3.0 Medication Administration Worksheet

The worksheet has been developed to help you assess your medication calculation skills and knowledge of the medication policy.

Complex formula are attached to the last page.

It should take about 45 min to complete the worksheet

The exact calculation is required, up to two decimal places

All workings need to be shown

Assessment of your calculation skills and knowledge of hospital policy

1. The achievement of 100% of correct responses suggests you possess competent calculation skills and have an understanding of the relevant medication policies.
2. Less than 100% of correct responses suggest you should discuss with your NUM an educational strategy to meet your learning needs

Name: ……

Date: ……

3.0 Medication Administration Worksheet

Please read each question carefully

Part A: DRUG CALCULATIONS

A calculator may be used.

Complex formulae are attached.

The exact calculation is required up to two decimal places.

All workings need to be shown.

1. A Customer requires 240 mg of Tobramycin. In stock there is Tobramycin 80 mg in 2ml. How many ml are required?

2. How many 30mg tablets of codeine are needed for a dose of 0.06 gram?

3. A) A Customer that you are caring for requires a bolus of 300mg Amiodarone to be administered in 100mls over 60 minutes prior to an infusion being commenced. How many mls/hr do you run the pump?

   B) The medical order is to commence an Amiodarone infusion to deliver 40 mg/hr. the drug infusion ordered is the standard concentration of 900mg made up to a total of 90mls of 5% Dextrose. How many mls/hr do you deliver via the pump?

4. Circle all the cytotoxic drugs

   Cyclosporine Azathioprine Acyclovir Mycophenolate Methyltrexate Gancyclovir Amphotericin

5. A Dopamine infusion has been started on your customer. The concentration is 600mg in 100mls 0.9% Saline. The Customer weighs 100kg.
   a) The infusion is started at 4.0 ml/hr. How many mcg/min is being delivered?

   b) The medical staff are happy to discharge the customer with the Dopamine running as ordered above to the ward. Dopamine is run in the wards up to a dose of 5 mcg/kg/min. Calculate the dose in mcg/kg/min and state if the Customer is eligible for discharge to the ward?

6. The Milrinone infusion your customer is receiving is running at 3mls/hr. The infusion has been made up according to the standardised infusion concentration, 30mg Milrinone in 100 mls 0.9% Saline. What does is your Customer receiving?

3.0 Medication Administration Worksheet

7. Where do you verify that a customer has a known allergy?

8. Name the 6 rights to administering drugs?

9. You receive a Patient from Theatre with an Adrenaline infusion. The syringe is labelled with Permanent marker. What is the correct course of action?(circle right answer)

   - Inform resource nurse
   - Change the syringe and use an additive label
   - Complete an Incident report
   - All of the above

10. At commencement of your shift, list the right steps to ensure a safe handover of Customers' medications.

11. Half way through your shift, you discover the order for your Customers' IV antibiotics is prescribed BD. However the times written in are TDS and been given like this for the last three days. What do you do?

12. We know that some medicines are more prone to serious adverse events when given incorrectly than others. These medications are highlighted by using the term P.I.N.C.H. What does the acronym P.I.N.C.H. stand for?

    P=
    I=
    N=
    C=
    H=

3.0 Medication Administration Worksheet

13. You are asked to administer a 300mg loading dose of Amiodarone. You use the infusion hanging which is 900mg in 90mls. You realise that at the end of the bolus that you have actually given 900mg instead of the 300mg prescribed. What actions do you take?

14. You are signing out 50mg of Midazolam and you realise that there is an ampule missing and the ledger is incorrect. What actions do you take?

3.0 Medication Administration Worksheet

FORMULAE

1. Calculating tablet and fluid dosages

This formula is used to calculate the amount of medication in tablet form or in solution for oral administration, intramuscular, intravenous or subcutaneous injection when the dosage is ordered and stock dose and volume is known

$$\frac{\text{Ordered Pt dose}}{\text{Stock strength}} \times \frac{\text{Stock Volume}}{1} = \text{Volume to be given}$$

Units for required dose and stock dose must be the same when calculating

2. Calculating the Patient dose when the infusion rate is known

$$\frac{\text{Drug mass in mg}}{\text{Volume in ml}} \times \frac{1{,}000\text{(to mcgs)}}{1} \times \frac{\text{Infusion rate (mls/hr)}}{60\text{ (to min)}} \times \frac{1}{\text{weight (kg)}} =$$

Mcg/kg/min

Only part of the formula may be required depending upon the calculation

3. To calculate infusion rate when the drug dose is ordered

$$\frac{\text{Pt dose(mcg/min)}}{\text{Drug mass(mg)}} \times 60\text{(to hours)} \times \frac{\text{Volume(mls)}}{1{,}000\text{ (to mcgs)}} \times \text{Weight} = \text{Rate in mls/hr}$$

Only part of the formula may be required depending upon the calculation