Medication Safety

Improving drug safety practices, reducing medication errors and developing innovative standards of care

National estimates suggest that adverse drug events (ADEs) contribute an additional $3.5 billion to U.S. health care costs.\(^1\) Given the U.S. population’s large and ever-increasing magnitude of medication exposure, the potential for harm from ADEs is a critical patient safety and public health challenge.

ADEs are a direct result of drugs used during medical care that produce harmful events. These harmful events can include, but are not limited to, medication errors, adverse drug reactions, allergic reactions and overdoses.\(^2,3\)

A Community-Based Approach

TMF Health Quality Institute has partnered with the Arkansas Foundation for Medical Care, Primaris in Missouri and the Quality Improvement Professional Research Organization, Inc. in Puerto Rico to form the TMF Quality Innovation Network Quality Improvement Organization (QIN-QIO), under contract with the Centers for Medicare & Medicaid Services (CMS). The TMF QIN-QIO is working with providers, pharmacists, pharmacies and stakeholders in the region encompassing Arkansas, Missouri, Oklahoma, Puerto Rico and Texas to reduce and monitor adverse drug event rates. To reduce and prevent the incidence of ADEs, we are convening community groups throughout the region that treat Medicare Fee-for-Service (FFS) beneficiaries taking three or more medications, including at least one of these high-risk medications: anticoagulants, diabetic agents and/or opioids.

Our Goals

- Reduce ADEs by 35 percent per 1,000 screened Medicare FFS beneficiaries by the year 2019
- Reduce hospital admissions and readmissions for the three high-risk medication groups by 1 percent per 1,000 screened Medicare FFS beneficiaries by the year 2019
- Engage outpatient pharmacies to improve outcomes for the region’s Medicare FFS beneficiaries who take high-risk medications
- Monitor ADE rates by Medicare FFS beneficiaries on anticoagulants, diabetic agents or opioids by care setting, state, region and readmission rate

Key Strategies & Interventions

Our strategies and interventions will foster community and coalition building with all providers and stakeholders in each recruited community in the region and will include:

- Building on the previous QIO ADE project work, CMS’ Partnership for Patients initiative and the Hospital Engagement Networks’ current efforts on this ADE topic area

### 1 Million

**Adverse Drug Events Occur Each Year in the U.S. Health Care System**

3 adverse drug events will happen in about the time it takes you to read this graphic.

Each hospital patient suffers one medication error per day on average.

**Key facts:**

Adverse drug events contribute an extra $3.5 billion in U.S. health care costs—up to $5.6 million per U.S. hospital.

Older adults are up to seven times more likely than younger persons to experience an adverse drug event requiring hospitalization.

Adverse drug events result in approximately 1 million emergency room visits per year.

The top two medications implicated in adverse drug events are insulin (for diabetes) and warfarin (a blood thinner).

Sources: 

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• Building on the momentum of established QIO ADE partnerships
• Increasing patient-centered care by coordinating provider communication regarding evidence-based medication therapy management and medication reconciliation across the care setting
• Developing and utilizing ADE prevention toolkits in all care settings
• Developing and utilizing data reports that track ADE and potential ADEs (pADE) rates for beneficiaries who take any one of the three types of high-risk medications—anticoagulants, diabetic agents or opioids
• Helping outpatient providers establish interventions to reduce readmissions and improve medication safety and to report outpatient ADE data that tracks the effects of their interventions
• Implementing Medication Safety Advisory Groups in order to join all provider types in the community to share barriers, best practices, lessons learned and self-reported data gathering methods to reduce medication safety issues and unnecessary readmissions

Join the Medication Safety Network

Visit the TMF QIN-QIO website and locate the Medication Safety Network, under the Networks tab, to learn more about this initiative and how you and members of your community can get involved: http://www.tmfqin.org.

Contact Us
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