

BACKGROUND

Hypoglycemia, an adverse drug event (ADE) related to insulin and sulfonylurea use, has been identified as one of the top 3 preventable ADEs by the U.S. Department of Health and Human Services. Yet the prevalence and high burden of disease in patients with Type 2 diabetes (T2D), particularly the elderly, are often underappreciated in clinical settings. Supporting the early identification and management of those at greatest risk is critical.

Since 2014, the Endocrine Society has made hypoglycemia a strategic priority, conducting a series of roundtables with key stakeholders from the federal government, provider community, patient advocates, and payers to determine a comprehensive approach to this problem.

We have now embarked on a multi-year quality improvement project, the **Hypoglycemia Prevention Initiative**, to design and test clinical interventions in primary care settings that will aim to decrease the number of patients at high-risk and the frequency and severity of their episodes.

INITIATIVE GOALS



Decrease population of patients with T2D on insulin and/or SUs who are high risk for hypoglycemia as an ADE



Decrease the frequency and severity of hypoglycemia as an ADE among patients with T2D on insulin and/or SUs who are identified as high risk

NEXT STEPS



INITIATIVE MILESTONES ACHIEVED IN 2017

The following was achieved and established to propel our work in 2018:

- A comprehensive analysis of diabetes and hypoglycemia quality improvement initiatives, quality measures, clinical recommendations, and educational resources to identify gaps and tools for use in the study
- A steering committee comprised of endocrinologists, primary care physicians, diabetes educators, payers, and patient advocates
- A corporate roundtable and technical expert committee to provide ongoing guidance on pilot design and measure development
- Key measure concepts identified to improve surveillance and track success of clinical interventions in high-risk patients

OBJECTIVES & TACTICS

1) Increase Outpatient Hypoglycemia Surveillance & Risk Assessment

- Integrate risk assessment into clinical workflow in primary care

2) Improve Management of Patients on Insulin and Sulfonylureas

- Share best practices with primary care on how to prevent hypoglycemia, and individualize goals and adjust medication regimens as part of managing high-risk patients
- Provide educational tools to help patients identify and manage hypoglycemia

3) Align Provider Reimbursement to Promote Best Practices

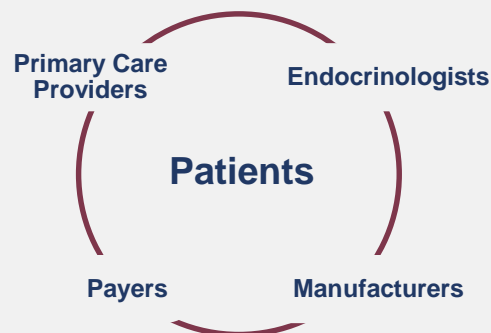
- Develop quality measures for eventual use in value-based reimbursement programs
- Incentivize care teams to provide high-quality care

HYPOGLYCEMIA QUALITY IMPROVEMENT PROGRAM

Potential Impact of the Hypoglycemia Prevention Initiative on Stakeholders

Primary Care Providers (PCPs)

- Currently, PCPs' clinical workflows do not support routine identification and monitoring patients at high risk for hypoglycemia.
- The Initiative will provide PCPs with: 1. much needed risk assessment and clinical decision support tools to identify patients at high risk earlier on and improve their management through individualization of glycemic targets, and 2) tools that they can give to their patients to help them with self-management.



Endocrinologists

- Given endocrinologists' focus on treating the most complex patients with Type 2 Diabetes, this Initiative provides these specialists the opportunity to collaborate with PCPs and other providers to improve hypoglycemia prevention in primary care.
- Tools and resources that will be developed as part of the Initiative will ultimately advance care coordination between primary care and endocrinology practices, and ensure the right patients are treated in the right setting at the right time.

Payers

- Between January 2007 and December 2011, ED visits for therapy-associated hypoglycemia resulted in spending of more than \$600 million.¹
- The Initiative will aim to improve health outcomes, including decreasing the frequency and severity of hypoglycemia, by improving the identification and management of patients at high-risk of the condition.
- It is also hoped that in the long term, increased surveillance of high-risk patients with adequate follow-up can result in the reduction of avoidable ED visits and hospitalizations.

Patients

- Hypoglycemia can significantly affect a person's quality of life, social life, work productivity, and ability to drive safely. In more serious cases, it can result in patient ED visits and hospitalizations.
- To support patients in expressing their personal preferences in the course of treatment and being better able to identify early signs hypoglycemia, the Initiative will provide them with educational resources and meaningful office interactions with PCPs.

Manufacturers

- When patients at high risk for hypoglycemia do not receive appropriate treatment (based on individualized glycemic targets), they are at higher risk of discontinuing their anti-hyperglycemic treatment, as well as not being as able to comply with the treatment of comorbidities.
- The Initiative's interventions will aim to ensure optimal efficacy and safety of medications used and empower patients to have a voice in treatment decisions to manage their condition(s).

The Initiative presents opportunities to align interests across various healthcare stakeholders to decrease the risk of hypoglycemia through improved identification of high-risk patients and individualization of glycemic targets. The program is centered around using a team-based approach to empower high-risk patients to better manage their disease, which can lead to improved outcomes and reduce utilization of health care services.

1. Geller AI, Shehab N, Lovegrove MC, et al. National Estimates of Insulin-related Hypoglycemia and Errors Leading to Emergency Department Visits and Hospitalizations. *JAMA internal medicine*. 2014;174(5):678-686. doi:10.1001/jamainternmed.2014.136.