

Teaching Aids/Plan

Introduction

Prerequisites

Medication Aide Training Program Rules-Secure new rules and regulations

Legislation and drugs under the Federal and State Food, Drug, and Cosmetic Act; State Dangerous Drug Laws (further discussion provided by consultant pharmacist); and Controlled Substances Act.

Outcomes Expected

Review program training rules regarding training requirements.

Discuss need for MAC

Discuss students' perception of the Medication Aide role.

Work Settings

Discuss Student's Perception of the MAC role

MAC Certification Course Exams

Obtaining and Maintaining MAC certification through DOPL

Principles of Medication Administration

Purpose of Medications

Drug Categories

Medical Terminology and commonly used abbreviations

Students learn abbreviations in short lists over several class sessions, and as appropriate to other class lessons.

Use flash cards and other approaches as deemed necessary by the instructors.

** Handout on Medical Abbreviations.

** Handout on Medical Terminology.

Generic and Trade Names

Names by which drugs are used and their differences are quite confusing to the student. However, this information is vital to the person preparing and administering the drug.

Give the students a list of drugs and have them recognize and list the chemical, generic, official and trade name.

Medication Effects

Drug Preparations: Liquids, solids, and semi-solids

Effect of Medications on Body Systems

Local Effect

Systemic Effect

Emotional (placebo) effect

Factors that influence medication action

Identify the basic structures and functions of the **cardiovascular system**.

Review changes associated with aging.

Students may be able to give examples of residents with each of these cardiac disorders. Attaching this new information about medications to a person they know may help them better understand and remember these drugs.

For CHF: Identify the action and major side effects of these various classes of drugs.

Name commonly used digitalis drugs.

Identify measures which help ensure safe administration of these various classes of drugs.

Show similarities in appearance and labeling to reinforce need to read label closely.

Digitoxin rarely used.

Review how to check apical pulse.

Name commonly used anti-anginal drugs.

Demonstrate how to measure and where to apply ointment.

Demonstrate preparation and application of ointment and patches.

Identify the action, side effects and names of antiarrhythmic drugs.

Name commonly used anti-hypertensive drugs.

Identify the action and major side effects of antihypertensive drugs.

Review proper techniques to obtain accurate B.P.

Identify measure to monitor drug effect and to ensure resident safety.

Name a commonly used anticoagulant.

Identify the action and main side effect of anticoagulant medication.

Aspirin – Anticoagulants

Heparin - (implications for care and observations).

Discuss disease states (Peripheral Vascular Disease, Diabetes, others).

May review changes associated with aging.

Identify basic structures and functions of the **urinary system**.

Identify the action and major side effects of diuretics.

Name commonly used diuretics.

Identify nursing actions to monitor the diuretic's actions, to observe for complications and to promote comfort for the resident.

Discuss value of laboratory monitoring. Review foods which are sources of potassium.

Identify the reason potassium replacement drugs are used.

Identify nursing actions to prevent medication reactions.

Review nursing measures which help residents regain bladder control.

Identify drugs which are used to treat urinary tract infections and nursing measures to promote effectiveness.

Review changes associated with aging.

Identify the basic structures and functions of the **respiratory system**.

Review appropriate care for residents with upper respiratory disorders.

Review medication aide rules for administration of oxygen on an emergency basis.

Administer oxygen with caution to COPD residents in order to avoid respiratory depression.

Identify the action, use, and side effects of bronchodilator drugs.

Name drugs with a bronchodilator action.

Medication aides may not administer medications used for intermittent positive pressure breathing (IPPB) treatments or other methods involving inhalation treatment.

Identify actions, use, side effects and names on antihistamines.

Identify implications for care when antihistamines are used.

Resource: U.S. Department of Health & Human Services, Centers for Disease Control & Prevention, U.S. Govt. Printing Office, Atlanta Georgia 30333, Phone #(404) 639-1819 -"Prevention and Control of Tuberculosis in Facilities Providing Long Term Care to the Elderly." July 13, 1990.

Identify the expected actions, side effects, and implications for care when respiratory combination products are used

Review changes of **digestive system**

Use anatomical charts.

Name drugs, actions, side effects, and implications for care for medications which reduce stomach acidity.

Review general care to prevent and control nausea, vomiting, and diarrhea.

List action, side effect, and examples of drugs which treat nausea and vomiting.

Used to treat ingestion of non-caustic substances.

Discuss Utah Poison Control Center In emergency dial – 911

Know Regional Poison Center phone numbers and location.

Name examples and side effects of antidiarrheal medications according to their action.

State non-drug means of controlling diarrhea.

List examples, side effects, action, speed of actions for drugs which promote defecation.

Discuss hazards of chronic use of laxatives.

Review bowel training.

State non-drug methods to help prevent and correct constipation.

Describe in detail foods which add bulk to diet; methods to help maintain good fluid intake.

Review the four basic food groups.

State what functions vitamins (in general) have in the body.

State situations when vitamin supplements may be used.

Name examples of vitamin supplements.

State what iron is necessary for in the body.

State measures to use in administering iron to minimize side effects.

Identify action and example of calcium medication.

Discuss changes in the **nervous system** which occur with aging.

List parts of the central nervous system and their function.

Discuss Comprehensive Drug Management: optional therapeutic outcomes, Drug Utilization Review, Disease Management, Unnecessary Drugs: Excessive Dose
Excessive Duration Adequate Monitoring Indications for use
Presence or potential for adverse consequences

Drug Regimen Review (DRR)

Continuous Quality Improvement (CQI)

Discuss symptoms of depression.

List drug names, actions, and side effects for narcotics and analgesics.

Discuss resident assessment, pain threshold, analgesic effectiveness, and documentation.

Discuss factors in administration of analgesics which enhance their effect.

Discuss non-drug measures for relieving pain.

Identify action, names, and side effects of non- narcotic analgesics.

There are many drugs available which are combinations of analgesics. Some examples are Darvon compound, Tylenol with codeine, Empirin with codeine.

Discuss potential risk of liver damage due to excessive use of Tylenol.

Name action, side effects, and examples of drugs which are sedative/hypnotic.

Elaborate on non-drug measures which promote sleep; snacks, empty bladder, relief of discomfort.

Review care of person during convulsion.

Anticonvulsants should be given precisely at the same time each day to maintain therapeutic blood levels.

Lab values are used to monitor therapeutic blood levels.

May review symptoms of Parkinsonism.

State action, side effects, examples of drugs given to treat Parkinsonism, and implications for care.

Antiparkinsonian agents should be given precisely at the same time each day to maintain therapeutic blood levels.

Discuss conditions for which tranquilizers are used.

Discuss implications for care for the person receiving tranquilizers.

Name actions, side effects, and examples of tranquilizers.

Alcohol may potentiate the action of anxiolytic activity.

Discuss extra pyramidal symptoms (EPS).

Describe or define tardive dyskinesia.

Discuss risk of falls associated with psychoactive medications.

Discuss manic-depressive symptoms.

Discuss use of valproic acid. Discuss the importance of laboratory monitoring and therapeutic window.

Discuss symptomatic treatment and ramifications of drugs used as related to OBRA87 and Federal Regulations governing unnecessary drugs and anti-psychotic drugs.

Copies of the above is available by HCFA.

• Alzheimer's Disease
1-800-321-0343

For Clinical Practice Guidelines (Quick Reference Guides for Clinicians) – Documents on a variety of morbidities and Disease Management Guidelines for patient health care management: Contact: Agency for Health Care Policy and Research (AHCPR) at: 1-800-358-9295 or write: AHCPR Publications Clearinghouse, P.O. Box 8547, Silver Spring, MD 20907. and study: Surveyors' Guidelines to Antipsychotic Drug use in Nursing Homes.

Review effects of aging on **musculoskeletal system**.

Name drugs, their actions, use, side effects, and implications in treatment of musculoskeletal disorders.

Discuss symptoms and care of arthritis.

Discuss symptoms (side effects) with large doses of aspirin.

Discuss the assets of Cytotec use with NSAIDs.

Cytotec (misoprostol) has been proven to prevent NSAID - induced gastric ulcers.

In the **Endocrine system**, list actions, side effects, and names of drugs replacing thyroid hormones.

Laboratory monitoring required.

Describe how the body malfunctions in diabetes, and what changes occur in the urine of an untreated diabetic.

Discuss and/or give examples of interrelationships of insulin, diet, activity, stress, and other disease processes.

Medication aides may not administer medications by the injection route; therefore, this prohibits them from administering (injecting) insulin.

May review testing of urine for glucose and ketones, and glucometer recordings and techniques.

State name, action, side effects of oral hypoglycemic agents.

Review complications associated with diabetes as well as nursing measures to help minimize complications.

State causes, symptoms, emergency response to hypoglycemia and diabetic acidosis.

Discuss importance of different dosage forms containing sugar, alcohol, and sugar-free products.

Discuss potential side effects.

Show examples of various cortical steroids available: methylprednisolone (Medrol); dexamethasone (Decadron); others

Identify terms describing topical anti-infective action.

Identify anti-infective drugs, their use, side effects, and implications for care.

Since new products are frequently available, check for current use.

Display any new drug information for the students.

Discuss anaphylactic shock.

Discuss cross sensitivities of penicillins and cephalosporins.

Discuss photosensitivity with tetracycline and sulfa drugs.

Discuss sufficient fluid intake with medication administration unless contraindicated.

Drugs affecting the **eye**:

Include a review of special care needs of those with eye disorders.

Review the procedure for administration of eye medication.

Reinforce sterile techniques.

Identify measures which help ensure safety for the resident with glaucoma.

Identify the names, action, and side effects of drugs used to treat glaucoma.

Identify action, use, and name for eye lubricant.

Identify a reason anti-infective drugs may be used in the eye and examples of drugs used.

Reinforce sterile techniques and good handwashing.

Drugs affecting the **ear**:

Review changes of hearing associated with aging, care and communications for people with impaired hearing.

Review procedure for administration of ear drops and ointment.

Name action and side effects of drugs affecting the ear and implications for care.

Identify any new drugs available.

Review proper administration of ear drops.

Drugs affecting the **skin**:

Review changes of skin associated with aging.

Review prevention of decubitus ulcers (treatment of such is not permitted by medication aides).

Review application procedures.

ALZHEIMER'S DISEASE PATIENTS AND RELATED DISORDERS:

Review basic characteristics of Alzheimer's patients.

Cover the four phases of Alzheimer's disease.

Outline some of the misconceptions of Alzheimer's disease.

Review basic procedures in dealing with Alzheimer's patients.

Alzheimer's Kit available free through: Coordinator, Alzheimer's Program, Texas Department of State Health Services, Bureau of Chronic Disease Prevention and Control, 1100 West 49th Street, Austin, Texas 78756-3199.

Additional Alzheimer's information available from the Alzheimer's

Disease Education and Referral Center, P.O. Box 8250, Silver Spring, MO, 20907-8250, phone #1-800-438-4380.

C. The Combined Health Information Database (CHID) is available to the public through BRS/Maxwell Online, an online vendor. You can access this system through many libraries including public, health sciences and hospital libraries. A fee may be charged for searches. For more information about accessing CHID contact: BRS Online, 8000 Westpark Drive, McLean, VA 22102, 1-800-955-0906.

IMMUNO-COMPROMISED RESIDENTS:

Review basic infection control procedures.

Review principles of medical asepsis.

Explain state guidelines on the handling of

AIDS residents in long-term care facilities.

US Department of Labor, OSHA - OSHA Publications, P.O. Box 37535, Washington, DC, 20013-7535 Phone #202/219-4667 or call your regional USDL office.

CPL 2-2.44C "Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens Standard, 29 CFR 1910.103011

Fact Sheet No OSHA 92-46 "Bloodborne Pathogens Final Standards: Summary of Key Provisions"

OSHA Phamplet No 3131 "Bloodborne Pathogens and Long Term Care Workers"

Side Effects

Medication Administration

References

Journal advertisements to identify source of drugs.

Permitted routes of medication administration

Demonstrate and discuss routes of administration:

- oral

- rectal
- sublingual
- topical
- otic
- nasal
- ophthalmic
- aerosol

Aerosol - Discuss principle and nebulizer;

Discuss proper technique for various routes of medication administration

Review specific actions the medication aide may take to prevent transferring infection.

Review institution's infection control procedures to further illustrate.

Stress the role the medication aide has in observing for signs of infection and prevention of cross contamination.

Identify cause, control measures, signs and symptoms of infection.

Permitted and prohibited medications

Practices prohibited to be performed by the MAC

Legal, Ethical and Professional Considerations of Medication Administration

Professional and unprofessional conduct

Discuss problems of self medications and dangers of transferring medications between containers and residents.

Basic Behaviors and Characteristics of the MAC Conflicts: legal versus requested expectations

MAC role under Federal and State regulatory agencies

Medication Aide Training Program Rules-Secure new rules and regulations

MAC Responsibilities

Reporting

Discuss purpose of care planning.

Explain how the medication aide is important in patient care planning.

For Federal Long Term Care Regulations Forms, Survey Protocols, etc. -such as Standard Operating Manual (SOM) #274, SOM #273 and other SOM's, Medicaid Certification Questions, etc. Contact: Health Care Financing Administration (HCFA) planning. Survey and Certification Review Branch, Division of Health Standards and Quality, 1200 Main Tower Building, Dallas, Texas 75202.

Minimum Data Set (MDS) Reference Manual: To order in Texas and the Southwest, call 1-800-521-9950, elsewhere call MED-PASS, Inc. at 1-800-438-8884 or call Eliot Press directly at (508) 655-8123

Therapeutic Communication Skills

Delegation Process/Five rights of delegation

Responding to emergency situations

Administering and charting medications

Storage and packaging of unit dose medications

Identify and know drugs from the three groups.

Samples of crude drugs, if available,

Recognize labeling regulations required for dispensed medications (prescription) under Utah Drug Laws,

Identify labeling requirements under facility's standards.
Personnel Involved in Residents' Drug Therapy,

Identify the roles of the physician, pharmacist, registered nurse, and licensed practical nurse

Show examples of these forms by the pharmacist instructor.

Reference to white pages of Physician's Desk Reference.

Discuss and learn examples of various drug forms.

Discuss special problems associated with the various drug forms (if any).

FDA responsible for purity, safety, effectiveness, strength, labeling and packaging of drugs

Lecture and discuss reasons.

Preparation and administration of medications by approved routes

Parenterals are not discussed since the medication aide may not administer these drugs; however, they should be knowledgeable of the routes of parenteral injection.

Identify the equipment needed to prepare and administer.

Describe expected effects of several prescribed medications as selected by the instructor.

Demonstrate how to prepare (set up) medications accurately.

Practice how to properly wash hands prior to administering medications.

Identify procedures to prevent drug contamination.

Demonstrate proper care for medication tray and other equipment.

Review additional techniques to prevent transfer of infection and contamination.

Discuss the preparation of medication and unit dose packaging.

Return demonstration of the preparation of medications.

Discuss the correct dosage of medications for the right resident, also practice laboratory demonstration.

Define unattended, secured, and/or locked.

Relate methods and procedures for informing licensed nurse of the need of additional medications.

Identify drugs which may require special controls and record keeping. Name controls which may be used.

Show examples of forms which may be used for signing out controlled drugs and for change of shift counting.

Practice specific techniques for crushing medications.

Borrow crusher, if possible, to illustrate how to use and keep clean.

Practice specific techniques for pouring medications.

Correct medication administration procedure

Medications are administered only as ordered by the licensed practitioner.

Stress importance that medication aides act under the supervision of a licensed nurse - not independently.

Write abbreviations for units of measurement in the metric, apothecaries, and household system when given the name.

Organize in order of relative size units of measurements within metric, apothecaries, and household systems.

Review math, measurements, and Roman numerals throughout entire course of study.

Use practical problems.

Use graduated medicine cups, graduate dropper.

Have examples of various types of containers.

Discuss the various ways medications are supplied to the facility.

Discuss unit dose systems of packaging drugs and unit of use.

Have examples of properly labeled medication containers for nursing homes and other facilities.

Relate what constitutes correct labeling of a dispensed medication.

Demonstrate what constitutes proper labeling for bulk non-legend drugs.

Comprehend facility's storage policies of storage of residents' medications and storage of stock, bulk non-legend drugs.

Show how the medication cart is used to store medications.

Discuss and learn medications requiring refrigeration.

Discuss potential errors that may arise in the supplying and storage of medications.

Identify facility's requirements for emergency drugs.

Discuss requirements for proper storage of internal medications, external medications, external preparations, and poisons.

Demonstrate the care and cleaning of cabinets and bins that are used to store medications.

Emphasize that students will perform the expected tasks through lecture, demonstration, and laboratory.

Relate this topic to what is outlined in the medication aide program training rules.

Know the responsibilities of medication aide when giving a medicine to a resident.

Emphasize importance of checking expiration dates.
Demonstrate proper procedures and techniques for administering medications through lecture and laboratory.

Practice administering oral medicines in lab. Small candies make satisfactory "medication." Use cards, trays, unit dose packages and cups as found in the work setting.

illustrate how to deal with the special type of resident through lecture and role demonstrations.

Review techniques to correctly identify resident.

Demonstrate correct procedure and flow rate for oxygen.

Individual considerations in administering medications

Give students examples of unwanted reactions to medications. Students may have experienced reactions of their own.

Be alert for changes in the residents' responses to their present medications when new medications are ordered and administered.

The greater the amount of the drug above usual dosage requirements, the greater the expected effect.

Food delays emptying the stomach.

When best time to take medication.

Fat soluble drugs.

Water soluble drugs.

Diseases involving the liver where many drugs may be detoxified or metabolized, and the kidneys which excrete most drugs, may alter drug responses.

Aging may cause patient to be more sensitive to drugs.

Actual examples may be discussed as to how these conditions may affect a resident.

Explain each condition.

Learn how to look up generic drug names when the brand name drug is known.

Learn generic drug name of the same brand name drug as selected by the instructor.

Know how medication cart systems are used.

Discuss the various types of cart systems.

Lecture and demonstration.

Lecture and use examples for ways you may observe resident for side effects.

Discuss additional ways for observations as selected by the instructor.

Relate how to prevent side effects such as medications to be taken with food, or away from food, or crushing of medications, and other responsibilities.

List side effects as selected by the instructor.

Each student shall be required to learn and develop skill in taking a resident's vital signs.

Laboratory demonstrations of accurately taking vital signs.

Lecture and use examples for ways you may observe resident for side effects.

Discuss additional ways for observations as selected by the instructor.

List side effects as selected by the instructor.

Each student shall be required to learn and develop skill in taking a resident's vital signs.

Laboratory demonstrations of accurately taking vital signs.

Use of MAR

Identify differences between orders in the clinical record and on a prescription. Show similarities.

Identify facility policy for medication orders.

Comprehend medication aide rule that prohibits a medication aide from receiving or assuming responsibility for reducing to writing (taking) verbal or telephone orders from a physician, dentist, or a podiatrist.

Discuss and illustrate the nursing Kardex, physician order sheet, medication card, clinical records, and drug profile sheet.

Discuss and illustrate the health care plans.

Make medication cards (or its equivalent) for instructor assigned medications.

Lecture and demonstration.

Demonstrate how to properly complete (fill out) the appropriate records.

Discuss Comprehensive Assessment and Comprehensive Care Plan pertaining to medication.

Practice recording medication administration on the appropriate records and correlate with physician's orders, Kardex, medication cards as assigned by the instructor.

Include study of the entire chart if you feel it is appropriate. Provide practice problems to illustrate how to chart specific situations. Use actual chart materials, if possible.

Identify general guidelines to follow in recording medication administration.

Reinforce the value of reporting errors. Give examples of how this is beneficial.

Use forms from more than one institution, if possible, show how to complete form.

Identify appropriate recording procedures when medication is given at times other than regularly scheduled or when errors are made.

Define and discuss definitions

Medication errors and reporting techniques

Discussion of these errors; correlate problems as related between facility and general public.

Practice order verification system to check medication orders.

Discuss points where potential drug errors or unsafe practices may occur and whereby they can be prevented by using the checking medication orders system. This system may be expanded upon to suit local needs.

Show procedure and how to report and follow up when an administration error is made.

Explain how to write an incident report for a medication error.

Skills Demonstration

Indicate that the clinical portion of the medication aide training is "hands-on" rather than observation.

Follow standard precautions including hand hygiene

Consults resources

Prepares for medication administration

Correctly interprets abbreviations

Consistently identifies specific drug properties of drug being given

Checks for known medication allergies

Demonstrates organized system for passing medications

Protects confidentiality

Follows correct medication administration procedures

Observes client swallowing medication

Maintains security of medication room and cart

Accurately documents medication administration

Demonstrates appropriate reporting to nurse