

Lab 9: Longitudinal regression methods

Data: dfmo.csv (see the dfmo.pdf file for data dictionary/useful information).

Practical objective: To gain experience with exploration of longitudinal data and writing down models suitable for longitudinal analyses.

Scientific objective: To understand the effect of DFMO on mean spermidine over time.

Exercises: Convene with your group from last week.

Exercise 1: Spend a small amount of time finalizing the mean model if there were any loose ends to tie up from last week.

Exercise 2: Estimate the parameters of the mean model you proposed in Exercise 1 using a linear mixed effects model. As a group, justify any choices you make that are specific to the mixed model (you've presumably already justified all the decisions pertaining to the mean model).

Exercise 3: Estimate the parameters of the mean model you proposed in Exercise 1 using generalized estimating equations. Justify any choices you make that are specific to the estimation procedure (you've presumably already justified all the decisions pertaining to the mean model).

Be ready to share key aspects of your findings in class!