15.3: Assessments Related to Medication Administration

This section will review assessments to be performed prior to, during, and after a medication pass to ensure safe medication administration.

Pre-Administration

In addition to verifying the rights of medication administration three times, the nurse should also perform focused assessments of the patient’s current status and anticipate actions of the medications and potential side effects. Here are some examples of pre-assessments before administering medication:

- **Check Vital Signs.** Before administering cardiac medication, the patient’s blood pressure and heart rate are typically assessed to ensure they are within range of parameters for administration. For example, a patient is scheduled to receive a blood pressure medication, but their current blood pressure is 90/50, so the medication is withheld based on parameters stated on the MAR to withhold the medication if the systolic blood pressure is less than 100. If parameters are not provided, it is the nurse’s responsibility to use clinical judgment and follow up with the prescribing provider with concerns before administering the medication.

- **Perform a Focused Respiratory Assessment.** Before administering inhaled respiratory medications such as albuterol for asthma or chronic pulmonary disease, the O2 saturation, heart rate, respiratory rate, and lungs sounds are typically assessed. The patient’s response to the medication is then compared to pre-assessment data to determine effectiveness.

- **Review Lab Results.** Before administering a diuretic such as furosemide, the nurse assesses the patient’s potassium level in recent lab work results. If the potassium level is lower than normal range, the nurse withholds the medication and notifies the prescribing provider.

- **Perform a Pain Assessment.** Before administering pain medication, the nurse performs a thorough pain assessment based on the mnemonic PQRSTU. (See more information about the PQRSTU mnemonic in the “Health History” chapter.) The patient’s response to the medication after it is received is then compared to pre-assessment data to determine effectiveness.
During Administration

The nurse continues to assess safety during administration of medication, such as sudden changes in condition or difficulty swallowing. For example, if a patient suddenly becomes dizzy, the administration of cardiac medication is postponed until further assessments are performed. If a patient starts to cough, choke, or speak in a gurgly voice during oral or tube administration of medication, the procedure should be stopped and further assessments performed.

Table \(\PageIndex{1}\): Summary of Safe Medication Administration Guidelines

<table>
<thead>
<tr>
<th>Guidelines</th>
<th>Additional Information</th>
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<tbody>
<tr>
<td>Be cautious and focused when preparing medications.</td>
<td>Avoid distractions. Some agencies have a no-interruption zone (NIZ) where health care providers can prepare medications without interruptions. [1]</td>
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<tr>
<td>Check and verify allergies.</td>
<td>Always ask the patient about their medication allergies, types of reactions, and severity of reactions. Verify the patient's medical record for documented allergies.</td>
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<tr>
<td>Use two patient identifiers and follow agency policy for patient identification.</td>
<td>Use at least two patient identifiers before administration and compare information against the medication administration record (MAR). [2]</td>
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<tr>
<td>Perform appropriate patient assessments before medication administration.</td>
<td>Assess the patient prior to administering medications to ensure the patient is receiving the correct medication, for the correct reason, and at the correct time. For example, a nurse reviews lab values and performs a cardiac assessment prior to administering cardiac medication. See more information regarding specific patient assessments during parenteral medication administration in the &quot;Applying the Nursing Process&quot; section.</td>
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<tr>
<td>Be diligent and perform medication calculations accurately.</td>
<td>Double-check and verify medication calculations. Incorrect calculation of medication dosages causes medication errors that can compromise patient safety.</td>
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<tr>
<td>Use standard procedures and evidence-based references.</td>
<td>Follow a standardized procedure when administering medication for every patient. Look up current medication information in evidence-based sources because information changes frequently.</td>
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Communicate

Provide information to the patient about the medication before administering it. Answer their questions.
with the patient before and after administration.

Follow agency policies and procedures regarding medication administration.

Ensure medication has not expired.

Always clarify an order or procedure that is unclear.

Use available technology to administer medications.

Be a part of the safety culture.

Be alert.

Address patient concerns.

questions regarding usage, dose, and special considerations. Give the patient an opportunity to ask questions and include family members if appropriate.

Avoid work-arounds. A work-around is a process that bypasses a procedure or policy in a system. For example, a nurse may "borrow" medication from one patient’s drawer to give to another patient while waiting for an order to be filled by the pharmacy. Although performed with a good intention to prevent delay, these work-arounds fail to follow policies in place that ensure safe medication administration and often result in medication errors.

Check all medications’ expiration dates before administering them. Medications can become inactive after their expiration date.

Always verify information whenever you are uncertain or unclear about an order. Consult with the pharmacist, charge nurse, or health care provider, and be sure to resolve all questions before proceeding with medication administration.

Use available technology, such as bar code scanning, when administering medications. Bar code scanning is linked to the patient’s eMAR and provides an extra level of patient safety to prevent wrong medications, incorrect doses, or wrong timing of administration. If error messages occur, it is important to follow up appropriately according to agency policy and not override them. Additionally, it is important to remember that this technology provides an additional layer of safety and should not be substituted for the checking the five rights of medication administration.

Report all errors, near misses, and adverse reactions according to agency policy. Incident reports improve patient care through quality improvement identification, analysis, and problem solving.

Be alert to error-prone situations and high-alert medications. High-alert medications are those that can cause significant harm. The most common high-alert medications are anticoagulants, opiates, insulins, and sedatives. Read more about high-alert medications in the "Basic Concepts of Administering Medications" section.

If a patient questions or expresses concern regarding a medication, stop the procedure and do not administer it. Explore the patient’s concerns, review the provider’s order, and, if necessary, notify the provider.

Post-Administration: Right Response

In addition to documenting the medication administration, the nurse evaluates the patient after medications have been administered to monitor the efficacy of the drug. For example, if a patient reported a pain level of “8” before PRN pain medication was administered, the nurse evaluates the patient’s pain level after administration to ensure the pain level is decreasing and the pain medication was effective. This evaluation data is documented in the patient’s chart.
Additionally, the nurse continually monitors for adverse effects from all of a patient’s medications. For example, the first dose of an antibiotic was administered to a patient during a previous shift, but the nurse notices the patient has developed a rash. The nurse notifies the prescribing provider of the change in condition and anticipates new orders or changes in the existing orders.
