INTRODUCTION A medication is a substance administered for the diagnosis, cure, treatment, or relief of a symptom or for prevention of disease.11 Buccal Buccal means "pertaining to the cheek." In buccal administration, a medication is held in the mouth against the mucous membranes of the cheek until the drug dissolves. The drug may act locally on the mucous membranes of the mouth or systemically when it is swallowed in the saliva. Parenteral The parenteral route is defined as other than through the alimentary or respiratory tract; that is, by needle. 12 more common routes for parenteral administration: o Subcutaneous (hypodermic) into the subcutaneous tissue, just below the skin o Intramuscular (IM) into a muscle o Intradermal (ID) under the epidermis (into the dermis) o Intravenous (IV) into a vein. Topical Topical applications are those applied to a circumscribed surface area of the body. They affect only the area to which they are applied. Topical applications include the following: o Dermatologic preparations applied to the skin o Instillations and irrigations applied into body cavities or orifices, such as the urinary bladder, eyes, ears, nose, rectum, or vagina 13 MEDICATION ORDERS A physician usually determines the client's medication needs and orders medications. Types of Medication Orders Four types of medication orders are commonly used: 1. A stat order indicates that the medication is to be given immediately and only once (e.g., morphine sulfate 10 milligrams IV stat). 2. The single order or one-time order is for medication to be given once at a specified time (e.g., Seconal 100 milligrams at bedtime before surgery). 3. The standing order may or may not have a termination date. A standing order may be carried out indefinitely (e.g., multiple vitamins daily) until an order is written to cancel it, or it may be carried out for a specified number of days (e.g., KCl twice daily x 2 days). 4. A PRn order, or as-needed order, permits the nurse to give a medication when, in the nurse's judgment, the client requires it (e.g., Amphojel 15 mL prn). 5. BID: Twice a day 6. TID: Three times a day 7. QID: Four times a day 8. EOD: Every other day 9. ABT: At bed time 10. AM: At morning 11. PM: At night Essential Parts of a Medication Order o Full name of the client o Date and time the order is written o Name of the drug to be administered o Dosage of the drug o Frequency of administration o Route of administration o Signature of the person writing the order 14 Parts of a Prescription Communicating a Medication Order ? A drug order is written on the client's chart by a primary care provider or by a nurse receiving a telephone or verbal order from a primary care provider. ? Most acute care agencies have a specified time frame (e.g., 24 or 48 hours) in which the primary care provider issuing the telephone or verbal order must cosign the order written by the nurse. ? The nurse or clerk then copies the medication order to a Kardex include the client's name, drug name and dose; and times and method of administration. ? In some agencies, the date the order was prescribed and the date the order expires are also included. ? The nurse should always question the primary care provider about any order that is ambiguous, unusual (e.g., an abnormally high dosage of a medication), or contraindicated by the client's condition 15 When the nurse judges a primary care provider-ordered medication inappropriate, the following actions are required: o Contact the primary care provider and discuss the rationale. o Document in notes o If the primary care provider cannot be reached, document all attempts to contact o If someone else gives the medication, document data about the client's condition before and after the medication. o If an incident report is indicated, clearly document factual information. SYSTEMS OF MEASUREMENT ? Two systems of measurement are used: the metric system and the household system. Metric System ? The metric

system, is logically organized into units of 10; it is a decimal system. ? Basic units of measurement are the meter, the liter, and the gram. Household System ? Household measures may be used when more accurate systems of measure are not required. ? Included in household measures are drops, teaspoons, tablespoons, cups, and glasses. 16 ADMINISTERING MEDICATIONS SAFELY ? The nurse should always assess a client's health status and obtain a medication history prior to giving any medication. ? The extent of the assessment depends on the client's illness or current condition, the intended drug, and the route of administration. ? The medication history includes information about the drugs the client is taking currently or has taken recently. Medication Administration Errors a medication error is "any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer.Drug habituation the individual develops the habit of taking the substance and feels better after taking it. Key terms related to drug actions are as follows: o Onset of action: the time after administration when the body initially responds to the drug o Peak plasma level: the highest plasma level o Plateau: a maintained concentration of a drug in the plasma during a series of scheduled doses.Four main types of medication errors that occur with hospitalized clients are: (1) prescription errors (e.g., wrong drug or dose); (2) transcription/ interpretation error (e.g., misinterpretation of abbreviations); (3) preparation errors (e.g., calculation error) (4) administration errors (e.g., wrong dose, wrong time, omission, or additional dose).10) Iatrogenic disease is a disease caused unintentionally by medical therapy DRUG MISUSE Drug misuse is the improper use of common medications in ways that lead to acute and chronic toxicity (e.g. Laxatives, antacids, vitamins).prevention of disease as vaccines 4 Types of drug preparations LEGAL ASPECTS OF DRUG ADMINISTRATION (1) Nurses need to: (a) know how nursing practice acts in their areas define and limit their functions (b) be able to recognize the limits of their own knowledge and skill. The major disadvantages can include: 1) an unpleasant taste of the drugs 2) irritation of the gastric mucosa 3) irregular absorption from the GI tract 4) slow absorption 5) in some cases, harm to the client's teeth.Example: If a primary care provider writes an incorrect order (e.g., morphine 100 mg instead of morphine 10 mg), a nurse who administers the written incorrect dosage is responsible for the error as well as the primary care provider.For example, digitalis increases the strength of myocardial contractions (desired effect), but it can have the side effect of inducing nausea and vomiting.For example, an herbal remedy (e.g., the Chinese herb ginseng) may speed up or slow down the metabolism of prescribed medications.3) Drug toxicity (harmful effects of a drug on an organism or tissue) results from overdosage, ingestion of a drug intended for external use ?When environmental temperature is high, the peripheral blood vessels dilate, thus intensifying the action of vasodilators.Some orally administered medications are absorbed more quickly if the stomach is empty, whereas other medications have a more rapid absorption when administered with food.(3) controlled substances.????7 ?????????????2.3.4.5.