Sensitivity analyses

SAMPLE comparison at BL and 12M

The table below stratifies the data in the analyses by cases who have 1) baseline assessment only, 2) 12-month assessment only, and 3) both. The main outcomes of interest and demographic factors are considered and compared. No significant differences are observed. *NOTE*: Individuals deceased at baseline were not included in the analyses.

```
##                           Stratified by missing
##                           12M            BL             both         p
##   n                        63            164            405
##   gender = MALE (%)        37 (58.7)     100 (61.0)     238 (58.8)   0.884
##   age_y (mean (SD))      55.06 (18.60) 51.58 (19.64) 52.69 (18.66)  0.461
##   bl_tumour_type (%)                                                0.837
##      1                     42 (66.7)     113 (69.8)     283 (69.9)
##      1;2                    0 ( 0.0)       0 ( 0.0)       2 ( 0.5)
##      2                     21 (33.3)      49 (30.2)     120 (29.6)
##   tumor_location = upper (%) 0 ( NaN)      41 (28.5)     103 (27.6)    NaN
##   tumor_grade (%)                                                   0.809
##      0                      7 (15.2)      15 (12.6)      35 (10.9)
##      1                     14 (30.4)      26 (21.8)      76 (23.6)
##      2                     12 (26.1)      33 (27.7)     107 (33.2)
##      3                     13 (28.3)      44 (37.0)     102 (31.7)
##      4                      0 ( 0.0)       1 ( 0.8)       2 ( 0.6)
##   marital (%)                                                       0.261
##      Married/Cohabiting     7 (70.0)      87 (56.5)     254 (64.5)
##      Separated/Divorced     2 (20.0)      16 (10.4)      27 ( 6.9)
##      Single                 1 (10.0)      39 (25.3)      93 (23.6)
##      Widowed                0 ( 0.0)      12 ( 7.8)      20 ( 5.1)
##   education (%)                                                     0.345
##      Grad school            0 ( 0.0)      17 (10.8)      45 (11.3)
##      No education           0 ( 0.0)       2 ( 1.3)       2 ( 0.5)
##      Other                  0 ( 0.0)       1 ( 0.6)       5 ( 1.3)
##      Primary                0 ( 0.0)       9 ( 5.7)      10 ( 2.5)
##      Secondary              7 (70.0)     102 (64.6)     233 (58.5)
##      University             3 (30.0)      27 (17.1)     103 (25.9)
##   ethnicity (%)                                                     0.426
##      Asian                  1 (11.1)       9 ( 6.1)      20 ( 5.8)
##      Black/Carribbean/African 0 ( 0.0)     6 ( 4.1)       9 ( 2.6)
##      Caucasian/White        6 (66.7)     111 (75.5)     277 (80.8)
##      Hispanic               0 ( 0.0)       0 ( 0.0)       4 ( 1.2)
##      Native                 0 ( 0.0)       0 ( 0.0)       4 ( 1.2)
##      Other/Multiple         2 (22.2)      21 (14.3)      29 ( 8.5)
##   bl_tess (mean (SD))     NaN (NA)      73.16 (20.61) 76.19 (19.05)  0.114
##   bl_facit_score (mean (SD)) NaN (NA)    38.22 (11.16) 40.45 (9.92)  0.027
##   bl_qol_7 (mean (SD))    NaN (NA)      72.21 (20.03) 74.16 (17.96)  0.280
```

```
##    m12_tess (mean (SD))        78.83 (16.20)    NaN (NA)    80.76 (13.03)  0.320
##    m12_facit_score (mean (SD)) 42.89 (10.35)    NaN (NA)    41.87 (10.52)  0.500
##    m12_qol_7 (mean (SD))        83.91 (10.99)  0.00 (NA)    81.70 (14.64)     NA
##                                  Stratified by missing
##                                   test
##    n
##    gender = MALE (%)
##    age_y (mean (SD))
##    bl_tumour_type (%)
##       1
##       1;2
##       2
##    tumor_location = upper (%)
##    tumor_grade (%)
##       0
##       1
##       2
##       3
##       4
##    marital (%)
##       Married/Cohabiting
##       Separated/Divorced
##       Single
##       Widowed
##    education (%)
##       Grad school
##       No education
##       Other
##       Primary
##       Secondary
##       University
##    ethnicity (%)
##       Asian
##       Black/Carribbean/African
##       Caucasian/White
##       Hispanic
##       Native
##       Other/Multiple
##    bl_tess (mean (SD))
##    bl_facit_score (mean (SD))
##    bl_qol_7 (mean (SD))
##    m12_tess (mean (SD))
##    m12_facit_score (mean (SD))
##    m12_qol_7 (mean (SD))
```

Chronbach Alpha

Cronbach α was calculated for baseline FACIT and TESS.

FACIT $\alpha = 0.82$

TESS Upper extremity $\alpha = 0.98$

TESS Lower extremity $\alpha = 0.98$

```r
library(psych)

data_facit_a <- data %>%
  dplyr::select(bl_facit_1:bl_facit_16)

psych::alpha(data_facit_a)

data_tess_ue_a <- data %>%
  dplyr::select(bl_ue_ue_tess_1:bl_ue_ue_tess_29) %>%
  mutate(across(where(is.character), ~na_if(., "N/A"))) %>%
  mutate_if(is.character,as.numeric)

psych::alpha(data_tess_ue_a)

data_tess_le_a <- data %>%
  dplyr::select(bl_le_le_tess_1:bl_le_le_tess_30) %>%
  mutate(across(where(is.character), ~na_if(., "N/A"))) %>%
  mutate_if(is.character,as.numeric)

psych::alpha(data_tess_le_a)
```