

*Model E1:*

```
model {  
  for (i in 1:13) {  
    prec.HAQ.TR[i] <- 1/(se.HAQ.TR[i] *se.HAQ.TR[i])  
    prec.HAQ.PR[i] <- 1/(se.HAQ.PR[i]*se.HAQ.PR[i])  
    prec.HAQ.TNR[i] <- 1/(se.HAQ.TNR[i] * se.HAQ.TNR[i])  
    prec.HAQ.PNR[i] <- 1/(se.HAQ.PNR[i] * se.HAQ.PNR[i])  
  
    HAQ.TR[i] ~ dnorm(TR[i], prec.HAQ.TR[i])  
    HAQ.PR[i] ~ dnorm(PR[i], prec.HAQ.PR[i])  
    HAQ.TNR[i] ~ dnorm(TNR[i], prec.HAQ.TNR[i])  
    HAQ.PNR[i] ~ dnorm(PNR[i], prec.HAQ.PNR[i])  
  
    PNR[i]<-baselineHAQ[i]  
    PR[i] <- baselineHAQ[i]+ PR.diff  
  
    TNR[i] <-baselineHAQ[i]+ TNR.diff[trial.tnf[i]]  
    TR[i] <-baselineHAQ[i]+ TR.diff[trial.tnf[i]]  
  }  
  baselineHAQ[i ]~ dnorm(0,0.000001)  
  for (j in 1:9) {  
    TR.diff[j]~ dnorm(0,0.000001)  
    TNR.diff[j]~ dnorm(0,0.000001)  
  }  
  PR.diff~ dnorm(0,0.000001)  
  for (i in 1:13) { HAQ.PNR[i] ~dnorm(0,0.000001)}  
}
```

*Model E2:*

```
model {  
  for (i in 1:13) {  
    prec.HAQ.TR[i] <- 1/(se.HAQ.TR[i] *se.HAQ.TR[i])  
    prec.HAQ.PR[i] <- 1/(se.HAQ.PR[i]*se.HAQ.PR[i])  
    prec.HAQ.TNR[i] <- 1/(se.HAQ.TNR[i] * se.HAQ.TNR[i])  
    prec.HAQ.PNR[i] <- 1/(se.HAQ.PNR[i] * se.HAQ.PNR[i])  
  
    HAQ.TR[i] ~ dnorm(TR[i], prec.HAQ.TR[i])  
    HAQ.PR[i] ~ dnorm(PR[i], prec.HAQ.PR[i])  
    HAQ.TNR[i] ~ dnorm(TNR[i], prec.HAQ.TNR[i])  
    HAQ.PNR[i] ~ dnorm(PNR[i], prec.HAQ.PNR[i])  
  
    baselineHAQ[i ]~ dnorm(0,0.000001)  
  
    PNR[i]<-baselineHAQ[i]  
    PR[i] <- baselineHAQ[i]+ PR.diff  
  
    TNR[i] <-baselineHAQ[i]+ TNR.diff[trial.tnf[i]]  
    TR[i] <-baselineHAQ[i]+ TR.diff[trial.tnf[i]]  
  }  
  
  for (i in 1:2) {TR.diff[i] ~ dnorm(D.TR.c[1], prec.TR)}  
  TR.diff[3] ~ dnorm(D.TR.c[2], prec.TR)  
  TR.diff[4] ~ dnorm(D.TR.c[1], prec.TR)  
  for (i in 5:8) {TR.diff[i] ~ dnorm(D.TR.c[2], prec.TR)}  
  TR.diff[9] <- D.TR.c[3]  
  
  for (i in 1:2) {TNR.diff[i] ~ dnorm(D.TNR.c[1], prec.TNR)}
```

```

TNR.diff[3] ~ dnorm(D.TNR.c[2], prec.TNR)
TNR.diff[4] ~ dnorm(D.TNR.c[1], prec.TNR)
for (i in 5:8) {TNR.diff[i] ~ dnorm(D.TNR.c[2], prec.TNR)}
TNR.diff[9] <- D.TNR.c[3]

for (j in 1:3) {
  D.TR.c[j]~ dnorm(0,0.000001)
  D.TNR.c[j]~ dnorm(0,0.000001)
}

for (j in 1:2) {
  D.pred.TR[j]~dnorm(D.TR.c[j],prec.TR)
  D.pred.TNR[j]~dnorm(D.TNR.c[j],prec.TNR)
}

prec.TR<-1/(sd.TR*sd.TR)
sd.TR~dunif(0,10)
prec.TNR<-1/(sd.TNR*sd.TNR)
sd.TNR~dunif(0,10)

PR.diff~ dnorm(0,0.000001)
for (i in 1:13) { HAQ.PNR[i] ~dnorm(0,0.000001)}
}
d[1]=SEC150, d[2]=SEC300, d[3]=CZP, d[4]=UST, d[5]=GOL, d[6]=ADA, d[7]=INF, d[8]=ETA, d[9]=APR

```