Generating Bi-specific Hypoglycemia Rate Point-Estimates and CIs

1. Covariate determination

2. Select Bi-specific patient-treatments (Gla-300 shown as example)

3. Random sampling with replacement used to create training data set and test data set

4. Training data used to select a subset of covariates that minimize prediction error (LASSO REGRESSION)

5. Model training is an iterative process, repeated until the prediction is optimized

6. Accuracy of predicted rates versus actual rates is assessed using the test data set

7. Each Bi-specific model is used to predict hypoglycemia event rates within the whole eligible patient treatment cohort and the mean rate with that model is calculated

8. Bootstrapping the modeling process (repeating steps 3–7) results in a large number of mean hypoglycemia rates for each Bi-specific model – this allows the estimation of hypoglycemia rate point-estimates and 95% CIs for each Bi