placebo |  |
| 1435 | 2012-11-01 | 2012-11-17 | 2013-01-12 | 74 | Male | Placebo |  |
| 1445 | 2014-05-01 | 2014-05-11 | 2014-11-01 | 75 | Male | Placebo | 2014-11-01 |
| 1011 | 2013-09-01 |  |  | 75 | Female | Screen Failure |  |
| 1018 | 2013-06-30 | 2013-07-05 | 2013-07-12 | 69 | Female | Placebo |  |
| 1031 | 2013-11-17 | 2013-11-27 | 2014-05-11 | 56 | Female | Xanomeline Low Dose |  |
| 1058 | 2013-12-02 |  |  | 89 | Male | Screen Failure |  |

## Speichern als Word-Dokument

Mit dem Paket officer kann man ein flextable-Objekt als Worddokument speichern.

my\_doc <- read\_docx("table\_vorlage\_dm\_listing.docx") %>% body\_add\_flextable(ft\_dm)  
print(my\_doc, target = "t6\_dm\_listing.docx")