

NOTE: Give numerical answers with three decimals

Exercise 1

a. The estimated coefficient for agerec of the linear model is

The standard error is

The residual standard deviation (σ)

b. The estimated coefficient for agerec of the generalized linear model is

The standard error is

The residual standard deviation (σ) can be calculated by :

c. The link function used is

d. The model used is

Interpretation of the regression coefficient for agerec.....

Exercise 2

a. Total number of women with thrombosis for second generation pill is

Total number of women with thrombosis for third generation pill is

Total number of "person-months" for second generation pill is

Total number of "person-months" for third generation pill is

b. expected number of thrombosis cases per person-month for second generation pill is

expected number of thrombosis cases per person-month for third generation pill isand
third generation pill.

c. The model is

The rate of thromboses cases per person per month for the second generation pill is

The rate of thromboses cases per person per month for the third generation pill is

The rate ratio for a third generation pill versus a second generation pill is:

d. The rate ratio for a third generation pill versus a second generation pill is

e. The results of the goodness of fit test were

f. The estimated overdispersion parameter is

Conclusion