NZMA Pharmacy Level 5

**Professional Practice 1: Challenge Activity**

1. Calculate the following:

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| **Question:** | **Answer:** |
| Which is bigger – 32mg or 3100mcg | 32mg |
| Which is bigger – 0.3L OR 2350ml | 2350ml |
| Convert 0.65mg to mcg | 650mcg |
| Convert 45.32L to ml | 45320 ml |
| Convert 0.021kg to g **and** mg | 21g, 21000mg |
| Arrange in order of **increasing** weight:2880mcg, 0.71mg, 432g, 0.0017kg,  | 0.71mg, 2880mcg, 0.0017kg, 432g |
| Arrange in **decreasing** volume:0.00471L, 87ml, 5.43L, 501ml, 0.05ml | 5.43L, 501ML, 87ml, 0.00471L, 0.05ml |

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|  | **Answer:** |
| **Coal Tar Solution** 5ml | 2.5ml |
| **Salicylic Acid** 1g | 0.5g |
| **Non-ionic Cream** to 100g | 47g |

1. How much of each ingredient is required to prepare 50g of the following cream?
2. You receive a prescription for the following solution. What is the percentage of aspirin?

3.3%

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| **RX ASPIRIN AND CHLOROFORM APPLICATION**Aspirin Soluble Tablets 300mg 11 tablets Chloroform to 100ml |

1. Calculate the amounts required to make 75g of this Cream. (Do not round your answers.)

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|  | **Answer:** |
| **Drug A** 0.2g | 3.75g |
| **Drug B** 0.1g | 1.875g |
| **Base**  to 4g | 69.375g |

1. Calculate the percentages of Liquid A and Liquid B required to prepare the following suspension.

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| THE SUSPENSION**LIQUID A** 260ml**LIQUID B** 60ml |

LIQUID A: 81.25%
LIQUID B: 18.75%

1. Calculate the quantities of each ingredient required to prepare 150g of the final product. (Round your answers to two decimal places.)
	1. Review the quantities you have calculated and round them off to one decimal place.

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|  | **Answer:** |
| **Ingredient** | **Amount** | **2 d.p.** | **1 d.p.** |
| **Locoid Lipocream** | 4 parts | 66.67g | 66.7g |
| **Aqueous Cream** | 5 parts | 83.33g | 83.3g |

1. You are required to prepare a 100ml solution of Vitamin C (5%) in water.
 Calculate the quantity of Vitamin C powder required.
5g
2. What volume of paracetamol 250mg/5ml suspension is needed to give a child 200mg dose?
4ml
3. A prescription requires a patient to take a 4ml dose of paracetamol suspension every 4 hours when required for 28 days. Calculate the total amount of suspension you will dispense in order to supply enough for the duration prescribed.
448ml
4. Callum Orr (12kg) has been prescribed Ibuprofen 100mg/5ml suspension. The doctor prescribes 7.5mg/kg tds for 1/12.
	1. Calculate the dose (ml) Callum requires. (Do not round your answer.)
	4.5ml
	2. Calculate the total volume that you will dispense for 4/52. (Do not round your answer.)
	378ml
5. Calculate the amount of tablets to be dispensed in the following prescription.

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| **Epilim Tablets 200mg**Sig. 1t d 1/52, then 1t bd for 4/52, then 3t bd for 4/52, then 4t bd thereafter.Mitte 12/52  Please dispense in 2 week lots. |

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| **Week lots:** | **Number of tablets to be dispensed:** |
| 1st two weeks | 21 tablets |
| 2nd | 28 tablets |
| 3rd | 56 tablets |
| 4th | 84 tablets |
| 5th | 98 tablets |
| 6th | 112 tablets |

1. Calculate the total number of tablets to be dispensed for the following prescription.

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| **Prednisone 5mg tablets**Sig. 40mg od 14/7 20mg od 14/7 10mg od 14/7 5mg od thereafterMitte. Dispense two months’ supply |

214 tablets

1. Calculate the total number of tablets to be dispensed for the following prescription.

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| **Lorazepam 1mg tablets**Sig. Take HALF a t od for 2/52, then take 1t od thereafter.Mitte. 1/12 |

23 tablets

1. Calculate the total number of capsules to be dispensed for the following prescription.

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| **Flucloxacillin Capsules 500mg**Sig. TWO capsules to start, then ONE capsule qid thereafterMitte. 14/7 |

57 capsules

1. Calculate the total number of units of insulin required for one month.

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| **Insulin Vial 10ml**Sig. 14U mane, 10U lunchtime, 15 units dinnertimeMitte. 1/12 |

1170 units

* 1. For the above prescription, how many vials will you supply to ensure the customer has enough insulin for the full prescribed period?
	2 vials
1. Calculate the total number of units of insulin required for one month for the following prescription.

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| **Insulin Penfill 3ml**Sig. 12U mane, 12U lunch, 14U nocteMitte. 3/12 |

1140 units

1. For the above prescription, how many penfills will you supply to ensure the customer has enough insulin for the full prescribed period?

12 penfills

1. Calculate the number of inhalers you will dispense for the prescribed period.

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| **Salbutamol 100mcg Inhaler (200 dose OP)**Sig. 1 puff qidMitte. 2/12 |

2 packs

1. Calculate the number of inhalers you will dispense each month.

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| **Fluticasone MDI 125mcg (120 dose)**Sig. 2 bdMitte. 1/12 and 2 repeats 3/12 supply |

1P+1P+1P

1. Calculate how many nasal sprays you will dispense for the three-month period.

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| **Flixonase 50mcg Nasal spray (120 doses)**Sig. 2 odMitte. 3/12 |

3P

1. What is the percentage of potassium permanganate in this solution?

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| **Potassium Permanganate Solution**Potassium Permanganate crystals 10mgWater to 1L |

0.001%

1. Convert the following to grams.

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|  | **Answer in grams:** |
| 135mg | 0.135g |
| 1200mg | 1.2g |
| 3mg | 0.003g |
| 14mg | 0.014g |
| 250mg | 0.250g |

1. What percentage is 160g of 400g?
40%
2. How much is 62% of 500g?
310g
3. How many grams of Hydrocortisone powder are there in 100g of 5% Hydrocortisone cream?
5g
4. How many millilitres of LPC liquid are there in 100g of 20% LPC cream?
20ml
5. The following is the standard formula for Aspirin and Chloroform application. How many Aspirin tablets will you need for a 350ml mixture?

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| **Aspirin and Chloroform Application**Aspirin tablets = 12 tabletsChloroform to 100ml |

42 tablets

1. A doctor prescribes a 250mg mixture of 3% Sulphur and 3% Salicylate Acid in Emulsifying ointment. How much Sulphur do you need to weigh out?

7.5g

* 1. How much Salicylate Acid do you need to weigh out?

7.5g