

# CHAPTER 5

## Medication Errors: Preventing and Responding

NDEG 26 A – Pharmacology 1  
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## Medication Misadventures

- Medication errors (MEs)
- Adverse drug events (ADEs)
- Adverse drug reactions (ADRs)

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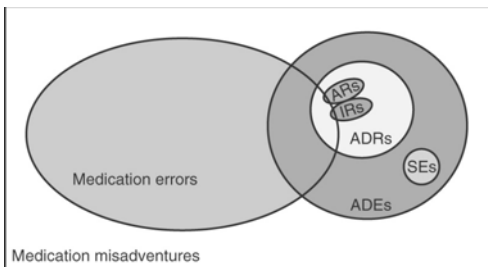
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SEs = side effects; ARs = allergic reactions;  
IRs = idiosyncratic reactions.

Figure 5-1 Diagram illustrating the various classes and subclasses of medication misadventures. ADEs, Adverse drug events; ADRs, adverse drug reactions.

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## Medication Misadventures (cont'd)

- By definition, all ADRs are also ADEs
- But all ADEs are not ADRs
- Two types of ADRs
  - Allergic reactions
  - Idiosyncratic reactions

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## Medication Misadventures (cont'd)

- Side effects
  - Usually predictable
  - Are ADEs but not thought of as ADRs
- Iatrogenic hazards

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## Medication Errors

- Preventable
- Common cause of adverse health care outcomes
- Effects can range from no significant effect to directly causing disability or death

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**BOX 5-1**

**Common Classes of Medications Involved in Serious Errors**

- Antibiotics
- Anticoagulants
- Antidiabetic agents (particularly insulin)
- Antineoplastic (anticancer) agents
- Cardiovascular agents
- CNS-active agents (e.g., opiates, anesthetics)
- Vaccines

CNS, Central nervous system.

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Box 5-1 Common classes of medications involved in serious errors

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## Preventing Medication Errors

- Minimize verbal or telephone orders
  - Repeat order to prescriber
  - Spell drug name aloud
  - Speak slowly and clearly
- List indication next to each order
- Avoid medical shorthand, including abbreviations and acronyms

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## Preventing Medication Errors (cont'd)

- Never assume anything about items not specified in a drug order (i.e., route)
- Do not hesitate to question a medication order for any reason when in doubt
- Do not try to decipher illegibly written orders; contact prescriber for clarification

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## Preventing Medication Errors (cont'd)

- NEVER use “trailing zeros” with medication orders
- Do not use 1.0 mg; use 1 mg
- 1.0 mg could be misread as 10 mg, resulting in a tenfold dose increase

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## Preventing Medication Errors (cont'd)

- ALWAYS use a “leading zero” for decimal dosages
- Do not use .25 mg; use 0.25 mg
- .25 mg may be misread as 25 mg
- “.25” is sometimes called a “naked decimal”

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## Preventing Medication Errors (cont'd)

- Check medication order and what is available while using the “5 rights”
- Take time to learn special administration techniques of certain dosage forms

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## Preventing Medication Errors (cont'd)

- Always listen to and honor any concerns expressed by patients regarding medications
- Check patient allergies and identification

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## Medication Errors

- Possible consequences to nurses
- Reporting and responding to MEs
  - ADE monitoring programs
  - USPMERP (United States Pharmacopeia Medication Errors Reporting Program)
  - MedWatch, sponsored by the FDA
  - Institute for Safe Medication Practices (ISMP)
- Notification of patient regarding MEs

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