Survival Analysis

Bramack

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# load packages

library(tidyverse) library(here) library(survival) library(survminer)

# read data

data<-read.csv(here(“rdata folder”,“survdatao.csv”))

# print the first few rows of the data

head(data)

#convert data columns to data type dataDOB,format=“%Y-%m-%d”) dataS.ART.D,format=“%Y-%m-%D”) dataD.C.HIV.P,format=“%Y-%m-%d”) dataDispenseDate,format=“%Y-%m-%d”) dataExitDate,format=“%Y-%m-%D”)

# Ensure data is correctly formatted

str(data)

#create time and status variable for survival analysis dataExitDate,data$S.ART.D,units="days"))
data$status<-ifelse(is.na(data$ExitDate),0,1)

#print the first few rows to check the new column head(data)

# create a survival object

surv\_object<-Surv(time=datastatus)

#Fit a kaplan meier survival curve fit<-survfit(surv\_object~1,data=data)

#print the summary of the fit summary(fit)

#plot the survival curve ggsurvplot(fit,data=data,xlab=“Time(days)”,ylab=“survival probability”, title=“Kaplan Meier Survival Curve”, ggtheme=theme\_minimal())

# plot visualisation

Img<-read\_png(“survplot.png”)