Medication Errors
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- Medication errors can occur at many points in a highly complex process, involving many hands and decision points, from prescribing and ordering through administration and monitoring.

- Medication errors may or may not result in an adverse event.
Medication Use Process

- Prescribing
- Order Processing
- Dispensing
- Medication Administration
- Monitoring
Error Theory

- Errors are common, and more so in complex systems.

- Preventing medication errors demands a mental balance of commitment to a zero error standard (knowing that the goal is unachievable) and a recognition of the inherent toxicities and risks associated with medication use.
Error Theory

- Unfortunately in an organization where there is unwillingness to accept that healthcare workers are human and make mistakes, the result is an environment where errors are hidden and denied.

- The end result is finding a focus of blame, rather than understanding why the error occurred and how to prevent its occurrence in the future.
Error Categories for Medication Use

- Practitioner knowledge of the medication and access to current and up-to-date resources
- Labeling packaging and nomenclature anomalies (e.g. look-alike packages, strength confused with vial size, etc)
- Dosing errors
Error Categories for Medication Use

- Access to adequate patient information and skills and methods to provide information/access
- Accuracy of order transcription, including interpretation and action when a gap exists
- Adequate allergy information and active use of that information
Error Categories for Medication Use

- Medication order accuracy and tracking
- Communication with patient and other health professionals, including, but not limited to, patient and family education regarding potential adverse effects, proper dosage or noncompliance
- Minimize influence of environmental factors (e.g., medication storage/stocking, noise and distractions, adequate workspace)
CASE STUDY

Miss T is a 17 year old woman who attends the LHD family planning clinic.

At her last appointment a new order was written to discontinue oral contraceptives (OCPs) and to administer Depoprovera (Depo) instead.
Today Miss T is returning for her next Depo injection. Due to a language barrier, the nurse is unable to determine what birth control method the patient is currently using.

Appropriately, the nurse looks for the most recent provide order for birth control.
CASE STUDY – cont’d

However, because she is rushed, the nurse quickly flips through the patient’s chart, and in her haste finds the previous order written and dispenses an OCP rather than administering the correct medication.
A safety culture demands that systems and processes be designed to minimize the likelihood of error.

Systems must be examined, evaluated and simplified. Too often they have "evolved" and make little sense in today's practice environment.

In standardizing processes, simplification and reduction of steps, elimination of transcription, reduction in handoffs within the process, and the use of preprinted orders are essential.
WHAT YOU CAN DO

Reliance on memory should be minimized and access to supportive information resources increased and encouraged.

Standards, guidelines and protocols must be developed, and more importantly, adopted for widespread use.
WHAT YOU CAN DO

- Healthcare workers are human and therefore mistakes will happen. We must recognize and access this in order to prevent an environment where errors are hidden and denied.

- Safeguards to prevent errors must be instituted and reviewed periodically for their efficacy.

- Each of us bears responsibility and should be accountable for ensuring safety in the system.
WHAT YOU CAN DO

Avoid frequently misinterpreted abbreviations.

Consult a resource, such as the Institute for Safe Medical Practice at www.ismp.org. This web site contains information regarding “error-prone” abbreviations, a list of “do not crush” medications, a “confusing medication name” list, and a “high alert” medication list, to name just a few.
Procuring, Storing and Packaging Medications

- Separate and secure high-risk or hazardous substances.

- Evaluate location of medication stock and inventory methods. Place ophthalmic, oral, inhalational, injectable and other distinct product types in specific areas within the pharmacy.

- Ensure that expiration dates are checked routinely.
Procuring, Storing and Packaging Medications

- Separate look-alike and sound-alike medications and provide redundant labels and warnings as reminders.

- Evaluate product labeling (e.g. font size, clutter, color) for products purchased, dispensed and repackaged in order to assure that the user can easily read information.
Procuring, Storing and Packaging Medications

- Determine standards for dosages and concentrations of products purchased and provided to patients in order to minimize variation and the potential for error.

- Report and identify product and packaging problems to the supplier.
Dispensing Process / Work Area

- Use reminders and redundancy in the prescription checking and labeling process (e.g. standardized labeling requirements).

- Assure consistent method for final checks of product; consider routine use of two-person check for any dispensed prescription.
Dispensing Process / Work Area

- Provide adequate references for use by staff and patients and assure that these are updated.

- Identify opportunities to reduce distractions in the department (e.g. provide adequate space, reduce potential for unnecessary traffic and interruptions).
Patient Education

- Review prescription use with patient as a component of the final check.

- Ensure patient receives counseling regarding the safe and effective use of each prescribed medication.
Patient Education

- Encourage patients to ask questions.

- Assess patient's level of understanding of medication information provided. Confirm what information the prescriber presented and identify gaps and opportunities for reinforcement.