

TITLE: Racial Disparities in Covid-19 Deaths Amongst Cancer Patients and Possible Mediators for this Relationship

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R codes for the main models:

```
library(mma)
```

```
# Model 1 with just Charlson as mediator, everything else is a covariate  
y=Surv(data$TimeDiff, data$CovDeath) # outcome: survival time and censor variable  
x= data[,c(3:10)] #x is all potential confounders and mediators  
pred=data[,1] # race
```

```
mma.b.b.glm<-mma(x,y,pred=pred,catmed=c(8), catref=c( 0), predref=1, alpha=1,  
alpha2=1, n=2, n2=5000)
```

```
summary(mma.b.b.glm, quant=TRUE)
```

```
# Model 2 with each disease as mediator, everything else is a covariate  
y=Surv(data2$TimeDiff_final,data2$CovDeath) ) # survival outcome  
x=data2[,c(3:17)] #x is all potential confounders and mediators  
pred=data2[,1] #race
```

```
mma.b.b.glm1<-mma(x,y,pred=pred, binmed =c(6:13), binref=c(0, 0, 0, 0, 0, 0, 0, 0),  
predref=1, alpha=1, alpha2=1, n=2, n2=5000)
```

```
summary(mma.b.b.glm1, quant=TRUE)
```

```
plot(mma.b.b.glm1,vari="renaldisase")
```