

Arthritis - Cumulative Logit Model

November 1, 2024

A simple data frame for the arthritis data is created with the numbers given for the individual cells.

```
> arthritis <- data.frame(drug=c(rep("new agent", 24+37+21+19+6),
+ rep("active control", 11+51+22+21+7)),
+ assessment=c(rep(1,24), rep(2,37), rep(3,21), rep(4,19), rep(5,6), rep(1,11),
+ rep(2,51), rep(3,22), rep(4,21), rep(5,7)))  
> library(VGAM)
```

Now a cumulative model is fitted.

```
> cumart <- vglm(assessment ~ drug, family=cumulative(parallel=TRUE, link="logit"),
+                   data=arthritis)  
> summary(cumart)
```