Medication Management

Objectives

- Discuss basic principles/rights of medication administration, according to your site policy
- Describe principles of patient/family education related to medication administration and medication management
- Discuss monitoring and documenting medication effects
- Define medication error and adverse drug events
- Demonstrate process for reporting medication errors and adverse drug events
- Describe strategies for reducing risk of medication errors and improving medication safety
- Identify resources to assist with medication administration
Medication Administration

Definition
The practice of administering medication which involves providing the patient with a substance prescribed and intended for the diagnosis, treatment, or prevention of a medical illness or condition.

Medication Orders
Required components of a medication order
- Name of the medication
- Dose of the medication
- Route the medication should be given
- Frequency the medication should be given
- An indication for all PRN medications
- Some sites require indications for all orders
Which components should be included in a COMPLETE medication order? (Select ALL that apply.)

- ✔ Name of drug
- ✔ Route of drug
- ✔ Indication
- ✔ Dose of drug
- ✔ Frequency drug should be taken
- None of the above
Telephone & Verbal Orders

Telephone orders

- The person receiving the order records it in the medical record as it is spoken.
- The recipient “reads back” the order as written.

Verification by the recipient is done through request of a “spell back” of unfamiliar, look-a-like &/or sound-a-like, or unclear medications.

Providers are expected to enter orders directly into the electronic medical record (EMR) whenever possible. However there are times when that expectation cannot be met.

Click here to review which circumstances permit verbal/telephone orders.

Circumstances that Permit Verbal/Telephone Orders

1. Clinical situations where it is impractical for orders to be entered in the EMR by the provider (example: provider performing a procedure)
2. Emergent situations (example: cardiopulmonary resuscitation)
3. Situations where providers do not have access to remote computer devices or the patient chart (example: provider traveling between hospitals)
4. Late night hours when the on-call provider is taking call from home and remote order entry is impractical (example: provider is awakened from sleep & asked to provide orders)

Nurses are NOT allowed to accept the following as verbal/telephone orders:
- Admitting or complex PowerPlans
- Chemotherapy orders
- TPN orders
Written Orders

Hand written orders are rare as orders should be entered directly into the EHR when able.

Avoid abbreviations

Always use leading zeros (e.g. 0.5mg)

Never use trailing zeros (e.g. NOT 4.0mg)

Always write legibly

Indication is required for PRN orders

5mg Oxycontin every 4 hours as needed for mild pain

10mg Oxycontin every 4 hours as needed for moderate pain

Unapproved Abbreviations

Identified as having a high potential to cause medication errors

Cannot be used anywhere in the medical record

Must be clarified with the prescriber when written

Click here to review Joint Commission’s official “Do-Not-Use” list of abbreviations
<table>
<thead>
<tr>
<th>Do Not Use</th>
<th>Potential Problem</th>
<th>Use Instead</th>
</tr>
</thead>
<tbody>
<tr>
<td>U, u (unit)</td>
<td>Mistaken for &quot;0&quot; (zero), the number &quot;4&quot; (four) or &quot;cc&quot;</td>
<td>Write &quot;unit&quot;</td>
</tr>
<tr>
<td>IU (International Unit)</td>
<td>Mistaken for IV (intravenous) or the number 10 (ten)</td>
<td>Write &quot;International Unit&quot;</td>
</tr>
<tr>
<td>Q.D., QD, q.d., qd (daily)</td>
<td>Mistaken for each other</td>
<td>Write &quot;daily&quot;</td>
</tr>
<tr>
<td>Q.O.D., QOD, q.o.d, qod(every other day)</td>
<td>Period after the Q mistaken for &quot;I&quot; and the &quot;O&quot; mistaken for &quot;I&quot;</td>
<td>Write &quot;every other day&quot;</td>
</tr>
<tr>
<td>Trailing zero (X 0 mg)*</td>
<td>Decimal point is missed</td>
<td>Write X mg</td>
</tr>
<tr>
<td>Lack of leading zero (X mg)</td>
<td></td>
<td>Write 0 X mg</td>
</tr>
<tr>
<td>MS</td>
<td>Can mean morphine sulfate or magnesium sulfate</td>
<td>Write &quot;morphine sulfate&quot;</td>
</tr>
<tr>
<td>MSO₄ and MgSO₄</td>
<td>Confused for one another</td>
<td>Write &quot;magnesium sulfate&quot;</td>
</tr>
</tbody>
</table>
Unapproved abbreviations should not be used in a medical record because: (Select all that apply)

- It is a Joint Commission Standard
- High potential to cause medication error

<table>
<thead>
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Unacceptable Orders

“Blanket Orders” are unacceptable, such as:

“Resume home meds”
“Start home meds after”

List ALL medications that the patient will need to resume

Unacceptable Orders

Dosage ranges are unacceptable:

- These are examples that are NOT ACCEPTABLE:
  - “Give 1-2 tablets every 4 hours”
  - “Titrate drip to response”

Indications and/or parameters must be given

- Indication examples:
  - “Give 5 mg Oxycontin every 4 hours for mild pain”
  - “Give 10 mg Oxycontin every 4 hours for moderate pain”
- Parameters are needed when titrating medicated drips
Look-Alike/Sound-Alike Medications

Clarify medication
- Brand Name vs. Generic Name
- Ask for indication
- Confirm correct spelling

Stocked separately
- A strategy for the reduction of risk associated with Look-Alike/Sound-Alike medications

Additional labeling may be needed

Click here for examples of Look-Alike/Sound-Alike Medications

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Look-Alike/Sound-Alike Medications
Some examples are:

<table>
<thead>
<tr>
<th>Drug Product</th>
<th>Therapeutic Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>CelEXA</td>
<td>Antidepressant</td>
</tr>
<tr>
<td>CerebYX</td>
<td>Anticonvulsant</td>
</tr>
<tr>
<td>CeleBREX</td>
<td>Analgesic</td>
</tr>
<tr>
<td>CLoniDine</td>
<td>Alpha-2 adrenergic</td>
</tr>
<tr>
<td>KLonoPin</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>epheDRINE</td>
<td></td>
</tr>
<tr>
<td>EpinePHRINE</td>
<td>Vasopressors</td>
</tr>
</tbody>
</table>
Before Medication Administration

Always review medication orders before administration to be sure they have been processed appropriately

- Does the order follow the 7 rights
- Does the patient have allergies or other contraindications for the medication?

An electronic Medication Administration Record (MAR) is generated from the provider’s orders.

Medication Administration

Basic Rights of Medication Administration
1. The right patient
2. The right drug
3. The right dose
4. The right time
5. The right route
6. The right documentation
7. The right indication (if applicable)

Click here to review the Medication Administration policy.
What are the 7 Basic Rights of Medication Administration? (Select ALL that apply)

- [x] Dosage
- [ ] Provider name
- [x] Documentation
- [x] Name of medication
- [x] Route
- [x] Administration time
- [x] Indication (if applicable)
- [x] Patient name

<table>
<thead>
<tr>
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<tr>
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The Right Patient

1. Only bring medication for one patient into the room
2. Use 2 unique identifiers to ensure you are administering the right medication to the right patient
   - **Check** the patient’s name and date of birth on the patient’s armband to the name on the medical record.
   - **Verify** name and medical record number by scanning patient’s wristband and compare it to the electronic
   - If patient is able, ask him or her to state name and date of birth

Click here to review the Patient Identification Policy
The Right Drug

Verify the medication name with the name on the electronic MAR.

Watch for electronic warnings after bar coding medication. STOP and review all warnings before deciding if administration is appropriate!

Do not remove the medication from the original package until at the patient bedside.

Check the integrity of the medication package before administration.

The Right Dose

Verify the dose with the listing on the MAR and the pharmacy label.

Double check calculations with a second practitioner if available.

Double check infusion pump settings.

- SMART Pump Users: Be sure to use appropriate drug libraries for your patient population.

Question unusual dosages.
The Right Time

Check that medication frequency is appropriate for the ordered medication

Check the rate of infusion for IV piggybacks or riders

Medication frequencies generally follow standard administration times but may be individualized per Plan of Care

Document reason if a dose is missed or late

The Right Route

Verify correct route with electronic or paper MAR

Consult pharmacist if route changes are required or needed

Oral medications should never be placed in an IV syringe – use an oral syringe instead

IV doses should be drawn up and administered using aseptic technique
The Right Documentation

Documentation should include:
- Medication name
- Dose
- Time medication actually given
- Any adverse reaction

Promptly and accurately document medication administration

Chart site of injected medications

Medication Administration Resources

REMEMBER......

If you are not familiar with a medication DO NOT give it until you have consulted/reviewed the proper resources and understand any special handling precautions.

Resources may include:
- Medication/drug reference
- Lexicomp
- Pharmacist
Patient Education

Education should include:

- Name of the medication, dose, route, frequency and duration of therapy
- Purpose and actions, side effects, interactions, contraindications
- Symptoms to report to nurse, physician

Education is appropriate to the situation and the patient’s developmental level, learning needs, readiness, ability to learn, language preference and culture.

Teaching about medications, particularly first doses, should be a part of your teaching plan.

Utilize the teach back method when educating the patient/family.

Document all medication education accurately in the appropriate medical record for your department.
When teaching the patient about medications, always include education on the following in your teaching plan. (Select ALL that apply.)

- Name of medication, dose, route, frequency
- Duration of therapy
- Purpose and action of medication
- Side effects, interaction, contraindications
- Symptoms to report to nurse or provider

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Monitoring Medication Effects

Monitoring medication effects should include:

- Gather information from patient’s own perceptions about side effects and perceived efficacy
- Documentation of patient’s response to first dose of medication
- Refer to clinical data and information in medical record, lab results and medication profile
- Nursing assessment and observation
- Assess and document patient response to “PRN” medications
- Any adverse medication reaction should be reported

Adverse Drug Reactions (ADRs)

Definition:

- “Any response to a drug which is noxious and unintended and which occurs at doses normally used in humans for prophylaxis, diagnosis or therapy or disease.”
  
  World Health Organization

- “In sum, an adverse drug reaction is harm directly caused by the drug at normal doses, during normal use.”

ADR Reporting

- It is important to provide accurate information about actual or suspected adverse drug reactions
- This information may:
  - Improve medication screening
  - Initiate product packaging changes
  - Facilitate product withdrawal

Click here to review the Adverse Drug Reactions (ADRs) policy

Preventing Medication Errors

There are multiple points to verify medication accuracy to prevent error

Disciplines such as nursing and pharmacy work together to identify discrepancies and prevent error

Medication errors can be caught at any point during the review process
Medication Error

Definition

- Any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in control of the healthcare professional, patient or consumer.

*National Coordinating Council for Medication Error Reporting and Prevention*

REPORT NEAR MISSES AND POTENTIAL ERRORS

Don’t let someone else step into a trap.
Reporting Medication Errors

- Is non-punitive
- Focuses on system problems so that solutions can be found
- Identifies patterns through track and trend process
- Targets common causes
- Drives quality improvement process
- Makes the system safe for patients and staff
- Is required by regulatory agencies

Medication Error Reporting

Use MIDAS on the intranet to report medication errors
Reporting medication errors is a way of:
(Select ALL that apply)

- Keeping track of medication used
- **Focusing on system problems so that solutions can be found**
- Ensuring medications have been given
- **Making the system safe for patients and staff**

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Reporting Medication Errors

Complete occurrence report in MIDAS

Data reviewed for trends/patterns

Report to leadership, pharmacy, and/or Quality Department

Recommendations and action plans developed to prevent future events

What to Report

- Wrong patient
- Wrong drug
- Wrong dose
- Wrong route
- Wrong time
- Wrong duration
- Wrong strength or concentration

- Extra dose
- Omission
- Wrong rate
- Expired medication
- Other prescribing, monitoring, transcription or dispensing error(s)
Medication Storage

All medications must be stored in a controlled environment.

Medication should only be stored in cabinets or bedside drawers that are locked.

Examples are:
- Automated Dispensing Units
- Unit Dose Medications
- Patient Specific Drawers
- Refrigerator

Click here to review the policy on Medication Storage.

Controlled Substance Wasting

Any waste of a narcotic, partial waste or entire waste, must be witnessed by another nurse and co-signed.

All transactions to waste a partial dose should be done immediately after the administered dose is given.
- Partial doses should not be carried around with you.

Verification counts of controlled substances are done either electronically or on paper.

Click here to review the Wasting Medications section of the Automated Medication Dispensing System Policy.
Another nurse must witness wasting of any opioid.

- True
- False
Discharge Medications

A provider order is required to send a patient home with a prescribed or OTC dose that was left over after hospital use such as inhaler, topical cream or ointment

Transition of Care Pharmacist:
- Available at Covenant
- Can fill patient’s prescriptions and provide medication education at discharge
- Call Laura Gansen at (319) 272-9493 for more information

Pharmacy as a Resource

Drug Information
First dose review
Emergency Response
Drug Utilization Reviews
Adverse Drug Reaction Reporting
Therapeutic Pathway Development
Patient Education
Antibiotic Monitoring
References

Institute of Safe Medication Practice
World Health Organization
Policies & Procedures (MercyOne Northeast Iowa)