read_dataset

Во

2024-02-19

load library

```
library(ggplot2)
library(dplyr)
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##
       filter, lag
## The following objects are masked from 'package:base':
##
       intersect, setdiff, setequal, union
##
library(haven)
library(tidyr)
library(readr)
library(stringr)
library(readxl)
library(gt)
```

read dataset

```
scd_data_yr2 <- read_sas("data/curesc_year2_v2.sas7bdat")
scd_data_yr3 <- read_sas("data/curesc_year3_v3.sas7bdat")</pre>
```

check yr3 yr3 data

```
bind_rows(scd_data_yr2[which(scd_data_yr2$DUMMYID == 75505098),],scd_data_yr3[which(scd_data_yr2$DUMMYID
```

```
## # A tibble: 2 x 163
##
      DUMMYID STROKEHI ACSPSHI VOCPSHI RCMVPR TXNUM TXTYPE
                                                              SEX ETHNICIT DONORF
                         <dbl>
                                                                      <dbl>
##
                 <dbl>
                                  <dbl> <dbl> <dbl> <dbl> <dbl> <
## 1 75505098
                     0
                             0
                                      0
                                             1
                                                   1
                                                          1
                                                                2
                                                                         2
                                                                                 1
## 2 75505098
                             0
                                             1
                                                   1
                                                          1
                                                                2
## # i 153 more variables: GRAFTYPE <dbl>, YEARTX <dbl>, COUNTRY <dbl>, AGE <dbl>,
       INTXSURV <dbl>, AGEGPFF <dbl>, KPS <dbl>, HCTCIGPF <dbl>, SUBDIS1F <dbl>,
       ATGF <dbl>, YEARGPF <dbl>, DEAD <dbl>, GVHD_FINAL <dbl>, CONDGRPF <dbl>,
## #
## #
       CONDGRP_FINAL <dbl>, HLA_FINAL <dbl>, FLAG_LANCET <dbl>, FLAG_BLOOD <dbl>,
       AGVHD <dbl>, INTXAGVHD <dbl>, CGVHD <dbl>, INTXCGVHD <dbl>, ANC <dbl>,
## #
## #
       INTXANC <dbl>, PLATELET <dbl>, INTXPLATELET <dbl>, GF <dbl>, INTXGF <dbl>,
## #
       EFS <dbl>, DWOAGVHD <dbl>, DWOCGVHD <dbl>, DWOANC <dbl>, ...
yr2col_idx <- which(!colnames(scd_data_yr2) %in% colnames(scd_data_yr3))</pre>
colnames(scd_data_yr2)[yr2col_idx]
## [1] "HCTFPR"
                   "INTXCDIAL"
scd data yr2[, yr2col idx] #both contain more than 50% NA
## # A tibble: 1,492 x 2
      HCTFPR INTXCDIAL
##
##
       <dbl>
                 <dbl>
##
  1
          99
                    NA
## 2
          99
                    NA
## 3
          99
                    NA
## 4
         99
                    NA
## 5
         NA
                    NA
## 6
         NA
                    NA
## 7
          NA
                    NA
## 8
          NA
                    NA
## 9
           0
                    NΑ
## 10
          99
                    NΑ
## # i 1,482 more rows
```

process metadata information

```
rep(cutoff_names3[4], cutoffs_3[5] - cutoffs_3[4]),
               rep(cutoff_names3[5], nrow(meta_yr3) - cutoffs_3[5] + 1))
meta_yr3_lst <- split(meta_yr3, group_yr3)</pre>
meta_yr3_lst <- lapply(meta_yr3_lst, function(data_i){</pre>
  data name <- str replace(data i$`Variable name`[1], ":", "")
  data <- data_i[-1, ]</pre>
  return(data)
})
meta_yr3_indata_lst <- lapply(meta_yr3_lst, function(data_i){</pre>
  indata_idx <- which(tolower(data_i$`Variable name`) %in% tolower(colnames(scd_data_yr3)) |data_i$`Vari
  data <- data_i[indata_idx, ]</pre>
  return(unique(data$`Variable name`))
})
#remove variables that had a high missing rate, defined as greater than 80% (won't apply to outcome dat
# scd_data_yr2 <- scd_data_yr2 %>%
  mutate(across(everything(), ~na_if(.x, 99))) %>%
   mutate(across(everything(), ~na_if(.x, 98))) %>%
# mutate(across(everything(), ~na_if(.x, -9))) %>%
  select_if(\sim sum(is.na(.)) / nrow(scd_data_yr2) \le 0.2) \%
   select(where(\neg n\_distinct(.x, na.rm = TRUE) > 1))
outcomevars <- meta_yr3_indata_lst$Outcomes</pre>
outcomevar_idx <- which(tolower(colnames(scd_data_yr3)) %in% tolower(outcomevars))</pre>
crfvars <- meta_yr3_indata_lst$`CRF data collection track only`</pre>
crf_idx <- which(tolower(colnames(scd_data_yr3)) %in% tolower(crfvars))</pre>
scd_data_yr3 <- scd_data_yr3 %>%
  select(-all_of(crf_idx)) %>%
  mutate(across(!all_of(outcomevar_idx), ~na_if(.x, 99))) %>%
  mutate(across(!all_of(outcomevar_idx), ~na_if(.x, 98))) %>%
  mutate(across(!all_of(outcomevar_idx), ~na_if(.x, -9))) %>%
  select_if(~sum(is.na(.)) / nrow(scd_data_yr3) <= 0.2) %>%
  select(where(~n_distinct(.x, na.rm = TRUE) > 1))
meta_yr3_indata_lst_final <- setNames(lapply(1:length(meta_yr3_lst), function(i){</pre>
  data_i <- meta_yr3_lst[[i]]</pre>
  indata_idx <- which(tolower(data_i$`Variable name`) %in% tolower(colnames(scd_data_yr3))|data_i$`Vari
  data <- data_i[indata_idx, c("Variable name", "Description")] %>%
    drop_na() %>%
    distinct() %>%
    mutate(Category = names(meta_yr3_lst)[i]) %>%
    select(Category, everything())
  return(data)
}), names(meta_yr3_lst))
```

Table 1: List of Predictors

Category	Variable.name	Description
Disease-related	subdis1f	Disease genotype
Patient-related	Dummyid	Unique patient identifier
Patient-related	flag_lancet	Cases from 2019 Lancet Heamatology publication
Patient-related	flag_blood	Cases from 2016 Blood publication
Patient-related	flag_0601	Cases from BMT CTN 0601
Patient-related	age	Patient age at transplant, years
Patient-related	agegpff	Patient age at transplant, years
Patient-related	sex	Sex
Patient-related	ethnicit	Ethnicity
Patient-related	kps	Karnofsky/Lansky score at HCT
Patient-related	hctcigpf	HCT-comorbidity index
Tranplant-related	donorf	Donor type
Tranplant-related	$\operatorname{graftype}$	Graft type
Tranplant-related	$\operatorname{condgrpf}$	Conditioning intensity
Tranplant-related	$condgrp_final$	Conditioning regimen
Tranplant-related	atgf	ATG/Alemtuzumab given as conditioning regimen/GVHD
		prophylaxis
Tranplant-related	$gvhd_final$	GVHD prophylaxis
Tranplant-related	hla_final	Donor-recipient HLA matching
Tranplant-related	rcmvpr	Recipient CMV serostatus
Tranplant-related	yeargpf	Year of transplant
Tranplant-related	yeartx	Year of transplant

```
time_full %>% knitr::kable(caption = "List of Time-to-Event Variables")
```

Table 2: List of Time-to-Event Variables

Category	Variable.name	Description
Outcomes	intxsurv	Time from HCT to date of last contact or death, months
Outcomes	intxgf	Time from HCT to graft failure, months
Outcomes	intxanc	Time from HCT to neutrophil engraftment, months
Outcomes	intxplatelet	Time from HCT to platelet recovery, months
Outcomes	intxagvhd	Time from HCT to acute graft-vs-host disease, months
Outcomes	intxcgvhd	Time from HCT to chronic graft-vs-host disease, months

Category	Variable.name	Description
Outcomes Outcomes	intxptld intxscdmal	Time from HCT to PTLD, months Time from HCT to second malignancy, months

```
other_outcome_full %>% knitr::kable(caption = "List of Outcome Varaibles (Exclude Time-to-Event)")
```

Table 3: List of Outcome Varaibles (Exclude Time-to-Event)

Category	Variable.name	Description
Outcomes	dead	Survival status at last contact
Outcomes	efs	Event-free survival (Graft failure or death are the events)
Outcomes	gf	Graft failure
Outcomes	dwogf	Death without graft failure
Outcomes	anc	Neutrophil engraftment
Outcomes	dwoanc	Death without neutrophil engraftment
Outcomes	platelet	Platelet recovery
Outcomes	dwoplatelet	Death without platelet recovery
Outcomes	agvhd	Acute graft versus host disease, grades II-IV
Outcomes	dwoagvhd	Death without acute graft versus host disease, grades II-IV
Outcomes	cgvhd	Chronic graft-vs-host disease
Outcomes	dwocgvhd	Death without chronic graft-vs-host disease
Outcomes	ptld	Post-transplant lymphoproliferative disorder (PTLD)
Outcomes	scdmal_final	Secondary malignancy

```
## COMMENTED OFF after deciding not use yr2 data
# meta_yr2 <- readxl::read_excel("data/Codebook 2020 Year 2.xlsx",
#
                                              col_names = T)
#
# meta_yr2 <- meta_yr2 %>%
   fill(`Variable name`, .direction = "down")
# cutoffs_2 <- stringr::str_which(meta_yr2$`Variable name`, ":")</pre>
# cutoff_names2 <- str_replace(meta_yr2$`Variable name`[cutoffs_2], ":", "")</pre>
#
# group_yr2 <- c(rep(cutoff_names2[1], cutoffs_2[2] - 1),</pre>
                  rep(cutoff_names2[2], cutoffs_2[3] - cutoffs_2[2]),
                  rep(cutoff\_names2[3], nrow(meta\_yr2) - cutoffs\_2[3] + 1))
#
#
# meta_yr2_lst <- split(meta_yr2, group_yr2)</pre>
\# meta\_yr2\_lst \leftarrow lapply(meta\_yr2\_lst, function(data\_i){
  data_name <- str_replace(data_i$`Variable name`[1], ":", "")</pre>
   data <- data_i[-1, ]
   return(data)
# })
\# scd_data_yr2_label \leftarrow lapply(colnames(scd_data_yr2), function(col_i)\{
# if(col_i == "RACEG"){
```

```
label_df <- meta_yr2[which(tolower(meta_yr2$`Variable name`) ==</pre>
#
#
                                      tolower("RACEGP")), ]
#
    } else{
#
     label_df \leftarrow meta\_yr2[which(tolower(meta\_yr2$`Variable name`) == tolower(col_i)), ]
#
#
#
#
   if(nrow(label\_df) > 0 \ & !all(is.na(label\_df$Value))){}
#
      ret <- scd_data_yr2[, col_i, drop = T]
#
      ret <- tibble(label_df$Label[match(as.character(ret), label_df$Value)])</pre>
#
      names(ret) <- col_i</pre>
#
    } else{
#
      if(nrow(label_df) == 0)\{print(col_i)\}
#
      ret <- scd_data_yr2[, col_i]
#
   }
#
   ret
# })
#
# scd_data_yr2_label <- do.call(cbind, scd_data_yr2_label)
scd_data_yr3_label <- lapply(colnames(scd_data_yr3), function(col_i){</pre>
  if(col_i == "RACEG"){
    label_df <- meta_yr3[which(tolower(meta_yr3$`Variable name`) ==</pre>
                                   tolower("RACEGP")), ]
  } else{
    label_df <- meta_yr3[which(tolower(meta_yr3$`Variable name`) == tolower(col_i)), ]</pre>
  if(nrow(label_df) > 0 & !all(is.na(label_df$Value))){
    ret <- scd_data_yr3[, col_i, drop = T]</pre>
    ret <- tibble(label_df$Label[match(as.character(ret), label_df$Value)])</pre>
   names(ret) <- col_i</pre>
  } else{
    if(nrow(label_df) == 0){print(col_i)}
    ret <- scd_data_yr3[, col_i]</pre>
  }
  ret
})
scd_data_yr3_label <- do.call(cbind, scd_data_yr3_label)</pre>
summarize_data <- function(df, id_cols){</pre>
num_vars <- purrr::map_lgl(df %>% select(-all_of(id_cols), -RACEG),
                              is.numeric)
cont_vars <- names(num_vars)[num_vars]</pre>
cat_vars <- colnames(df %>%
                         select(-all_of(id_cols)))[which(!colnames(df %>%
                          select(-all_of(id_cols))) %in% cont_vars)]
cont_sum <- df %>%
  select(all_of(cont_vars))%>%
 mutate(across(c(cont vars),
```

```
list(`mean (sd)` = ~ pasteO(round(mean(.x, na.rm = T),2) ,
                                round(sd(.x, na.rm = T), 2), ")")
                    .names = "{.col}")) %>%
  distinct() %>%
  t(.) %>%
  data.frame(.)
#colnames(cont_sum) <- cont_sum[1, ]</pre>
#cont_sum <- cont_sum[-1, ]</pre>
cat_sum <- df %>%
  select(all_of(cat_vars)) %>%
  mutate(across(c(cat_vars), as.factor))
cat_sum_wide <- cat_sum %>%
  mutate(id = row_number())%>%
  select(id)
 purrr::walk(seq_len(length(cat_vars)), function(i){
    covar_i <- cat_vars[i]</pre>
    temp_df_cat <- cat_sum[ , covar_i, drop = FALSE]</pre>
    temp_df_wide <- temp_df_cat %>%
      dplyr::mutate(value = 1, id = row_number()) %>%
      pivot_wider(id_cols = c(id),
                  values from = value,
                  names_from = !!sym(covar_i),
                  names_prefix = pasteO(covar_i, ":"),
                  values_fill = 0)
      cat_sum_wide <<- cat_sum_wide %>%
      left_join(temp_df_wide, by = c("id" = "id"))
    })
#cat_sum_wide
cat_sum <- cat_sum_wide %>%
  select(-id) %>%
  mutate(across(everything(),
                list(`n (\%)` = ~paste0(sum(.x) , " (",
                                      round(mean(.x) * 100, 2),
                                       "%)")
                    ),
               .names = "{.col}")) %>%
  distinct() %>%
  t(.) %>%
  data.frame(.)
colnames(cont_sum) <- "value"</pre>
colnames(cat_sum) <- "value"</pre>
ret1 <- cont_sum %>%
```

```
mutate(var = rownames(.)) %>%
  gt::gt(rowname_col = "var")
ret2 <- cat_sum %>%
  mutate(cat = rownames(.),
         group_cat = str_split(cat, ":", simplify = T)[, 1],
         cat_label = str_split(cat, ":", simplify = T)[, 2]) %>%
  select(-cat) %>%
  gt::gt(rowname_col = "cat_label",
     groupname_col = "group_cat")
return(list(ret1, ret2))
}
summarize_data(scd_data_yr3_label, "DUMMYID")
## Warning: There was 1 warning in 'mutate()'.
## i In argument: 'across(...)'.
## Caused by warning:
##! Using an external vector in selections was deprecated in tidyselect 1.1.0.
## i Please use 'all_of()' or 'any_of()' instead.
##
##
    data %>% select(cont_vars)
##
##
    # Now:
    data %>% select(all_of(cont_vars))
##
##
## See <https://tidyselect.r-lib.org/reference/faq-external-vector.html>.
## Warning: There was 1 warning in 'mutate()'.
## i In argument: 'across(c(cat_vars), as.factor)'.
## Caused by warning:
## ! Using an external vector in selections was deprecated in tidyselect 1.1.0.
## i Please use 'all_of()' or 'any_of()' instead.
##
    # Was:
##
    data %>% select(cat vars)
##
##
    # Now:
##
    data %>% select(all_of(cat_vars))
##
## See <https://tidyselect.r-lib.org/reference/faq-external-vector.html>.
## [[1]]
## <div id="bbudvkndaj" style="padding-left:0px;padding-right:0px;padding-top:10px;padding-bottom:10px;
     <style>#bbudvkndaj table {
     font-family: system-ui, 'Segoe UI', Roboto, Helvetica, Arial, sans-serif, 'Apple Color Emoji', 'Se
##
##
    -webkit-font-smoothing: antialiased;
##
     -moz-osx-font-smoothing: grayscale;
## }
##
```

#bbudvkndaj thead, #bbudvkndaj tbody, #bbudvkndaj tfoot, #bbudvkndaj tr, #bbudvkndaj td, #bbudvkndaj

```
border-style: none;
## }
##
## #bbudvkndaj p {
##
     margin: 0;
##
     padding: 0;
## }
##
## #bbudvkndaj .gt_table {
##
     display: table;
##
     border-collapse: collapse;
##
     line-height: normal;
##
     margin-left: auto;
##
     margin-right: auto;
##
     color: #333333;
##
     font-size: 16px;
##
     font-weight: normal;
     font-style: normal;
##
     background-color: #FFFFFF;
##
     width: auto;
##
     border-top-style: solid;
##
##
     border-top-width: 2px;
##
     border-top-color: #A8A8A8;
     border-right-style: none;
##
##
     border-right-width: 2px;
##
     border-right-color: #D3D3D3;
##
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
     border-bottom-color: #A8A8A8;
##
##
     border-left-style: none;
##
     border-left-width: 2px;
##
     border-left-color: #D3D3D3;
## }
##
## #bbudvkndaj .gt_caption {
##
     padding-top: 4px;
##
     padding-bottom: 4px;
## }
##
## #bbudvkndaj .gt_title {
     color: #333333;
     font-size: 125%;
##
##
     font-weight: initial;
##
     padding-top: 4px;
##
     padding-bottom: 4px;
##
     padding-left: 5px;
##
     padding-right: 5px;
##
     border-bottom-color: #FFFFFF;
##
     border-bottom-width: 0;
## }
##
## #bbudvkndaj .gt_subtitle {
     color: #333333;
##
    font-size: 85%;
##
```

```
font-weight: initial;
##
##
     padding-top: 3px;
##
     padding-bottom: 5px;
##
     padding-left: 5px;
##
     padding-right: 5px;
##
     border-top-color: #FFFFFF;
     border-top-width: 0;
##
## }
##
## #bbudvkndaj .gt_heading {
     background-color: #FFFFFF;
##
     text-align: center;
##
     border-bottom-color: #FFFFFF;
##
     border-left-style: none;
##
     border-left-width: 1px;
     border-left-color: #D3D3D3;
##
##
     border-right-style: none;
     border-right-width: 1px;
##
     border-right-color: #D3D3D3;
##
## }
##
## #bbudvkndaj .gt_bottom_border {
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
     border-bottom-color: #D3D3D3;
##
## }
##
## #bbudvkndaj .gt_col_headings {
##
     border-top-style: solid;
##
     border-top-width: 2px;
     border-top-color: #D3D3D3;
##
##
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
     border-bottom-color: #D3D3D3;
##
     border-left-style: none;
##
     border-left-width: 1px;
##
##
     border-left-color: #D3D3D3;
##
     border-right-style: none;
     border-right-width: 1px;
##
##
     border-right-color: #D3D3D3;
## }
##
## #bbudvkndaj .gt_col_heading {
##
     color: #333333;
##
     background-color: #FFFFFF;
     font-size: 100%;
##
##
     font-weight: normal;
##
     text-transform: inherit;
##
     border-left-style: none;
##
     border-left-width: 1px;
     border-left-color: #D3D3D3;
##
     border-right-style: none;
##
##
     border-right-width: 1px;
##
     border-right-color: #D3D3D3;
```

```
##
     vertical-align: bottom;
##
     padding-top: 5px;
##
     padding-bottom: 6px;
##
     padding-left: 5px;
##
     padding-right: 5px;
##
     overflow-x: hidden;
## }
##
## #bbudvkndaj .gt_column_spanner_outer {
##
     color: #333333;
##
     background-color: #FFFFFF;
##
     font-size: 100%;
##
     font-weight: normal;
##
     text-transform: inherit;
##
     padding-top: 0;
##
     padding-bottom: 0;
##
     padding-left: 4px;
     padding-right: 4px;
## }
##
## #bbudvkndaj .gt_column_spanner_outer:first-child {
     padding-left: 0;
## }
##
## #bbudvkndaj .gt_column_spanner_outer:last-child {
     padding-right: 0;
## }
## #bbudvkndaj .gt_column_spanner {
     border-bottom-style: solid;
     border-bottom-width: 2px;
##
##
     border-bottom-color: #D3D3D3;
##
     vertical-align: bottom;
##
     padding-top: 5px;
     padding-bottom: 5px;
##
     overflow-x: hidden;
##
##
     display: inline-block;
     width: 100%;
##
## }
##
## #bbudvkndaj .gt_spanner_row {
     border-bottom-style: hidden;
##
## }
##
## #bbudvkndaj .gt_group_heading {
##
     padding-top: 8px;
##
     padding-bottom: 8px;
##
     padding-left: 5px;
     padding-right: 5px;
##
     color: #333333;
     background-color: #FFFFFF;
##
##
     font-size: 100%;
##
     font-weight: initial;
##
     text-transform: inherit;
```

```
border-top-style: solid;
##
##
     border-top-width: 2px;
     border-top-color: #D3D3D3;
##
##
     border-bottom-style: solid;
     border-bottom-width: 2px;
##
##
     border-bottom-color: #D3D3D3;
##
     border-left-style: none;
     border-left-width: 1px;
##
##
     border-left-color: #D3D3D3;
##
     border-right-style: none;
##
     border-right-width: 1px;
##
     border-right-color: #D3D3D3;
     vertical-align: middle;
##
##
     text-align: left;
## }
##
## #bbudvkndaj .gt_empty_group_heading {
     padding: 0.5px;
     color: #333333;
##
     background-color: #FFFFFF;
##
##
     font-size: 100%;
##
     font-weight: initial;
##
     border-top-style: solid;
     border-top-width: 2px;
##
##
     border-top-color: #D3D3D3;
##
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
     border-bottom-color: #D3D3D3;
##
     vertical-align: middle;
## }
##
## #bbudvkndaj .gt_from_md > :first-child {
     margin-top: 0;
##
## }
## #bbudvkndaj .gt_from_md > :last-child {
     margin-bottom: 0;
## }
##
## #bbudvkndaj .gt_row {
     padding-top: 8px;
    padding-bottom: 8px;
##
##
    padding-left: 5px;
##
    padding-right: 5px;
##
     margin: 10px;
##
     border-top-style: solid;
##
     border-top-width: 1px;
##
     border-top-color: #D3D3D3;
##
     border-left-style: none;
##
     border-left-width: 1px;
     border-left-color: #D3D3D3;
##
##
     border-right-style: none;
##
     border-right-width: 1px;
     border-right-color: #D3D3D3;
##
```

```
##
     vertical-align: middle;
##
     overflow-x: hidden;
## }
##
## #bbudvkndaj .gt_stub {
##
     color: #333333;
     background-color: #FFFFFF;
     font-size: 100%;
##
##
     font-weight: initial;
##
     text-transform: inherit;
##
     border-right-style: solid;
##
     border-right-width: 2px;
##
     border-right-color: #D3D3D3;
     padding-left: 5px;
##
##
     padding-right: 5px;
## }
##
## #bbudvkndaj .gt_stub_row_group {
     color: #333333;
##
     background-color: #FFFFFF;
##
##
     font-size: 100%;
##
     font-weight: initial;
     text-transform: inherit;
##
##
     border-right-style: solid;
     border-right-width: 2px;
##
##
     border-right-color: #D3D3D3;
##
     padding-left: 5px;
##
     padding-right: 5px;
##
     vertical-align: top;
## }
##
## #bbudvkndaj .gt_row_group_first td {
     border-top-width: 2px;
##
## }
##
## #bbudvkndaj .gt_row_group_first th {
     border-top-width: 2px;
## }
##
## #bbudvkndaj .gt_summary_row {
     color: #333333;
     background-color: #FFFFFF;
##
##
     text-transform: inherit;
##
     padding-top: 8px;
##
     padding-bottom: 8px;
     padding-left: 5px;
##
##
     padding-right: 5px;
## }
##
## #bbudvkndaj .gt_first_summary_row {
##
     border-top-style: solid;
     border-top-color: #D3D3D3;
##
## }
##
```

```
## #bbudvkndaj .gt_first_summary_row.thick {
##
     border-top-width: 2px;
## }
##
## #bbudvkndaj .gt_last_summary_row {
##
     padding-top: 8px;
##
    padding-bottom: 8px;
     padding-left: 5px;
##
##
     padding-right: 5px;
     border-bottom-style: solid;
##
##
     border-bottom-width: 2px;
##
     border-bottom-color: #D3D3D3;
## }
##
## #bbudvkndaj .gt_grand_summary_row {
##
     color: #333333;
##
     background-color: #FFFFFF;
     text-transform: inherit;
##
##
     padding-top: 8px;
     padding-bottom: 8px;
##
##
     padding-left: 5px;
##
     padding-right: 5px;
## }
##
## #bbudvkndaj .gt_first_grand_summary_row {
     padding-top: 8px;
##
     padding-bottom: 8px;
##
     padding-left: 5px;
##
     padding-right: 5px;
     border-top-style: double;
##
     border-top-width: 6px;
##
     border-top-color: #D3D3D3;
## }
##
## #bbudvkndaj .gt_last_grand_summary_row_top {
##
     padding-top: 8px;
##
    padding-bottom: 8px;
##
    padding-left: 5px;
     padding-right: 5px;
##
##
     border-bottom-style: double;
     border-bottom-width: 6px;
##
     border-bottom-color: #D3D3D3;
##
## }
##
## #bbudvkndaj .gt_striped {
     background-color: rgba(128, 128, 128, 0.05);
##
## }
##
## #bbudvkndaj .gt_table_body {
     border-top-style: solid;
##
##
     border-top-width: 2px;
##
     border-top-color: #D3D3D3;
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
```

```
border-bottom-color: #D3D3D3;
## }
##
## #bbudvkndaj .gt_footnotes {
     color: #333333;
##
##
     background-color: #FFFFFF;
     border-bottom-style: none;
##
     border-bottom-width: 2px;
##
##
     border-bottom-color: #D3D3D3;
##
     border-left-style: none;
##
     border-left-width: 2px;
     border-left-color: #D3D3D3;
##
##
     border-right-style: none;
     border-right-width: 2px;
##
##
     border-right-color: #D3D3D3;
## }
##
## #bbudvkndaj .gt_footnote {
##
     margin: Opx;
     font-size: 90%;
##
##
     padding-top: 4px;
##
     padding-bottom: 4px;
##
     padding-left: 5px;
##
     padding-right: 5px;
## }
##
## #bbudvkndaj .gt_sourcenotes {
##
     color: #333333;
##
     background-color: #FFFFFF;
##
     border-bottom-style: none;
     border-bottom-width: 2px;
##
##
     border-bottom-color: #D3D3D3;
##
     border-left-style: none;
     border-left-width: 2px;
##
     border-left-color: #D3D3D3;
##
     border-right-style: none;
##
##
     border-right-width: 2px;
##
     border-right-color: #D3D3D3;
## }
##
## #bbudvkndaj .gt_sourcenote {
     font-size: 90%;
##
##
     padding-top: 4px;
##
     padding-bottom: 4px;
##
     padding-left: 5px;
##
     padding-right: 5px;
## }
##
## #bbudvkndaj .gt_left {
     text-align: left;
## }
##
## #bbudvkndaj .gt_center {
    text-align: center;
```

```
## }
##
## #bbudvkndaj .gt_right {
     text-align: right;
##
     font-variant-numeric: tabular-nums;
## }
##
## #bbudvkndaj .gt_font_normal {
     font-weight: normal;
## }
##
## #bbudvkndaj .gt_font_bold {
     font-weight: bold;
## }
##
## #bbudvkndaj .gt_font_italic {
##
     font-style: italic;
## }
##
## #bbudvkndaj .gt_super {
##
     font-size: 65%;
## }
##
## #bbudvkndaj .gt_footnote_marks {
     font-size: 75%;
##
     vertical-align: 0.4em;
##
     position: initial;
## }
##
## #bbudvkndaj .gt_asterisk {
     font-size: 100%;
##
##
     vertical-align: 0;
## }
##
## #bbudvkndaj .gt_indent_1 {
##
   text-indent: 5px;
## }
##
## #bbudvkndaj .gt_indent_2 {
##
     text-indent: 10px;
## }
##
## #bbudvkndaj .gt_indent_3 {
##
    text-indent: 15px;
## }
##
## #bbudvkndaj .gt_indent_4 {
    text-indent: 20px;
## }
##
## #bbudvkndaj .gt_indent_5 {
## text-indent: 25px;
## }
## </style>
```

```
##
 ##
 <thead>
##
  ##
##
   ##
  ##
 </thead>
##
 ##
  YEARTX
## 2012.92 (5.88)
  AGE
 13.82 (9.77)
##
  INTXSURV
##
 55.2 (49.05)
  INTXGF
##
## 46.49 (47.15)
  INTXANC
##
 0.58 (0.57)
  INTXPLATELET
##
## 1.47 (8.02)
##
  INTXAGVHD
## 45.24 (48.4)
  INTXCGVHD
##
## 44.93 (48.8)
  INTXSCDMAL
##
## 55 (48.83)
  INTXPTLD
##
## 55.11 (49.2)
##
 ##
##
## 
## </div>
##
## <div id="nrqychctnn" style="padding-left:0px;padding-right:0px;padding-top:10px;padding-bottom:10px;
 <style>#nrqychctnn table {
##
 font-family: system-ui, 'Segoe UI', Roboto, Helvetica, Arial, sans-serif, 'Apple Color Emoji', 'Se
 -webkit-font-smoothing: antialiased;
##
##
 -moz-osx-font-smoothing: grayscale;
## }
##
## #nrqychctnn thead, #nrqychctnn tbody, #nrqychctnn tfoot, #nrqychctnn tr, #nrqychctnn td, #nrqychctnn
 border-style: none;
##
## }
##
## #nrqychctnn p {
##
 margin: 0;
 padding: 0;
##
## }
##
## #nrqychctnn .gt_table {
##
 display: table;
##
 border-collapse: collapse;
```

```
line-height: normal;
##
     margin-left: auto;
##
##
     margin-right: auto;
##
     color: #333333;
     font-size: 16px;
##
##
     font-weight: normal;
     font-style: normal;
##
##
     background-color: #FFFFFF;
##
     width: auto:
##
     border-top-style: solid;
##
     border-top-width: 2px;
##
     border-top-color: #A8A8A8;
##
     border-right-style: none;
##
     border-right-width: 2px;
##
     border-right-color: #D3D3D3;
##
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
     border-bottom-color: #A8A8A8;
     border-left-style: none;
##
##
     border-left-width: 2px;
     border-left-color: #D3D3D3;
##
## }
##
## #nrqychctnn .gt_caption {
     padding-top: 4px;
    padding-bottom: 4px;
## }
##
## #nrqychctnn .gt_title {
     color: #333333;
     font-size: 125%;
##
##
     font-weight: initial;
##
     padding-top: 4px;
    padding-bottom: 4px;
##
     padding-left: 5px;
##
##
    padding-right: 5px;
##
     border-bottom-color: #FFFFFF;
##
     border-bottom-width: 0;
## }
##
## #nrqychctnn .gt_subtitle {
     color: #333333;
##
     font-size: 85%;
##
     font-weight: initial;
##
     padding-top: 3px;
##
    padding-bottom: 5px;
##
    padding-left: 5px;
##
     padding-right: 5px;
     border-top-color: #FFFFFF;
##
     border-top-width: 0;
## }
##
## #nrqychctnn .gt_heading {
     background-color: #FFFFFF;
```

```
##
     text-align: center;
##
     border-bottom-color: #FFFFFF;
##
     border-left-style: none;
##
     border-left-width: 1px;
##
     border-left-color: #D3D3D3;
##
     border-right-style: none;
##
     border-right-width: 1px;
     border-right-color: #D3D3D3;
##
## }
##
## #nrqychctnn .gt_bottom_border {
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
     border-bottom-color: #D3D3D3;
##
## }
##
## #nrqychctnn .gt_col_headings {
     border-top-style: solid;
##
     border-top-width: 2px;
     border-top-color: #D3D3D3;
##
##
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
     border-bottom-color: #D3D3D3;
##
     border-left-style: none;
##
     border-left-width: 1px;
##
     border-left-color: #D3D3D3;
##
     border-right-style: none;
##
     border-right-width: 1px;
##
     border-right-color: #D3D3D3;
## }
##
## #nrqychctnn .gt_col_heading {
##
     color: #333333;
     background-color: #FFFFFF;
##
     font-size: 100%;
##
##
     font-weight: normal;
##
     text-transform: inherit;
##
     border-left-style: none;
##
     border-left-width: 1px;
##
     border-left-color: #D3D3D3;
##
     border-right-style: none;
     border-right-width: 1px;
##
##
     border-right-color: #D3D3D3;
##
     vertical-align: bottom;
##
     padding-top: 5px;
     padding-bottom: 6px;
##
##
     padding-left: 5px;
##
     padding-right: 5px;
     overflow-x: hidden;
##
## }
##
## #nrqychctnn .gt column spanner outer {
##
     color: #333333;
     background-color: #FFFFFF;
##
```

```
font-size: 100%;
##
##
     font-weight: normal;
     text-transform: inherit;
##
##
     padding-top: 0;
     padding-bottom: 0;
##
##
     padding-left: 4px;
##
     padding-right: 4px;
## }
##
## #nrqychctnn .gt_column_spanner_outer:first-child {
     padding-left: 0;
## }
##
## #nrqychctnn .gt_column_spanner_outer:last-child {
     padding-right: 0;
## }
##
## #nrqychctnn .gt_column_spanner {
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
##
     border-bottom-color: #D3D3D3;
##
     vertical-align: bottom;
     padding-top: 5px;
##
##
    padding-bottom: 5px;
##
     overflow-x: hidden;
##
     display: inline-block;
##
     width: 100%;
## }
##
## #nrqychctnn .gt_spanner_row {
     border-bottom-style: hidden;
##
## }
##
## #nrqychctnn .gt_group_heading {
##
     padding-top: 8px;
##
     padding-bottom: 8px;
##
     padding-left: 5px;
##
    padding-right: 5px;
     color: #333333;
##
##
     background-color: #FFFFFF;
##
     font-size: 100%;
     font-weight: initial;
##
##
     text-transform: inherit;
##
     border-top-style: solid;
##
     border-top-width: 2px;
     border-top-color: #D3D3D3;
##
##
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
     border-bottom-color: #D3D3D3;
##
##
     border-left-style: none;
     border-left-width: 1px;
##
     border-left-color: #D3D3D3;
##
##
     border-right-style: none;
     border-right-width: 1px;
##
```

```
border-right-color: #D3D3D3;
##
     vertical-align: middle;
##
##
     text-align: left;
## }
##
## #nrqychctnn .gt_empty_group_heading {
     padding: 0.5px;
     color: #333333;
##
     background-color: #FFFFFF;
##
     font-size: 100%;
##
##
     font-weight: initial;
##
     border-top-style: solid;
##
     border-top-width: 2px;
##
     border-top-color: #D3D3D3;
##
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
     border-bottom-color: #D3D3D3;
     vertical-align: middle;
##
## }
##
## #nrqychctnn .gt_from_md > :first-child {
     margin-top: 0;
## }
##
## #nrqychctnn .gt_from_md > :last-child {
     margin-bottom: 0;
## }
## #nrqychctnn .gt_row {
    padding-top: 8px;
    padding-bottom: 8px;
##
##
    padding-left: 5px;
##
    padding-right: 5px;
##
    margin: 10px;
##
    border-top-style: solid;
    border-top-width: 1px;
##
##
     border-top-color: #D3D3D3;
##
     border-left-style: none;
     border-left-width: 1px;
##
##
     border-left-color: #D3D3D3;
##
     border-right-style: none;
##
     border-right-width: 1px;
##
     border-right-color: #D3D3D3;
##
     vertical-align: middle;
##
     overflow-x: hidden;
## }
##
## #nrqychctnn .gt_stub {
     color: #333333;
##
##
     background-color: #FFFFFF;
    font-size: 100%;
##
    font-weight: initial;
##
    text-transform: inherit;
##
     border-right-style: solid;
```

```
border-right-width: 2px;
##
     border-right-color: #D3D3D3;
##
##
     padding-left: 5px;
##
     padding-right: 5px;
## }
##
## #nrqychctnn .gt_stub_row_group {
     color: #333333;
##
##
     background-color: #FFFFFF;
     font-size: 100%;
##
##
     font-weight: initial;
##
     text-transform: inherit;
##
     border-right-style: solid;
##
     border-right-width: 2px;
##
     border-right-color: #D3D3D3;
     padding-left: 5px;
##
##
     padding-right: 5px;
     vertical-align: top;
## }
##
## #nrqychctnn .gt_row_group_first td {
     border-top-width: 2px;
## }
##
## #nrqychctnn .gt_row_group_first th {
     border-top-width: 2px;
## }
## #nrqychctnn .gt_summary_row {
     color: #333333;
     background-color: #FFFFFF;
##
##
     text-transform: inherit;
##
     padding-top: 8px;
     padding-bottom: 8px;
##
     padding-left: 5px;
##
##
     padding-right: 5px;
## }
##
## #nrqychctnn .gt_first_summary_row {
     border-top-style: solid;
##
     border-top-color: #D3D3D3;
## }
## #nrqychctnn .gt_first_summary_row.thick {
     border-top-width: 2px;
## }
##
## #nrqychctnn .gt_last_summary_row {
     padding-top: 8px;
##
     padding-bottom: 8px;
##
    padding-left: 5px;
##
##
    padding-right: 5px;
    border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
```

```
border-bottom-color: #D3D3D3;
## }
##
## #nrqychctnn .gt_grand_summary_row {
##
     color: #333333;
##
     background-color: #FFFFFF;
##
     text-transform: inherit;
##
     padding-top: 8px;
##
     padding-bottom: 8px;
##
     padding-left: 5px;
     padding-right: 5px;
## }
##
## #nrqychctnn .gt_first_grand_summary_row {
##
     padding-top: 8px;
     padding-bottom: 8px;
##
##
     padding-left: 5px;
##
    padding-right: 5px;
##
     border-top-style: double;
     border-top-width: 6px;
##
##
     border-top-color: #D3D3D3;
## }
##
## #nrqychctnn .gt_last_grand_summary_row_top {
##
     padding-top: 8px;
    padding-bottom: 8px;
    padding-left: 5px;
##
##
     padding-right: 5px;
##
     border-bottom-style: double;
     border-bottom-width: 6px;
     border-bottom-color: #D3D3D3;
##
## }
##
## #nrqychctnn .gt_striped {
     background-color: rgba(128, 128, 128, 0.05);
##
## }
##
## #nrqychctnn .gt_table_body {
     border-top-style: solid;
     border-top-width: 2px;
##
##
     border-top-color: #D3D3D3;
     border-bottom-style: solid;
##
     border-bottom-width: 2px;
##
     border-bottom-color: #D3D3D3;
## }
##
## #nrqychctnn .gt_footnotes {
##
     color: #333333;
     background-color: #FFFFFF;
##
##
     border-bottom-style: none;
     border-bottom-width: 2px;
##
##
    border-bottom-color: #D3D3D3;
##
     border-left-style: none;
     border-left-width: 2px;
##
```

```
border-left-color: #D3D3D3;
##
##
     border-right-style: none;
##
     border-right-width: 2px;
##
     border-right-color: #D3D3D3;
## }
##
## #nrqychctnn .gt_footnote {
     margin: Opx;
##
##
     font-size: 90%;
     padding-top: 4px;
##
##
     padding-bottom: 4px;
##
     padding-left: 5px;
     padding-right: 5px;
##
## }
##
## #nrqychctnn .gt_sourcenotes {
##
     color: #333333;
     background-color: #FFFFFF;
##
     border-bottom-style: none;
##
     border-bottom-width: 2px;
##
     border-bottom-color: #D3D3D3;
##
##
     border-left-style: none;
##
     border-left-width: 2px;
     border-left-color: #D3D3D3;
##
##
     border-right-style: none;
##
     border-right-width: 2px;
##
     border-right-color: #D3D3D3;
## }
##
## #nrqychctnn .gt_sourcenote {
     font-size: 90%;
##
##
     padding-top: 4px;
##
     padding-bottom: 4px;
     padding-left: 5px;
##
     padding-right: 5px;
##
## }
##
## #nrqychctnn .gt_left {
     text-align: left;
## }
##
## #nrqychctnn .gt_center {
     text-align: center;
## }
##
## #nrqychctnn .gt_right {
##
     text-align: right;
##
     font-variant-numeric: tabular-nums;
## }
##
## #nrqychctnn .gt_font_normal {
     font-weight: normal;
## }
##
```

```
## #nrqychctnn .gt_font_bold {
##
   font-weight: bold;
## }
##
## #nrqychctnn .gt_font_italic {
   font-style: italic;
## }
##
## #nrqychctnn .gt_super {
   font-size: 65%;
##
## }
##
## #nrqychctnn .gt_footnote_marks {
   font-size: 75%;
##
##
   vertical-align: 0.4em;
##
   position: initial;
## }
##
## #nrqychctnn .gt_asterisk {
  font-size: 100%;
##
  vertical-align: 0;
## }
##
## #nrqychctnn .gt_indent_1 {
  text-indent: 5px;
## }
##
## #nrqychctnn .gt_indent_2 {
   text-indent: 10px;
## }
##
## #nrqychctnn .gt_indent_3 {
   text-indent: 15px;
## }
##
## #nrqychctnn .gt_indent_4 {
   text-indent: 20px;
## }
##
## #nrqychctnn .gt_indent_5 {
  text-indent: 25px;
## }
## </style>
##
   ##
    ##
     ##
##
     ##
   </thead>
##
##
   ##
     RCMVPR
##
##
```

```
##
 Posi
## 765 (46.62%)
##
 Negative
## 745 (45.4%)
##
 NA
131 (7.98%)
##
##
 SEX
##
##
 Fema
##
##
752 (45.83%)
 Male
##
##
889 (54.17%)
 ##
##
 ETHNICIT
##
 Non-
##
1258 (76.66%)
 NA
##
##
226 (13.77%)
##
 Hispanic or Latino
## 126 (7.68%)
 Non-resident of the U.S.
##
##
 ##
 DONORF
##
 HLA
##
## 1010 (61.55%)
##
 Mismatched unrelated donor and
## 175 (10.66%)
##
 Matched unrelated donor
##
167 (10.18%)
 HLA mismatch relative
##
289 (17.61%)
##
##
 GRAFTYPE
##
##
 Per
##
## 333 (20.29%)
 Bone marrow
##
1137 (69.29%)
##
 Umbilical cord blood
##
171 (10.42%)
##
##
 AGEGPFF
##
##
 ##
 18-
##
309 (18.83%)
##
 <=10
11-17
## 487 (29.68%)
##
 30-49
```

```
## 114 (6.95%)
>=50
##
13 (0.79%)
##
##
##
 KPS
##
&lt
##
## 256 (15.6%)
##
>=90
## 1226 (74.71%)
NA
##
## 159 (9.69%)
##
HCTCIGPF
##
##
##
NA
## 263 (16.03%)
##
0-2
##
##
3+
## 475 (28.95%)
##
SUBDIS1F
##
##
##
Hem
## 1558 (94.94%)
Hemoglobin Sf-thalassemia
##
## 83 (5.06%)
##
##
 ATGF
##
##
Alex
700 (42.66%)
None
##
134 (8.17%)
##
ATG
##
## 780 (47.53%)
##
NA
## 27 (1.65%)
##
YEARGPF
##
##
##
&lt
## 264 (16.09%)
2008-2012
##
## 339 (20.66%)
2013-2017
##
640 (39%)
##
##
2018-2020
## 398 (24.25%)
##
GVHD_FINAL
##
##
```

CNI

##

```
## 110 (6.7%)
 CNI + MTX
##
##
710 (43.27%)
 MTX alone
##
##
12 (0.73%)
 CNI + MMF
##
308 (18.77%)
 Ex-vivo T-cell depletion
##
##
 CD 34 selection
##
##
61 (3.72%)
 NA
##
##
34 (2.07%)
 Post-CY + MMF + CNI
##
## 59 (3.6%)
##
 MMF + MTX
1 (0.06%)
##
##
 MMF alone
5 (0.3%)
##
##
 Post-CY + siro +/- MMF
##
189 (11.52%)
 Siro alone
##
115 (7.01%)
##
 CNI + siro
##
##
MMF + siro
##
##
 MTX + siro
##
2 (0.12%)
##
##
 CONDGRPF
##
##
 ##
 Red
378 (23.03%)
##
 Myeloablative
##
833 (50.76%)
##
##
 NA
## 64 (3.9%)
 Non-myeloablative
##
366 (22.3%)
##
 ##
 CONDGRP_FINAL
##
##
 Flu
##
##
264 (16.09%)
 Bu/Cy
##
##
546 (33.27%)
 TBI/Cy
##
##
##
 TBI/Flu
13 (0.79%)
##
 TBI/Cy/Flu
## 110 (6.7%)
##
 Flu/Mel
```

```
## 274 (16.7%)
##
Bu/Mel
##
NA
##
##
31 (1.89%)
Cy/Flu
##
9 (0.55%)
Flu/Mel/TT
##
## 114 (6.95%)
Flu/Bu/TT
##
##
21 (1.28%)
TBI alone (300/400cGy)
##
##
121 (7.37%)
Treosulfan
##
## 8 (0.49%)
##
TBI/Mel
6 (0.37%)
##
##
TBI/Cy/Flu/TT
98 (5.97%)
##
##
Cy alone
##
2 (0.12%)
##
##
 HLA_FINAL
##
8/8
##
##
1177 (71.72%)
<=6/8
##
##
383 (23.34%)
##
7/8
##
80 (4.88%)
##
NA
##
1 (0.06%)
##
##
 FLAG_LANCET
##
No
##
731 (44.55%)
##
Yes
910 (55.45%)
##
##
FLAG_BLOOD
##
##
No
##
##
1482 (90.31%)
Yes
##
159 (9.69\%)
##
##
DEAD
##
##
##
Ali
1489 (90.74%)
##
##
Dead
## 152 (9.26%)
##
```

```
##
 GF
##
 ##
 Yes
288 (17.55%)
##
##
 No
1323 (80.62%)
##
 Not evaluable (Neutrophil reco
##
## 30 (1.83%)
##
 EFS
##
##
 Eve:
##
## 404 (24.62%)
##
 No event
## 1212 (73.86%)
##
 Not Reported
## 25 (1.52%)
##
 ANC
##
##
##
 Yes
## 1584 (96.53%)
 Not Reported
##
## 36 (2.19%)
##
 No
21 (1.28%)
 ##
 PLATELET
##
##
##
 Yes
## 1468 (89.46%)
##
 Not Reported
104 (6.34%)
##
 No
##
69 (4.2%)
##
##
 AGVHD
##
##
 No
##
## 1280 (78%)
 Yes
##
300 (18.28%)
##
 Not reported
##
##
22 (1.34%)
 Acute GVHD present, grade unkn
##
## 39 (2.38%)
##
 CGVHD
##
##
 ##
 No
## 1245 (75.87%)
 Yes
## 366 (22.3%)
##
 Not Reported
```

```
## 30 (1.83%)
##
 SCDMAL_FINAL
##
##
 ##
 No:
##
1610 (98.11%)
 Acute myelogenous leukemia</ti>
##
## 6 (0.37%)
##
 Not Reported
##
9 (0.55%)
##
 Medulloblastoma
1 (0.06%)
##
##
 Embryonal rhabdomyosarcoma</ti>
##
1 (0.06%)
##
 Myelodysplastic syndrome
## 4 (0.24%)
 Ependymoma grade 2
##
1 (0.06%)
 Myofibroblastic tumor
##
## 1 (0.06%)
 Clonal cytogenetic abnormality
##
## 1 (0.06%)
 TP53 mutation
##
## 1 (0.06%)
##
 T-cell large granular lymphoc
##
1 (0.06%)
##
 Acute lymphoblastic leukemia
##
2 (0.12%)
##
 Sarcoma
## 2 (0.12%)
 Kaposi sarcoma
##
## 1 (0.06%)
##
 DWOAGVHD
##
##
 No
##
1573 (95.86%)
 Yes
##
## 59 (3.6%)
 Not Reported
##
9 (0.55%)
##
 ##
 DWOCGVHD
##
##
 No
##
##
 Yes
75 (4.57%)
##
##
 Not Reported
11 (0.67\%)
##
##
 DWOANC
##
##
 ##
 No
```

```
## 1630 (99.33%)
##
Not Reported
##
8 (0.49%)
Yes
##
## 3 (0.18%)
##
 DWOPLATELET
##
##
##
No
## 1586 (96.65%)
##
Not Reported
27 (1.65%)
##
##
Yes
28 (1.71%)
##
##
##
 DWOGF
##
##
No
## 1525 (92.93%)
##
Yes
##
111 (6.76%)
Not Reported
##
## 5 (0.3%)
##
PTLD
##
##
##
No
##
1618 (98.6%)
##
Not Reported
##
9 (0.55%)
##
Yes
##
14 (0.85%)
##
##
 FLAG_0601
##
No
##
1605 (97.81%)
##
Yes
## 36 (2.19%)
##
RACEG
##
##
Af
##
##
1403 (85.5%)
NA
##
## 80 (4.88%)
##
Caucasian
##
118 (7.19%)
##
Asian
## 17 (1.04%)
0thers
##
## 23 (1.4%)
##
```

##

```
##
## 
## </div>
#remove useless variables
\#scd\_data\_clean <- \ select(scd\_data\_clean, \ -c(AGEGPFF, \ YEARGPF))
#time to events variables:
#INTXAGVHD, INTXCGVHD, INTXSCDMAL, INTXANC, INTXPLA_TELET, INTXGF, INTXSURV, death
columns_to_check <-toupper(c("intxsurv", "intxgf", "intxanc", "intxplatelet", "intxagvhd", "intxcgvhd",</pre>
dataset_column_names <- colnames(scd_data_yr3)</pre>
columns_exist <- columns_to_check %in% dataset_column_names</pre>
existing_columns <- columns_to_check[columns_exist]</pre>
print(existing_columns)
## [1] "INTXSURV"
                       "INTXGF"
                                       "INTXANC"
                                                       "INTXPLATELET" "INTXAGVHD"
## [6] "INTXCGVHD"
                       "INTXPTLD"
                                       "INTXSCDMAL"
columns_exist_meta <- tolower(existing_columns)</pre>
time_to_event <- meta_yr3[which(meta_yr3$`Variable name` %in% columns_exist_meta),]</pre>
```