Quality Assurance and Initiative: Implementation of a Quality Assurance Process within a Community Health Clinic Pharmacy

Allison Sharp, PharmD; Justin Dorotheo, PharmD, BCPS
North Country HealthCare, Flagstaff, AZ

NORTH COUNTRY HealthCare

COLORADO PLATEAU COMMUNITY-BASED PHARMACY RESIDENCY AT NORTH COUNTRY HEALTHCARE

BACKGROUND

According to a "Systematic review and meta-analysis of community pharmacy error rates in the USA: 1993-2015," 1.5% of all prescriptions, in the community setting, contain an error. Meanwhile, every year, 7,000 to 9,000 patients die as a result of medication errors in the United States, with incorrect medication, incorrect doses, and incorrect directions being the most common medication dispensing errors.[2] Most medication errors are attributed to human error, but more so a result of a poorly designed system.[2] Implementing safeguards at every level of the medication dispensing process is essential to detect errors before they reach the patient.

The avoidance of errors in the dispensing pharmacy is essential for patient safety and the pharmacy department's medication-use safety initiatives. This project was designed to identify, quantify, and disseminate inaccuracies and process failures to further correct and improve safe dispensing processes of medication orders in a community pharmacy. Quality assurance (QA) is an essential process which leads to identifying areas of improvements and interventions aimed to reduce future medication oversights in the dispensing pharmacy.

PRIMARY OBJECTIVE

To observe and collect data which may further identify potential intervention(s) for quality improvement.

METHODS

Study Design: Continuous Quality Improvement (CQI)

Study Period: August 17, 2022, to October 21, 2022

Analysis and data collection was drawn from the paper label of the prescription to be measured against the "Five Rights of Medication Administration" criteria. A total of four Plan-Do-Study-Act (PDSA) cycles were implemented for a duration of 1-3 weeks per cycle.

Inclusion Criteria

- Prescriptions filled at North Country HealthCare (NCHC) Pharmacy Flagstaff, AZ clinic

Exclusion Criteria

- Outlying clinics

METHODS, *continued*

PDSA- Cycle 1

During the initial phase, a pharmacist analyzed five randomly selected prescriptions (that are completed and ready for pickup), multiple days per week (for one week), against the hardcopy prescription from the provider. A total of 25 prescriptions were evaluated, which identified zero inaccuracies as assessed against the Five Rights Criteria.

PDSA- Cycle 2

Utilizing the error rate of 1.5% and an average prescription number of 1500 per week, the pharmacist opted to increase the sampling to 30 prescriptions for three weeks (total of 90 prescriptions). Inaccuracies evaluated were limited to ensuring the correct patient corresponded to the original prescription. While this cycle did not identify any inaccurate measure(s), there was one prescription that lacked a medication in its dispensing area (fridge).

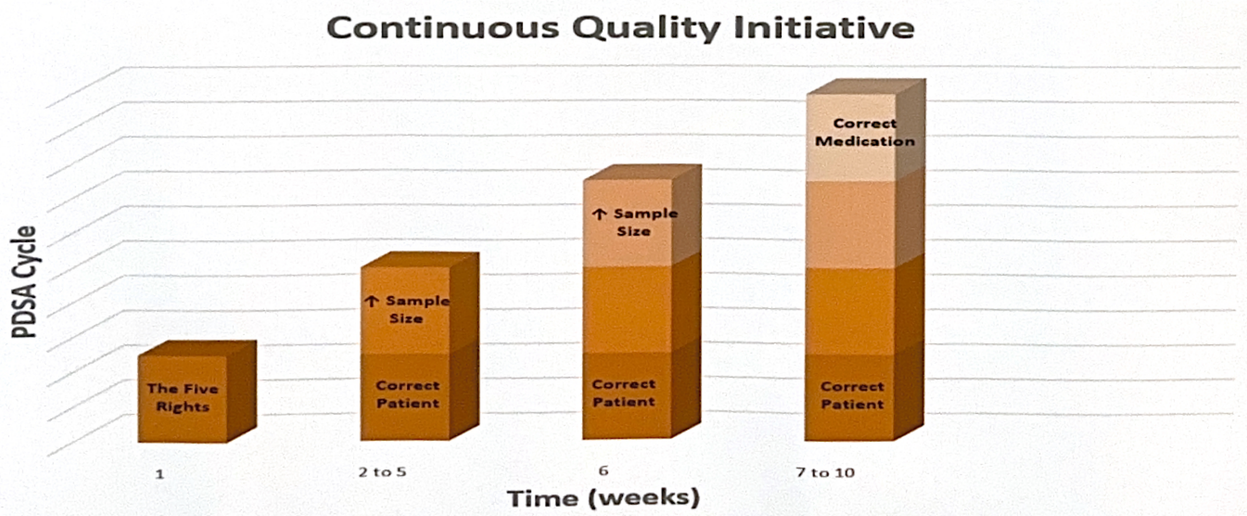
PDSA- Cycle 3

Sampling was increased to 60 prescriptions for one week and prescriptions and all paperwork were assessed for the correct patient; zero inaccuracies were identified.

PDSA- Cycle 4

Lastly, 30 prescriptions a week for 3 weeks (total of 90 prescriptions) were assessed for the correct patient and medication. A duplicate therapy, with two of the same medication filled concurrently, was identified in one patient's bag.

DATA



RESULTS

Of a total of 265 sampled datapoints, via four PDSA cycles, there were 2 errors with medications ready for pickup in the dispensing pharmacy.

LIMITATIONS

Limitations assessed may include a conservative total number of prescriptions checked for accuracy against the "Five Rights of Medication Administrations," limited sample size, duration of sampling (August to October), and variable set. Furthermore, medications that are distributed to the outlying clinics were not assessed after the final check from the pharmacist.

CONCLUSION

Quality Assurance (QA) remains a vital process for maintaining high standards of excellence and identifying potential areas of intervention. Results measured and assessed from sampling a total of 265 prescriptions ready for dispensing over a period of ten weeks, in four PDSA cycles, did not detect any prespecified areas of inaccuracies. While no prespecified data was detected, the possibility of undetected inaccuracies cannot be ruled out. Contributors to a lack of data detection may be due to high quality processes already implemented with entering, filling, and two-step pharmacist verification during the operations of the dispensing pharmacist(s), before a prescription is ready for pick up. Given the results from this assessment, further assessment and continued routine sampling for QA is warranted. Processes currently implemented in the operations of the dispensing process may be sufficient, and thus far indicate accurate prescription dispensing and adequate patient safety.

References

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2. 2Li C, Marquez K. Medication Errors in Retail Pharmacies: Wrong Patient, Wrong Instructions. PSNet 2021. https://psnet.ahrq.gov/web-mm/medication-errors-retail-pharmacies-wrong-patient-wrong-instructions.

DISCLOSURE

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.