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| anesthetic | R Documentation |

**Anesthetic Effectiveness**

**Description**

Thirty patients were given an anesthetic agent maintained at a predetermined level (conc) for 15 minutes before making an incision. It was then noted whether the patient moved, i.e. jerked or twisted.

**Usage**

anesthetic

**Format**

This data frame contains the following columns:

move

a binary numeric vector coded for patient movement (0 = no movement, 1 = movement)

conc

anesthetic concentration

logconc

logarithm of concentration

nomove

the complement of move

**Details**

The interest is in estimating how the probability of jerking or twisting varies with increasing concentration of the anesthetic agent.

**Source**

unknown

**Examples**

print("Logistic Regression - Example 8.1.4")

z <- table(anesthetic$nomove, anesthetic$conc)

tot <- apply(z, 2, sum) # totals at each concentration

prop <- z[2, ]/(tot) # proportions at each concentration

oprop <- sum(z[2, ])/sum(tot) # expected proportion moving if concentration had no effect

conc <- as.numeric(dimnames(z)[[2]])

plot(conc, prop, xlab = "Concentration", ylab = "Proportion", xlim = c(.5,2.5),

 ylim = c(0, 1), pch = 16)

chw <- par()$cxy[1]

text(conc - 0.75 \* chw, prop, paste(tot), adj = 1)

abline(h = oprop, lty = 2)

pause()

anes.logit <- glm(nomove ~ conc, family = binomial(link = logit),

 data = anesthetic)

anova(anes.logit)

summary(anes.logit)