Adverse Drug Events (ADE)

Hypoglycemic Agents

Background

- The Institute of Medicine (IOM) estimates that 1.5 million preventable Adverse Drug Events (ADE) occur each year.¹
- On average, every patient admitted to a hospital is subject to at least one medication error per day, accounting for approximately $3.5 billion in additional costs.²,³
- According to the United States General Accounting Office (GAO) report from February 2000, individual state studies have shown ADE occurrence rates as high as 0.56 to 3 per 100 hospital admissions.⁴
- According to a 2004 Medicare Patient Safety Monitoring Study sample of 25,145 hospital visits, an estimated 10.7% of patients exposed to insulin/hypoglycemic agents experience associated ADE.⁵

Aim

To reduce the incidence of ADE related to hypoglycemic agents by 40%.

Measure

**Numerator:** Number of patient blood glucose (BG)* levels of <50 mg/dl after any hypoglycemic agent administration (patients cared for in an inpatient area).

**Denominator:** Number of patients (cared for in an inpatient area) receiving hypoglycemic agents (oral and insulin).

*Blood Glucose (BG) is Point of Care (POC) and/or serum test results.*

**Process:** Adherence to Safety Action Bundles and Data Submission Trends.

**Submit:** Washington State Hospital Association Quality Benchmarking System.

**Hypoglycemic Agent Drug Classifications**

Medications that help control blood sugar levels in people with diabetes mellitus. Antidiabetic drugs may be subdivided into six groups, both oral and injectable insulin, sulfonylureas, alpha-glucosidase inhibitors, biguanides, meglitinides, and thiazolidinediones.
**Inclusion Criteria**

1. Patients who are admitted to hospital bed, regardless of status (e.g. include observation, rehab and swing bed patients).
2. Include any **post-intervention** blood glucose < 50 mg/dl events, even if the result is multiple events being recorded for a single patient.

**Exclusion Criteria**

1. Any additional pre-intervention lab results of BG <50 mg/dl **within 30 minutes of the last BG <50 mg/dl level drawn.**
2. Exclude Emergency Department readings.

**Data Submission:**

1. Input data into the WSHA Quality Benchmarking System (QBS). Current users may log in with their QBS credentials. If you need access to QBS, contact Decision Support.
2. Baseline data: Two quarters in 2013 will be used for baseline data.
3. Ongoing: Monthly data to be submitted to QBS by 45 days after the end of the prior month.

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**Key Resources**