ERHS 642 Logistic Regression Spring 2016

In-class Assignment 6

Consider the BURN1000 data set, outcome variable DEATH, risk factor AGE.

1. Using logistic regression, obtain the OR and 95% CI for a 10 year increase in AGE (keep age linear). Interpret your results.

2. Using splines (constant, linear and cubic connection), determine if age appears to be linear in the logit. Use quartiles as knots.

3. Categorize age using quartiles. Run the logistic regression analysis and draw conclusions. Do the conclusions agree with the conclusions in question 1? Do the conclusions agree with the conclusions in question 2?