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The Student Learning Advisory Service (SLAS) is part of the Unit for the Enhancement of Learning and Teaching (UELT)

## **Acknowledgments**

All materials checked by Dr Scott Wildman, Dr Cleopatra Branch, Jerome Durodie and Andrew Lea, Medway School of Pharmacy, Anson Building, Central Avenue, Chatham Maritime, Chatham, Kent. ME4 4TB.

This leaflet has been produced in conjunction with sigma Network for Excellence in Mathematics and Statistics Support







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# AT A GLANCE/ PHARMACY CALCULATIONS PRESCRIPTONS (2)

Calculating the quantity of a pre-packaged liquid product to supply.



## Example 1

A prescription asks for 'Breathe-Easy' nasal spray, three puffs in both nostrils, five times daily, for two months. Assuming each nasal spray contains 200 doses, how many nasal sprays should be supplied to the patient?

#### Method

**Step 1:** Calculate the total doses required

3 puffs  $\times$  2 nostrils  $\times$  5 times  $\times$  56 days = **1680 doses** 

Step 2: Divide the total doses by the doses per spray

$$\frac{1680}{200} = 8.4$$

Step 3: Round up to nearest whole number\*

8.4 : 9 sprays ✓



\* Since you will need to supply a whole number of sprays

## Example 2

A patient is prescribed 'Blinkex' eyedrops, two drops per eye every six hours, for six weeks. Assuming each drop is 0.05mL and a bottle of 'Blinkex' contains 15mL, how many bottles will you need to supply?

## Method

Step 1: Calculate the total drops required

2 drops  $\times$  2 eyes  $\times$  4 times  $\times$  42 days = **672 doses** 

Step 2: Calculate the total volume required

$$672 \times 0.05 mL = 33.6 mL$$

**Step 3:** Divide the total volume by the volume per bottle and round up

$$\frac{33.6}{15}$$
 = 2.24 :: 3 bottles  $\checkmark$ 

## Example 3

A patient is prescribed 'Hear-Clear' ear drops. The usage instructions are 'five drops per ear, twice daily, for five days'. Assuming each drop is 0.05mL and there are 8mL in a bottle of 'Hear-Clear', how many bottles will you need to supply?

#### Method

 $5 \text{ drops} \times 2 \text{ ears } \times 2 \text{ times} \times 5 \text{ days} = 100 \text{ drops}$ 

 $100 \times 0.05 mL = 5 mL$ 

5mL < 8mL : 1bottle

## Q1

A prescription asks for a sore throat gargle, 15mL to be gargled every 4 hours for 4 days. Assuming the gargle is supplied in 120mL bottles, how many will you need to supply?

## Q2

A patient is prescribed anaesthetic throat spray, sufficient for 1 week. The throat spray is supplied in a 15mL container, equivalent to 100 sprays. The usage instructions are as follow: for Adults and children 13 years and over, hold breath and spray 3 times to the back of your throat; repeat every 2-3 hours if required; do not use more than 8 times a day. How many containers should you supply for a 16 year old, assuming maximum use?

## Q3

A prescription asks for 'Cough-o-Gone' linctus, 2 x 5mL spoonfuls to be taken four times daily for 1 week. If 'Cough-o-Gone' is available in 50mL, 150mL and 300mL bottles, which size will you need to supply?

#### Q4

A patient asks for a hay fever relief nasal spray, sufficient for 1 month supply. The usage instructions for the spray are, two sprays in each nostril twice daily. If there are 200 metered sprays in a container, how many should you supply?

## Q5

A patient requests pholcodine linctus for herself and her three children, aged seven, ten and fourteen, sufficient for three days. The dosage instructions are: adults, the elderly and children over 12 years – take 2 x 5mL spoonfuls; children 6-12 years – take 1 x 5mL spoonful. Repeat after 4 hours if required, but not more than 4 doses in 24 hours. Assuming you have 200mL bottles of pholcodine linctus, how many should you supply?

## **Answers**

**Q1** = 3 bottles (360mL). **Q2** = 2 containers (168 sprays).

**Q3** = One 300mL bottle (280mL).

 $\mathbf{Q4} = 2$  containers (224 sprays).  $\mathbf{Q5} = 2$  bottles (360mL).