

```
#####Konfidensintervaller for binomiale proportioner#####
```

```
#Nedenstående kode skal køres i R.
```

```
#Der skal installeres følgende ekstrapakker: binom og Epi.
```

```
#Hmisc følger vist med standardinstallationen.
```

```
#Skrevet af Ram Dessau, Marts 2007
```

```
#
```

```
rm(list=ls(all=TRUE)) #Sletter alt = rydder op
```

```
#####En proportion#####
```

```
library(Hmisc)
```

```
#Konfidensinterval for en binomial sandsynlighed
```

```
n<-40 #Totalt antal patienter
```

```
x<-3 #Antal succes/overlevende/positive etc.
```

```
bc1<-binconf(x,n,method="all",alpha=0.05)
```

```
bc1 #Wilson er den anbefalede !!
```

```
#Omregn til % og afrund decimaler
```

```
100*round(bc1,3)
```

```
library(binom) #Skal installeres !
```

```
#Denne funktion viser 11 forskellige metoder.
```

```
#Igen Wilson er anbefalet
```

```
bc<-binom.confint(x=x,n=n)
```

```
bc
```

```
#Sammenligne konfidensintervaller i plot
```

```
plot(1:11,bc[,4],pch=19,ylim=c(min(bc[,5]),max(bc[,6]+0.02)),bty="L",xlim=c(0,12),
```

```
  xlab="Metode, Wilson anbefales", ylab="Sandsynlighed",
```

```
  main=paste("95% konfidensinterval for binomial proportion ",x,"/",n))
```

```
x1=1:length(bc[,4]) #Placering på x akse
```

```
arrows(x1,bc[,5],x1,bc[,6],angle=90,code=3,length=0.1)
```

```
text(x1,bc[,6]+0.01,labels=bc[,1])
```

```
#####To proportioner#####
```

```
library(Epi) #Skal installeres !
```

```
#
```

```
a<-matrix(c(14,16,6,24),2,2) #Dan 2x2 tabel
```

```
rownames(a)<-c("Syg","Rask") #Tilføj navne
```

```
colnames(a)<-c("Pos","Neg")
```

```
a #Tjek tabel
```

```
#Sammenlign de to proportioner
```

```
ci.pd(a) #Newcombe = anbefalet metode
```

```
twoby2(t(a)) #Denne test kræver vendt tabel derfor t(a)
```

```
chisq.test(a) #Chi-i-anden test
```

```
fisher.test(a) #Fisher's exacte test
```

```
?bsamsize #Metode til samplesize beregning.
```

#Litteratur:

#1. Newcombe RG. Two-sided confidence intervals for the single proportion: comparison of seven methods.

# Stat.Med. 1998;17(8):857-72.

#2. Newcombe RG. Interval estimation for the difference between independent proportions: comparison of eleven methods.

# Stat.Med. 1998;17(8):873-90.

#3. Statistics with confidence. 1ed. London: BMJ Books; 2000.

#4. Se også Agresti A.