

UNIT 6

Medications

- Administering medication
- Doing a medication check
- Working as part of a team
- Checking medication orders for accuracy
- Explaining drug interactions
- Checking the 'five rights' of medication administration
- Reading a Prescription Chart



Administering medication

The use of controlled drugs (CDs) is regulated by legislation. The legislation sets out rules for the safekeeping of controlled drugs, the records which must be kept, and the manner of administering controlled drugs.

1 a In pairs, discuss the following questions.

- 1 What is your experience of administering controlled drugs?
- 2 What is your experience of drug prescriptions?
- 3 What rules relating to the administration of controlled drugs are there in your country?
- 4 Why are controlled drugs regulated so strictly?

b ▶ 6.1 Natasha, a Ward Nurse, needs to give her patient, Mr Song, an injection, and she is looking for a nurse to help her. Listen to the conversations and answer the following questions.

- 1 Why does Natasha need assistance?
- 2 What medication is Natasha going to give Mr Song?
- 3 Why can't Marek help her?
- 4 Is Anna able to help?

c Natasha asks for the assistance of other nurses. Match the beginnings (1–4) to the endings (a–d). Sometimes more than one answer is possible.

- 1 Have you
- 2 Are you
- 3 Are you
- 4 Would you mind

- a free at the moment?
- b checking this morphine with me, please?
- c got a minute? I just need a drug check.
- d busy at the moment or can you do a drug check with me?

d ▶ 6.1 Listen again and check your answers. Then match the questions in Exercise 1c to the correct responses (a–d).

- a Sorry, Natasha, I'm tied up at the moment.
- b Oh sorry, Natasha, I can't at the moment. I'm just in the middle of something, and I can't leave it.
- c Yes, sure. Let me just wash my hands and I'll be with you.
- d I will be in a minute.

e Complete the following extracts using the words in the box. What do all the expressions mean?

snowed flat out eyeballs run off

- 1 No, sorry. I'm up to my _____ in work.
- 2 I'd love to help, but I'm _____ under.
- 3 I can't. I'm _____ at the moment.
- 4 Actually, I'm _____ my feet.

f In pairs, practise asking for assistance with a drug check, using Exercises 1c–e as a guide. Swap roles and practise again.

Doing a medication check

2 a ▶ 6.2 Natasha and Anna have gone to the Treatment Room to get some medication for Mr Song. Listen to the conversation and answer the following questions.

- 1 Which drug has the doctor prescribed for Mr Song?
- 2 Why does Natasha ask Anna to get the drug from the drug cupboard?
- 3 What do they have to do when they take the ampoules from the cupboard?
- 4 What do they have to do in the drug book?
- 5 What information does Natasha show Anna on the ampoule?

b ▶ 6.2 Listen again and put the following steps in the correct order.

- Check the number of ampoules left in the cupboard
- Draw up the correct amount of the drug in a syringe
- Check the expiry date of the drug in the ampoule
- Check the time the last injection was given to the patient
- Check the drug order in the Medication Chart
- Sign and witness the drug book
- Check the amount of drug drawn up in the syringe
- Get an ampoule from the locked cupboard

c In pairs, try to remember the order of the steps in a medication check without looking at Exercise 2b.

d Match the strategies for correct administration of a medication (1–6) to the rationales (a–f).

1 Anna checks that the drug count is correct before checking out an ampoule of pethidine for Mr Song.	a Out-of-date drugs may not be effective.
2 Natasha checks the prescription in the Prescription Chart with Anna.	b This ensures that none of the ampoules have been taken and misused.
3 Natasha and Anna check the ampoule together.	c This is to prove that the syringe contains the controlled drug, not another colourless liquid.
4 Natasha and Anna check the expiry date on the ampoule.	d This ensures that the correct drug and dose is checked out.
5 Natasha draws up the correct amount of the drug in the syringe and shows Anna.	e This proves that the patient has received the controlled drug.
6 Anna watches Natasha give Mr Song the injection of pethidine.	f Controlled drugs may only be given with a written order.

e In pairs, practise assisting with a drug check. Student A, you are Natasha; Student B, you are Anna. Use Exercise 2b as a guide. Swap roles and practise again.

Communication focus: working as part of a team

There are many occasions when teamwork is critical in the healthcare environment.

3 Match the strategies for working as part of a team (1–6) to the examples (a–f).

1 Ask for assistance politely	a Thanks for helping me, Hans. It was much easier to do this together.
2 Share the workload	b – Mrs Cho is refusing to drink anything. I don't know what to do. – Have you tried apple juice? I know she'll drink that.
3 Acknowledge the contribution of other staff	c Would you mind giving me a hand? I need someone to check this medication.
4 Provide alternative suggestions	d I'm really snowed under at the moment. Can anyone else help you?
5 Be an active part of a team rather than work as an individual	e I've finished all my work. Does anyone need a hand?
6 Recognise when you're unable to help	f Do you mind taking beds one and two, and I'll take three and four?

Share your knowledge

In small groups, discuss the following questions and then feed back your group's ideas to the class.

- 1 What do you understand by the term *team nursing*?
- 2 What are some advantages of team nursing?
- 3 What are some disadvantages of team nursing?
- 4 What nursing styles are you familiar with or have worked under (for example, holistic nursing, primary care nursing, task oriented nursing)?

Checking medication orders for accuracy

Some medications must be checked by two nurses before being given to the patient. It may also be necessary to check the result of a blood test before the medication can be given. In the following case, the patient has had a blood test to check the International Normalised Ratio (INR). The INR measures the time it takes for a blood clot to form in the body.

4 a In pairs, discuss the following questions.

- 1 What sort of medications need to be checked by two nurses, and why?
- 2 Why do some medications require a blood test before being given?

b ▶6.3 Josh and Susanna, two Ward Nurses, are checking a medication together. Listen to the conversation and answer the following questions.

- 1 What does Josh want Susanna to do?
- 2 Who is the medication for?
- 3 What kind of medication is it?
- 4 What result do the nurses check before giving the medication?
- 5 Who signs the Prescription Chart?

c ▶6.3 Put the following stages of Josh and Susanna's medication check in the correct order. Listen again and check your answers.

- Check the medication label
- Crosscheck chart and patient information
- Check the INR result
- Sign Medication Chart
- Crosscheck route
- Ask for help
- Crosscheck dose on Medication Chart
- Take out medication
- Countersign Medication Chart
- Crosscheck time of administration

d Mrs Egerts in bed 6 has been prescribed warfarin 5mg to be taken orally. In pairs, practise checking medication orders. Student A, you are Josh; Student B, you are Susanna. Remember to crosscheck all of the information. Swap roles and practise again.

Share your knowledge

In small groups, discuss the following questions and then feed back your group's ideas to the class.

- 1 Do you follow the same procedures for checking medication in your country?
- 2 If not, what procedure do you follow?
- 3 What are the advantages and disadvantages of having a single designated nurse for the medication round?

Medical focus: the metabolism of medication

Patient education in medication safety

Mr Albiston has just been prescribed atorvastatin to lower the levels of cholesterol in his blood. In order to ensure the safe usage of the medication when Mr Albiston returns home, Helen, the Ward Nurse, is going to talk to him about his medication.

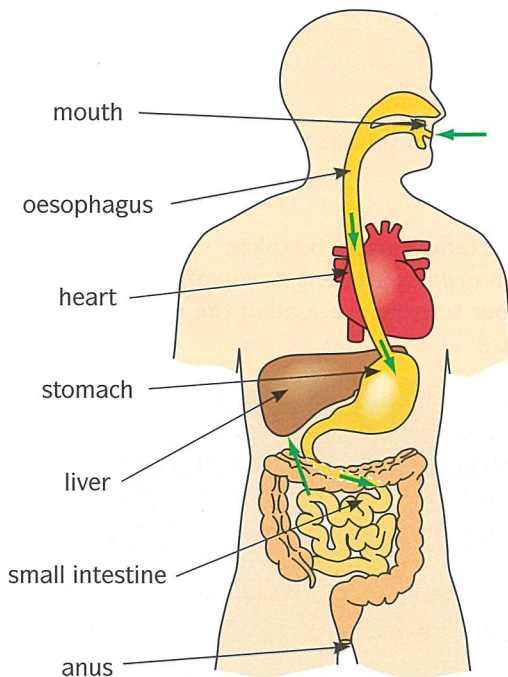
5 a In pairs, answer the following questions.

- 1 Why is patient education about medications an important role for nurses?
- 2 What are some of the risks of self-medication?
- 3 What sort of things might a nurse discuss with a patient regarding a new medication?

b ▶ 6.4 Listen to the conversation between Helen and Mr Albiston and mark the following statements True (T) or False (F).

- 1 Atorvastatin is used for patients with low cholesterol levels.
- 2 The medication stops atherosclerosis in the arteries.
- 3 The drug is absorbed in the liver.
- 4 Atorvastatin blocks the enzyme which causes the liver to make cholesterol.
- 5 It doesn't matter what time of day atorvastatin is taken.

c ▶ 6.4 The diagram below shows the absorption and metabolism of atorvastatin. Listen again and complete the following patient information leaflet.



After you swallow the tablet, it (1) enters the gastrointestinal tract, or GIT*. It (2) _____ the oesophagus, the tube which (3) _____ the stomach. The tablet passes into your stomach, where it is absorbed. It (4) _____ the liquids there so it can pass into your bloodstream. It then (5) _____ the liver (6) _____ the small intestine, the part under the stomach. The drug is (7) _____, or chemically changed, in the liver. The liver stops the production of an enzyme which (8) _____ the body to produce a harmful type of cholesterol. By (9) _____ this enzyme, the amount of 'bad cholesterol' which is (10) _____ the blood is reduced.

* a series of organs of the digestive system which runs from the mouth to the anus

d In pairs, practise explaining the metabolism of medication. Student A, you are a nurse; Student B, you are a patient. Use the diagram in Exercise 5c to help you. Swap roles and practise again.

Explaining drug interactions

6 a Read the information leaflet about atorvastatin interactions and answer the following questions.

- 1 What drugs are contraindicated (not advisable) with atorvastatin?
- 2 Why would decreased elimination of atorvastatin be problematic?
- 3 What other things are contraindicated?

b Complete the following precautions using the phrases in the box.

should/must not be taken are warned not
increases the toxic effects
precaution to take ~~advised not to~~
should be must not take increasing the risk

- 1 You are advised not to drink alcohol with the medication, as this can increase the risk of liver disease.
- 2 The medication _____ with drugs such as the antibiotic erythromycin and cyclosporine, as these reduce the elimination of atorvastatin from the body, _____ of muscle damage.
- 3 No statins _____ combined with niacin (nicotinic acid).
- 4 You _____ warfarin and atorvastatin together as this increases the anticoagulant properties of warfarin.
- 5 Atorvastatin _____ with grapefruit juice as this stops a vital enzyme from working and _____ of the drug.
- 6 Not eating citrus fruit related to grapefruit is an important _____ to avoid side effects.

c Adverse events relating to medications are a significant and costly problem in hospitals. Several strategies have been introduced to Best Practice which aim to reduce medication errors. One such strategy is the use of pharmacists for consultation and review of medication charts at ward level. Pharmacists usually visit the ward once a week.

▶ **6.5** Listen to a conversation between Helen, a Ward Nurse, and Sonia, the hospital Pharmacist, and answer the following questions.

- 1 What is Sonia doing?
- 2 What is she speaking to Helen about?
- 3 Why is Sonia concerned?
- 4 What is nicotinic acid also known as?
- 5 What action will Helen take?

Atorvastatin interactions

Atorvastatin should not be combined with drugs which decrease its elimination from the body. For example, drugs such as the antibiotic erythromycin and the anti-rejection drug cyclosporine.

Concurrent use of atorvastatin and erythromycin could increase levels of the atorvastatin in the body and increase the risk of muscle damage.

Statins should not be combined with niacin (nicotinic acid), often sold as an over-the-counter medication to lower cholesterol and present in multivitamin tablets.

Atorvastatin increases the anticoagulant effect of warfarin, so patients taking atorvastatin and warfarin together should be monitored carefully.

Statins may cause liver disease, such as jaundice, so it is necessary to monitor liver function. Alcoholic beverages must be limited or avoided.

Large quantities of grapefruit juice (more than 1.2 litres daily) should not be taken. Grapefruit juice inhibits an intestinal enzyme whose function it is to break down and absorb medications. When this enzyme is blocked, the blood level of the drug increases, and toxic side effects from the medication may be felt.

Fruit related to grapefruit, such as Seville oranges (often used in marmalade), should also be avoided.

d ▶ 6.5 Listen again and complete the following extracts.

- 1 I had a talk to him about some things he'll _____
_____ careful of at home.
- 2 ... when he started atorvastatin. _____
_____ about something he was started on today.
- 3 He _____ taking that with atorvastatin.
- 4 He _____ Vitamin B3 – I mean, nicotinic acid – on its
own or in any other preparation.
- 5 Does he know _____ drink grapefruit juice with the
atorvastatin?

e In pairs, practise explaining the interactions of atorvastatin. Student A, you are a nurse; Student B, you are a patient who has just been prescribed the drug for the first time. Swap roles and practise again.

Charting and documentation: Prescription Chart

7 a Sonia, the hospital Pharmacist, has just checked Mr Albiston's Prescription Chart on her regular ward visit. In pairs, look at the chart on page 88 and discuss the following questions.

- 1 What kind of chart is it?
- 2 Are you familiar with this style of chart?
- 3 What sort of information is on the chart?
- 4 Who is responsible for recording information on the chart?
- 5 How often is new information added to the chart?

b The following abbreviations are all commonly used on Prescription Charts. Match the abbreviations (1–10) to their meanings (a–j).

1 tab.	a injection given into the subcutaneous layer of the skin
2 cap.	b at night
3 mg	c injection given into the muscle
4 mcg	d milligram – unit of mass which is 1/1000 of a gram
5 ml	e millilitre – unit of volume which is 1/1000 of a litre
6 po	f gelatine-coated medication
7 sc	g microgram – unit of mass which is 1/1000 of a milligram
8 IM	h solid medication, also called a <i>pill</i>
9 mane	i from the Latin <i>per os</i> : by mouth
10 nocte	j in the morning

c Which of the abbreviations in Exercise 7b are found on the Prescription Chart on page 88?

d In pairs, take turns to ask for the meaning of an abbreviation.