All potential covariates with a bivariate association p value of less than 0.25 were included in the initial model. Age and total number of overall visit medications were dichotomized as they did not have a linear relationship with the logit. Visits with two or more associated medications were compared to those with zero or one associated medications. Age was dichotomized at 75 years as this was approximately the mean for the sample of interest. In order to facilitate the examination of interaction terms, region of the country was collapsed from four categories to two (Northeast versus rest of U.S.) and triage level was collapsed from multiple categories to two (Immediate / Unknown / Less than one hour versus Greater than one hour). Backward elimination was used to remove covariates with a p value greater than 0.25 in the multivariable models.

All other considered covariates (those with initial p above 0.25) were added using forward selection to determine whether any additional significant covariates were present after combination with the preliminary main effects model. Items with a p value less than 0.25 in multivariable modeling remained in the preliminary main effects model.

Several interaction terms were considered based on a priori hypotheses: age*age, age*sex, Northeast*Metropolitan Statistical Area, NE*year, total visit medications*sex, injury*sex. Forward selection with a threshold p value of < 0.05 was utilized for the addition of interaction terms to the final model.