Practice Questions

1. A 9-year-old child weighing 30kilograms is prescribed salbutamol for chronic asthma at a dose of 4milligrams/kilogram twice a day.
   How many grams in total will the child receive in 7 days? Please give your answer to 1 decimal place.

2. You need to give 35 milligrams dose of drug B to a child and you have available to you 0.5% w/v solution.
   What volume, in millilitres, should you give?

3. You are asked to prepare 300 millilitres of a 1 in 25 solution of potassium permanganate.
   How many grams of potassium permanganate do you need? Give your answer to the nearest gram.

4. You are requested to prepare 5 litres of chlorhexidine gluconate 1 in 2000 from a stock solution containing 20 % w/v of chlorhexidine gluconate.
   What volume in millilitres of the stock solution is required? Give your answer to 1 decimal place.

5. How much sodium feredetate is required for child with anaemia prescribed as 2.5millilitres three times a day for 6 weeks?

6. How many "pack years" has a patient who smoked 10 cigarettes a day for 6 years? A "pack year" is defined as twenty cigarettes smoked everyday for one year.

7. You are dispensing a prescription for an ointment, which is 0.025 % w/w. The patient asks you how many times stronger is the 0.1 % w/w ointment which they have had before?

8. A 9-year-old boy weighing 25kilograms, is to be treated for a bacterial infection. He is prescribed amoxicillin 30milligrams/kilograms per day in three divided doses for one week. The pharmacy only has amoxicillin 125miligrams/5millilitres suspension in stock.
   How many millilitres amoxicillin need to be supplied?

9. How many micrograms are contained in 100 mililitres of a 1 in 250 solution?

10. A patient is prescribed a drug as a reducing dose course. He is to take 10 milligrams once a day reducing by 2.5 milligrams each day until the course is finished.
How many 2.5 milligrams tablets would be need to complete the course?

Answers

1. Answer: 1.7g
   Type of question: Doses and regimens

2. Answer: 7mL
   Type of question: Dosage and unit conversions

3. Answer: 12g
   Type of question: Concentrations

4. Answer: 12.5mLs
   Type of question: Dilutions

5. Answer: 315mLs
   Type of question: Quantities to supply

6. Answer: 3 pack years
   Type of questions: Using a formulae

7. Answer: 4
   Type of questions: Concentrations

8. Answer: 210mL
   Type of question: Dosage and unit conversions

9. Answer: 400000mg
   Type of questions: Concentrations

10. Answer: 10 tablets
    Type of question: Quantities to supply