Figure 2.1 A porcelain mortar and pestle and a smaller glass mortar and pestle.

11. Rinse out the beaker in which the solution was made with a portion of the vehicle and transfer the rinsings to the conical measure.
12. Add any remaining liquid ingredients to the conical measure and stir.
13. Make up to final volume with remaining vehicle.
14. Transfer to a suitable container, label and dispense to the patient.

Worked examples

Example 2.1
The preparation of Alkaline Gentian Mixture BP

You receive a prescription in your pharmacy with the following details:

Patient:	Mr David Shaw, 5 Longmeadow, Astonbury
Age:	56
Prescription:	Mist Gent Alk
Directions:	10 ml tds ac ex aq
Mitte:	150 ml

1. **Use of the product**
   Used to stimulate appetite (*British National Formulary* 51st edn, p 499).

KeyPoints

During the dissolution phase, solutions should be stirred gently and uniformly to avoid air entrapment which may result in foaming of the solution. If available, automatic stirring devices may be useful in assisting the production of a uniform product and can be time-saving. If stirring devices are used to assist dissolution (e.g. rod, magnetic stirrers), remember to remove them before adjusting to final volumes.

Tips

It is best to stir continuously when combining ingredients into a solution (either liquid or solid ingredients). By stirring continually during incorporation, high concentration planes within the fluid body, which might increase the likelihood of incompatibilities, will be avoided.

Tips

Further considerations during the preparation of a solution:

1. To aid dissolution, high-viscosity liquid components should be added to those of lower viscosity.
2. Completely dissolve salts in a small amount of water prior to the addition of other solvent elements.
3. In complex solutions, organic components should be dissolved in alcoholic solvents and water-soluble components dissolved in aqueous solvents.
4. Aqueous solutions should be added to alcoholic solutions with stirring to maintain the alcohol concentration as high as possible – the reverse may result in separation of any dissolved components.