Medication Administration
Establish safe and reliable medication administration processes to reduce harm.

Domain

Processes to Support Care:
Processes that are essential to support and maintain the delivery of care to all types of patients, across all units and settings in the hospital

Aims

Patient Centered:
Care throughout a patient’s experience that is coordinated, informed, and grounded in respectful interactions with care providers that are consistent with the patient's values, expectations, and care decisions

Safe:
Delivery of care in a manner that minimizes any risk of harm to a patient

Process Attributes

Cost to Implement
The monetary resources required to implement this process

Moderate: In addition to the improvement effort, relies on additional personnel and/or technology

Time to Implement
The amount of time, from months to years, it will take on average to establish this process

1 to 2 years

Difficulty to Implement
The challenges of implementing this process

Most Challenging: Involves multiple units or disciplines AND requires a substantial shift in culture and/or operations

Level of Evidence
The degree to which the actions in this process are supported by research and experience; based on the Cochrane scale

Strong Evidence: Level I or Level II — Studies published using randomized trials
Details

Elements

- Ensure patient information is available in an appropriate literacy level and language
- Ensure that up-to-date medication information is available at point of care
- Minimize the number of medications available on units
- Remove discontinued medications immediately
- Increase frequency of medication delivery
- Use medication dispensing machines
- Standardize doses and concentrations
- Prepare IV medication in pharmacy
- Implement bar code readers
- Use SMART pumps for administration on IV medications
- Educate patient about medications as they are being administered
  - Use effective interpreter services for patients with limited English proficiency
  - Ensure understanding using the teach-back method

Outcomes

- Mortality (HSMR): Decreased mortality (hospital standardized mortality ratio, or HSMR)
- Harm: Decreased harm to patient (e.g., Harms per 100 patient days, as measured by the IHI Global Trigger Tool)
- Patient Satisfaction: Increased patient satisfaction (e.g., HCAHPS Willingness to Recommend, HCAHPS Hospital Rating)
- No Gap by Race, Ethnicity, or Language: No gap by race, ethnicity, primary language for key measures

Service Lines and Critical Functions

- Applies in All Patient Settings
- Medication Management
- Nursing

Key Measures

- Number of medication administration errors through observation and incident reports
- Rate of harm using the IHI Trigger Tool for Measuring ADEs
- Reduction in FMEA Risk Priority Number

Reasons and Implications

Importance for Patients and Families
Patients expect health care providers to administer medications correctly.
Requirement, Standards, Policies, and Guidelines

- **Agency for Healthcare Research and Quality (AHRQ)**
- **Centers for Medicare & Medicaid Services (CMS)**
- **National Priorities Partnership (NPP)**
- **National Quality Forum (NQF)**
- **US Department of Health and Human Services, The Office of Minority Health**

Safety

- National Standards on Culturally and Linguistically Appropriate Services (CLAS)

Patient Safety: Safe Practice 2010
Safe Practice 15: Discharge Systems
Safe Practice 18: Pharmacist Leadership Structures and Systems

Financial Implications

- Expense reduction can occur due to a decrease in waste.
- Expense increase can occur due to purchase of technology (e.g., smart infusion pumps and bar code readers).

Prerequisites

- Adoption of standard doses and standard concentrations
- Implementation of protocols
- Infrastructure for technology implementation

Resources

Additional Resources

- **The Joint Commission (TJC)**
  The Joint Commission Accreditation Program: Hospital National Patient Safety Goals - Effective January 1, 2011
- **Agency for Healthcare Research and Quality (AHRQ)**
  Patient Safety & Quality: An Evidence-Based Handbook for Nurses [May 2008]
  Chapter 37. Medication Administration Safety
- **Agency for Healthcare Research and Quality (AHRQ)**
  Using Barcode Administration to Improve Quality and Safety: Findings from the AHRQ Health IT Portfolio [December 2008]
- **US Department of Health and Human Services**
  Partnership for Patients
- **American Society of Health-System Pharmacists (ASHP)**
  Medication administration
- **Institute for Safe Medication Practices (ISMP)**
  Tools and Resources
- **Agency for Healthcare Research and Quality (AHRQ)**
  Inpatient Computerized Provider Order Entry (CPOE): Findings from the AHRQ Health IT Portfolio [January 2009]
- **Institute for Safe Medication Practices (ISMP)**
  2004 ISMP Medication Safety Self Assessment® for Hospitals
- **American Hospital Association (AHA)**
  Hospitals in Pursuit of Excellence – Individual Case Studies Technology—A Tool for Medication Safety Should be Medication Administration Parkview Medical Center
- **Joint Commission Resources (JCR)**
  Medication Safety