Medication Error

DEFINITION

- Medication errors, broadly defined as any error in the prescribing, dispensing, or administration of a drug, irrespective of whether such errors lead to adverse consequences or not, are the single most preventable cause of patient Harm.
- A medication error is any preventable event that may cause or lead to inappropriate medication use while the medication is in control of health care professional.

SOURCES OF MEDICATION ERROR

- Inaccurate recording and transcribing orders.
- Unclear or erroneous labeling of drugs
- Misidentification of patient
- Incomplete delivery of drugs
- Verification errors
- Use of inadequate knowledge or inaccurate knowledge base.
- Time and performance pressure

CLASSIFICATION OF MEDICATION ERROR

The medication error may be classified in to mistakes, slips, or lapses.

Medication errors may also be classified according to where they occur in the medication use cycle, i.e. at the stage of prescribing, dispensing, or administration of a drug.

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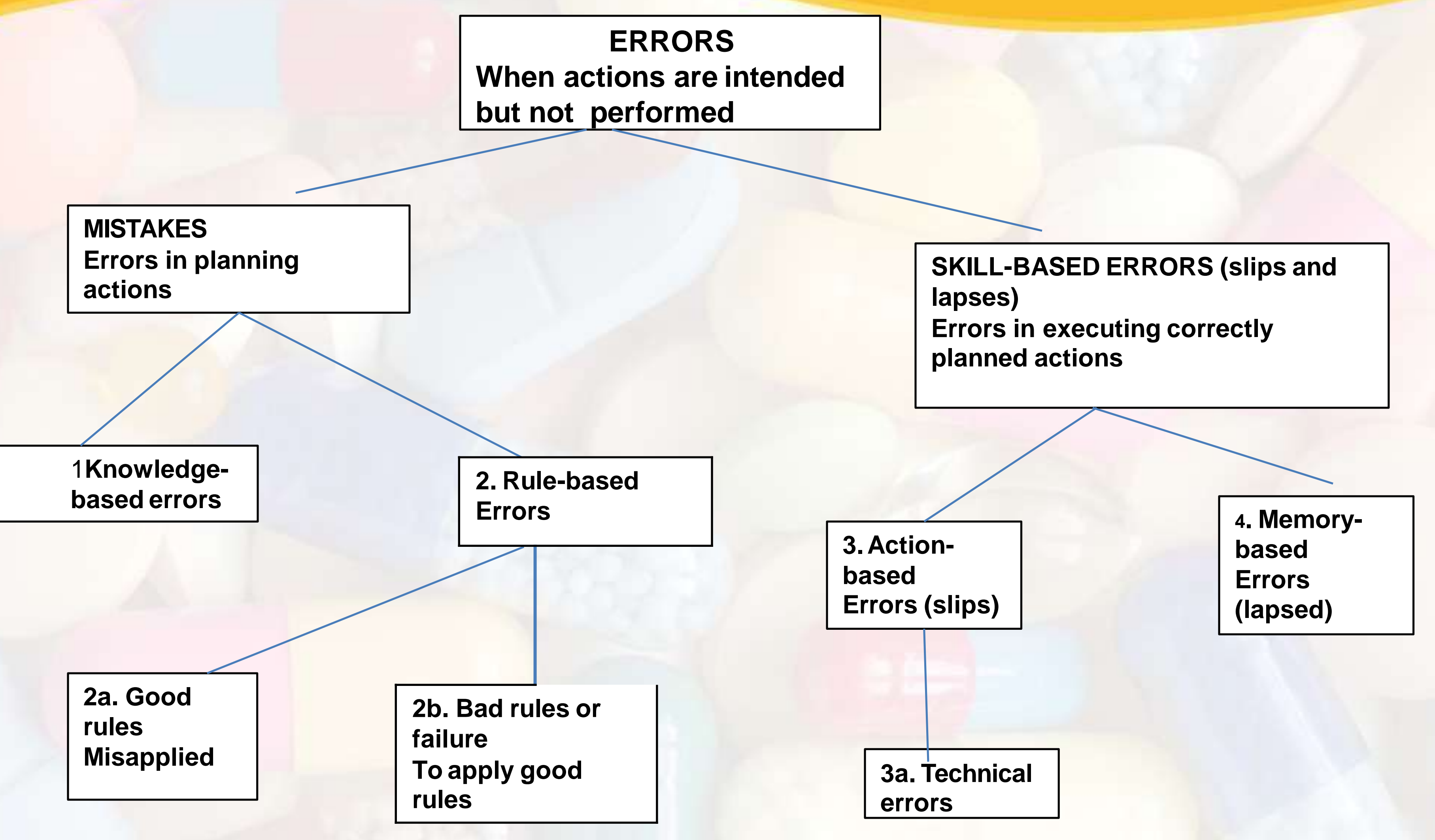


PRESCRIBING ERRORS

Incorrect drug selection for a patient

Errors in quantity, indication

Prescribing of a contraindicated drug

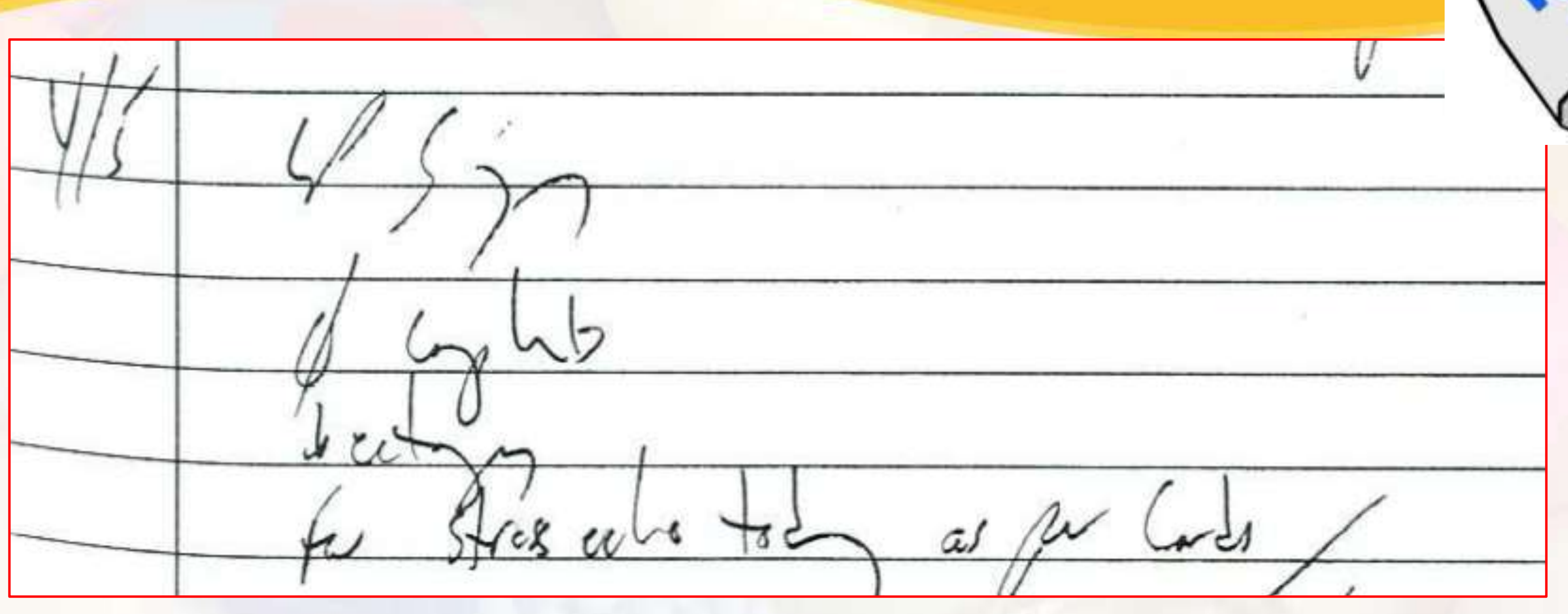
CONTRIBUTING FACTORS INCLUDE:

- **Lack of knowledge of the prescribed drug, its recommended dose, and of the patient details contribute to prescribing errors.**
  - **Illegible handwriting.**
  - **Inaccurate medication history taking.**
  - **Confusion with the drug name.**
  - **Inappropriate use of decimal points. A zero should**

  Always precede a decimal point (e.g. 0·1).

  Use of a trailing zero (e.g. 1·0).

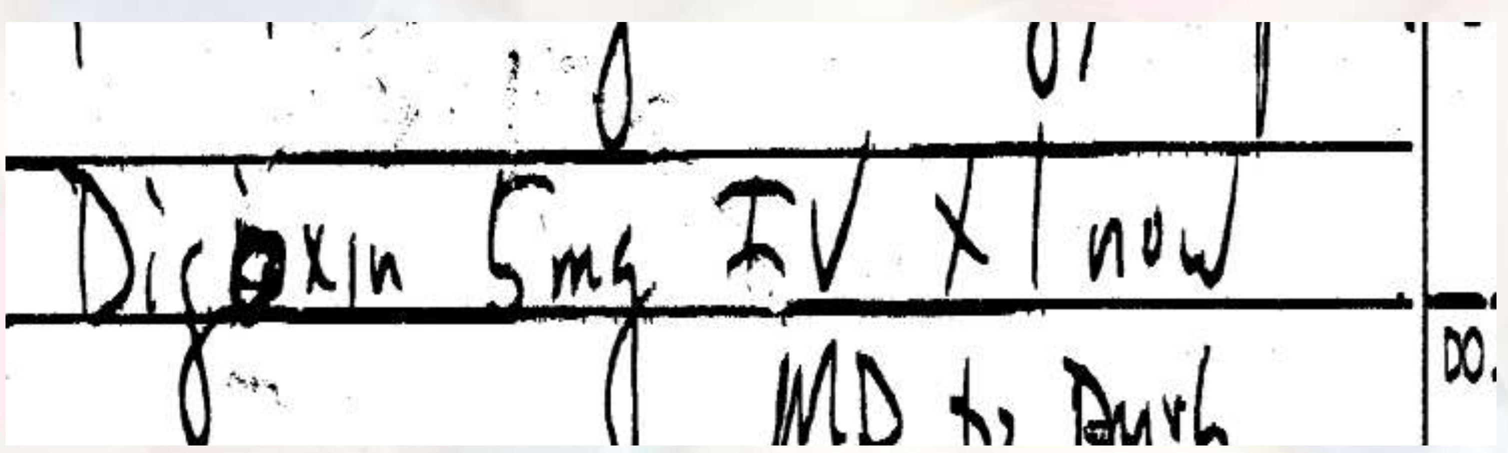
  - **Use of abbreviations (e.g. AZT has led to confusion between zidovudine and azathioprine).**
- **Use of verbal orders.**



Can any one read this???

Always use leading zeros for decimal points. The order should have read:

Digoxin 0.5 mg



Risk factors for prescribing errors

- Work environment
- Workload
- Communication within the team
- Physical and mental well being
- Lack of knowledge
- Organizational factors such as inadequate training
- Low perceived importance of prescribing
- An absence of self awareness of errors

Approaches for reducing prescribing errors

- Electronic prescribing may help to reduce the risk of prescribing errors resulting from illegible handwriting
- Computerized physician order entry systems eliminate the need for transcription of orders by nursing staff

Electronic prescription

Dr. Is Test

Signed with digital ink pen

Dr Test Is MD

DEA #:

Delivery Method: Given to/picked up by patient

Sig: 1 Tablet(s) (500 mg) by mouth once daily

Disp: 30 Tablet(s)

Refills: 0

P #: 5796707

℞ Divalproex **(Depakote) 500mg Tablet, Delayed Release (E.C.)**

Date: 01/29/07

Sig: 1 Tablet(s) (500 mg) by mouth three times daily

Disp: 90 Tablet(s)

Refills: one year

P #: 5796714

Sample

Dr. Is Test

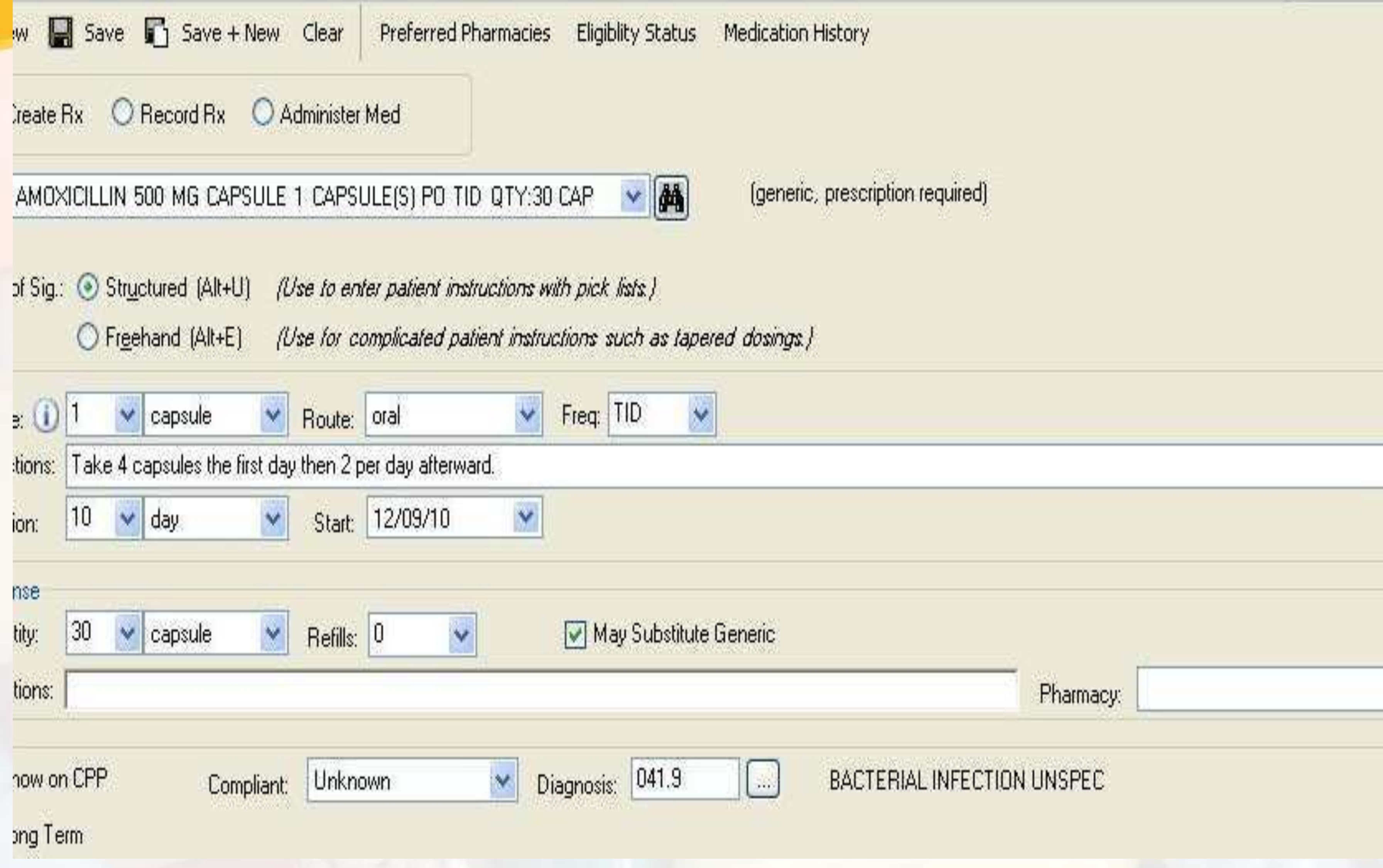
Signed with digital ink pen

Dr Test Is MD

DEA #:

Method: Given to/picked up by patient

Computerized physician order



DISPENSING ERROR

- From the receipt of the prescription in the pharmacy to the supply of a dispensed medicine to the patient.
- This occurs primarily with drugs that have a similar name or appearance.
- Example :lasix (furosemide) and losec (omeprazole)
- Other potential dispensing errors include wrong dose, wrong drug, or wrong patient

Approaches to reducing dispensing errors include

- Ensuring a safe dispensing procedure.
- Separating drugs with a similar name or appearance.
- Keeping interruptions in the medicine administration procedure to a minimum and maintaining the workload of the nurse at a safe and manageable level.
- Awareness of high risk drugs such as potassium chloride and cytotoxic agents.
- Introducing safe systematic procedures for dispensing medicines in the pharmacy.

ADMINISTRATION ERRORS

- Discrepancy occurs between the drug received by the patient and the drug therapy intended by the prescriber.
- Errors of omission - the drug is not administered
- Incorrect administration technique and the administration of incorrect or expired preparations.
- Deliberate violation of guidelines

CAUSES OF ADMINISTRATION ERRORS

- Lack of perceived risk
- Lack of available technology
- Lack of knowledge of the preparation or administration procedures Complex design of equipment.

CONTRIBUTING FACTORS TO DRUG ADMINISTRATION ERRORS

Failure to check the patient's identity prior to administration

Environmental factors such a noise, interruptions ,poor lighting

Wrong calculation to determine the correct dose

APPROACHES TO REDUCE DRUG ADMINISTRATION ERRORS INCLUDE:

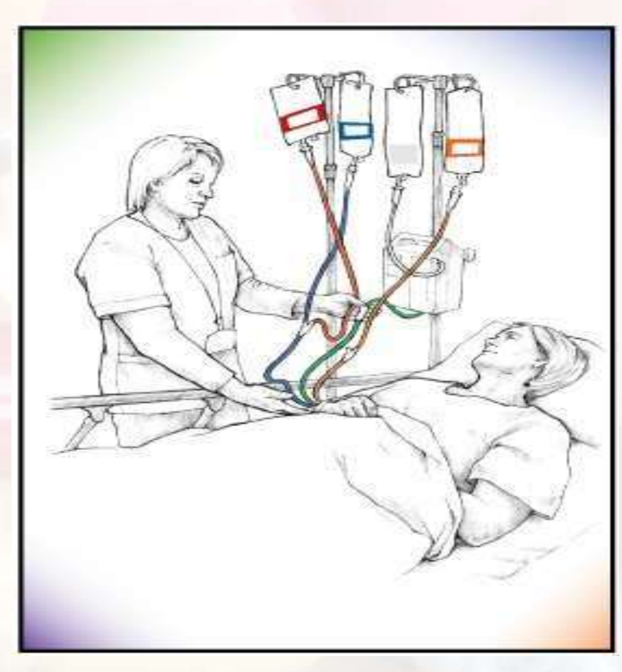
- Checking the patient's identity.
- Ensuring that dosage calculations are checked independently by another health care professional before the drug is administered.
- Ensuring that the prescription, drug, and patient are in the same place in order that they may be checked against one another.
- Ensuring the medication is given at the correct time.
- Minimizing interruptions during drug rounds

ACTION TO BE TAKEN WHEN ERROR OCCURS

- The patient safety becomes the top priority
- The nurse assesses and examines the patient's condition and notifies the physician of the incident as soon as possible.
- Once the patient is stable the nurse reports the incident to the appropriate person in the institution like nursing supervisor or nursing manager.
- The nurse is also responsible for reporting the incident. An incident report usually must be filed within 24hours of an incident.

STEPS TO BE TAKEN IN PREVENTING MEDICATION ERROR

- Follow the rights of medication administration
- Right patient
- Right drug
- Right dose
- Right time
- Right route
- Right recording
- Right assessment
- Right education
- Right evaluation
- Right to refuse medication



- Be sure to read labels at least 3 times, before during after administration of the drug.
- Prepare the medicine in a well lighted room.
- Check the expiry date of the drug before administration.
- Be aware about ambiguous orders or drug names and numerical and Consult doctor if any doubt.
- Be alert to usually large dosage or excessive increase in dosage ordered.
- When in doubt, check order with prescriber, pharmacist, literature .

- Double check all calculation, even simple calculation
- Do not allow any other activity to interrupt your administration of medication to a client.
- Routinely refer to drug interaction charts or drug reference source and commit common interactive drugs to memory.
- Do not use any unstandard abbreviation and symbols, question if any one use
- Read the leaflet of the drug carefully when giving new drug first time.
- Do not make assumptions of illegible orders.
- Do not accept incomplete orders and telephonic or verbal orders.

- Double check with a client who has allergies about all new drugs as they are added in treatment plan
- Question a drug form used in unfamiliar way.
- Document all medication as soon as they are given.
- When you have made an error reflect on what went wrong ,ask how you could have prevented the error
- Evaluate the context for any medication error to determine if nurses have the necessary resources for safe medication administration.
- When repeated medication error occurs within a work area, identify and analyze the factors that may have caused the errors and take corrective action.
- Attend in-service program that focus on the drug you commonly administer.

SUMMARY

Stay alert!
Question !
Learn!

Questions

CRITICAL THINKING

- You have given Mrs Veena her medication including cough Elixir. She asks you ,Now you didn’t give me any Codeine ,did you? Iam allergic to it .
- You reply that there is no codeine in her medication.
- After returning to the medication room,you think again and recheck the bottle of the cough elixir and find that it contains Codeine.

What would you do ?

Thank You