Washington State Hospital Association

RURAL QUALITY

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.

Data Month	Submit By	Data Month	Submit By
January	March 15th	July	September 15th
February	April 15th	August	October 15th
March	May 15th	September	November 15th
April	June 15th	October	December 15th
May	July 15th	November	January 15th
June	August 15th	December	February 15th

Key Resources

[1] "How-to Guide: Prevent Harm from High-alert Medications." Cambridge, MA: Institute for Healthcare Improvement 2012. Web February 2013. http://www.ihi.org/knowledge/Pages/Tools/HowtoGuidePreventHarmfromHighAlertMedications.aspx

[2] Ebbesen .J, Juajordet I., Erikssen J., et al. "Drug-Related Deaths in a Department of Internal Medicine." Arch Intern Med 161 (2001) 2317-2323.

[3] "Anticoagulant Toolkit: Preventing Adverse Drug Events." IHI 2008 Purdue University PharmaTap. February 2013. http://www.ihi.org/knowledge/Pages/Tools/AnticoagulantToolkitReducingADEs.aspx.

[4] Heinrich, Janet. "Adverse Drug Events: substantial problem but magnitude uncertain." United States General Accounting Office. 2000. February 2013. http://www.gao.gov/assets/110/108212.pdf.

[5] Classen DC, Jaser L, Budnitz DS. Adverse drug events among hospitalized Medicare patients: epidemiology and national estimates from a new approach to surveillance. Jt Comm J Qual Patient Saf. 2010 Jan;36 (1):12-21.