Calculations

Six suppositories are required; however an overage will be needed to prepare this quantity successfully. Calculations are therefore based on the amounts required to prepare 10 suppositories.

Formula

	For 1 suppository	For 10 suppositories
Metronidazole BP	170 mg	1700 mg (1.7 g)
Hard Fat BP	to fill 1 × 1 g mould	to fill 10 × 1 g mould

Displacement value of metronidazole is 1.7.
1.7 g Metronidazole BP displaces 1 g of Hard Fat BP
Therefore the amount of Hard Fat BP required = 10 – 1 = 9 g

Product formula

	10 suppositories
Metronidazole BP	1.7 g
Hard Fat BP	9 g

4.

a. Not applicable.
b. Hard Fat BP is being used as the base for this preparation.
c. There is no preservative included as per the product formula.
d. Suppositories are for rectal use and so no flavouring is required.

The following method would be used to prepare metronidazole 170 mg suppositories from the formula above:
Noting that the melting point of Hard Fat BP is 30–45°C (*Martindale* 31st edn, p 1409).

1. Weigh 9 g Hard Fat BP on a Class II balance.
2. Transfer to an evaporating basin and melt over a water bath.
3. Weigh 1.7 g Metronidazole BP.
4. Transfer to a glass mortar and grind to reduce particle size.
5. Levigate the Metronidazole BP with a small amount of the molten base on a glass tile.
6. Return to the remainder of the molten base and stir to mix well.
7. Stir until almost set and then pour into a clean, dry, matched suppository mould and allow to set.
8. Trim the tops and remove from the mould.
9. Wrap individually in foil.
10. Transfer to an amber glass jar and label.

5. Once manufactured, the suppositories should be individually wrapped in foil and placed in an ointment jar. Alternatively, the suppositories could be made in a disposable mould, which can be labelled and dispensed directly to the patient.