

5.4.5a Attach Calibration and Discrimination Testing Results

CBE ID 3566, Standardized Ratio of Emergency Department Encounters Occurring Within 30 Days of Hospital Discharge (ED30) for Dialysis Facilities

The model's ability to distinguish between patients who will and will not have an ED visit within 4-30 days of discharge was measured using the Area Under the Receiver Operating Characteristic (AUC) curve. The predicted AUC value is 0.661, which indicates the model has fair discriminatory power. This means the model is effective at differentiating between patients with higher and lower risk of an ED visit. Specifically, if a patient who was admitted to the ED after an inpatient discharge and a patient who was not are randomly selected, the model will correctly identify which patient was admitted 66.1% of the time.

Model calibration was assessed using a risk-decile calibration plot, which compares the mean predicted and mean observed emergency department encounter rates within deciles of predicted risk. Calibration plots display the agreement between predicted and observed rates across risk strata, with closer alignment indicating better calibration.

According to the risk-decile plot below, the observed emergency department encounter rates increased monotonically across predicted risk deciles, suggesting that the model provides meaningful separation of patient risk groups. The very close alignment between the predicted and observed emergency department encounter rates indicates that the model is well-calibrated across risk strata.

