Discussion of How the Problem was Identified and Explored

Safe medication prescribing is a crucial skill to learn during residency training. The widespread use of electronic health records presents new challenges to safe prescribing, and an internal medicine residency clinic with novice physicians presents additional challenges and opportunities in this area. Further, the ACGME’s Clinical Learning Environment Review (CLER) visit has highlighted patient safety and encouraged reporting of near-misses and patient safety events by residents. Our program sought to improve our culture of safety, increase reporting of errors by residents in non-punitive environment, and improve education of residents on safe medication prescribing.

Description of the Innovation

- Championed by a clinical pharmacist
- Developed with physician clinic director

Part 1: Single ½ day didactic training for both PGY1 and PGY2 Residents

PGY-1 Med Safety Curriculum

Review components of the outpatient medication use process that may contribute to medication safety events or near-misses by evaluating 8 to 10 relevant cases from the Primary Care Center (PCC).

- Discuss specific types of errors or risk situations (high-alert, look-alike/sound-alike, EHR-related: faulty defaults, deleted medications)
- Discuss the impact of patient health literacy on medication safety and complete a health literacy self-assessment. (Newest Vital Sign)

Example case from PGY1 Curriculum

Case #6
Patient presents the following prescription to the pharmacy:
Metformin CR 500 mg
2 tablets in the morning and 2 and a half (2.5) tablets in the afternoon

Discussion questions:
1. What are the safety concerns with the prescription? (Clinical dosing of metformin—morning and afternoon, high dose—one dose daily for first 3 months, patient is under a table of DDM formulation)
2. Are all the formulations that are being used on the form on the medication list? (No change)
3. How do you monitor a patient on metformin? (Physical, patient history, labs. Highlight patient safety protocol and social as important examples of DDM formulation that can be used)
4. Discuss the importance of quality—this was written in one of the clinical documents. Does assume that no written order exists in the clinical documents. Don’t assume that all previous actions were on the actual document. It’s the most of patient safety. Discuss the importance of failure—was troublesome the patient question, whether it improves on the knowledge.

PGY-2 Med Safety Curriculum

Review, discuss, analyze and follow-up, and enter a reported event into the electronic ERS.

Part 2: Interactive Email Quizzes

Part 3: Reward system for all error reporting

- Utilized candy or other inexpensive snacks
- Engendered positive response to reporting

Impact of the Innovation

Ambulatory Medication Safety Culture Survey

Q15: Medication safety is constantly reinforced as a priority in this clinic

Impact and generalizability of the Innovation

Implementation of a medication safety curriculum has allowed us to develop a culture that promotes and encourages reporting of medication safety events and near-misses by residents. We have employed a multifaceted approach focusing on education and support. While our innovation was championed by a clinical pharmacist, programs without this resource could develop a similar program and culture with a faculty member as its champion.

Preparation/baseline evaluation:
Administered baseline culture survey
Identified that clinic was not aware of error reporting processes
Faculty/residents had not reported any clinic events

Phase I: Jan 2010-June 2010
Educational interventions to increase awareness
Standardized clinic error reporting process

Phase II: July 2010-June 2013
Continued reminders to report events
Ongoing event review during clinic meetings

Phase III: July 2013 to present
Initiated PGY1 ½ day didactic session

Phase IV: July 2014 to present
Started reward system for all error reports
Monthly report volume tripled
Started Medication Safety “Fishmail”

Phase V: July 2015 to present
Initiated PGY2 ½ day didactic session

Implantation of Innovation

Part 1: PGY1 Med Safety Curriculum

Part 2: PGY2 Med Safety Curriculum

Part 3: Reward system for all error reporting

- Utilized candy or other inexpensive snacks
- Engendered positive response to reporting

Implication and generalizability of the Innovation

Implementation of a medication safety curriculum has allowed us to develop a culture that promotes and encourages reporting of medication safety events and near-misses by residents. We have employed a multifaceted approach focusing on education and support. While our innovation was championed by a clinical pharmacist, programs without this resource could develop a similar program and culture with a faculty member as its champion.