



SOLOMON ISLANDS NATIONAL UNIVERSITY
School of Nursing and Allied Health Sciences
Bachelor of Nursing: Child Health

CH 742
Child Health Nursing Practice 2

FINAL EXAMINATION

Semester 1, 2017

(End of semester 2 for BNCH intake 1 and 2)



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CH 742 – Child Health Nursing Practice 2

Semester 1 (end of semester 2 for BNCH intake 1 and 2), 2017 FINAL EXAMINATION

TIME ALLOWED : 1 ½ HOURS

DATE : 12th of June 2017

STARTING TIME : 09:00 AM

STUDENT NAME : _____

STUDENT ID : _____

TEST INSTRUCTIONS:

1. Do not open this paper until told to do so.
2. Read instructions carefully when attempting the questions.
3. Write your answers **clearly** in the spaces provided.
4. Do **not** use **red biro** or **pencil** to write your answers.
5. Raise your hand quietly if you want to ask a question.
6. If you finish before time, leave your paper on your desk and leave the room quietly.

Section	Marks Allocated
Paediatric Drug Calculations	/ 30 Marks
Total Marks	/ 30 Marks

Best of luck

PAEDIATRIC DRUG CALCULATIONS**(30 MARKS)**

1) Convert the following to the required metric units: [8 Marks]

a. 5.6 grams (g) = how many milligrams (mg)?

b. 2390 micrograms (mcg) = how many milligrams (mg)?

c. 620 milligrams (mg) = how many grams (g)?

d. 0,04 milligrams (mg) = how many micrograms (mcg)?

e. 0,033 litres (l) = how many millilitres (ml)?

f. 0,71 micrograms (mcg) = how many nanograms (ng)?

g. 250 millilitres (ml) = how many litres (l)

h. 9.7 litres (l) = how many millilitres (ml)?

- 2) Mark is a seven (7) years old boy who broke his femur falling from a coconut tree. He is in severe pain presenting in Accident & Emergency, so the doctor prescribes 0.1mg/kg of IV Morphine to relieve his pain. [4 Marks]
- What is Mark's estimated weight using the following formula: $(2 \times \text{age}) + 9$?
 - According to the *Standard Treatment Manual for Children (STM)*, is this prescribed dose appropriate for Mark?
 - How many mg of Morphine will you give?
 - How many ml of Morphine will you draw from a 5mg/ml vial?
- 3) Jolina is a twelve (12) months old and nine (9) kg girl who presents to A&E. Her parents tell you that she vomited last night and had a seizure this morning. She is admitted on the Children's Ward with a suspected diagnosis of Bacterial Meningitis, awaiting the results of the Cerebro Spinal Fluid (CSF) sample taken via Lumbar Puncture (LP). She is prescribed with Ceftriaxone 50mg/kg every eight (8) hours. [8 marks]
- You check the recommendations in the STM. Is this Ceftriaxone order appropriate for Jolina?
 - How many mg of Ceftriaxone will you give per dose?
 - How much water for injection (WFI) will you add to the 500mg vial?
 - What is your resulted total volume in the vial (before you draw the dose)?
 - How many ml of this solution will you draw to obtain Jolina's dose?

- f. Jolina already has an IV cannula with maintenance of NaCl 0.9% + 5% Dextrose in a burette. Since Ceftriaxone is compatible with the maintenance fluid, you decide to use the burette and further dilute the medication to 50mg/ml and infuse over 30 minutes. How much maintenance fluid will you add to the burette to obtain the desired concentration of Ceftriaxone?
- g. You check the packaging of your IV giving set to confirm the “drop factor” of the burette. The drop factor is the “drops/millilitre” delivered to the patient by the burette. In this case, it is 60 drops/millilitre. In order to administer the Ceftriaxone in 30 minutes, at what rate (in drops/minute) will you set your burette?
- h. Now that you know your rate in drops/minute, you try to gain time at the bedside and calculate the time interval between every drop (in seconds). Your result should be written as *1 drop every X seconds*. What is your result?
- 4) Emily is a ten (10) years old girl presenting with generalised convulsions. After clearing her Airway and Breathing, you check her Blood Sugar Level which is 4mmol/L. As she is currently seizing you are unable to weigh her and decide to estimate her weight with the following formula: $(3 \times \text{age})$. [7 marks]
- a. What is her estimated weight?
- b. Despite two doses of diazepam, Emily is still fitting after 20 minutes. The medical team decide to give her a loading dose of IV phenobarbitone. What would be the recommended dose for Emily?
- c. Over how long will you infuse the IV phenobarbitone?

- d. How will you reconstitute the vial(s)?
- e. All the volumetric pumps are used by other patients so you agree with the medical team to infuse the phenobarbitone via a burette. Describe how you will prepare the medication and set up your burette, including your rate in drops / minute.
- f. Now that you know your rate in drops/minute, you try to gain time at the bedside and calculate the time interval between every drop (in seconds). Your result should be written as *1 drop every X seconds*. What is your result?

5) It is 7 am and you are about to start your shift on SCN. As you are listening to hand-over, Dr John Taniamae comes in with a newborn and tells you it is an emergency neonatal resuscitation. He asks you to prepare the IV Adrenaline dose for a 3.25 kg baby. [3 marks]

a. According to the STM, what is the recommended dose for this newborn?

b. How will you proceed in order to prepare the required dose, knowing that at NRH you only have Adrenaline at the concentration of 1:1000?