Patient Safety Surveillance and Improvement Program (PSSIP)

Medication Reconciliation

February 24, 2022

MISSION & VISION

The Utah Department of Health's mission is to protect the public's health through preventing avoidable illness, injury, disability, and premature death; assuring access to affordable, quality health care; and promoting healthy lifestyles.

Our vision is for Utah to be a place where *all* people can enjoy the best health possible, where *all* can live and thrive in healthy and safe communities.

STRATEGIC PRIORITIES

Healthiest People – The people of Utah will be among the healthiest in the country.

Optimize Medicaid – Utah Medicaid will be a respected innovator in employing health care delivery and payment reforms that improve the health of Medicaid members and keep expenditure growth at a sustainable level.

A Great Organization – The UDOH will be recognized as a leader in government and public health for its excellent performance. The organization will continue to grow its ability to attract, retain, and value the best professionals and public servants.

Office of Health Care Statistics oversight includes:

- **Collect:** We collect and produce data that are relevant and useful to our stakeholders

- **Analyze:** We create valuable enhancements to our data resources and our systems have the analytic capacity to transform them into useful information

- **Disseminate:** We make the data and information we collect and produce available to the *right people* at the *right time* for the *right purposes*

Responsible for the following data series:

- **Healthcare Facilities Data:** Includes all institutional "patient encounters" that are provided in the State of Utah by qualifying licensed facilities
- **Surveys of Customer Satisfaction with Health Plans (CAHPS):** Health plans (commercial and Medicaid, medical and dental) conduct annual surveys of their members (Required by statute - implemented by rule)
- **Self-reported Quality Metrics for Health Plans (HEDIS):** Quality of care measures - Healthcare Effectiveness Data and Information Set (HEDIS), which is developed and maintained by the National Committee for Quality Assurance (NCQA).
- **All Payer Claims Database**: Includes claims paid on behalf of Utah residents for the majority of health plans, Medicaid, Medicare Advantage, and third party administrators including PBMs.
- **Patient Safety Surveillance and Improvement Program (PSSIP):** A reporting mechanism which captures patient safety events (injuries, death or other adverse events) associated with healthcare delivery and administration of anesthesia, which fosters conversations on how to minimize adverse patient safety events in Utah.

The rules that apply are:

R429-1: Patient Safety Surveillance and Improvement Program (PSSIP)

R429-2: Health Care Facility Patient Safety Program

R429-3: Adverse Events from the Administration of Sedation or Anesthesia; Recording and Reporting

Vision

Safe patients through collaborative event reporting and patient safety improvement solutions

Mission

Improve patient safety through transparent and nationally-consistent standards for reporting adverse patient safety events, assessment of those events, exploration of best practices and use of quantitative and qualitative data to educate and promote statewide patient safety improvement solutions.

Objectives

- Public accountability and transparency through event reporting
- Adherence to national standards of event-reporting
- Healthcare facilities have processes in place to identify and report all reportable adverse events
- Agreement on which patient safety events should be reported
- Educated stakeholders and statewide patient safety improvement solutions based on quantitative and qualitative data from event reporting
- Quarterly meetings with all healthcare systems represented

An Overview of Medication Reconciliation

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- We are not clinicians or experts on medication reconciliation.
- The information being shared today regarding medication reconciliation is from an internal literature review conducted by the program as a result of expressed interest by the group in previous meetings.

WHAT IS MEDICATION RECONCILIATION?

- The *Institute for Healthcare Improvement* identifies medication reconciliation (MR) as a process that identifies the patient's most up-to-date medication list and uses this medication history to provide correct medication for each phase of care within the health care facility (Institute for Healthcare Improvement, 2022).

- Compares patient's medication records with all the medications being taken.

- Complex process that involves effective communication among hospital staff.

- MR is a complex process that involves effective communication between hospital staff to ensure proper documentation and procedures are being taken to avoid medication errors.

- Median error rate is estimated between 8% to 25% during medication administration in hospitals and long-term healthcare facilities across the United States (Keers et al., 2013).

- 1-2% of MR errors are potentially life threatening with over 90% of MR errors resulting in harm that prolonged the patient's hospitalization (Harper et al., 2021).

- An estimated **8,000 people die each year** due to medication error in the United States (Tariq et al., 2021).

- MR contributes to patient safety.

- In 2005, *The Joint Commission* recognized the importance of MR and listed it as a National Patient Safety Goal (NPSG) (The Joint Commission, 2021).

  – Third NPSG

  – Primary focus is to improve safety of medication use and decrease the amount of harm to the patients due to medication errors (The Joint Commission, 2021).

- Awareness of implications is essential when MR practices are not established (da Silva & Krishnamurthy, 2016).

IMPLICATIONS

- Electronic health records (EHR) have helped hospitals in recording patient's medication regime.

- However, EHR records still **fail to detect 33%** of medication errors and drug interactions, putting the patient's life at risk (Classen et al., 2020).

- MR errors may include but are not limited to: **wrong dose, dose omission, wrong medication, duplicate therapy, contraindication, wrong formulation** (Harper et al., 2021).

- MR errors can occur due to **physical, psychological, environmental factors, fatigue, cognitive lapse, wrong medication administration and preparing the dosage incorrectly** (Team Singlecare, 2022).

- **40%** of medication errors occur in handoffs **during admission, transfer, and patient discharge** (Barnsteiner, 2008).

- In 2007, MR errors added up to **$3.5 billion annually** across the United States (WHO, 2014). MR errors have since risen to over **$40 billion** in 2021, affecting directly or indirectly more than **7 million patients annually** (Tariq et al., 2021).

- **Each day there is at least one death** due to MR error and 1.3 million patients injured each year in the United States (WHO, 2017).

- Globally, the total cost of medication errors is about 1% of the total global health expenditure (WHO, 2017).

BEST PRACTICES & RECOMMENDATIONS

- It is important to analyze where and how problems are occurring within each healthcare facility (Patient Safety Network, 2021).

- The focus should be on preventing MR errors through both **low-tech and high tech solutions** (Patient Safety Network, 2021).

- **Clear and standardized** labels(Patient Safety Network, 2021).

- **Color code** the medications (Patient Safety Network, 2021).

- **Simplify instructions for all high-risk medications** by using models, pictures or videos (Patient Safety Network, 2019).

- **Standardized protocol** and **dual verification** (Patient Safety Network, 2021).

- Confirm **patient comprehension** (Patient Safety Network, 2021).

LOW-TECH SOLUTIONS

- **Educate patients** on the importance of double checking and re-reading labels upon picking up prescription refills (Patient Safety Network, 2021).

- **Standardize processes** for obtaining, sharing, and utilizing a comprehensive list of medication records (Barnsteiner, 2008) and medication history by all disciplines that are involved in a patient's care (Lippincott Williams & Wilkins, 2012).

- **Clearly define roles and responsibilities** for all hospital staff across the different disciplines. (Barnsteiner, 2008).

- **Create distraction-free, non-interruption zones** for safe medication administration preparation to occur (Patient Safety Network, 2021).

- **Dedicate a pharmacy role** to be created to specifically assist with the independent double checks and reconciliation of medication discrepancies (Harper et al.,2021).

- Incorporate **Barcode Medication Administration (BMCA) technology** that electronically links the right medication and appropriate dose for the designated patient (Patient Safety Network, 2021).

- **Utilize Dose Error Reduction Software** through smart infusion pumps for intravenous medication administration (Patient Safety Network, 2021).

- There has been **no standardized process** for collecting medication history, accessing and sharing medication history, or discharge medication instructions (Barnsteiner, 2008).

- Many healthcare facilities **struggle knowing whose responsibility it is** to complete tasks of medication reconciliation

  - "physicians suggested either pharmacists or nurses should be responsible because it was viewed as a simple clerical task, whereas pharmacists and nurses often identified physicians as most appropriate because they ultimately decide the course of care" (Vogelsmeier et al., 2013).

- In 2019, Intermountain Healthcare prohibited pharmaceutical representatives and medication samples from entering any hospital (Hammond, 2019).

- Molina Healthcare of Utah offers a health maintenance organization (HMO) insurance plan that allows patients to receive medication history for a monthly fee (Molina Healthcare, 2018)

- Jordan Valley Medical Center uses Bar Coded Medication Administration (BCMA) technology and electronic medication administration recording (MAR) system.
  - All patient health records and physician instructions updated and shared electronically on one single health record (Jordan Valley Medical Center, 2022).

https://unewswriting.org/2019/04/15/intermountain-healthcare-announces-groundbreaking-policy-that-removes-pharmaceutical-representatives-and-medic
ation-samples-from-utah-practices-and-hospitals/
https://www.meetmolina.com/members/tx/mem/medicare/drug/~/media/Molina/PublicWebsite/PDF/members/tx/en-us/Medicare/2022-MAPD-MANAGING
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https://www.jordanvalleymc.org/page/patient-safety

- Primary Children's Medical Center in SLC, noted MR errors among children(Stone et al., 2009).

- Largely due to the lack of parent availability at time of admission (Stone et al., 2009).

- Lack of parent availability further contributes significantly to to medication omissions (Stone et al., 2009).

- "One in five admission medication errors were in error, affecting more than half of the children with medically complex conditions" (Stone et al., 2009).

- Important for healthcare facilities to determine where and how MR errors are occurring (Stone et al., 2009).

https://doi.org/10.1136/adc.2009.167528

- Create a culture of staff empowerment, where everyone on the hospital staff is able to voice their opinions without repercussions (Hansen, 2020).

- Attend semi-annual team simulations that educate and improve the hospital staff communication and culture (Hansen, 2020).

- Create a management system within the health care facility to ensure the completion of the semi-annual team simulations (Hansen, 2020).

https://collections.lib.utah.edu/ark:/87278/s6sv3fn9

- Begin with collecting the most attainable sources from each patient including a comprehensive medication list as well as hospital discharge history. Double check for medication inaccuracies and discrepancies (Comagine Health, 2020).

- Use open-ended questions to allow each patient to express their medication understanding in their own words (Comagine Health, 2020).

- Verify the patient's medication report with a family member or caregiver when possible (Comagine Health, 2020).

- Create structured prompts to identify the patient's current medication regimen as well as adherence to regimen (Comagine Health, 2020).

- Ask follow-up questions to gain more of an understanding for medications being taken (Comagine Health, 2020)

https://comagine.org/sites/default/files/resources/BestPossbleMedHx.pdf

CONCLUSION

- **Standardized processes** must be implemented.

- **Defined roles** through every phase of care should be established.

- Implementation of MR is essential in providing optimum care for patients and must be a priority in healthcare facilities.

- **Evidence** that proper MR in the healthcare settings will decrease medication errors and help contribute to patient safety.

- Utilization of MR showed medication error rates decrease from **7.2% to 3.4%** (Stone et al., 2009).

- MR can reduce adverse effects among patients and **ultimately save lives.**

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