

Module E: Medication Management Topic 1:
Medication Administration and Safety

Component II: Clinical Practice

Module E: Medication Management

Topic 1: Medication Administration and Safety

I. Statement of Purpose

Utilization of proper guidelines for the administration of medications to all ages and levels of cognition

II. Terminology

1. Adverse
2. Complimentary therapy
3. Complications
4. DEA (Drug Enforcement Agency)
5. Dependence
6. Depression
7. Documentation
8. Immunizations
9. Non-pharmacological
10. Prevention
11. National Patient Safety Goals (NPSG)

III. Performance Standards

1. Describe the rationale for protocols in medication administration
2. Discuss safety guidelines for medication administration
3. Describe nontraditional adjuvant therapies to medication use.
4. Discuss drug misuse and fraud
5. List ways to gather and evaluate medication use data

IV. References

1. Institute for Safe Medication Practices www.ismp.org, 30- 31pp.
2. McCaffrey, M., and Pasero, C. (1999). Pain: Clinical Manuel (2nd Ed.) St Louis: C. V. Mosby.
3. National Patient Safety Goals (NPSG)
http://www.jointcommission.org/standards_information/npsgs.aspx
4. Review of Rights and Psychiatric Care JONA's Health Care Law Ethics and Regulations, (2010) *Journal of Nursing Administration*.

Website

www.goodmedicinebadbehavior.org/explore/prescription_fraud.html

Content Outline Theory Objectives	Suggested Learning Activities/Evaluation
<p>Objective 1 Describe the rationale for protocols in medication administration</p> <ul style="list-style-type: none"> A. Requires Physician Order <ul style="list-style-type: none"> 1. Indications for use identified <ul style="list-style-type: none"> a. Consistent with diagnosed clinical condition b. Within the clinical practice guidelines c. Evidence based <ul style="list-style-type: none"> 1) Manufacturers' recommendation 2) Clinical study or published journal support B. Pharmacology (e.g., live vaccines, interactions, side effects, reconstituting and mixing medications, reporting adverse events) <ul style="list-style-type: none"> 1. Knowledge of Actions and Side Effects <ul style="list-style-type: none"> a. Adverse Consequences <ul style="list-style-type: none"> 1) For example: <ul style="list-style-type: none"> a) Administration of a narcotic b) Results in changes in level of consciousness b. Adverse Drug Side Effect <ul style="list-style-type: none"> 1) For example: <ul style="list-style-type: none"> a) Administration of a narcotic b) Results in respiratory failure c. Adverse Medication Event <ul style="list-style-type: none"> 1) Includes Adverse consequences & side effects 2) Medication Errors in administration <ul style="list-style-type: none"> a) Includes "Near miss" errors. b) Pre-error identification c) Pre-intervention 2. Immunization Medication <ul style="list-style-type: none"> a. Ambulatory clinics <ul style="list-style-type: none"> 1) Most frequent site for patients receiving immunizations 2) Schedule of medication immunizations <ul style="list-style-type: none"> a) Recommendations established from Center for Disease Control (CDC). 	<p>See www.cdc.org and describe Travel guidelines at your local Board of Health</p> <p>See National Patient Safety Goal 01.01.01</p> <p>See National Patient Safety Goal .07.01.01</p> <p>see NPSG.03.04.01</p> <p>See www.jcaho.org</p>
<p>Objective 2 Discuss safety guidelines for drug administration</p> <ul style="list-style-type: none"> A. Safety of medication <ul style="list-style-type: none"> 1. Medication Regimen Review (MMR) <ul style="list-style-type: none"> a. Evaluation by nurse or pharmacist of patient 	

<ul style="list-style-type: none"> medications b. Minimizes adverse complications with medications c. Ongoing analysis of medication orders d. National Patient Safety Goal <ul style="list-style-type: none"> 1) NPSG.03.06.01 2. Storage in locations that are heat resistant <ul style="list-style-type: none"> a. Dry & stable temperatures 3. Safe Patient Administration <ul style="list-style-type: none"> a. Verification of <ul style="list-style-type: none"> 1) Full name, age, sex and weight <ul style="list-style-type: none"> a) Minimum of 2 patient identifiers 2) Diagnose 3) Allergies (food and medications) 4) Knowledge of current medications 5) Laboratory values b. Handwashing <ul style="list-style-type: none"> 1) Performed before and after medication administration c. Labeling of Medication <ul style="list-style-type: none"> 1) Medication name 2) Strength, quantity 3) Diluent and volume 4) Expiration date and time d. Abbreviations <ul style="list-style-type: none"> 1) Prohibited use of non-approved abbreviations e. “RIGHT’s” of Medication Administration/Safety <ul style="list-style-type: none"> 1) RIGHT <ul style="list-style-type: none"> a) Patient b) Medication c) Dose d) Route e) Time f) Documentation g) Patient education h) Assessment i) Evaluation j) Allergies k) Expiration date of medication f. Patient “RIGHT’s” <ul style="list-style-type: none"> 1) Right to refuse medication 2) Education of medication g. Controlled Medication <ul style="list-style-type: none"> 1) Requires physician or advanced practice provider order 2) Log to count / track medication administration 3) Secured site – locked 	<p>See McCaffery and Pasero, 1999 and list rationales for the different “medication rights”. More recent reference?</p>
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- 4) Wasted or discarded medication recorded in log
- B. National patient safety goals (NPSG) (e.g., medication reconciliation, sound alike-look alike)
 - 1. National Patient Safety Goals:
 - a. Published annually by Joint Commission Accreditation of Health Care Organizations (JCAHO)
 - b. Emphasis on patient safety and medications
 - c. 2010 Look Alike / Sound Alike Introduced
 - 1) Tall Man Lettering (MacCaffrey)

Objective 3

Describe nontraditional adjuvant therapies to medication use.

- A. Complementary and alternative medications
 - 1. Non-pharmacological Techniques
 - a. Cognitive Behavioral Therapies
 - 1) Relaxation, guided imagery & distraction
 - 2) Support groups and pastoral counseling
 - b. Physical Measures
 - 1) Massage, heat / cold therapy
 - 2) Repositioning./ bracing
 - c. Complementary Therapies
 - 1) Herbals, magnets, acupuncture, crystals

Objective 4

Discuss drug misuse and fraud

- A. Drug seeking behaviors and prescription fraud
 - 1. Client Behaviors with abuse and misuse of prescription and non-prescription medications.
 - 2. Defined as
 - a. Obtaining prescription for psychoactive drugs
 - b. Making false or exaggerated claims of pain
 - c. Difficult to manage patients
 - 3. Patient Complications
 - a. Difficult to obtain accurate patient history
 - b. Pathway to addictive / manipulative behaviors
 - 4. Reasons for Drug Seeking
 - a. Chemical addiction
 - 1) Secondary to chronic pain
 - b. Emotional addiction
 - 1) Dependent on drug to enhance other drugs
 - 5. Patient Clinical Presentation
 - a. Pain
 - 1) Unusual high tolerance to drugs
 - 2) Whatever the patient states it is
 - b. Insomnia
 - c. Emotional distress

<ul style="list-style-type: none"> d. Drug withdrawal e. Lost scripts of medication 6. Clinical Features <ul style="list-style-type: none"> a. Patient asks for drug by name b. Refuses all other therapeutic options c. Difficult to confirm their story 7. Common Abused Drugs <ul style="list-style-type: none"> a. Benzodiazepines, b. Opioids <ul style="list-style-type: none"> 1) Less common abused drugs 2) Stimulants 3) Anticholinergics 8. Patient Care Management <ul style="list-style-type: none"> a. Comprehensive alcohol and drug history b. Observe for track marks <ul style="list-style-type: none"> 1) Located in antecubital fossae, lower legs and neck 9. Drug Fraud <ul style="list-style-type: none"> a. Laws designed to prevent patient abuse b. Curb addictive problems with controlled substances c. Controlled Substances Act of 1970 (CSA) <ul style="list-style-type: none"> 1) Assigned the Drug Enforcement Authority (DEA) legal authority for regulation of controlled substances 2) DEA insures adequate supplies of drugs are available <ul style="list-style-type: none"> a) Legitimate channels are used to obtain drugs b) Needs of medical, research and industrial are guaranteed. <p>Objective 5 List ways to gather and evaluate medication use data</p> <ul style="list-style-type: none"> 1. Interview of Patient <ul style="list-style-type: none"> a. History obtained from” <ul style="list-style-type: none"> 1) Patient <ul style="list-style-type: none"> a) Patient listing of medications b) Current and past therapies b. Family c. Care providers 2. Review of Medical Record Data <ul style="list-style-type: none"> a. Medical records b. Pharmacy records 3. Key Factors <ul style="list-style-type: none"> a. Patient adherence to prescribed therapy b. Adverse events on prescribed drug therapy information <p>H. Identifying medications using various resources (e.g.,</p>	<p>See: www.rxlist.com and list the laws applicable to nurses.</p> <p>See: www.drugs.com and describe the DEA’s regulations.</p> <p><u>Sample Teaching Activities</u></p> <p>Small group break out discussions</p> <p>Role playing / interview between patient/health care provider</p> <p>Practice samples of legal documentation in a clinic setting</p> <p>Return demonstration of limited focused assessment for various clinical complaints</p> <p>Practice scenarios for in taking financial information</p>
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<p>pharmacy, informatics)</p> <ol style="list-style-type: none"> 1. Physician Desk Reference (PDR) 2. Pharmacist <ol style="list-style-type: none"> a. Tracking Systems b. E-Prescribe 3. Medical Records <ol style="list-style-type: none"> a. Online resources 4. Manufacturer Inserts/Guidelines <p>I. Educating patient, family and/or caregiver regarding medication administration (e.g., self-medication, adverse reactions, generics vs. brand name medications)</p> <ol style="list-style-type: none"> 1. Learning Environment <ol style="list-style-type: none"> a. Open exchange between patient b. Free of distractions c. Determine comprehension and language level d. Teaching tools <ol style="list-style-type: none"> 1) Visual aids 2) Chart, calendars, clocks 2. Involve the Patient <ol style="list-style-type: none"> a. Adults <ol style="list-style-type: none"> 1) Present non-judgmental information b. Young adults or children <ol style="list-style-type: none"> 1) Evaluate receptiveness and wellness 2) Required family support c. Cultural, Spiritual & Religious Factors <ol style="list-style-type: none"> 1) Ask the patient: <ol style="list-style-type: none"> a) Agree to participate b) Ask if there are compliance or objections d. Types of Patient Learners <ol style="list-style-type: none"> 1) Visual – use of charts and graphs 2) Auditory – repeat and return demonstrations 3) Tactile – return demonstration J. Monitoring and evaluating compliance with behavioral contracts <ol style="list-style-type: none"> 1. Describes desired behavior 2. Motivates with predetermined expectations 3. Goals eliminate deviations from agreed plan 4. Monitoring guidelines are outlined <ol style="list-style-type: none"> a. For example: <ol style="list-style-type: none"> 1) Omission of dietary sugars <ol style="list-style-type: none"> a) Diet log kept 2) Evaluation <ol style="list-style-type: none"> a) Measurement of blood sugar 	<p>Word search games or Jeopardy game</p>
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SAMPLE CASE STUDIES

Case Study-Adult Medicine

Maria, a 28-year-old female, presents to your office approximately 5 weeks pregnant. Her first language is Spanish and she speaks only broken English. Her cousin came with her to translate. This is her first pregnancy. She believes she is current on her shots but has no vaccine or previous health records. She is living with a cousin and has good extended family support, but limited financial support and no transportation or phone. She is excited about the pregnancy and the prospect of being a mother. She reports having a few sexual partners with intermittent use of protection. Maria did mention that her previous doctor had her watching her diet and trying not to eat a lot of sugar but she is unclear as to why.

Vital signs: BP 124/82, Pulse 84, Resp Rate 12, Height 63", Weight 190 pounds. Blood sugar done in office was 174

- 1) Identify primary health concerns for Maria.
(Pregnancy; potential STDs; elevated blood sugar-potential diabetes...)
- 2) What tests do you anticipate being ordered?
(HCG, fasting blood sugar, hemoglobin A1C, CBC, Chem panel, STD screening including HIV; varicella titer, rubella titer, Hep B antibodies)
- 3) Identify Maria's barriers to receiving medical care.
(Health literacy challenges; language barrier; lack of transportation; limited income; limited communication means i.e.-no phone)
- 4) Identify teaching needs.
(Pregnancy; expectations, s/s of concern-when to seek care/call office, visit intervals, need for prenatal vitamins, when to repeat blood work, weight gain expectations, medications to avoid, etc.; blood sugar management – possible meds, diet, checking blood sugars at home; safe sex practices)
- 5) Develop a teaching plan, including: consideration of learning barriers, time allotted for each teaching point, learning activities, and how to measure teaching success/retention.

Case Study – Staff Education Need

It has come to the attention of the office that there are inconsistencies in how blood pressures are being taken by all the medical staff. Cuff size, not taking BP on bare arm, using alternative extremity, and inability to perform proper orthostatic blood pressures are all items of concern.

You have 25 medical assistants to educate, from very new to 18 years in practice. Two of the medical assistants have already stated they are not concerned with changing anything as they feel what they are doing is working.

You have a 30-minute slot at the staff meeting later this week to perform this education.

- 1) How will you prepare for this? (Printed materials, supplies, etc.).
- 2) How will you manage the resistance?
- 3) How will you organize your teaching? (Time breakdown, learning station, lecture, demo, etc.)
- 4) How will you assess effectiveness of education?

Case Study – Adolescent Medicine

Sam is a healthy 16-year-old athlete. He is having increasing reactions to bee stings including significant site swelling, site itching, and facial swelling with his most recent bee sting. Sam is being referred to an Allergist for workup and possible allergy shots for bee sting allergy. At his visit today, the PCP just prescribed an EpiPen 2-Pack to carry at all times. You have been given the job of educating Sam and his father about the EpiPen. Sam and his father are in a hurry to get back to school for practice and seem pre-occupied.

- 1) What information does Sam need to hear before he leaves the office?(How to recognize signs and symptoms of anaphylaxis; when to use EpiPen; how to use EpiPen)
- 2) What teaching tools could be used?
- 3) How will you measure the success of your teaching?

Case Study- Pediatric Medicine

Scenario #1

Call received from mother of 3-year-old child, stating that she is being “so bad”. When asked what behavior the child was showing, mother stated that she was having little urinary accidents in her panties for the last week and was not getting to the bathroom in time to void. Was also having night time accidents. Child had been completely trained (day and night) for over 6 months without accidents. Child was only having urinary accidents and no trouble with bowel movements, was also complaining of “tummy pain”.

- 1) What additional questions would be appropriate to ask mother regarding her concern?
- 2) What would be your considerations for the differential diagnosis for this patient?
Mother was encouraged to make appointment to rule out urinary tract infection as children in this age group have atypical presentation, often with urinary accidents and tummy pain. On evaluation, urinalysis showed 4+ glucose as well as bacteria. Blood glucose found child's blood sugar to be 389. Child was immediately admitted to the hospital with the diagnosis of Type I diabetes.
- 3) Upon learning that her child would be admitted to the hospital, what information about the need for hospitalization would be important for the mother to have?
- 4) What emotions might the mother be experiencing upon learning the diagnosis and what an appropriate strategy is for the ambulatory care nurse.
- 5) What information could be provided to mother regarding expected toddler behavior vs. illness symptoms?

Scenario #2

Call from mother who reports that 15-month-old child had been seen in Urgent Care three nights previously for “bad cough”. Was told there were no abnormal findings on examination at that time and he had a viral illness. Mother calls because she thinks “cough is getting worse”.

- 1) What assessment questions would be important to ask to determine if this child is currently in any respiratory distress? (length of illness, fever, description of cough, s/s of increased work of breathing, color, level of activity, counted respiratory rate while on phone with Advice Nurse)
- 2) What additional information would be important to know about the child’s medical history? (any concurrent medical diagnoses, immunization status)
Child is reported by mother to be having nasal flaring and substernal retractions. Mother was able to provide a counted respiratory rate of 60. Child had been having fever 103-104 degrees for past 24 – 48 hrs. Poor feeding, only one wet diaper in last 24 hrs. Mother advised to take child to nearest Emergency Room. Child in ER had O2 saturation of 88%, respiratory rate of 64, mild dehydration, chest x-ray showing bilateral pneumonia. Started on nebulizer treatment, IV antibiotics and admitted for evaluation. Discharged home after 72 hours improved and stable.
- 3) What education to mother would have been important regarding follow-up for continued concerns after initial evaluation in Urgent Care? What parameters could be given to mother to evaluate worsening condition?

5)
6)
7)

1)

6)

7)
8)

4)