Getting the best out of medicines
Getting the best out of medicines

By the end of this book you will be able to:

- give definitions of compliance, adherence and concordance which apply to your patient population
- list nine factors which make non-adherence more likely (three each relating to the patient, medicine regime and health care service)
- describe three ways in which you can identify patients who may need help with adherence
- list five areas of your practice where improvements would support people to get the best out of their medicines
- list five strategies you can use to help build better adherence support into the medicine prescribing and dispensing system where you work.
Why is this course relevant to pharmacists?

Medicines have huge potential to improve the health of people in the UK. However, we know that many people don't take their medicines as directed. Sometimes it is a considered decision, based on issues such as personal experience and health beliefs. Alternatively, it might be due to a lack of information, confusion or physical difficulties in accessing the medicine. The former intentional action may not be perceived as appropriate from the professional perspective, but pharmacists need to understand such scenarios, and know how best to support the patient in such a situation. If people don't take their medicines as directed for unintentional reasons, then there are many approaches which pharmacists can use, to help such people get the best out of their medicines.

The advent of wider prescribing rights for nurses and pharmacists means that the 'prescriber' (as mentioned throughout this material) can no longer be assumed to be a doctor. In these early days of nurse and pharmacist prescribing, most of the examples are based on a doctor prescribing, but the principles would equally apply to a nurse or pharmacist prescriber.

Aims

The overall aims of this course are for you to be able to:

- Understand the reasons why patients may not always take their medicines as they are told, and relate this to your practice setting.
- Recognise and understand the causes of these actions, looking at patient characteristics, their health beliefs, medicine regime and the health-care environment.
- Put into action practical ways of helping patients, at every stage of the patient care pathway.
- Take part in a team effort involving patient, carers, doctors and others, to overcome any possible barriers, and to help people get the best out of their medicines.

What does the material cover?

This material is designed to help pharmacists to support people taking medicines who don't take them as directed for whatever reason. It is written in the context of concordance or 'partnership in medicine taking' and written by pharmacists with experience in this field. It has its origins in materials first produced in 1995, but there is a shift in focus, from a medicines-centred approach to a more patient-centred approach. This is reflected throughout the work, but particularly in Chapters 2 & 7. Further understanding of the wider context of partnership in medicine taking can be found in the complementary publication from CPPE: Concordance.
Contents

1  What are compliance, adherence and concordance?
The first chapter looks at the background to medication compliance, adherence and concordance. It includes a brief guide to the extent to which patients take their medicines as intended, and the reasons for this.

2  Why don’t patients always take their medicine?
The key factors are discussed in the second chapter. This relates both to the patient, their medicines and the health/social care structure.

3  How do we recognise adherence problems?
This chapter looks at the pharmacist and adherence, and gives guidance on recognising when patients are not taking their medicines as intended.

4  How can pharmacists help with access to medicines?
The focus here is on practical steps you can take to help patients gain access to your pharmacy and be able to use their medicines easily.

5  How can pharmacists help patients understand medicines information?
Chapter 5 is intended to ensure that you can help patients understand the information they receive with their medicines.

6  How can pharmacists help patients to manage their medicines?
This chapter concentrates on the procedures you can use to help patients manage their medicines regimes.

7  Developing partnerships in medicines taking
The last chapter examines the way forward and follows two approaches. The first is based on practical steps to support people in taking their medicines and the second is built on a wider re-appraisal of how pharmacy practice might be re-designed to facilitate the partnership approach to medicine taking.

Bibliography/further reading
References to literature are indicated in the text by the dagger symbol (†) and are linked to the bibliography by the page number in the margin. Web reference sources were last checked on 3 July 2005.

Multiple choice questionnaire
On completion of the course, the multiple choice questionnaire should then be attempted and returned to the NES Pharmacy office, either as a paper copy or electronically online.

What will you gain from this course?
This course is about practical ways in which pharmacists (alone or in collaboration with fellow health and social care professionals) can help patients to get the best out of the medicines they buy or are prescribed. This course will help you to maximise your skills in ensuring that people get the best out of their medicines.

We want you to get involved with the material, doing exercises, and thinking about how the information fits in with your experience and practice. The exercises will help you to test your understanding and apply the information to solving actual problems in practice. There are also, in
Chapter 7, ‘Action’ points which give you the chance to put activities about developing partnerships in medicine into practice.

Most of you will want to work through all seven chapters in sequence. However, if you have some experience in this area you might wish to read Chapter 1, and then look at the objectives at the start of the remaining chapters to identify which will be most useful to you, but no matter the order you choose, you should read all seven chapters.

How long is it going to take you to work through?

This distance learning workbook is designed in chunks of work which will each take 10-20 minutes to go through. You do not have to do a complete chapter all in one go, unless you wish to do so. In total, the workbook represents about six hours’ work.

A final thought before you start

When commenting on a recent review of the research evidence in this area, Haynes et al.† said “Because the results could be applied to any self-administered treatment, effective ways to help people follow medical treatments could have a far larger effect on health care than any individual treatment”. All health professionals have an important role in taking maximising these effects.

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What are compliance, adherence and concordance?

By the end of this chapter you will be able to:

- explain the inter-relationship between compliance, adherence and concordance
- explain the difference between intentional and unintentional non-adherence
- list the people (other than the patient) or organisations who are affected by non-adherence.
Getting the best out of medicines

The three words, compliance, adherence and concordance will be explained and defined in detail below, but you will already be familiar with all three words within your practice and in everyday life.

1 Before we start this first chapter, make a brief note of what you understand these words to mean within your practice as a pharmacist.

Compliance


Adherence


Concordance

At the end of the chapter we will look back at these definitions and see if your view of what these words mean to you has changed in the course of reading this first chapter. You will also find at the end of all the chapters that all the questions and case studies are dealt with in a section reflecting on the work you have done in each chapter.

Definition of compliance and adherence

The situation where patients do not take their medicines as prescribed was previously described as non-compliance. The implication was that the patient did not comply with the ‘rules’ set by the prescriber, and that the fault therefore lay solely with the patient. This is reflected in an early definition of non-compliance:

“the extent to which a person’s behaviour fails to coincide with medical or health advice”.

Subsequently, the terms adherence and non-adherence were promoted as alternative terms which were less associated with blame.

In practice, they both mean the same thing and can be used inter-changeably. However, because of the perception that adherence attaches less blame to the patient, this is the term that we shall use in this work.

Any definition needs to reflect that people can take their medicines in a wide range of ways which are not intended by the prescriber.
Concordance or partnership in medicine taking

In the 1990s, progress towards improving levels of adherence continued to be slow. In 1994, a multi-disciplinary group was convened to explore the reasons why people did not take their medicines as prescribed. One of the group subsequently described how they made the journey from a medically dominated paternalistic view of non-compliance, to one which realised the importance of the patient’s perspective (Bond, 2004†).

The term ‘concordance’ was adopted by this group in their report From compliance to concordance (RPSGB 1996). The essence of concordance is “agreement between the patient and the healthcare professional, reached after negotiation, that respects the beliefs and wishes of the patient in determining whether, when and how their medicine is taken”. Crucially, it acknowledges the primacy of the patient’s decision.

Since the report of the Concordance working group, there has been some increased awareness and understanding of concordance and, in 2002, the original concordance initiative became the Task Force on Medicines Partnership, funded by the English Department of Health. The Chief Pharmacists of Scotland, Northern Ireland, and Wales have observer status on the Task Force and the devolved administrations are directly involved in specific Task Force initiatives. Since then the term ‘partnership in medicine taking’ or ‘medicines partnership’ has started to be used more frequently (rather than concordance).

However, there remains much misunderstanding, with frequent references in professional journals to ‘patient concordance’. This is nonsense, as concordance is something that requires the involvement of two parties, the patient and the prescriber. Only that pairing of people, and the interaction between them, can be concordant (or not). We can still talk both about adherence (the extent to which patients take their medicines as prescribed) and concordance (the extent to which decisions about medicines are shared between patient and prescriber). However, we must not substitute concordance for adherence or compliance – they are different (although related).

A concordant relationship may often lead to patients being more likely to take their medicines as prescribed. It can equally lead to a decision by the patient not to have a particular medicine prescribed. It is this scenario which professionals need to learn to be content with – and there is some evidence that pharmacists would find this situation harder to accept than other health professionals. The key point is that the health professional should support the patient in coming to the decision they make, ensuring that they are aware of the relative risks and benefits associated with the decision. In addition, much of the thinking about concordance has risen from interest in psychological and sociological theories applied to medicine taking and this is explored further in Chapter 2.

‘Partnership in medicine taking’ has grown as an idea at the same time as other developments in health service provision which reflect patient empowerment. These include the Expert Patient programme, the National Plan for the NHS and Ask About Medicines Week.
Intentional and unintentional non-adherence

As mentioned in the introduction, patients may decide not to take their medicine as prescribed. However, they may wish to take the medicines, but are unable to do so.

When devising strategies for promoting adherence, it is important to understand the difference between intentional and unintentional actions. Both may be present and one may predominate. There is evidence that when people start taking a medicine for a chronic illness, the prevalence of the two types of non-adherence is similar (Barber, 1999†).

Intentional non-adherence

2 Write down three possible reasons why a patient may make a conscious decision not to take their medicines as instructed.

1

2

3

Such intentional non-adherence is more difficult to address than unintentional, as patients cannot (and should not) be forced to comply. Attempts to identify and change the underlying factors (which cause the patient to feel the way they do) are likely to be difficult and time-consuming. You must also consider, for each individual situation, whether it is appropriate to try to change a person’s intentions. Is your understanding of the situation any more valid than their understanding?

Unintentional non-adherence

There are three main causes of unintentional non-adherence.

Inability to use medicine or container The patient may not be able to get the medicine out of the container. If they do, they may then have difficulty in swallowing or using the dose form.

Lack of knowledge Poor understanding of dose, frequency, purpose or method of administration can lead to non-adherence.
This may be due to a number of factors.
- The patient is not given sufficient understandable information in the first place.
- The patient has a low level of literacy or their first language is not English.
- The instructions are complex, inadequate or ambiguous.
- The patient may have poor sight or hearing.
- Through age or illness the patient may be confused.
- As we all do, the patient may simply forget the verbal information.

**Forgetting to take the medicine**  The more complicated the regime, the more difficult it is to remember and follow. This effect is compounded if the regime does not easily fit into the patient’s daily routine. Remember that forgetfulness is a natural human trait – it affects all ages and types. No one can remember everything they are told.

**3 After 5 minutes, how much of what you tell patients do you think they remember?**  Put a tick against your answer:

- 25%
- 50%
- 75%
- 100%

It is in these three areas of unintentional non-adherence mentioned above; the ability to use the medicine or its container, knowledge of the medicine and instructions, forgetfulness, that you can have the most immediate impact.

Here, patients want to take their medicines, but are unable to do so, because of the medicine regime itself and the way it is presented. These issues are also addressed in more detail in Chapter 4.

**What is the extent of non-adherence?**

The overall extent of non-adherence cannot be stated accurately. This is because it depends on:

- Which definition you choose – is it simply the percentage of tablets taken?
- How you measure it.

However, looking at the many studies of adherence, it is possible to give a broad estimate of how many patients do not take their medicines as directed. Before we do this, let us see what you think is the general level of medicine taking of your patients.
4. How many of your patients do you think do not take their medicines to the extent that their medicines are not fully effective? Put a tick in the box.

- [ ] 5-10%
- [ ] 10-20%
- [ ] 20-30%
- [ ] 30-40%
- [ ] 40-50%

What percentage of doses of an individual medicine do you think patients have to take, in general, for the medicine to be effective? Put a tick in the box.

- [ ] 50-60%
- [ ] 60-70%
- [ ] 70-80%
- [ ] 90-100%

We have so far looked only at the number of doses missed. However, patients may not follow the instructions in a number of other ways.

5. List three ways in which oral medicines can be taken in a way which differs from the exact instructions given:

1. 
2. 
3. 

So, the extent of non-adherence can only be estimated. It depends on the definition used, and the way it is measured. The general message however, from the many studies that have been carried out, is that it is widespread. In addition, as we shall see later in Chapter 2, it affects all patient groups.

What are the implications of non-adherence?

It is not only the patient who is adversely affected by the importance of adherence in the treatment of certain illnesses.

5. Write the names of five people or groups who might also be affected when a patient does not take their medicines as intended.

1. 
2. 
3. 
4. 
5. 
The most important effect is on the patients themselves. For example:
- Ineffective therapy, which leads to prolonged patient suffering.
- Unnecessary increase in doses or extra drugs (because of apparent ineffectiveness), leading to an increased level of adverse drug reactions.
- Questioning of original diagnosis, which may result in further unnecessary investigations.
- A possible loss of faith by the patient in the health service.

These factors will also affect the patient’s relatives and informal carers.

The prescriber will be affected by:
- Additional consultations, with patients returning after taking an unsuccessful treatment due to non-adherence.
- The original correct diagnosis being questioned.
- Unnecessary recourse to the use of second-line drugs.
- Possible unnecessary further investigations.
- Waste of the budget on the above two points.

The main implications for the NHS are the failure to treat patients effectively and the costs involved.
- The cost of prescribed medicines for the NHS in Scotland was £917 million in 2003-4. If we accept the level of medication adherence is around 50%, the yearly cost could be a massive £500 million.
- A GP practice with a drug budget of £1 million could be wasting £500,000.
- All this does not take into account the extra cost of unnecessary second line drugs, further investigations and disposal of unused medicines.

Clearly many of the above will impact on the pharmacist. However, we would like to concentrate on the positive benefits, for the pharmacist, of promoting patient adherence.

Amongst the benefits for the pharmacist are:
- a satisfied patient due to:
  - optimum treatment and outcome
  - treatment tailored to their lifestyle
  - a feeling of involvement in their treatment.
- Improved two-way communication with the patient.
- Increased job satisfaction for the pharmacist through:
  - an effective use of time and skills
  - development of a team approach
  - development of a procedure for encouraging adherence
  - recognition of the value of pharmacist’s input by the patient and doctor.

So the benefits to the three key players: the patient, doctor and pharmacist, all ultimately benefit the pharmacist.
A case of extreme adherence

A patient using pilocarpine eye drops for glaucoma had been told to use the drops exactly as she was told, or she would go blind. The label told her to use the drops every eight hours.

She was subsequently included in a study involving an electronic monitor attached to her bottle. This showed that over a period of 40 days she used the drops at exactly 7 o’clock, 3 o’clock and 11 o’clock every day, apart from one occasion, when she was an hour late. It turned out that she lived in a permanent state of fear that she would lose her sight. This fear dominated her life and her days revolved around making sure she used her drops at exactly the right time.

So, we must keep in mind that the goal here is to work with the patient to maximise the benefits from their medicines. We must not go too far: full and exact adherence is rarely necessary. Patients must not be misled into taking adherence to extreme lengths.

Is there a typical non-adherent patient?

There are many reasons why patients do not take their medicines properly, and these will be discussed in more detail in the next chapter. Here, we examine whether there is a typical non-adherent patient.

6 Look at the three types of people below. Write down possible reasons for non-adherence under each type. Is one more likely than the others not to take their medicines as intended?

**Hospital consultant**

**Youth**

**Frail pensioner**

All have the potential for not taking their medicines, but for different reasons. One of the key principles of medicine-taking is that everyone has the potential for not taking their medicines as intended.
Did you tick any of these? Most people tick at least one, and it shows that it is useful to look at ourselves, to try and understand why patients do not always follow instructions. We are all human and break the rules from time to time. Sometimes we know and understand we are breaking the rules, sometimes we do not.

So, we must try not to judge patients. We need to have a positive attitude towards people who don’t take their medicines as directed. They are just like us, and sometimes break the rules. However, sometimes they just have not been told or don’t understand the rules.

**Case study**

At this point, you should complete the case study on the opposite page and then return to the text below.

**Reflecting on this chapter**

1 *(page 6)* Before you started this chapter you were asked for your own views on compliance, adherence, concordance. You can reflect on your definitions after looking at the answers to the other questions in this chapter.

**Why do patients not take their medicines?**

2 *(page 8)* There are, in fact, many reasons and they may be completely valid as far as the patient is concerned. You may recognise some of those which follow:

- **Side effects** Impotence caused by bendroflumethadazide may be judged as a price not worth paying for the control of asymptomatic hypertension.

- **Dose titration** Patients may use dose titration according to symptoms, for example dose or frequency of hypnotics and laxatives (which is appropriate from a professional perspective). Patients may also not take their medicines due to a fear of tolerance to medicines such as analgesic tablets (which is inappropriate from a professional perspective).

- **Mistrust** The patient may not trust the prescriber; the medication or the health system as a whole.

- **Conflict with lifestyle** The medicine regime may pose restrictions on lifestyle and the way a patient lives, which is unacceptable to them. This may relate to the mode and timing of administration, side effects or other reasons.

- **Lay advice** Advice from relatives, friends and the media may conflict with medical advice, and will often take precedence.
Case study: Mr Greenway

Mr Greenway, a 24-year-old man, consults you regarding a prescription for himself:

90 tablets fluoxetine 20mg once a day.

He asks what they are for and if there are any warnings or side effects he should know about before he starts taking them. When you ask him what he saw his doctor about, he tells you he has been very depressed lately.

How much information should you give Mr Greenway – which of the following courses of action would you take?

- Tell him that his tablets will take a couple of weeks to start working.
- Warn of the possibility of gastro-intestinal side effects in the first few weeks, notably nausea and vomiting
- Give him more detail about more serious possible side-effects.

You decide to tell Mr Greenway of the minor side effects and he tells you that he has been looking on the internet and has found information about increased suicide risk.

What further action should you take? Write your answer down here.
Denial of disease  The patient’s understanding of their symptoms and illness may mean that they do not accept that they have the condition as described by the prescriber.

Cultural or religious codes  Where taking certain medicines, for example, of pork origin or taking them at certain times, during periods of fasting, presents a conflict.

How much information do patients remember?

It is probably about fifty percent, depending on the circumstances. A study of verbal information which doctors gave to patients showed that when questioned after only five minutes, they remembered about half the information. A study in a community pharmacy found that the day after receiving verbal information, patients could recall only about one-third of what they had been told.

How ineffective is patients’ medicine taking and how do they do this?

It is likely that around 50 per cent of your patients are taking their medicines in such a way as to make them not fully effective.

When looking at particular medicines, the effective doses vary as it depends on the medicine concerned. For instance, it has been said that a level of 70-80% for thiazide diuretics will produce a satisfactory effect in mild hypertension. In contrast, the figure will be close to 100% for HIV therapy. However, it could be said that for most medicines, a level of at least 80% should be the aim.

Simply missing out on some of the doses is not the only way that patients can fail to take medicines effectively. Among the other ways that patients can fail to take oral medicines as instructed you might have thought of:

- taking too many tablets
- taking medicines at the wrong time intervals
- variation in medicine taking over a period
- not following instructions about taking the medicine with food, alcohol, time of day, other medicines etc.

Who else is affected by the patients’ non-adherence?

Other people, groups and organisations are affected by non-adherence, and the list includes; carers, doctors, nurses, pharmacists, the NHS (budget and workload), and the pharmaceutical industry.

Is there a typical non-adherent patient?

You were asked about three quite different types of patients; a hospital consultant, a youth and a frail pensioner. These are some of the reasons why they may not adhere to the instructions given to them by their prescriber.

<table>
<thead>
<tr>
<th>Hospital consultant</th>
<th>Youth</th>
<th>Frail pensioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>thinks he knows better</td>
<td>denial of illness</td>
<td>poor memory or confusion</td>
</tr>
<tr>
<td>self-titration</td>
<td>poor reading skills</td>
<td>multiple illness</td>
</tr>
<tr>
<td>busy lifestyle</td>
<td>lack of faith in the system</td>
<td>social isolation</td>
</tr>
<tr>
<td>fear of side-effects</td>
<td>conflict with lifestyle</td>
<td>immobility or disability</td>
</tr>
</tbody>
</table>

There is no typical non-adherent patient. We all have reasons for following instructions or ignoring them.
The case study looked at a particular patient. What would you say to a young man of 24, Mr Greenway, when he asked what his tablets – 90 tablets of fluoxetine 20mg once a day – were for and if there were any side effects he should know about?

In the first response you might have emphasised the benefits of the treatment but told Mr Greenway that he would feel no benefit for the first few weeks. Indeed he might feel a little worse before the tablets start to take effect.

If Mr Greenway then said that he had been investigating fluoxetine on the internet and had read that there was an increased risk of suicide, you may have answered that feeling suicidal has been linked with fluoxetine, but it is not a proven side-effect (it is not mentioned in the patient information leaflet).

Summary

- Large numbers of patients don’t take their medicines as prescribed, although we don’t know precisely how many, as it is difficult to define and measure.
- Everybody has the potential not to take their medicine as prescribed.
- Patients may consciously decide not to comply, or it may be unintentional.
- Non-adherence has serious implications for the patient, doctor, community pharmacist and the NHS budget.
- Concordance or partnership in medicine taking requires the patient to take a full role in decisions about their medicines.
- Unintentional non-adherence, due to forgetfulness, lack of knowledge or inability to take medicine, is the key area where pharmacists can contribute.
What are compliance, adherence and concordance?
Why don’t patients always take their medicine?

By the end of this chapter you will be able to:

- list three factors which pre-dispose towards non-adherence which relate to:
  - patient characteristics
  - the medicine regime
  - the health and social care system.
We have seen that, because of the many possible causes, it may be difficult to identify patients who do not take their medicines as prescribed. One of the first reports to look at non-adherence collected data from an American summer camp in the 1940s. It reported the failure of diabetic boys to regularly use their insulin.

This illustrates how wrong some of the assumptions made about non-adherence are: that the typical non-adherent patient is an elderly person being treated for several chronic illnesses. Here were young people with a life-threatening disease, who were not using their medicine as intended.

For any one patient there may be several reasons for non-adherence, making a simple understanding of the patient’s situation unlikely. The reasons may lie with the patient, prescriber, pharmacist, their medicine regime or others. Often it will be due to a combination of factors.

We know from the published research that there are factors that predispose patients to be more or less adherent to their medicine regime. Knowing what these factors are, can help in reaching an understanding of a patient’s medicine-taking behaviour. It might be useful to see these factors as risks, so that the more factors apply to a patient, the greater the chance that they will not be taking the medicines as directed.

As was mentioned in chapter one, with each of the factors that influence adherence, there is an important distinction to be drawn between intentional and unintentional non-adherence. Intentional non-adherence occurs when the patient knowingly takes the medicine in a different way to the direction – by missing doses, taking more than prescribed, changing dose times, and so on. It’s important to note that intentional non-adherence can be based on a misunderstanding of the medicine regime or the purpose of the medicine.

Unintentional non-adherence commonly occurs in situations such as the patient forgetting to take or order the medicine, or having a physical impairment that makes it difficult to take the medicine.

**Patient factors**

You have seen that no patient characteristics can be definitely identified as being associated with non-adherence. However, there are pre-disposing characteristics of which pharmacists should be aware.
Think about the risk factors associated with the patient themselves, which might affect adherence (e.g. personal circumstances, knowledge or disability).

Write down five factors here.

1

2

3

4

5

Perceptions and attitudes

Perceptions and attitudes are influential in determining whether a patient takes their medicine as directed, since they have important effects on their intentions to take the medicine. All patients will have perceptions or beliefs about both their condition and its treatment, even if they do not state them or find it easy to tell you what they are. Patients’ beliefs about their condition and its treatment may not be the same as the practitioner’s, such that the pharmacist finds it hard to understand why the patient has failed to take their prescribed medicine.

The work of the American social scientist, Howard Leventhal†, explains that patients hold what he terms ‘representations’ (i.e. beliefs) about their symptoms or illness. Research suggests that patients’ representations can influence their decisions to seek treatment and to take that treatment when prescribed.

There are five ‘illness representations’.

- **Identity** – what the symptom is.
- **Cause** – why the symptom happened.
- **Timeline** – how long it will last.
- **Consequences** – what will happen as a result.
- **Cure** – whether anything can be done about it.

Here are two examples of differences between a practitioner’s and a patient’s understanding of a condition.

The patient who stops taking his cholesterol-lowering statin medicine because he doesn’t understand that the medicine should be taken long-term, perhaps for the rest of his life (Timeline).
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The patient who no longer takes his aspirin after discharge from hospital, because he believes his stroke was caused by ‘stress’ and not by a blood clot (Cause). Leventhal’s work suggests that it would be useful to find out about patients’ understanding of their condition, that is, in Leventhal’s terms, their illness representations, when there is intentional non-adherence with treatment.

The patient’s attitude to their medicine is likely to have a strong effect on whether or not they take it as prescribed. One of the most influential and convincing psychological approaches in this area is the Theory of Planned Behaviour. This theory states that people are more likely to carry out a particular behaviour (such as taking a medicine) when:

- They have a positive attitude towards doing it – ‘attitude’.
- The people they value also support them doing it – ‘subjective norm’.
- They feel in control of the behaviour – ‘perceived control’.

The three aspects of the Theory of Planned Behaviour can help in developing an understanding of why a patient does not take their medicine. For example:

- A patient has mixed attitudes to his prescribed ACE Inhibitor, in that he recognises the benefits of the treatment but also knows of annoying side effects (attitude).
- A patient is positive about taking the Hormone Replacement Therapy but her husband has negative views about it (subjective norm).
- A patient believes that he will be unable to manage to adjust his insulin dose according to the blood glucose measurement (perceived control).

Developing an understanding of the patient’s thoughts in relation to the three parts of the Theory of Planned Behaviour can help to explain the decision not to take a medicine. Understanding can lead on to intervention, of course. For example, a lack of perceived control about insulin dosage could be overcome by working with the patient over a series of days, enabling them to become more and more independent in administering their treatment. It is worth remembering that the practitioner (such as GP, nurse or pharmacist) can be an important ‘subjective norm’ for the patient, and your views on the medicine may be a strong influence on their decision whether or not to take it.

Mental illness

Patients need to understand the context of their illness (and treatment) to be able to follow instructions. Patients with serious mental illness, like schizophrenia, may not be fully aware of their condition and treatment. Patients with a neurotic disorder, who have some insight into their illness, are less at risk, but the presence of anxiety or depression may exert an effect in making medicine taking less likely. It is worth considering that the medicines used to treat mental illness may result in confusion or drowsiness (effects not confined to drugs used for mental illness, of course), which may influence non-adherence.
Age

Both young and old have problems which affect adherence. Most studies show no strong effect of age on adherence, and a few suggest that older people are more likely to take their medicines as prescribed. The reality is that non-adherence is common among people of all ages.

The normal ageing process does often lead to a gradual decline in some of the abilities needed to take medicines properly, for example; vision, hearing, memory, ability to understand and remember text. However, it is important to remember that this is not because these patients are elderly, but because they have specific problems and also happen to be elderly.

The Royal College of Physicians\(^1\) said that while problems with adherence can occur at all ages, those aged over 85 (who are sometimes called the 'old old’), are particularly at risk of not taking medicines as prescribed. This may be influenced by several factors, but research suggests that the increased prevalence of confusion in this age group, along with the likelihood of living alone, are both influential factors.

Different issues apply to younger people taking medicines. Young children will need supervision in medicine taking, while adolescents’ medicine taking may be influenced as much by peers (or what they think their peers believe), as by parents.

Physical disabilities

People with physical disabilities may be at risk of unintentional non-adherence, for a variety of reasons.

**Immobility**  Patients may be unable to get to a pharmacy due to its location or layout.

**Poor eyesight**  Patients may have problems in reading instructions on labels and leaflets, in differentiating between medicines, and in administering their medicines, particularly using non-oral routes.

**Hard of hearing**  Such patients will have difficulty in hearing verbal information.

**Manual dexterity**  This will lead to difficulty in handling containers and devices due to stroke, joint problems, limb loss or deformity etc. There may also be difficulty in reaching the part of the body requiring treatment.

Culture

A patient’s culture and religion can affect medicine-taking in a number of ways. This is a complex area, as individuals within a culture or religion may follow their beliefs to a greater or lesser extent. In addition, different sects of a religion may have differing traditions.

The main potential impact on medicine taking relates to dietary restrictions, bans on the use of alcohol, fasting and route of administration. Some broad examples are listed below, but you are recommended to find out greater details of the needs and requirements of specific ethnic groups in your area.
Getting the best out of medicines

Food
Orthodox Jewish patients may not have non-kosher medicine, unless there are no alternatives.

Alcohol
Warning patients about the interaction of alcohol and a medicine may offend those whose religion does not allow alcohol consumption. This includes Sikhs, Muslims and Buddhists. Alcohol is allowed but discouraged in some Christian churches and in Hinduism.

Fasting
If fasting, patients may not be able to take medicines with food.

- Muslims during Ramadan must abstain from all food and drink between sunrise and sunset. Some are exempt, including children before puberty and those who are ill. However, individuals may choose to fast even though they are exempt.
- Hindus who are devout may fast regularly each week. However, the fast may be restricted to individual meals or eating simple foods only.
- Jewish religious practice includes fasting for 25 hours before Yom Kippur. Orthodox patients must be offered alternatives to oral medicines i.e. injections or suppositories.

Route
In some cultures, certain dose-forms are thought more effective than others. It is often thought that injections are more ‘powerful’ than oral medication. In continental Europe, the rectal route is highly rated. Some Bangladeshis perceive capsules as more effective than tablets.

Language
The inability to speak or read English is clearly a significant problem. However, the inability to read English is not only a problem for people from the ethnic minorities: functional illiteracy is common in the UK among those for whom English is their mother language.

You also need to be aware that traditional medicines may be used alongside the conventional health services. In the patient who is not taking a medicine because of a fear of interactions, it may be useful to enquire about their use of complementary and alternative medicines. Less exotically, it will be useful to know about any medicines that the patient has purchased.

Education
This is a complex area and there is no straightforward relationship between educational attainment and adherence rates. You could construct an argument for both sides: less well educated people may be more likely to misunderstand instructions or the purpose of the medicine, but highly educated people may be more likely to take things into their own hands.

The onus is on the pharmacist to adapt communication to the individual concerned. This means not only the patient’s desire for information, but also the detail and complexity of the information provided. The only
clear risk factor with respect to education is literacy. The ability to read and understand written information is now increasingly recognised as important.

2 How many patients do you know who can read very little or not at all?
   Write the number down here.

Social circumstances

Social isolation, such as being housebound, or even just living alone, are clearly factors that increase the chance of non-adherence. The patient may have no one to ask for help with any of these problems:
- access to supplies
- help in reminding
- help in administering
- help in understanding or interpreting.

The lifestyle of night-workers means that some medicine regimes cannot be easily accommodated because their meal times and meal types will be different. Medicines whose effect is needed at particular times of the patient’s waking hours will need careful labelling, for example, diuretics.

To recap

There are factors relating to patients themselves which have either been shown to contribute to non-adherence or which most authorities agree have a significant influence.

These key patient-related risk factors are:
- living alone and/or being housebound
- mental illness
- poor English
- physical disabilities
- being over 85 (or over 60 with multiple problems)
- patients who do not accept their condition or the benefits of treatment.

Factors associated with the health and social care system

These are factors relating to the system of health and social services as a whole, including care from hospitals, GPs, pharmacists, social workers, and so on. The way these services are delivered to the patient, and how the patient perceives them, can affect how a patient responds. As was mentioned in the response to Exercise 5 in Chapter 1, a lack of trust in health care generally can lead to intentional non-adherence. This can be due to past experience, or the patient’s perceptions of medicines and their risks.
Name three potential problems in the way the NHS and social services system is provided, which might adversely affect adherence in some patients.

See how your list matches with the points given below.

Care at home
As we mentioned in the previous section ‘Patient factors’, being house-bound or simply living alone are important risk factors.

Patients confined to their home often depend on home-care assistants. However, such carers are not trained to administer or give advice about medicines and their job description does not allow them to do so. One study found that a third of assistants did, in fact, administer medicines to clients. These carers need support and protection: the community pharmacist can offer valuable formal or informal support.

General practice
The attitude of doctors and how it relates to patients’ medicine taking has been studied. The nature of the consultation and the way that information is given, both appear to be very important factors. Patients are more likely to follow the advice of doctors who are friendly and who they feel they know well. The patient’s trust in the doctor is also important and influential.

An inappropriate repeat prescribing system at the surgery, which does not involve sufficient contact with the doctor over long periods, may not encourage medicine adherence.

Hospital – community liaison
One of the key situations where communication about a patient’s medicines can break down, is when they are admitted to and then discharged from hospital.
A study of elderly patients discharged from a hospital in the North-East of England followed-up patients at home after 10 days. Out of 50 patients, how many of them, after 10 days at home, would you expect to be taking the same medicine regime as on discharge?

Write your answer in the box:

Community pharmacy

The first question is whether the patient actually takes the prescription to be dispensed.

What percentage of patients attending your local surgery do you think do not take their prescriptions to be dispensed?

Write your estimate here:

In exercise 4a of Chapter 1 we asked about the percentage of patients who didn’t take their medicine as prescribed. While that answer is uncertain to some extent, we can be quite certain that people who don’t take the prescription for dispensing are not taking their medicine.

The reasons for this will be many and varied, including patients who went to the doctor for advice and not a prescription. Recent research by Barry and others, confirms that some patients receive an unanticipated prescription at the end of the consultation. Although the research did not go on to look at what the patients did with the prescription, it would be no surprise if such patients were less likely than others to obtain the medicine and then to take it as prescribed.

However, there are factors about the pharmacy that could contribute:

Access Patients who have a physical disability or significant sight loss may have difficulty getting access outside or inside the pharmacy.

Patient perceptions The attentiveness and friendliness of counter staff was found to be important in a study in the West Midlands. If patients had poor experiences in the past, this could put them off getting the prescription dispensed at all.

Relationship with pharmacist We know that a good patient-doctor relationship is essential for adherence. It is likely that patients who have a good relationship with their pharmacist will also be more motivated to take their advice.

Waiting time Waiting time is important to patients. They may not appreciate the time needed to dispense a prescription. However, it may be their main indicator of pharmacy efficiency.

Environment A professional environment with a semi-private counselling area may improve a patient’s perception of the pharmacy.
Availability  Opening hours may be unsuitable for patients who work.

Prescription charges  This is a widely known barrier to getting a prescription dispensed.

**Medicine-related factors**

Although the illness itself appears to have little effect on medicine taking, patients are often concerned about the side-effects of medicines, have difficulty with dosage and packaging. The form of the medicine – liquid or solid – and its taste and size, as well as the administration of non-oral forms can affect patients’ decisions about taking their medicines. In addition, a change in the appearance of a medicine can affect the taking of it.

**Type of medicine and illness**

Generally, the illness treated has little direct bearing on adherence, that is, the level of adherence does not vary much between illnesses. It is only in the treatment of psychiatric disorders that the level of adherence is markedly different (it is much lower).

Life-threatening illness is no guarantee of adherence. In a group of 22 British children with leukaemia, two were taking no Mercaptopurine tablets at all, and a further six were not fully adherent.

However, certain illnesses cause disabilities which will themselves affect adherence, for example glaucoma (poor vision) and Rheumatoid- and Osteo-arthritis (poor manual dexterity).

**Side-effects**

The influence of side-effects on adherence is debatable. Some studies have shown that side-effects result in increased non-adherence, others have not. It probably depends on the nature of the side-effects and the symptoms of the condition being treated. If the condition is largely asymptomatic, then side-effects are likely to have a greater negative effect on adherence.

What is important is the patient’s perception of both the likelihood and severity of side effects attributed to the medicine (see section on Perceptions and attitudes on page 21). This may be more influential than the real side effect profile of the medicine.

**Dose form and packaging**

The difficulties experienced by some patients in getting the medicine from the container and into their bodies must not be underestimated. Such difficulties may result in unintentional non-adherence.

These are the important factors.
Packaging  Certain containers may be too large or small for some patients to handle. The cap may be difficult to open, particularly if it is designed to be child-resistant.

Liquids  In some cases liquids may be easier for patients (ease of swallowing). For other patients, liquid bottles may be difficult to handle and measuring doses may be difficult.

Palatability  Medicines which are unpalatable may simply not be taken e.g. effervescent potassium tablets.

Tablet size  If a patient cannot actually pick-up a small tablet, they will not be able to take it. Alternatively, a tablet may be too big to swallow.

Instructions  These may be too vague or insufficient to allow the patient to understand what they should do.

Non-oral dose forms  Some dose forms may be unacceptable to the patient, for example suppositories. They may find the dose form difficult to use, such as eye drops, inhaler, cream. Can they reach the affected part of the body?

Change in appearance  Anecdotally, a change in the medicine’s appearance seems to be a significant source of worry and potential cause of non-adherence.

Practical approaches to combating the above are given in Chapter 4.

The medicine regime

There is no doubt that the more complex a patient’s medicine regime, the more unlikely they are to take the medicines as intended.

6 Name three characteristics of a medicine regime which adversely affect adherence.

1

2

3

Number of medicines

We know that the level of adherence starts to fall, once more than two or three medicines are to be taken. The following levels of adherence are typical of those found in studies in this area. The biggest percentage drop in adherence (7 per cent) occurs when three medicines need to be taken.

- one medicine  89%
- two medicines  87%
- three medicines  80%
- four medicines  78%
- five medicines  74%
Dose frequency
It is a popular belief that the fewer the number of daily doses, the better will be adherence. In the 1980s it was even said that the move towards once a day dosing would mean that eventually non-adherence would no longer be a problem. A review of 26 studies showed that on average adherence was:

- once a day: 73%
- twice a day: 70%
- three times a day: 52%
- four times a day: 42%

So, while once a day dosage does not mean the end of non-adherence, three doses a day results in almost half the doses being missed. However, this research does show that there is little difference between once and twice daily dosing. Twice a day is probably preferable, because with once a day dosing, missing one dose can result in the patient being without therapy for 24 hours. The corresponding figure for twice a day is, of course, 12 hours. So, as there is little difference in adherence between the two dose frequencies, twice a day would seem to be the ideal frequency of dosing.

Duration of treatment
The longer a patient has been taking a medicine, the more likely they are to fail to take it. This may be due to two contrasting reasons:

- patients who are well may feel that the longer that they are well, the less is the need for the medicine
- patients who remain unwell may decide that the treatment is not working.

The effect of the length of treatment does vary however, depending on the patient’s perception of the effectiveness of the medicine and the seriousness of not taking the medicine. A good example is the oral contraceptive. Here adherence over long periods is high because of the perceived effectiveness of the therapy and the acceptance of the seriousness for the patient of non-adherence.

Asymptomatic conditions
Treatment for asymptomatic conditions, such as hypertension and hypercholesterolaemia, is more likely to result in non-adherence. In some cases, the treatment may make the patient feel worse than they did before treatment. The pharmacist has an important role to play in telling the patient about future risks, about preventive treatment and ensuring they receive follow-up diagnostic tests (such as for blood cholesterol level).

To recap
The key medicine-related risk factors are:

- difficult packaging, including blister packs
- non-oral route
- three or more medicines
- dose frequency of greater than twice a day
- long-term treatment.
Case study: Mr Good

Mrs Good calls into your pharmacy with several boxes of nifedipine S/R 10mg tablets which she thought you may be able to use. She tells you that they are her husband’s tablets and he just seems to have built up a stock of them.

How would you respond to Mrs Good’s request?

☐ Thank her and dispose of the tablets.
☐ Ask how Mr Good is and if he has any problems with his medicines.
☐ Suggest that Mr Good may not be taking his medicine as he should.

You probably decided that the second response is most appropriate. Asking such a question will help you decide what the real reason is, without appearing threatening to Mrs Good.

Having been asked about Mr Good, his wife replies that she is very worried about him indeed. He used to be very active but lately even the slightest exercise seems to give him chest pain. In spite of this, he refuses to take his tablets, insisting that it is just an upset stomach, not angina like the doctor said.

Which factors do you think may be important to Mr Good’s decision not to take his medicines?

Write down your ideas here

Consider how the possible reasons for Mr Good not to take his medicine could be classified within the Theory of Planned Behaviour.

What further action would you take?
Reflecting on this chapter

Problems with literacy
Some patients will be unable to read the instructions about their medicines, but you will have difficulty finding out who they are. Patients rarely admit to not being able to read. It is likely that you are not aware of most of your patients who cannot read. The Moser Report in 1999 estimated that 20 per cent of the adult population of 46.7 million were ‘functionally illiterate’. This was described as being unable to look up ‘plumber’ in Yellow Pages. The situation is improving, slowly, and in 2003 16 per cent of the adult population had a reading level below age 11.

This could mean that 1 in 6 of your adult patients have difficulty in reading. Others will be used to reading text that is not difficult. However, there is no reason why detailed or technical information cannot be explained in writing, such that most people can understand it. This will be dealt with in detail in Chapter 5.

Patients’ forget instructions, or to have prescriptions dispensed
From your own experience, and from Chapter 1, you know that patients remember only half of what they are told about their medicines, so they will make mistakes. The study of elderly patients in the North-East of England found that, after ten days at home, only five of the 50 patients were taking the same medicines as prescribed on discharge. Eleven were taking a different dose, ten had stopped taking one or more drugs and twenty were taking drugs not on the discharge prescription.

While it is difficult to estimate the numbers of patients not taking their medicines effectively, it is clear that those who do not take their prescriptions to a pharmacy will never take their medicines. Studies in the UK have shown that between 15 and 20 per cent of patients do not get as far as taking the prescription to the community pharmacy.

Complicated medicine regimes
The more complicated a patient’s medicine regime in terms of drugs and doses, the more difficulties they will have in adhering to the correct regime. Most problems occur when there are three or more medicines and three or more doses and the longer the treatment lasts the more likely it is that adherence will wain. Procedures for dealing with complicated regimes are dealt with in Chapter 4.

Case study: Mr Good – a patient who stops taking his medicine
Mr Good appears to have decided that he has a different condition than the one his doctor diagnosed, you need to find out why he has made this decision. There could be several reasons.

You may have thought of the following possibilities.

- Mr Good has a poor relationship with his GP and mistrusts the diagnosis.
- There is a lack of understanding about his angina and his medicines.
- Mr Good is in denial of his illness, or its severity.
- There may be side-effects (perceived or actual) of the nifedipine S/R.
Applying the principles of the Theory of Planned Behaviour to Mr Good’s decision, you may have thought of some of the following possibilities.

- Mr Good sees his illness as not serious (attitude).
- He thinks that the medicine is ineffective (attitude).
- Mr Good is placing more emphasis on the harmful, rather than the beneficial, effects of the medicine (attitude).
- He could be persuaded to take his medicine again if he wants to do what his wife wants him to do (subjective norm).
- Mr Good does not trust the doctor and so wants to do the opposite of what the doctor wants (subjective norm).
- He may feel that the medicine regime is too complicated to manage (perceived control).
- Mr Good may be looking at health as something that ‘God decides’ (perceived control).

There are several options you could follow.

- You could advise Mrs Good that her husband should start taking his tablets immediately. In addition to explaining the importance of this to Mrs Good, you could also give her supporting written information for her husband.
- You could also alert their GP to the situation.
- If you can make a home visit, you could suggest that you will visit Mr Good to have a chat about his medicines and his chest pain.

**Summary**

Two of the main patient-related risk factors for non-adherence are linked to the patients’ ability to understand their medicine regime: mental illness and functional illiteracy. Old age could have an affect on understanding but this may also have an affect on physical or sensory disability, which can also affect any age, as can social isolation. Last, there is the issue of the patient’s perception of their illness and treatment and the extent to which this perception agrees with those who have medical care of the patient.

The NHS and social care system and the patient’s perceptions of them can influence adherence. The risk factors associated with the community pharmacy include difficulties with access, and the patients’ perception of a poor pharmacy service, this may also be affected by a poor relationship between patient and pharmacist, which could derive from a non-professional environment.

The above are almost all people factors, but there are also risk factors associated with the medicine regime itself caused by difficulties with packaging, or by using a non-oral route. A complicated regime of three or more medicines, or a dose frequency greater than twice a day carries a risk of non-adherence as does any long-term treatment.

The presence of just one risk factor is not necessarily indicative of a problem. However, in combination, assessing these risk factors can be useful. The next chapter looks at how the presence of these factors can be identified.
Getting the best out of medicines
How do we recognise adherence problems?

By the end of this chapter you will be able to:

- describe three methods you can use to identify patients who are having problems with their medicines
- identify which health care and social care professionals can assist in identifying non-adherence
- describe how clinical medication review can be used to find solutions for non-adherence.
In the previous chapter, we identified risk factors which can contribute to an increased risk of non-adherence. We now look at how, in practice, we can use these risk factors and what (or who) else can help us identify patients who need help with adherence.

Consultation

There are a number of pieces of information about adherence which we can get from the patient or carer. Some information will be self-evident, other information will need to be found through questioning.

The patient

One risk factor which has not been mentioned so far is when patients have had problems with their medicines in the past. This is a very useful piece of information, as problems with adherence in the past are highly predictive of problems in the future.

For obvious reasons, patients are often the most useful source of information on whether they are taking their medicines properly. They may volunteer the information:

“I’m having trouble remembering to take these.”

or

“I don’t think these tablets suit me.”

In the absence of such comments, the information can be found through careful questioning. The key communication skills here include:
- putting the patient at ease
- encouraging them to open-up
- being non-judgemental
- being alert to hints.

There is more on this in Chapter 5.

1 What questions could you use to see if a patient you know well has used her last supply of medicines?
Try and remember the last time that a patient said or did something which hinted to you (even if in a roundabout way) that they had trouble taking their medicines properly.

Write down here what they said.

How did you respond to it?

How could you have done it differently?

Talking to relatives and carers

When a relative or other carer acts as a patient’s representative, you need to consider why the messenger, rather than the patient, has attended. The patient may find it difficult to get to the pharmacy. Alternatively, there may be some element of reluctance on the part of the patient, or another reason such as cognitive impairment. In the case of care home residents, the patient may only be accessible through a home visit.

Some of the suggested questions to the patient in the previous section could also be asked to the relative or carer. However, you must be careful for two reasons.

- Patient confidentiality must be respected. Would the patient be happy for you to discuss their medicine-taking with the messenger in question?
- The messenger may not know the true situation or may let their own opinions dominate.

Using the messenger to help in strategies to improve adherence is discussed further in Chapter 4.

Risk factors

The risk factors described in Chapter 2 cannot be used according to a formula. You must use your professional judgement and intuition when weighing up the risk of non-adherence in an individual patient.
For instance, if a patient over 85 is taking five medicines, then the chances of non-adherence are high. However if you know that the patient lives with a daughter, who you know understands the medicine regime, and assists the patient in taking it, then the risk may be quite low.

Patient Medication Records (PMRs)

List below two things that PMRs can tell you which might suggest non-adherence with medication in individual patients.

From your own experience of using them, you can see that PMRs are valuable tools for identifying cases of non-adherence.

OTC purchasing

Non-adherence issues may be identified when patients buy medicines over-the-counter. For example, you may ask why a patient is buying an analgesic OTC when they are already prescribed analgesia. Is the prescribed analgesic not working? Is it causing side-effects? Do they know it's an analgesic?

Medicine Administration Records

Medicine Administration Records (MAR) sheets are used in care homes to record each dose of medication administered to the patient. Omitted or refused medication can readily be identified and non-adherence issues can be investigated. Similarly, inpatient drug charts are used in hospital to record each dose of medication administered to the patient. Again, omitted or refused medication can be identified and investigated.

Medication review

Medication review can be undertaken at three different levels:

**Level 1 – Prescription review**  The prescription alone is reviewed without the medical notes. The patient may or may not be present. Technical interventions which may aid adherence include synchronising quantities and synchronising doses.

**Level 2 – Treatment review**  The medicines are reviewed with the medical notes. The patient may or not be present. Interventions which may aid adherence include reducing the number of medicines and amending doses.
Level 3 – Clinical medication review

The medicines are reviewed in a holistic manner, in conjunction with the medical notes and a face-to-face consultation with the patient. Multiple types of interventions can be made to aid adherence (see below).

A level 3 review is the ideal for improving adherence and for developing a concordant practice as the patient’s experience of their medicines is fully considered. A ‘brown bag’ review, where the patient brings along their medicines and the pharmacist and patient goes through them all, can be a useful component of higher level reviews although the medical notes are usually not available.

Clinical medication review

Clinical medication review, has been defined as: "a patient receiving a face-to-face consultation to have their health and medicines reviewed in conjunction with their medical records" (Zermansky et al, 2001†). This provides an excellent opportunity to identify and resolve adherence problems. Clinical Medication Review generally takes place in a GP surgery or as a visit, for example, to care homes. Full consideration of the patient’s current and previous problems as well as current and previous therapy allows a more detailed assessment of adherence issues.

Clinical medication review may identify therapeutic failure resulting from non-adherence: signs and symptoms of a disease may deteriorate or fail to improve. Specific disease markers e.g. HbA₁c for diabetes, or therapeutic drug monitoring, for example, lithium levels, may also highlight non-adherence. (See www.medicines-partnership.org.)

Solutions to non-adherence may include:

- rationalisation of medication regime
- identification and treatment of side-effects (may be necessary to stop/alter medication)
- discontinuation of unnecessary medicine
- use of appropriate compliance aids
- patient education
- treatment of previously unidentified indications.

Medication review in secondary care

Medication review in the hospital setting may take the form of a pharmacist-led outpatient clinic. These clinics tend to focus on specific disease states or specific pharmacotherapy, for example, asthma clinics and anticoagulant clinics, and adherence issues can be identified and resolved.

Hospital pharmacists are also in an ideal position to identify medication-related problems when a patient is admitted to a ward by taking a full drug history including any adherence issues. Medication is often changed in hospital and discharge planning is an important process to educate the patient regarding new or amended medication and to ensure that adherence problems are minimised when the patient is transferred back to primary care.
**Repeat dispensing**

Repeat dispensing and monitoring of chronic diseases in community pharmacies provides an excellent opportunity to identify patients who need help with their medicines. Repeat dispensing allows regular follow-up of patients to ensure interventions have been effective.

**Involving other health care professionals and social services**

Pharmacy staff and other health care or social care professionals may pick up clues about difficulties with adherence. However, they may not recognise them or know what to do about these difficulties.

**4 Which three people who see your patients in the course of their work, could help you to identify problems with adherence?**

1.

2.

3.

**Other methods of identification**

There are more complex methods of measuring adherence. For example, ‘tablet counts’ are commonly used in research, whereby the number of tablets returned by the patient are counted to determine the percentage used.

It is unlikely that pharmacists would want to use tablet counts in normal practice, as this would involve the patient bringing in all their unused medicines to be counted every month! However, the use of the PMR or the GP prescribing system to monitor when repeat prescriptions are collected or issued, may be thought of as being a form of tablet count.

The contents of a used multi-compartment compliance aid may give you a clue as to the patient’s medicine-taking behaviour – however, caution needs to be exercised because if the box is empty it doesn’t mean the patient has taken them correctly (or at all)!
How do we recognise adherence problems?

**Case study: Mrs Heaton**

Mrs Wilkinson attends your pharmacy and asks to buy ranitidine liquid and paracetamol. On questioning, Mrs Wilkinson says that the medicines are for her elderly mother, Mrs Heaton. You check Mrs Heaton’s PMR:

- aspirin dispersible tablets 75 mg once daily
- diclofenac dispersible tablets 50 mg three times daily
- methotrexate tablets 2.5 mg every Friday (**not dispensed for 2 months**)
- methotrexate tablets 10 mg every Friday (**not dispensed for 2 months**)
- Gaviscon Advance® 10 ml four times daily after meals when required
- lansoprazole 30 mg capsules once daily (**not dispensed for 5 months**)

**What questions would you ask Mrs Wilkinson about her mother?**

Mrs Wilkinson tells you that ranitidine is for bad indigestion, which started a couple of weeks ago. The paracetamol is for her mother’s joints, which have recently flared-up. Mrs Wilkinson did not know why the methotrexate had not been ordered. Mrs Wilkinson says that she moved away 3 months ago; before that she used to crush her mother’s methotrexate for her, and a neighbour was supposed to be doing this now. The lansoprazole was stopped a while ago because Mrs Heaton suffered a stroke and could not swallow the capsules: Gaviscon Advance® was started instead. Apart from the indigestion and joint pain/stiffness, Mrs Heaton seems to be otherwise well.

**What are the main issues?**
Getting the best out of medicines

What action would you take?

Two weeks later, Mrs Wilkinson presents with the following prescription for Mrs Heaton:

- aspirin dispersible tablets 75 mg once daily
- paracetamol dispersible tablets 1 g four times daily
- lansoprazole orodispersible tablets 15 mg once daily
- sulphasalazine liquid 1 g four times daily

What issues are there now?
Reflecting on this chapter

This chapter started with five objectives and you can now check if you feel you have achieved these.

Non-adherence by a patient in the past is generally a good predictor of the risk of problems in the future.

Patients may volunteer information which suggests they have problems with adherence, especially if they are given the right opportunities.

Careful questioning can allow a patient opportunities to admit to problems with adherence. All that may be needed to get this information is to provide a cue or prompt. Simple phrases, like those below, give the patient the opportunity to mention any problems.

“How are you getting on with these tablets, Mr Smith?”

“How long have you been taking these tablets now, Mrs Brown?”

You could ask more specific follow-up questions. Patients tend to overestimate their level of adherence, so the questions need to be carefully worded. They must not threaten or embarrass the patient. You need to get across that most people have difficulty with medicines – it is common and nothing to be ashamed of.

The following questions have been shown to be useful:

“How often have difficulty taking their tablets for one reason or another, what about you?”

“Most people find that they miss doses from time to time, is this sometimes a problem for you?”

If you suspect over-dosing, it may be worth asking a question like:

“When the pain is really bad, do you sometimes need to take extra doses?”

Follow-up questions must also be sympathetic and understanding, emphasising that difficulty in taking medicines is common.

Asking patients to demonstrate the use of special devices, for example, inhalers, dropper bottles, compliance aids, may be helpful. This area is explored further in the section on dispensing in Chapter 4.

However, patients may not admit that they do not take their medicines as prescribed. In addition, patients may not recognise they have a problem taking their medicines.

PMRs are useful instruments for identifying non-adherence.

In order to make use of the available data you need to be aware of such possibilities as:

- Patients on long-term therapy who present/request prescriptions later than the due date.
- Patients who present/request prescriptions too frequently.
- Patients whose medication for the same condition is changed frequently.
Information from other professionals, family and carers

Other health care professionals, social care professionals, relatives or carers often have useful information regarding adherence.

- community pharmacy staff
- GPs, practice pharmacists, practice nurses and receptionists
- district nurses and home helps
- specialist nurses e.g. diabetic and stoma nurses
- occupational therapists and physiotherapists
- social workers and wardens
- intermediate care teams
- secondary care doctors, pharmacists and nurses.

What is needed is partnerships between all these people. This is explored further in Chapter 5.

Case study: Mrs Heaton – patient with a complex regime

You may have thought of asking Mrs Wilkinson these questions.

- Why does Mrs Heaton want ranitidine?
- Why does Mrs Heaton want paracetamol?
- Why has Mrs Heaton not ordered her methotrexate?
- Why has Mrs Heaton not ordered her lansoprazole?
- How is Mrs Heaton’s health at the moment?

In addition, you may have reached these decisions.

- Aspirin and diclofenac are probably causing the indigestion; gaviscon is not controlling indigestion and a PPI is indicated for prophylaxis of NSAID-induced peptic ulcer disease.
- Arthritis has flared-up due to non-adherence with methotrexate. Mrs Heaton cannot swallow tablets.

You would also have realised that methotrexate should not be crushed as it is cytotoxic.

You may also have decided on the following courses of action.

- Explain to Mrs Wilkinson that you need to speak to Mrs Heaton’s GP and that her aspirin and diclofenac are probably the cause of her indigestion. Advise Mrs Wilkinson that her mother should not take further doses of diclofenac until you have spoken to her GP.
- Explain to Mrs Wilkinson that the methotrexate should not be crushed and that the arthritis will have flared-up because Mrs Heaton has not been taking them. Explain that an alternative medicine for rheumatoid arthritis which is in liquid form is required.
- Do not sell the ranitidine, but tell Mrs Wilkinson that you can supply paracetamol.
- Speak to Mrs Heaton’s GP regarding the indigestion problem. This may need further investigation i.e. for signs and symptoms of bleeding. Advise the GP that lansoprazole can be given in the form of orodispersible tablets or sachets.
Advise the GP that non-adherence of methotrexate has led to a flare-up of Mrs Heaton’s rheumatoid arthritis and that methotrexate is unsuitable for crushing. Given that an alternative medicine which is available in liquid form is required, a referral to a rheumatologist may be necessary.

With the new medication you may be considering these questions.

- Can Mrs Heaton open the blister packs and disperse the tablets in water?
- Can Mrs Heaton measure out the liquid?
- Is there somebody who can help if necessary?

You may wish to check on Mrs Heaton’s progress in the following weeks with regard to:

- indigestion symptoms
- pain control and joint stiffness
- adherence
- check that sulphasalazine is being regularly monitored i.e. that appropriate blood tests are being conducted.

**Summary**

Knowing what factors increase the risk of non-adherence, you have seen how you can use these factors to identify and help the patients who need help. If you know of non-adherence by a patient in the past this is generally a good predictor of the risk of problems in the future. Patients may volunteer information which suggests they have problems with adherence, especially if they are given the right opportunities. If you use careful questioning, this can allow a patient to admit to problems with adherence. If you suspect non-adherence in a patient, you may find that other health care professionals, social care professionals, relatives or carers often have useful information regarding adherence. Your own PMRs are useful instruments for identifying non-adherence. In addition to these individual initiatives, a formal system of medication review can be a potent tool for identifying and resolving non-adherence.
Getting the best out of medicines
How can pharmacists help with access to medicines?

By the end of this chapter you will be able to:

- state the reasons why community pharmacists are in a key position to encourage patients to make better use of the pharmacy
- identify actions which community pharmacists could take in dispensing medicines to help patients overcome problems with dose forms, containers and packaging.
Pharmacists are in a key position, because they can actually show the medicine to the patient, allowing any information given to be related to the medicine itself. Equally, of course, the pharmacist can present the medicine in a way appropriate to the individual patient’s needs. Finally, the pharmacist is easily accessible for advice about a patient’s medicines.

It is important to note that we must recognise the limits of our influence. In the end, it is the patient’s choice; we cannot and should not try make them adhere to their medication. The emphasis is on helping patients to take responsibility for their own medication and to give the patient the opportunity to discuss any concerns or queries they may have.

1 In your training and experience you will have become aware of some of the difficulties that patients face in obtaining and taking their medicines.

List here as many of these difficulties as you can think of.

At the end of this chapter you can compare your initial list of difficulties with those we have identified throughout this chapter, and you can consider how effective you may be in helping patients overcome these difficulties.

**Problems getting the prescription dispensed**

Patients may receive their prescription and leave the consultation with the intention of getting the prescription dispensed; however they may be hindered in doing so by a number of issues, some of which are beyond the patient’s control.

These difficulties could include:

- Problems travelling to the community pharmacy.
- Problems gaining access to the community pharmacy.
2 List three features of community pharmacies (relating to location, layout and personnel) which might dissuade a patient from bringing their prescription.

1

2

3

Access

From October 2004 all those who provide goods and services have had to make reasonable adjustments to any physical barriers that may prevent disabled people using the service (as required by the Disability Discrimination Act 1995). Or you may have to provide your service by a reasonable alternative means, for example, bringing goods to the disabled person or helping them to find items.

In the pharmacy you will have had to consider the entrance to the pharmacy and the approaches to the dispensing area.

- Are doors easy to push open?
- Is there a step up to the doorway?
- Are the aisles wide enough?
- Is the counter too high?

Some patients will never be able to visit the pharmacy, because of illness or disability, and providing a prescription collection and delivery service will assist these patients.

Reception

Patients’ perception of the pharmacy and its staff, and how they are treated, is important. It may affect their attitude to the medicines given and the associated information. If patients feel welcomed, valued and treated as individuals, they may be more likely to follow the instructions and advice they are given.

This starts right at the beginning, as they approach the pharmacy counter.

- How are patients greeted? Do they feel welcome?
- Are staff trained to receive prescriptions in an appropriate way?
- Are patients told approximately how long it will take?

A professional environment in the dispensary area will put the information the patient is given in the right context. They will associate that information with the professional environment, and this may give it more weight.
Consider a dispensary you have worked in, how could the layout be improved, to encourage patients to ask for advice on adherence-related issues?

Write one example here.

Privacy

Making it easier for the patient to talk to you in private is one thing you may have thought of. This will help to encourage patients to give you information which is relevant, as they hand in the prescription. Patients may be embarrassed to admit that they have various difficulties using medicines.

- They may be unable to use child resistant closures (CRCs).
- They may have had an inhaler before and couldn’t use it.
- They may be unable to hold their hand steady enough to measure out liquids.

If you have information like this at the start, it makes it much more likely that you will be able to present the medicine in a form the patient can use.

Availability of the pharmacist

Being available to take in prescriptions, as well as give them out, will help you to get the information just mentioned. Much valuable information may be obvious from seeing and speaking to the patient. For example, you may be able to ascertain the symptoms of stroke, Parkinson’s disease, confusion etc. As you will see below and in Chapter 5 the impact of the pharmacist personally handing out the medicines is also very important.

Dispensing

Containers

A patient may find the medicine container too difficult to use easily; the container may be difficult to open. For example, a bottle may have a CRC top, or the container may be too big to grasp in the hand especially if the patient has a condition such as arthritis. Patients who experience such difficulties may simply transfer the medication into a container that they can manage more easily, but such a container may be unsuitable and will not be correctly labelled.
Patient pack dispensing (or ‘original pack’ dispensing as it was called) was first seriously proposed in the 1950s, and now the majority of oral solid medicines are packaged in patient packs. However, progress to all patient pack dispensing has been slow and hindered by political agendas. In Scotland, agreements have been reached regarding the supply of 28 where 30 has been prescribed and vice versa.

The lack of complete patient pack dispensing can cause problems for the patient which may result in poor adherence. The practice of cutting the foil strips to obtain the exact number can mean that some patients receive their medicine as a box full of foil strips of various shapes and sizes, patient leaflets may be missing and re-boxing of foil strips may mean that information from the original pack is not available.

Patient pack dispensing itself may give rise to adherence problems.

### 4 List three ways in which patient pack dispensing may cause adherence problems?

1. 

2. 

3. 

### 5 List three ways in which you can aid patient adherence by considering the containers and the closures used when dispensing.

1. 

2. 

3. 

---

**Dose form**

The size of the dose form may be too large (patient can't swallow) or too small (patient can't pick up). There are solutions if the dose form is too large.

- The patient may be able to take two half strength tablets.
- A liquid may be easier to take (although not always – see below).
- Crushing a tablet may be appropriate, although it must be made clear to the patient that this can only be done with certain tablets. They must check with the pharmacist first.
Getting the best out of medicines

If the tablet is very small there are two possibilities.

- The patient could pop the tablet out of the blister pack onto a small dish which might make the tablet easier to pick up.
- Asking the patient to demonstrate removing the tablet from the packaging may identify the problem and enable you to suggest alternative strategies.

It is often assumed by health care professionals that liquid medicines suit certain patient groups, for example, the elderly, the young, and the institutionalised mentally ill. Liquids may be better for some patients than tablets or capsules, but in many cases they are not.

Problems with liquids include:

- heavy bottles
- difficulty pouring doses onto medicine spoons
- spilling medicine when transferring measured dose to mouth.
- inaccuracy in dosing because of these difficulties
- sugar content and its effect on teeth.

Tablets may be better for older children, the sight-impaired and those with manipulative problems (the last two categories include many of the elderly).

Case study

At this point, you should complete the case study on the opposite page and then return to the text below.

Aids for administering medicines

Oral dose forms

There are a number of simple things you can tell patients who find it difficult to swallow tablets and capsules. You can tell them to use the following procedure.

- Have a full tumbler of water ready before starting to take the medicine.
- Sit upright or stand while taking the medicine.
- Put the tablet or capsule in the middle of their tongue. Show the patient that their tongue can form a natural hollow in the middle. Patients often put the medicine too far back, which can immediately lead to gagging and a fear of choking.
- Take a mouthful of water and look down while swallowing. Looking up can make swallowing more difficult.
- Drink the rest of the tumbler of water.
How can pharmacists help with problems of access and dosage?

**Case study: Mr Jones**

For six months, every two weeks, a home help has collected 500ml Gastrocote® liquid from the pharmacy for Mr Jones, aged 74.

The home help then starts to collect 1000ml weekly for the same man. One week she asks pharmacist for a medicine cup.

As the pharmacist, what questions would you ask the home help?

The home help tells you that Mr Jones’ hands shake and he spills more medicine than he takes, his sight has also worsened.

What could be done to help Mr Jones?

The home help returns a week later with a prescription for Gastrocote® tablets for Mr Jones.

In your practice try to identify older people who may be having difficulty in taking their medication because of problems with packaging. Can you develop strategies to help such people?
Non-oral dose forms
There are ‘gadgets’ designed to help with manual dexterity.

The most commonly used types are:

<table>
<thead>
<tr>
<th>Eye drops</th>
<th>Autodrop</th>
<th>helps with ‘aiming’ bottle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Easidrop</td>
<td>helps with ‘aiming’ bottle</td>
</tr>
<tr>
<td></td>
<td>Opticare</td>
<td>helps with aiming and squeezing</td>
</tr>
</tbody>
</table>

Inhalers

<table>
<thead>
<tr>
<th>Inhalers</th>
<th>Haleraid</th>
<th>puff obtained by squeezing, instead of pressing the canister</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Autohaler</td>
<td>this type of inhaler is breath actuated</td>
</tr>
</tbody>
</table>

Palatability

Taste is a particular problem with liquid medicines and some effervescent tablets. Many liquids can be mixed with strong tasting drinks such as orange juice, just before taking them. Individual medicines have recommended ways to improve their palatability.

The very sweet, sickly taste of lactulose is minimised if it is kept cool in the fridge. Isogel can be mixed with lemonade to make it less ‘sludgy’ and more palatable. Sugar in liquid medicines is a particular problem for children, especially with long-term illness, for example, anti-epileptic liquids. There may be a conflict between sugar-free medicines which are ‘kind’ to teeth, but which some children may find less pleasant to taste.

If the use of sugar-containing liquid is necessary you can suggest:
- brushing teeth and rinsing the mouth afterwards
- giving the medicines at meal times if appropriate
- regular dental check-ups
- transferring to a solid or soluble tablet as soon as possible.

Reflecting on this chapter

We have concentrated on access; to the pharmacy itself and to the medicines.

2 (page 47) Different pharmacies will have different issues with access for patients and your list of access issues might include: difficulty getting into the premises, and moving inside the pharmacy because of cluttered shop premises, narrow aisles, lack of direction signs. In addition you might have thought of the problem caused by unhelpful or harassed staff who do not welcome patients and advise them of waiting times.

4 (page 49) Once the patients have handed in their prescriptions, you need to ensure that they will be able to use their medicines. There are a range of physical conditions which can prevent easy opening of packaging, as well as packaging which prevents some patients from understanding and following the instructions about their medicines.
Patients with arthritis or lack of sensitivity in their hands and fingers may find blister packs difficult to use.

Multiple packs without clear indication to the patient that the packs contain the same drug and should be used one at a time.

Labels obscuring important information on the patient pack

More than one brand of a generic drug dispensed.

Small packs may have the days of the week or name of drug and strength printed in very small letters which are difficult to read for visually impaired patients.

The most prevalent is probably the inability to actually get the tablet or capsule out of the blister,

If you can find out about a patient’s capabilities you can make adjustments to the medicine containers and the dose forms so as to help the patients adhere to their medicine regime.

Here are some options:

Patients with arthritic or rheumatoid conditions can be offered oversized bottles which they can grasp, with plain tops which they can open. Special caps with wings or extra grip can be obtained. However this may not be an option now that most tablets or capsules are in blister packs.

Patients can be shown home-made options such as putting rubber bands around the caps, to aid grip.

The option of plain caps can be made known by a notice or poster in the waiting area. (This will also need to make clear the dangers of plain caps, and the need to be extra vigilant if children are ever around.)

The use of different sized bottles can help the blind or partially sighted to differentiate between medicines. As above, this may not be possible if all the medicines are in blister packs.

Two small light bottles of liquid medicine may be preferred by patients with handling difficulties. They may not be able to hold or accurately measure from a heavy 500ml bottle.

Various opening devices can be obtained from household goods suppliers, for example, rubber grips for opening bottles.

**Case study: Mr Jones – a patient with physical disabilities**

These are some of the questions you might have thought of asking Mr Jones’ home help.

- Is Mr Jones taking extra doses of his medicine?
- Has Mr Jones problems measuring the dose?
- Does Mr Jones spill his medicine?

In order to help Mr Jones you might have thought of supplying a medicine measure but you would need to check that Mr Jones could read the markings. You could also suggest that Mr Jones has his prescription changed to Gastrocote® tablets and offer to contact the prescriber if required.
Summary

The main reason for making it as easy and welcoming as possible to enter the pharmacy and reach the dispensing area is that you want patients to feel comfortable and confident in the pharmacy. If patients respect you and trust you as a professional you will, if need be, be able to find out as much as possible about them and their medicines so that you can help them overcome any difficulties they may have.

Obtaining information from patients, and ensuring they will understand the information you give them is dealt with in Chapter 5, and helping patients manage complicated regimes is the subject of Chapter 6.
How can pharmacists help patients understand medicines information?

By the end of this chapter you will be able to:

- state four aspects of medicine labels which community pharmacists can use to ensure patients can read and understand the labels on their medicines
- describe ways in which pharmacists could use the opportunity of handing over the patients’ medicine to effectively inform the patients about their medicine
- identify the ways in which community pharmacists could effectively communicate with patients about their medicines.
Getting the best out of medicines

Because pharmacists can actually show the medicine to the patient, they can make sure any information they give patients is not only related to the medicine itself, but also that the patient understands that information. This involves the pharmacist presenting the medicine in a way which is appropriate to the individual patient’s needs.

As was stated in Chapter 4, the emphasis is on helping patients to take responsibility for their own medication and on giving patients the opportunity to discuss any concerns or queries they may have, and pharmacists must recognise the limits of their influence. Adhering to their medicine regime is the patients’ choice; pharmacists cannot and should not try to make patients adhere.

Labelling

There are four main aspects to labelling for adherence:

- giving the appropriate information
- using words which patients will understand
- using a print size which patients can read
- ensuring the message is consistent with other information (both written and oral) given to the patient.

Appropriate information – on the main label

The key rule here is to keep words short and simple. Use the word take, rather than ‘to be taken’. ‘Take’ is shorter, more direct, and better remembered and understood.

Do not use the term ‘daily’. It gives the patient no clues as to when during the day to take the medicine. Generally, take one in the morning can be used.

Patients on multiple medications can then see that some of their medicines can be taken all at the same time. For example, a patient on furosemide, digoxin and levothyroxine can take them altogether in the morning.

Consider using the names of meal-times and bedtime. This has been used successfully on reminder charts, to help patients understand and remember when to take their medicines.

The following method is not endorsed by the Pharmaceutical Society for general use. However, in individual cases, it might be appropriate (in cooperation with the patients) to label medicines as: Take one at breakfast, one at lunch and one at bedtime, where a patient has particular difficulty understanding and remembering to take their medicines.

It is particularly appropriate when you are using a reminder chart, as then the wording on the labels matches that on the chart (see the section on Drug reminder charts in Chapter 6).

Take care if the patient does shift work, and does not always take meals at the conventional times.
Additional labels

The BNF gives details of labels which pharmacists are recommended to add when dispensing, the code number(s) of the appropriate label(s) appearing at the end of the preparation entries. Appendix 9 of the BNF gives details of the labels and their code numbers.

1 Which additional labels are recommended for the following drugs:
   - amoxicillin
   - doxycycline caps

2 How does your software cope with multiple additional labels which will not fit on the label as they stand? Write the method down here and then consider if it has any disadvantages.
   - Method:
   - Disadvantages:

Using words the patients will understand on the main label

Main label directions which are most difficult to express clearly include:
- alternate days
- weekly.

The National Patient Safety Agency (NPSA – www.npsa.nhs.uk) in England and Wales has issued guidance on the labelling of oral methotrexate, as part of an alert issued to all Primary and Secondary Care Trusts in England and Wales.

You may wish to use these wordings:
- Take one tablet every other day.
- Take one tablet every Monday.
Getting the best out of medicines

Take care using meal times on a label, do not use terms like 'dinner', 'supper' or 'tea' as these have widely differing interpretations across the country. Stick to breakfast, lunch-time, evening meal and bedtime. In some parts of the country mid-day meal may be preferred to 'lunch-time'. In talking to patients about their medication, you need to find out which terms they use.

The direction 'take every x hours' is widely misunderstood, with patients either only considering the hours they are awake or conversely sticking rigidly to the hourly schedule which may require getting up through the night. (Remember the patient in Chapter 1 (see page 12) using pilocarpine eye drops for glaucoma who was afraid she might go blind if she did not use her drops exactly every eight hours.)

Case study

At this point, you should complete the case study on the opposite page and then return to the text below.

The additional label wordings recommended in the BNF are mostly written in plain English, although certain wordings have been shown to be misunderstood. Alternative wordings have been suggested in the paper by Raynor (1990)†.

3 Look through the additional label wordings printed by your computer: Are there any which you think can be improved? Write two down here.

1

2

Home-made pictograms (instructions given as a diagram or picture) should not normally be used, they are very easy to misinterpret. Studies have shown that generally poor readers are also poor interpreters of pictograms.

Using type which patients can see to read

The print on the label needs to be as clear as possible for the average patient. It is, of course, even more important for people with sight loss.

Did you know the following?

Print style Familiar plain type styles are best, which people are used to reading.
**Case study: Rob Jones**

Rob Jones, a 19-year-old student is dispensed a prescription for flucloxacillin, for a soft tissue infection. The directions are: ‘Take one capsule every six hours.’

He phones up later, asking if 8am, 2pm, 8pm and 2am are suitable dose times. He is just setting his alarm clock for 2 am!

As the pharmacist how would you advise Rob Jones and how do you think he might respond to your advice?

---

How would you counsel Rob Jones regarding the timing of his medication?

---

Can you think of a better way to label an antibiotic than ‘every six hours’?

---

You may decide to counsel patients who receive their medication labelled ‘every six hours’ and advise them on the best times to take their medication.
Print size  Print size can be measured using the height of an ‘x’. Label print should have an ‘x’ which is at least 1.5mm high (printers call this 10 point). However, the RNIB recommend a minimum of 2mm (12 point) for general readers.

Contrast  Check that your printer is producing clear labels, the contrast between the type and the label is very important.

Emphasis  Do not over-use italics or capitals. Full sentences in capitals are difficult to read. ‘Bold’ type is better for emphasising something, if available.

What particular things can we do for people with sight loss?
Use a large print facility: the RNIB recommend a minimum 2.5 mm ‘x’ height (14 point) for people with sight loss (as used in large print library books).

Label placing
If possible, put the label on one face of the container so that all of it can be seen, without having to turn round the bottle or box.

When labelling an original pack, do not put the label straight on top of bold print on the pack. The bold print underneath will show through, making reading the label more difficult. Unfortunately, there is often a bar code on the space left by the manufacturer for your label. To overcome this, stick a blank label on first. Then the printing on the container shows through less.

When labelling topical preparations, label the tube or bottle if possible, as the box may be lost or thrown away.

Ensure the information is consistent with other information
Reinforcement of information by repetition is one of the most effective ways to help patients to remember information. When you talk to patients, use the same words used on the label. Also, try to make sure that you explain any apparent differences between the label and what the doctor appears to have said.

Handing over medicines to patients
This is the key link in the chain: when you actually give the medicine to the patient. Talking to the patient when handing over the medicine allows you to do a number of important things which help adherence.

Emphasise the importance of taking the medicine
If the pharmacist is perceived as being important, their handing over the medicine has a special significance, which is not present if an assistant hands it over. We know that a good patient-doctor relationship is essential for good adherence. Patients who think their doctor is friendly and whom they feel they know well, are motivated to comply. This will also apply to pharmacists. You can help to gain this relationship by such interaction with the patient.
Explain why adherence is important
One very important effect of adherence is the rebound effect. Non-adherence with drugs susceptible to a rebound effect can lead to serious consequences. For example, sudden withdrawal of beta-blockers used after myocardial infarction may cause a rebound worsening of myocardial ischaemia.

Failure to complete course of antibiotics may lead to worsening of the infection or resistant organisms.

Reinforce advice and information from other sources
- the doctor or nurse
- the label and/or leaflet.

Reinforcement is one of most effective ways of getting patients to remember information.

Gives the patient the opportunity to ask you questions.
A study in the USA found that patient-reported non-adherence was 24% in patients to whom medicines were handed over by assistants, compared with only 18% when handed over by the pharmacist.

Patient Information Leaflets
Since January 1, 1999, across the European Union, all medicines should be supplied with a patient information leaflet from the manufacturer (EU Directive 92/27). Patient Information Leaflets must be:
- clear and understandable for the patient
- state adverse effects in accordance with the Summary of Product Characteristics (Data Sheet)
- in the language(s) of the country where the drug is being marketed.

All dispensed medicines must be accompanied by a patient information leaflet and this can give rise to difficulties when patient packs are split. Leaflets complement verbal information; they do not take its place. Leaflets educate and inform, rather than directly improve adherence. Well-designed leaflets have been shown to improve patients’ knowledge, but they don’t have a measurable direct effect on adherence. However, the effect on adherence may be positive in terms of patient satisfaction. A study by Raynor and Knapp in 2000 looked to see if patients read and retained the new mandatory information leaflets and concluded that providing a leaflet meant that not all patients would be aware of the leaflet and that only a minority would read any of it.

This means that pharmacists have a role in highlighting the presence and importance of the pack leaflet to the patient. Taking out the leaflet and pin-pointing the key pieces of information for that individual patient can be particularly useful.
Talking to the patient

Talking to a patient in an effective way requires considerable skill and is a key role of any health professional. Indeed, it is at the heart of many of the roles of a community pharmacist.

The aim is not just to get across a series of facts. The aim is to empower the patient to act in a way which ensures the best effect from their medicines. Talking to patients about their medicines is often called patient counselling. However, by 'talking to patients' pharmacists usually mean a short period (a few minutes) during which information is given (often the reinforcement of written information); it is pharmacist-centred.

Research carried out by Livingstone in Brighton recorded interactions between elderly patients and community pharmacists. Sixty-five per cent of elderly patients received prescribed medication with no verbal advice from the pharmacist, speaking only to staff. Only 12.5 per cent of elderly patients received verbal advice from the pharmacist, the number of items of information given was usually three and the mean length of the interaction was 71 seconds.

True counselling is patient-centred, takes place over a much longer period, and is a two-way process. This section introduces the ideas around a more interactive counselling process.

Clearly, teaching verbal communication skills through the written word is not ideal. You need to bear this in mind when reading this section, and be prepared for further reading if this area is of particular interest to you. This section can only highlight some of the ideas around communicating with patients. You may feel that you need to gain further experience through face-to-face learning.

In this brief overview, we will consider the following aspects of communication:
- environment
- assessing
- asking questions
- listening
- explaining.

Environment

Interference or 'noise' affects communication in many ways. This includes the environment and the appearance of the counsellor. It also includes the prejudices of both the pharmacist and the patient. Patients are more likely to act on advice if it is given by someone with whom they have a good relationship.

You can help build rapport by:
- showing real interest and concern
- being friendly (use the patient’s name when talking to them)
- mentioning times you have spoken before
- providing reassurance.
Assessing

You need to be aware of the patient’s:

- existing knowledge (correct or incorrect)
- culture and lifestyle
- motivation.

If you do not have some knowledge of these points, it will be difficult to communicate effectively. You need to know this information, so that you can take it into account. In particular, you need to know what information the patient already has in their mind. The patient will filter the information you give them through this existing knowledge.

At this stage, it is important to let the patient know why you are asking these questions. They may not see their relevance, and it may put them off. You need to explain that ‘to work out what is the best thing to do’, you need to know this information.

Asking questions

Effective questioning lets you:

- obtain the information you need
- check whether the patient’s responses are accurate
- make the patient feel involved in the process
- keep control of the interview.

The most important aspects of questioning is understanding the difference between ‘open’ and ‘closed’ questions.

Closed questions

A closed question allows the patient to give a one-word answer. For example, ‘Are you taking any other medicines?’ These questions have only one ‘correct’ answer. If you need to know such a piece of information, a closed question is a quick and effective way of finding it.

Open questions

An open question requires a more complex answer. For example, ‘What other medicines are you taking?’ These questions can produce a variety of responses, some of which will be relevant for the pharmacist, and some not.

4 Do you think you should use mainly ‘open’ or ‘closed’ questions when talking to patients?

Think about why you chose this answer.

In most situations, it is best to use a combination of ‘open’ and ‘closed’ questions. Generally, you should use open questions at first. This gives the patient the chance to tell you about all the aspects of their medicine-taking which concerns them (not just the areas where you think they may have problems). You can then go on to closed questions to check whether you have understood correctly. Closed questions also allow you to check whether the patient has understood correctly the information you have given to them.
Uses of closed questions
Useful for checking which of a number of options the patient would prefer. If used exclusively, the interview becomes an interrogation. The patient will not feel that they are being involved in the process.

Uses of open questions
Allow the patient to give a broader answer. The patient feels more of a partner in the discussion, and you are more likely to gain their confidence. You are less in control of the conversation, and much of the information will not be relevant to you. Can be very time consuming.

Do not use leading questions
The most dangerous form of question is the type which is both a closed and leading question. Health care professionals often use this method to protect them from the patient’s real concerns and to limit the time of the consultation. The study in Brighton by Livingstone found that nearly all of the questions were closed and that the pharmacists tended to ask leading questions, for example, ‘You have had these before, haven’t you?’

Leading questions suggest to the patient the answer you are looking for.

There are times when you will need to ask very personal questions. You might want to start this line of questioning with ‘I’m sorry to ask such personal questions, but it would help me to know...’

Listening
Questioning can only be effective if you listen properly to the responses. We may think that we are good listeners, but often we are not actually listening to what the patient is saying. Instead, we are planning what we intend to get across next. Effective listening involves using what the patient is saying to decide what to say next. Good listening is a skill that has to be worked at.

You need to be aware of how the answer is being given, as well as what the patient is actually saying. Does their body language appear to contradict what they are saying? Your body language is equally important: does it show the patient that you are taking in what they are saying. To show this there are a number of things you should do.

- Maintain eye contact, and avoid being on a higher level than the patient.
- Minimise the physical barriers between you. Moving to the edge of the counter may be appropriate. Here the counter is not between you, but provides some psychological protection for the patient.
- Touching patients can effectively show concern, but for some patients this would not be welcomed.
- Have an open posture and smile. Do not fold your arms.
- Gestures, nodding and the occasional “Mm” or “Oh” help confirm that you are listening.
While listening you could also use the following techniques.

- **Paraphrasing** during the conversation shows the patient that they have been understood (including their feelings). You can paraphrase by saying “So what you’re saying is....”
- **Reflecting** helps to check that you are interpreting correctly. You simply reflect what the patient is saying by using their words. For example, the patient says that they are worried; you simply say “You’re worried.”

**Explanation**

Once you have accurately defined the situation and agreed with the patient the best course of action, you then need to get this message across. The patient needs to be able to understand, accept and remember the advice. Below are some key basic points which can improve your ability to get information across to a patient.

- **Summarise** the information the patient will be told at the beginning. Then go through each information point in more detail. Then at the end, summarise each piece of information again (this is known as explicit categorisation). Such repetition is a proven technique for increasing recall.
- **Restrict** the information to the important points only (preferably no more than four main points). Any more than four is likely to be forgotten.
- **Give** the most important points at the beginning and a summary at the end. The beginning and end are remembered better than the middle.
- **Use** simple language and short sentences. This maximises understanding.
- **Give** specific instructions. Thus say “Drink four pints of water every day” instead of “Drink plenty of water”. Concrete advice which can be visualised is better remembered than general advice.
- **Organise** the information logically. A well organised format increases recall.
- **Check** for understanding, by asking the patient to repeat back the main points. This increases later recall and allows correction of any faults or omissions.
- **Provide** written information which complements the verbal information. If you do this, use the written information to illustrate what you are saying. Let it help you by using it as an aide-memoire.

If you use these techniques, then you can effectively increase patients’ knowledge about their medicines and what they have to do to comply. However, it does not mean that they will actually adhere to the medication regime. Improved knowledge does not necessarily lead to improved adherence; however, such verbal information is essential, as patients definitely will not comply if they do not know how to do so.
5 One of the techniques suggested above was that you should try to get across no more than four key points. List here the four most important points you think patients need to be told about metronidazole.

1

2

3

4

Demonstration

If the medicines are different to previous supplies, or if the presentation is different, you need to show this change to the patient. So, any new blister pack, information leaflet, oral syringe, spoon, measure etc. needs showing to the patient, and its use demonstrated. Ideally, the patient should then show you that they can use it successfully. It is important that there are no surprises for the patient when they get home and open the bag.

Representative collects prescription

A carer or messenger may collect the prescription. This presents both a problem and an opportunity.

■ The patient may be unhappy if you discuss their medicines with a third party even if this is a close friend, relative or carer.

■ Alternatively, the influence of family and friends is firmly linked with adherence. Talking to the messenger can reveal the type of advice the people around the patient are giving. Is it appropriate and accurate?

However, you will need to judge in each individual case whether you are respecting the confidentiality of the patients.
What are the possible reasons for the patient not coming to collect the prescription in person?

List three here:

1.

2.

3.

Think about what action you could take, to allow you to talk to the patient (either every time or occasionally)?

There are many reasons why patients do not collect their prescriptions themselves.

- People who are housebound due to old age or physical disability.
- Mothers of small children.
- Those working long hours.

Housebound patients who may not see a healthcare professional for long periods of time may welcome a visit from a pharmacist to answer queries about medication or to carry out a medication review.

Those patients with short-term treatment who require specific counselling could be contacted by telephone or in writing.

Reflecting on this chapter

2 (page 57) There are a number of ways of dealing with the need for additional labels for some medicines. Some methods are ‘software driven’ and are unsuitable for many patients.

Methods which have major disadvantages include:

- making the print size very small
- abridging the wording, increasing the risk of the label being misunderstood.

Other methods include:

- referring the patient to a leaflet
- using a second label for the back of the bottle
- a brief mention, plus the suggestion that the patient asks the pharmacist for more information.

(page 59) Some patients, like the patient with glaucoma in Chapter 1, without the benefit of advice from their pharmacist, follow dosage instructions too literally. You need to ensure your patients understand what ‘every four hours’ or ‘every six hours’ really means. In the case of the young student you could explain to him that setting his alarm is not necessary, and that spacing the doses out during his waking hours will be satisfactory for example: 8 am, 1 pm, 6 pm, and 11 pm.
The patient may respond that this is every five hours and question whether this will alter the effect of the antibiotic.

You could advise him that sufficient levels of the antibiotic will be maintained in his system provided that he takes the antibiotic regularly and does not miss a dose completely. You should also advise him that it is important to complete the course of treatment.

You may think that the following combination of main and additional labels is more appropriate.

‘Take one capsule four times a day.’

‘Space the doses evenly through the day.’

When asking patients for any information you need to ensure that you enable them to tell you what they understand and what they do. Closed questions will only allow them to give you the information you have asked for. Research in both this country and the U.S.A. by Evans and John found that pharmacists asked mainly ‘closed questions’.

There is very good evidence in psychology for the old rule of thumb that people should be asked to remember no more than four things in verbal instructions. How did you decide on the key points for metronidazole? The points will clearly vary for different drugs. However, they are likely to include:

- purpose
- how and when to take
- common side-effects and interactions
- importance of complying (and the consequences of not doing so).

Summary

In this chapter we have concentrated on communicating information to patients.

The most frequent method, affecting every patient, is the use of labels. It is the responsibility of pharmacists to ensure that the words on all labels, no matter the age or abilities of patients, are not only easily understood, but are not likely to be misunderstood.

If pharmacists take the opportunity to meet patients and hand over their medicines, they can ensure that the patient understands how the medicine is to be used.

In talking to patients you have to use a range of skills and abilities. You may need to study and practice these skills. Your aim in talking to patients is to make the conversation an effective exchange of information which ends with you and the patient confident that the patient understands how to make best use of their medicines.
How can pharmacists help patients to manage their medicines?

By the end of this chapter you will be able to:

- give three causes of non-adherence that can be alleviated by the use of drug reminder charts
- identify the advantages and disadvantages of compliance containers
- identify the three ways in which pharmacists can simplify the medicine regimes of their patients.
There are a number of ways in which pharmacists can help patients to manage their medicines, particularly those patients who have complicated regimes. Simplifying the organisation of the regime with time charts and various containers can make a difference to patients who are willing and able to co-operate.

However, the biggest difference pharmacists can make in helping individual patients manage their medicines is to combine their knowledge of the drugs, the patients’ PMRs and the patients themselves to simplify the regime by synchronising when certain drugs are taken, rationalising doses and eliminating ineffective and inappropriate drugs.

**Drug reminder charts**

Individualised written information, in the form of a chart, is normally referred to as a ‘Drug Reminder Chart’. Unlike standardised leaflets, which contain only textual information, such charts have been shown by Raynor et al. (1993)† to directly improve adherence. The need for such charts is emphasised by the number of patients or carers who prepare such charts themselves. So, how do these charts work?

They have an effect on ignorance, confusion and forgetfulness.

**Ignorance**

Most of our labelled instructions are non-specific e.g. ‘Take one daily’, ‘Take one tablet three times a day’. Even ‘Take one in the morning’ leaves the patient to decide whether to take as early as when they get up, to late morning. It may not matter, but the patient does not know this.

The reminder chart places the dose-taking times at points during the day which the patient can relate to.

**Confusion**

Patients on multiple therapies may have a variety of bottles with varying dose frequency instructions. You will know patients who ask “Can I take these medicines together?” Patients have been known to spread out the doses of their various medicines, all through the day, to avoid taking them together.

With a reminder chart, the patient has one piece of paper, which simplifies the regime into four (or less) dose-taking times a day.

**Forgetfulness**

Forgetting doses is a common reason for non-adherence.

When using a reminder chart, patients learn to associate medicine-taking with daily events familiar to them. These events act as cues and become associated in the patient’s mind with medicine taking.

So, such reminder charts do more than just ‘remind’ the patient when to take their medicines. They help the patient understand the relationship between their different medicines. They also relate the dose taking times to events during the day, to which patients can relate. This also results in these events becoming associated in the patient’s mind with the medicine-taking times: they become ‘cues’.
Hints on completing reminder charts

- Write ‘1 tablet’ rather than ‘1’ or ‘One tablet’.
- Don’t include prn medicines on the chart.
- Reminder charts are most effective if there is only one column for each meal-time. If there are two columns (for before and after the meal), the chart becomes much more complicated, and daunting for the patient. The small number of medicines which do need to be taken on an empty stomach can be marked with an asterisk.
- Start filling-in the chart with medicines taken in the morning only. Then go on to twice a day, three times a day, four times a day and then at night. The chart then appears logical. If the medicines are entered at random, the chart can look like a chess board.
- Use the chart to help you to go through the medicines with the patient. Then at the end ask the patient to use the chart to show you how they will take their medicines.
- Although it may take more time, patients who need particular help will benefit from the medicine label directions using the same events as the chart, that is, ‘Take one at breakfast and evening meal’ rather than ‘Take one tablet twice a day’.

1 For this exercise, you will need a recent prescription with three or more items with varying dose frequencies. Fill in this reminder chart, using the hints given above.

<table>
<thead>
<tr>
<th>What the doctor gave you</th>
<th>What they are for</th>
<th>When to take them</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>breakfast</td>
</tr>
<tr>
<td></td>
<td></td>
<td>midday meal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>evening meal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>night</td>
</tr>
</tbody>
</table>

Compliance containers

We will now consider those compliance devices which are specially designed containers. They have been called ‘organisers’, to distinguish them from the aids which assist in the physical administration of traditional containers, for example, Haleraid, Autodrop (see ‘Non-oral dose forms’ section in Chapter 4 on page 52).
There are four very important points about these containers:

- They do not affect the patient’s motivation to take their medicines. Supplying a compliance container is not a panacea. It will only help patients who want to be helped.

- Once a patient has been given a compliance container, they may start to lose understanding of which medicine is which, and what each is for (as they simply open the appropriate compartment, and take whatever is in there). This needs to be borne in mind when considering using a compliance container: it is a last resort.

- These containers do not remind the patient to take their medication, the patient may use the container to check that they have taken their medication but this information depends on the patient’s ability or willingness to use the container as instructed.

- If a workable arrangement for refilling the container cannot be arranged, then it is pointless giving one out in the first place. Can a carer be relied upon to refill it correctly? The nurse’s professional standards state that nurses must not fill these containers. Most devices only contain seven days’ supply. If you are filling it, will the patient need more than one device, so they do not have to return every week?

**Calendar packs**

The simplest compliance organiser is the Calendar pack. As with most such devices, there is little hard evidence for their effectiveness. Don’t forget, that patients with manipulative problems may have difficulty removing the tablets or capsules. Various studies have found that patients, particularly older people or those with manual dexterity problems find blister packs difficult to use.

**Multi-compartment compliance aids**

Multi-compartment compliance aids (MCAs) are devices which are designed to hold all of the patient’s solid dose oral medicines in individual compartments. MCAs usually hold seven days supply of a patient’s medication and comprise two distinct types.

**Re-usable aids (Dosett or Medidos)**

The Dosett has been the subject of a number of mostly small trials, with conflicting results. The compartments can be difficult to open for some patients and it is quite bulky. It has Braille markings. The Medidos is relatively small, and contains seven individual sections (one for each day) which can be taken out and put in the handbag or pocket. The dividers are moveable, giving more flexibility to cope with various regimes. The individual daily sections, because they are quite small, may be difficult to handle and open for some patients.

**Disposable aids (Nomad, Venalink)**

These are sometimes known as monitored dosage systems (MDS). These are made of much less robust materials but have similar divisions for days of the week and times of day. These devices are sealed by a transparent film or by a foil backing and the medicines are accessed by piercing the film or the foil.
Studies of these devices have not proved conclusively that MCAs improve patients’ adherence to medication. A structured in-depth review of the literature by Nunney in 2004 identified 28 papers which investigated the use of MCAs to improve adherence. Critical analysis of these papers revealed insufficient evidence for the general use of these devices in primary care.

Points to remember about compliance containers:

- All compliance containers have drawbacks. You need to match the container to the patient.
- You must check that the patient can easily open and close the container.
- Most containers are not child resistant.
- Some regimes will not fit into the container, due to the number and size of the tablets/capsules.
- Not all solid dose forms are stable in these containers.
- A substantial part of a patient’s regime may consist of liquids, inhalers, eye drops etc. If it does, how much help will putting the remaining oral medicines in a compliance container be?
- Most compliance aids cannot be labelled according to the Medicines Labelling Regulations.

As with reminder charts, patients sometimes devise their own compliance containers (Blue Peter style, with egg boxes etc). You may have come across these, where each day the patient gets out their doses for that day and puts them out for morning, afternoon and evening or whatever. This has many of the benefits of the more complex devices, and few of the drawbacks. (Clearly, it cannot be used if children are ever in the house.) Consider recommending this method to patients who are otherwise quite capable, but who have trouble remembering.

Funding for compliance aids varies throughout the United Kingdom. In Scotland the Prescribed Medication Compliance Support Initiative for Patients in the Community provides funding for community pharmacists (NHS Circular PCA (P) (2002)6). Participating community pharmacists receive:

- a fee for assessment of a patient
- a monthly payment for filling aids (this is irrespective of the number of aids filled)
- the cost of the aid.

Community pharmacists who participate in the scheme must complete the required training.

So, compliance containers have significant disadvantages. Their use should not be considered until other strategies have been tried, particularly simplifying the regime (see below).
Case study: Mr Freeman

Mr Freeman's wife, when discussing her husband's prescription, confides in you that they are both ‘a bit muddled’ about when to take his medicines.

- furosemide 40mg od
- Sando K® 1 tds
- prednisolone 2.5mg bd
- amitriptyline 25mg tds
- beclometasone inhaler 100 micrograms 1 puff qds
- pentoxifylline 400mg tds
- diltiazem 60mg tds.

What can you do to the regime to make it simpler to understand, remember and take?

Write down your ideas here.

1

2

3
Simplifying the medicine regime

This is the area in which pharmacists may be able to make the biggest contribution to improve adherence. It generally relates to patients on multiple medications, one of the main risk factors for non-adherence.

Synchronising doses

Patients often ask whether doses of different medicines can be taken at the same time. The answer is almost always ‘yes’, and this can simplify a regime for a patient considerably. Explaining how to co-ordinate doses can be done simply by the pharmacist talking to the patient. Take the following medicine regime:

- bumetanide 1mg om
- ranitidine 150 mg bd
- ibuprofen 400mg tds.

You can tell the patient that they can take one of each together at breakfast, one ibuprofen at lunchtime and an ibuprofen and ranitidine with their evening meal. The labels could be written in these terms and a reminder chart given.

Synchronising doses helps in two ways.

- It simplifies their regime, by minimising the number of occasions when they have to take medicines.
- It helps patients to remember, by linking the medicine in their mind with a routine daily event (usually a meal) which they can relate to.

Simply stopping the use of the term ‘daily’ or ‘each day’ is a good first step. Most once a day medicines can be taken either in the morning or the evening. If labelled in this way, this immediately helps patients synchronise their doses.

You should aim for morning as a dose-taking time: this is the time of day when doses are most reliably taken. It is easy to tie-in morning doses with other morning activities. In contrast, patients are twice as likely to miss a mid-day dose as a morning or evening dose.

Dose frequency rationalisation

Whereas synchronising doses can help all patients on two or more medicines, reducing the dose frequency is more appropriate for those on four or more medicines. However, it can also be useful in any regime where the patient is having particular difficulties. The aim is to minimise the dose frequency to produce a regime which the patient can easily fit into their daily routine (lifestyle).

There are two types of drug where the dose frequency can be reduced without reducing its effect.
Getting the best out of medicines

Range of dose frequencies
The BNF sometimes gives a choice of dose frequencies. The total daily dose remains the same, with the option of a lower, more frequent dose, or a higher less frequent dose. Why not use the simplest dose frequency?

Examples are:
- amitriptyline: ‘divided doses or a single daily dose at bedtime’
- beclometasone inhaler: ‘twice daily or three-four times daily’
- prednisolone: ‘daily or to be taken in the morning after breakfast’.

Long-acting preparations available
Modified-release preparations by their nature generally have a once or twice daily dose frequency. They are not necessarily equivalent in effect to the conventional dose form which they can replace. They are also usually more expensive. However, suggesting a change to a long-acting preparation should be considered in any patient who is on a complex regime, or who has shown difficulty in coping with any regime. Here are some examples, with the equivalent doses for the conventional form in brackets:
- diltiazem m/r 90mg bd (60mg tds)
- ibuprofen m/r 800mg on (200mg tds-qds).
- isosorbide mononitrate 60mg m/r om (20mg tds).

Alternatively, you could substitute equivalent drugs which are intrinsically long-acting (to replace short-acting drugs with high dose frequency):
- atenolol (om) vs propranolol (bd-tds)
- naproxen (bd) vs ibuprofen (tds-qds)
- amlodipine (om) vs nifedipine (tds).

Points to remember:
- There is little difference in adherence between once a day and twice a day dosing.
- As the consequences of missing a dose in a bd regime are less, twice a day would seem to be the ideal frequency of dosing.
- Particular care must be taken when substituting modified-release versions of medicines where bio-availability is important e.g. anti-convulsants, theophylline.
- The mid-day dose is the most difficult to remember. If a patient is on a large number of medicines, changing to the single or twice daily dose frequency can significantly reduce the complexity of the regime.

Discontinuation of medicines
The number of medicines being taken is one of the most powerful determinants of adherence. In patients having problems with adherence, every attempt should be made to reduce the number of drugs that a patient is taking.

Discontinuation of ineffective drugs
For some drugs there is little evidence of efficacy and the BNF reflects this by printing the symbol to denote preparations which are ‘less suitable for prescribing’.
Clearly, if a patient is on a large number of medicines with which they are having difficulty, the stopping of drugs such as these is an appropriate step.

One example is peripheral vasodilators (BNF Section 2.6.4):
- pentoxifylline
- moxisylyte
- oxerutins.

**Discontinuation of inappropriate drugs**
Some medicines are routinely prescribed, but may be unnecessary. One example is the use of low dose potassium supplements with loop diuretics. Medications may also be prescribed for which no indication is apparent, or the indication is no longer valid. Side-effects suffered by the patient may also necessitate discontinuation of medication. A drug may not be working for a particular patient, for example, a patient may not receive benefit from a hypnotic and therefore it can be withdrawn.

**Drugs previously discontinued**
Drugs which have been discontinued in the past occasionally reappear on the repeat prescription. This can occur following discharge from hospital.

**Case study**
At this point, you should complete the case study on the following page and then return to the text below.

**Reflecting on this chapter**
(page 74) The most effective way to help patients manage complicated medicine regimes is by simplifying their regimes. There are at least three ways in which you can do this.
- Synchronising or co-ordinating the doses of different medicines with each other and linking them with daily events (such as meal-times).
- Reducing the number of dose-taking times during the day (ideally by removing the need for doses during the middle of the day).
- Discontinuing non-essential medicines to reduce the total number being taken.

You may be able to do these yourself or through liaison with the prescriber.

(page 77) In Mr Freeman’s case, you may have come up with a much simpler regime.
- furosemide 40mg om
- prednisolone 5mg om
- beclomethasone inhaler 100 micrograms 2 puffs bd
- diltiazem m/r 90 mg bd
- amitriptyline 75mg on
Case study: Mrs Old

Mrs Meanwell asks you if she can have a word: she is very worried about her neighbour Mrs Old, whose prescription she has just collected. When she last spoke to her, Mrs Old seemed very confused about her medication. There seemed to be a lot of different bottles and packets and because Mrs Old couldn’t read the labels, she was just taking one tablet out of each different container every morning. When Mrs Meanwell had looked at the containers, she thought that there were two or more containers of the same medicine.

Mrs Old’s last prescription was for:
- isosorbide mononitrate 10mg 2 bd
- nifedipine 10mg m/r 2 bd
- co-amiloide 5/50 1 od
- diclofenac 50mg 1 tds
- co-codamol tablets 1-2 up to qds

What suggestions would you make to Mrs Meanwell?

At your request Mrs Meanwell brings a selection of the medicines. This is a variety of generic and proprietary brands of her current medication and some drugs which she should no longer be taking. It also appears that the prescriptions have been collected from a variety of local pharmacies.

How could the dispensing of Mrs Old’s prescription be improved to help with her regime?

Write your ideas down here.
In addition, you may wish to check Mr Freeman’s inhaler technique and change devices if appropriate. Mr Freeman is already receiving oral steroids and the inhaler may not be necessary and could possibly be discontinued. You may also wish to check urine and electrolytes (U+E’s) for the loop diuretic in a week’s time. A reminder chart may also prove beneficial.

Further investigation is needed in the case of Mrs Old, and you might have decided to do a number of different things.

- Ask Mrs Meanwell to bring in the medicines for you to look at.
- Offer to call in to see Mrs Old at her home.
- Tell Mrs Meanwell that you will talk to Mrs Old’s GP.

Once you know more about Mrs Old, you may be able to implement a number of improvements in the dispensing of Mrs Old’s prescription.

- Clarify the instructions to make administration times more specific i.e. co-amilozide one with breakfast; nifedipine morning and night etc.
- Prepare a reminder chart for Mrs Old.
- Make sure that Mrs Old gets the same brands each time by recording the brands used on her PMR.
- Suggest that Mrs Meanwell tries to get the prescriptions dispensed at the same pharmacy each time so that the patient’s PMR is complete.

Summary

Effective management of medicine regimes can improve adherence.

Drug reminder charts can improve adherence but they need to be completed in conjunction with the patient.

Compliance aids are useful for some patients, but they are not a panacea. They don’t affect the patient’s motivation to take their medicines. You should only consider them when other measures have failed.

Simplifying the medicine regime is the area in which the pharmacist may be able to make the biggest contribution to improved adherence. It can range from changing labelled dose frequency to allow co-ordination of doses, to suggesting to the doctor the discontinuation of non-essential medicines.
Developing partnerships in medicines taking

By the end of this chapter you will be able to:

- describe the objectives of partnerships in medicines taking
- identify people with whom pharmacists could develop partnerships
- take practical steps to develop partnerships
- list useful resources for pharmacists who are developing partnerships.
Before you start reading make a note of your current views about the first three objectives.

1. What are the objectives of partnerships in medicine taking?

Can you identify people with whom you could develop partnerships?

What practical steps would you take at present in developing these partnerships?

When you have completed this chapter you can refer back to these initial views and see how much, or how little, your views have developed.

**Introduction**

Non-adherence is not a ‘problem patients have’; getting the best out of medicines is a problem that patients and practitioners share. This chapter discusses two broad approaches to improving the utilisation of medicines.

- Straightforward actions that most pharmacists will be able to implement in their practice to promote adherence.
- Fundamental changes that some pharmacists may choose to make in order to create a truly concordant practice.

There is no recipe for perfection and long-term goals will depend on your circumstances. For the majority of pharmacists and practice situations gradual change is likely to be the best strategy. This allows time for reflection on both successes and failures.
What are the objectives of partnerships in medicines taking?

Partnership in medicines taking emphasises concern for patient values as a way to achieve a number of benefits, for example:

- Improvement in patients’ health and their satisfaction with care.
- Improvement in pharmacist’s job satisfaction by developing more challenging and worthwhile services, which respond to patients’ needs.
- Improvement in the understanding other health and social care professionals have of the pharmacists’ roles and potential roles.
- Improvement in job satisfaction of other health and social care professionals by helping them to use medicines wisely and free resources for other activities.

This assumes that other components of good practice are already in place. Simply being nice to patients isn’t a substitute for technically effective care. However, even up to date pharmacists with a sound knowledge and skill base can be peripheral figures in medicines management and therapeutic decision making. Choosing to help develop the patient’s role in your practice may be an excellent way to open up opportunities for professional development and integration with the rest of the healthcare team.

Who is involved with partnerships in medicines taking?

2 List all those people (professional and lay) who could be more involved in partnerships in medicines taking.

It may be useful to refer back to Exercise 4 in Chapter 3 (see page 39).

The word ‘partnership’ suggests a close working relationship between two or more people to achieve agreed goals. A successful partnership requires:

- open and honest discussion
- clear identification of agreements and disagreements
- practical ways to help each other reach shared goals.

Partnerships are often informal and prone to break up – the ‘glue’ is trust, which takes time to build up, but may be lost in an instant.
3 What are your personal reasons for wanting to learn more about partnerships in medicines taking?

What effect(s) do you hope or expect developing partnerships will have?

Most of us need some incentive or personal motivation to change. An important key to successful communication is starting to think from the point of view of others and what they wish to achieve. For example:

- Can you give good advice without first understanding a patient’s personal health beliefs?
- Can you make a full contribution to local health service developments without knowledge of local priorities and budgets?

At the moment you may simply make assumptions about patients’ health beliefs. It’s easy to think that everyone has similar beliefs to you, or you may have stereotypes based on appearance (for example). Stereotypes aren’t necessarily wrong but they are short cuts and they avoid the vital need to engage with individuals. The NHS is now funded and organised in a way that makes avoiding the needs of local people and decision makers difficult to justify.

**Shifting from supply-centred to patient-centred practice**

To change we need to compare where we are now with where we want to be in the future. Here are six typical pharmacy roles:

- supply of OTC medicines on request, with or without advice
- responding to symptoms, including advice and/or medicine supply
- checking the appropriateness of newly prescribed medication
- medicines supply against a prescription, with or without advice to support doctors’ practice
- medication review including detailed drug-history taking
- transfer of responsibility between care sectors.
Many patients see pharmacists purely in a supply role and some pharmacists seem happy with this. A typical patient might ask a pharmacist for clarification when the name or colour of their medicine changes – but wouldn’t dream of discussing personal clinical issues. Pharmacists can get more involved if they want to and many already have. Firstly, patients need to know that you are interested in the effectiveness (or otherwise) of their treatment. Secondly, you need to work in an environment where confidential conversations are possible. Thirdly, you need to offer effective up-to-date advice. Fourthly, you need to know the limits of your competence and when to refer people to other services.

**Action** Are you making the most of opportunities to ask about patients’ points of view and offer your professional advice? For example:

“I see this is the first time I’ve dispensed ramipril for you, Mr Jones, did you have any questions I could help you with?”

“You’ve been taking paroxetine for six months now, Mrs Smith – how are things going?”

“You will be discharged tomorrow, Miss Grey – do you have any questions about your medicines?”

It is possible to be supply-focused, do a good job and be seen as a competent practitioner by both patients and other professionals. However, the need to develop a greater clinical focus is particularly acute in community pharmacy practice. A focus on the potential for pharmacists to add value to dispensing and supply services is growing all the time. For many practical purposes medical staff ‘lead’ the healthcare team and have overall responsibility for patient care. Patients expect this and we have been able to hide behind it. For example, enquiring about the success of prior treatment is a routine part of general practice consultation, but when OTC medicines fail patients are advised to go to their doctor and the pharmacist will get little or no feedback. How often do you remind patients simply to let you know if a recommendation is effective or not?
5 Have you recently used a pharmacy service as a patient? Perhaps for routine self-care, on holiday or as a hospital patient? What was your experience?

Action If you don’t already have a private area for consultation would it make sense to build one? What else could the new space be used for? What selling space would be lost? Would you be able to find funding or sponsorship to help with the costs?

In many cases, pharmacists’ most intense contact with patients and professionals is for broadly negative reasons, for example:
- medication is out of stock, in short supply or ‘owing’
- the wrong prescription charge has been levied
- a prescribing error has been made
- an administration error has been made
- the patient’s medicine looks different but is the same.

Pharmacists are medicines experts but are often too focused on their supply role and reacting to mistakes. Pharmacists themselves have responsibility to become more clinically focused and proactive – other people aren’t going to change the world for them. This isn’t to say that pharmacists should provide extensive new services without proper remuneration, merely that they need to demonstrate some capacity to change and thereby increase the likelihood that new roles will be developed.

A major source of conflict is aligning three things:
- your professional and/or business aspirations
- national and local healthcare policy
- the patient’s needs and desires.

If you had no desire to do things differently then you probably wouldn’t be reading this booklet and certainly wouldn’t have made it to the final chapter. How do your ideas match up with healthcare policy and patient need?

Action Medicine has entered an information age. Do you use your computer to help you access and understand the latest evidence and therapies? Examples of where to start are given in the reference list.

A basic rule of sales craft is to sell the benefits not the product. To do this you need to explore what healthcare decision makers and patients want and why they want it. It’s only when you understand the needs of others that you can offer appropriate solutions.
Action Are there good local internet access points for the general public, for example, in a library? If not, could you provide one?

Levels of partnerships in medicines taking

6 Find out how health care is organised in your area. What are the local priorities? How can you be involved in service planning?

For many patients their medical problems and medicines are less important aspects of their overall quality of life. More important issues (for the patient) may be: money; transport and companionship. Key tasks for practitioners are:

- finding out what aspect of the patient’s life you can have a positive impact on – from the patient’s viewpoint
- determining what level of involvement in care and decision making the patient is prepared for.

We can consider four levels of patient involvement in care:

- passive acceptance of treatment with awareness of a few key facts
- simple understanding of a disease and its treatment
- actively seeking to optimise use of medicines
- participating in self-management of chronic diseases.

In many ways each level builds on the last, but not always neatly. These levels of partnership are related to but are different from the levels of medication review discussed in Chapter 3. Medication review can be (and often is) a very focused professional activity – almost easier to do without the patient’s input. Medicines partnership is a diverse (or holistic) concept that may include formal medication review, but is more about attitudes and behaviours and takes its lead from patients.

- What are their needs (for information, health or healthcare)?
- Why do they use medicines in the way they do?
- Do they want instructions, guidance or opinion?
- Do they want to feel responsible for their health and its maintenance or improvement?
- Do they want to actively monitor and manage their symptoms?

Answers to these questions will vary:

- from patient to patient
- from disease to disease (even for the same patient)
- over time (due to social changes, aging and/or disease progression).
The suggestions below are tailored to the levels of patient involvement outlined above. You don’t have to do everything in each section. Your task is to select appropriate options for individual patients and their circumstances. Whatever you do there are two golden rules.

- Always start by asking the patient about their needs, wants and circumstances. Don’t make assumptions. Look again at ‘communication skills development’ in Chapter 5.
- Always monitor the success of interventions by asking the patient, at regular intervals, how they are getting on.

It also helps if you have an efficient professional practice. For all pharmacists this means doing what you promise at a time that suits the patient. For community pharmacists specifically this may include infrequent supplier changes (change in the appearance of medication is often a concern for patients), reasonable dispensing times and a low percentage of ‘owing’ medication.

**Simple understanding of a disease and its treatment**

Developing understanding may build on more general awareness of health problems. For most people better understanding would help them to manage daily tasks that are affected by disease and get the best out of treatment, but there are exceptions, for example, the confused and acutely unwell. You can find special guidance on helping people with learning disabilities (see references). It is good to check the accuracy of whatever knowledge people have, and perhaps encourage those with little knowledge to know more.

Sudden changes in your practice style may be uncomfortable for regular patients. Slow, steady changes are likely to be more sustainable and provide better opportunities for reflection. Some questions are easy to ask when a regular prescription is presented or medicines handed over.

“How are you feeling today?”

“How do you have any questions about your medicines?”

All grades of pharmacy staff can be involved in asking general questions and identifying opportunities for discussion and intervention. Lifestyle (diet, exercise, stress and smoking) is a big factor in many chronic diseases, for example, respiratory and cardiovascular problems. You should already have leaflets for patients to select, which you could actively offer some patients. The British Medical Association publishes a series of easy-to-read, well illustrated books that you could sell. Some pharmacies now offer web access for patients to use. ‘Ask about medicines week’, which is organised each year by the Medicines Partnership, can provide a focus for some activities.

**Action** Review the range of patient information materials that you have for sale or selection. Throw out anything out-of-date. Obtain materials that you trust to provide good information on important topics. Site the information somewhere accessible and brief staff on what is available.
In hospital practice, pharmacists can often help specialists and patients by having a holistic view of a patient’s treatment and lifestyle. Many specialists rightly focus on acute episodes of particular diseases, which can mean important general concerns are lost. In primary care many patients (particularly those using multi-compartment compliance aids) have a relatively poor understanding of their diseases and associated treatments. If the patient wants to be better informed (not all do) then the pharmacist can help.

Care homes now get visits to check the quality of medicine storage and administration. You may never see some housebound patients that are in as much need of your professional attention as care home residents. If you don’t deliver medicines personally, then are your staff trained to spot potential problems and report back? For example, are delivery staff given the time to have a brief chat with patients so that they can notice changes in mood or physical activity? If patients don’t appear to be at home when delivery is attempted, do staff quickly check for signs of obvious problems, for example, household accidents?

Formal and informal carers can help or hinder the development of relationships with patients. In some cases a carer who cares about and understands the patient’s wishes will be a good agent for the patient. In other cases carers may unnecessarily encourage dependence and there may even be conflict between carers and patients. Disagreements may manifest themselves when patients refuse medicines as a way to gain control. In formal care settings you may notice documented refusals or high levels of returns for waste disposal. It may be best to discuss such issues with managers, social care providers or regulators.

**Actively seeking to optimise use of medicines**

Most patients would benefit from and appreciate greater knowledge about the medicines they are taking and the expected benefits. Some may already be involved in optimising or making decisions about their own treatment. For example:

- patients with diabetes monitoring blood glucose and adjusting doses
- patients with asthma monitoring peak flow and adjusting doses.

More straightforwardly, the timing of single doses can be important.

- Alendronic acid should be taken on an empty stomach at least 30 minutes before breakfast.
- Warfarin should be taken at teatime (early evening) to fit in with monitoring and adjustment procedures.
- Simvastatin should be taken at night to maximise its effectiveness.
- Nitrates should be taken in a way that doesn’t develop tolerance.

Identifying those medicines where a dosing refinement may be helpful is one way to target patient interventions. Patients who have a good reason to take a particular medicine at a particular time are probably more likely to do so. Professional interventions to improve prescribing may focus on drugs that require careful monitoring, for example, diuretics, theophylline...
or digoxin. It may also be helpful to check that patients have an awareness of dangerous or toxic side-effects, for example, signs of infection when taking carbimazole.

**Action** Make dispensing more interesting. Notice and take up opportunities to offer medicine specific advice about adherence and effectiveness. Don’t assume patients will read detailed instruction on the label – but written reminders of important information are useful.

Responsibility for a wider range of medicines that require close monitoring is slowly shifting into the community. Clinical specialist pharmacists may need to review the procedures used by patients and professionals in the community to get in touch for advice. Errors have occurred when supply focused pharmacists have continued to dispense medicines originally intended for a short course. Check your understanding and the patient’s when you are called on to supply anything unusual.

Patients taking large numbers of medicines or potential dangerous combinations may also be a focus for your attention. In some cases the patient has characteristics that make optimal drug use difficult, for example, poor eyesight, poor dexterity and cognitive impairment. As a point of principle you should try to discuss problems with the patients themselves, but in some cases discussion with family members or carers may be more appropriate. Simple interventions are often the most effective and economical (see Chapter 6).

**Action** Run occasional awareness campaigns to encourage the return of unwanted or unused medicines. Check what is returned and give feedback to patients and local professionals about the nature and extent of returns.

It’s wise to periodically review the agreed ‘solutions’ to problems just in case the problem has changed or the solution no longer fits current circumstances.

**Participating in self-management of chronic diseases**

A minority of patients, typically those with common chronic diseases, are on the road to becoming ‘expert patients’. These patients have detailed knowledge of their disease and understand what each medicine is for or even how each medicine works. They are also able to apply this knowledge to their own circumstances. These are patients who have ‘learnt a new language’ and can teach us to help others. Can you keep up? High-level information needs may include opinions about medical articles or ‘facts’ found in newspapers or on the web. Together with doctors and nurses, pharmacists can provide back up for self-managers who need extra help from time to time.

**Action** Planning a refit? Is there a need for small meeting rooms for patient support groups in your area? Could any part of your premises (even a shop floor with movable stands) be made suitable for meetings and talks?
For those who want to learn more about self-management you should be able to supply details of local courses for expert patients and meetings of self-help groups. Perhaps your premises are suitable as a local venue for some meetings? Perhaps you could attend a meeting or offer a talk as a way of finding out about different groups and what they do. Can you check if the information other people give patients includes some reference to pharmacists and what they can do?

**Action** Identify and publicise details of local support groups for major chronic diseases, for example, cardiac, respiratory and diabetes. Keep a file of information for less common diseases – let patients know that you do this.

**Working with others**

Working with others, across care boundaries and within local care teams, provides the best hope for patient and professional satisfaction. We need to see the world as the patient sees it and not from one narrow professional perspective. The reputation of professions has suffered a great deal from reports on Shipman, Alder Hey and Bristol Royal Infirmary. Common factors in health scandals tend to be a few individuals over stepping the mark (occasionally by some distance), a general reluctance to criticise the professional practice of others and poor monitoring systems. Regaining public trust is causing some pain and may be a long process. Any isolated practice is unlikely to be sustainable.

**Action** Could you or your staff spend a session with another local health professional to find out what they do? For example, pre-registration exchanges between nurses, doctors and pharmacists can be useful and easy to organise locally.

Always get the person who goes on a visit to report back on their experiences to the rest of your team.

Engaging with patients requires professionalism, confidence and discretion. However, it should be possible to enhance patient-professional interaction without extending the working day. Engaging with other professionals often requires additional work with little prospect of immediate reward. Yet it is essential for pharmacists to be seen as caring, professional and enthusiastic. In a rural area, ensuring physical access to services may be a major care priority, but building inter-professional relationships may be easy because the number of practitioners is relatively small. In an urban area, there are likely to be a greater concentration of health problems and many competing priorities. In addition, communication with large numbers of professionals (who may be geographically quite close) can be quite difficult. It may be easy to be both over-worked and over-looked, in which case try to build a few key supportive relationships.

**Action** Contractual changes make it possible for community pharmacists to rely less on dispensing and more on other professional services for income generation. Could you review your
Getting the best out of medicines

business model? How would you meet your training needs? In hospital practice, attention on risk management and error prevention (not ‘spotting’) is increasing—could you do more?

Auditing, research and service development

Wherever your practice is now and wherever you want to take it, documenting performance and monitoring improvement is vital. This begins with audit to ensure that you are ‘doing the right things in the right way’ and may end with research to resolve unanswered questions about healthcare practice. All these activities come under the banner of ‘evidence based practice’ (see references). Almost any aspect of developing partnerships for medicines taking is a suitable topic for audit. Audit is also a good way to get everyone in a practice or pharmacy involved in improving an aspect of care. Many seem to believe that the first step in audit is spying on people to determine an ‘accurate’ picture of current performance, but this will usually be counter productive. All those delivering an aspect of care need to be involved in audit from the outset and understand why the selected topic is important, and then they can be more constructively engaged in the planning and implementation of change.

The steps in the evidence based audit cycle are:
- identify problem or objective
- agree criteria and set performance standards
- collect audit data
- identify areas for improvement
- make necessary changes
- re-audit to check for improvements.

It is important to start simple and stay realistic. Many pharmacists’ first audit is based around the percentage of ‘owing’ medicines caused by ordering and supply problems. An audit of over-the-counter advice on the use of low-dose aspirin and analgesics is also fairly straightforward. As confidence in your abilities and the power of audit grows, more complex issues can be addressed. Initial audits tend to focus on ‘process’, that is, the physical actions taken by health care professionals. Audits of ‘outcome’, that is, the effects experienced by patients is more important but generally harder to do. It is also harder to organise multi-professional audits that seek to improve ‘patient pathways’, but this activity can only become more important. Try to see auditing as a tried and tested way to achieve change (including greater business profitability), and make any documentation as clear and easy to use as possible.

Although auditing is a necessary part of all pharmaceutical and medical practice, research is an optional activity. There are an increasing number of research networks, either linking pharmacies or different types of practice. Patient involvement is a priority in health services research, to ensure that service developments are worthwhile and effective. Could you be involved?
Reflections on this chapter

Partnerships in medicine

2 (page 83) You probably at least listed yourself and the patient. You may also have listed: doctors, nurses, other pharmacists, social workers, (patients’) family members and friends etc.

Your interest in partnerships

3 (page 84) Your answers will probably have selfish and altruistic components. A more selfish answer might be “to develop my business and make sure I have some CPD to record”. A more altruistic answer might be “So that I can help patients get more involved in decision making”. The answers you gave will reflect your own values and your perceptions of what the NHS (and the pharmacy profession) wants you to do. If you haven’t listed anything even a little bit selfish, then are you being honest or realistic?

How active is your interest in partnerships?

4 (page 85) The circumstances of your practice will greatly influence your answers. However, you may be able to notice both ‘negative’ and ‘positive’ reasons for involving others. ‘Negative’ reasons involve your response to mistakes or errors, for example, missing prescription details or supply problems. These have tended to dominate pharmacy practice. ‘Positive’ reasons involve your suggestions to improve or optimise patient care. Of course, our role in ensuring the safe legal supply of medicines is important, but we should probably try to increase the proportion of positive contacts, which justify the title ‘medicines expert’.

Your experience of pharmacies as a patient

5 (page 86) Your experience may have been in the UK or abroad. European community pharmacies often have very high standards of presentation and focus on clinical products. Pharmacies in the USA and Canada tend to look more like general stores. Which model would you most like to emulate? As a pharmacist, I often simply request a particular OTC product, but I am rarely offered advice and checks on product suitability tend to be perfunctory. If you’ve been in hospital did the pharmacist introduce themselves and make it clear what they were doing?

Research into local partnerships

6 (page 87) In your research you should have identified your local primary care organisation and facilities such as clinics and hospitals. You should also have established any specialist work carried out locally, and perhaps special interests of local GPs and nurses. Have you identified local provision of allied and complementary therapy? Have you discovered any local plans to implement new services? What priorities and policies underpin these plans? When were the plans made and what period of time do they cover. You’ll probably find that it is quite easy to ‘miss the boat’ if you want to influence things.

Achieving objectives

Do you feel that you have achieved the objectives we set at the beginning of this chapter? Can you now describe the objectives of partnerships in medicines taking, identify the people with whom pharmacists in your locality could develop partnerships, and would you feel able to take practical steps to develop partnerships?
Your research will have provided a list of useful resources about developing partnerships, and some of them will be found in the bibliography/further reading chapter.

Summary

For many years pharmacy has been described as an under-utilised profession, the unsung expert on the high street or unknown preventer of junior doctors’ prescribing errors. At its best pharmacy practice has always combined expert knowledge with excellent customer care. A ‘trading profession’ naturally understands that future success depends on client satisfaction and good will. The movement towards ‘patient-professional partnerships’ provides a great opportunity for pharmacists to both get back to basics and extend clinical roles. We hope that this chapter provides some help and encouragement at whatever stage of practice and personal development you’ve reached. The pace of change external to pharmacy probably means that if you decide to stand still the ground will fall from beneath you.
Bibliography/further reading
Getting the best out of medicines

General Principles


Pharmaceutical Care Model Scheme. NHS Scotland.
This initiative from the Scottish Executive Health Department provides an opportunity for an extended role for community pharmacists including compliance assessment and medication review.

www.medicines-partnership.org/research-evidence/major-reviews/a-question-of-choice

Understanding patients


www.expertpatients.nhs.uk
Helping patients

Family Doctor books are affordable authoritative patient focused guides to a range of medical problems and diseases. To stock them contact familydoctor@btinternet.com or 01202 668330.


A succinct account which covers asking questions, listening and explaining.

This book includes a chapter on techniques for increasing patients’ recall and understanding.


This package is designed for community pharmacists who wish to be involved in the scheme. The scheme enables community pharmacists to undertake formal compliance needs assessment for people requiring help with their medicine.


A clear description of the use and benefits of reminder charts.


An American book which looks at the subject in some detail. Gives lots of good examples.

www.npsa.nhs.uk
Evidence-based practice


A vast range of online resources covering all aspects of evidence-based practice.

This is a useful book for those making complex clinical decisions or for those who are involving in teaching.

A relatively easy read and good place to start for pharmacists wanting to start learning about evidence-based practice.

www.bmj.com

Medicines information

Datapharm Communications
www.medicines.org.uk/
Online access to industry sponsored and legally approved medicines information including Medicines Guides, Summaries of Product Characteristics and Patient Information Leaflets.

Drug Info Zone
www.druginfozone.org/
The online face of the UK Medicines Information Services (UKMi), delivering all the latest news, a searchable archive and e-mail alerts.

Medicines Partnership: Compliance to Concordance.
www.medicines-partnership.org/medicines-information/links
A list of useful links to medicines information for patients and professionals.

www.askaboutmedicines.org

Information appraisal tools

Critical Appraisal Skills Programme
www.phru.nhs.uk/casp/casp.htm
CASP aims to enable individuals to develop the skills to find and make sense of research evidence, helping them to put knowledge into practice.

Discern on the Internet Project
www.discern.org.uk
DISCERN is a brief questionnaire which provides users with a valid and reliable way of assessing the quality of written information on treatment choices for a health problem.
Health on the Net Foundation
www.hon.ch/
The HONcode for medical web sites addresses one of Internet's main healthcare issues: the reliability and credibility of information.

Pharmaceutical practice
Linda Strand’s concept of ‘pharmaceutical care’ has had a big impact on the development of pharmacy practice. Some of its principles are important, but require adaptation to be useful in the National Health Service (see Barber above).

NHS policy and management
This important book briefly and clearly describes the application of many healthcare decision-making tools. Useful for making decisions that affect groups of patients and also understanding ‘NHS manager speak’.
Key national or international policy documents for health education and health promotion in Pharmacy.
Scotland’s Health on the Net, Organisations by Region. Online at http://www.show.scot.nhs.uk/organisations/orgindex.htm
Online health information provided by NHS Scotland, the organisations search provides quick access to information on local premises and policies wherever you are.

Pharmacy audit
Access to teaching materials, audit templates and CPD forms for pharmacists in Scotland.

Medication review
*A guide to medication review: the agenda for patients, practitioners and managers.*
www.medicines-partnership.org
This guide provides a toolkit for medication review with a focus on concordance.

**Other resources**

NHS Education for Scotland, *Scottish Research Networks*.  
www.nes.scot.nhs.uk/SSPC/Research_networks/  
Details of primary care research networks currently operating in Scotland.

*Pharmacist Support for People with Learning Disabilities*.  
www.nmhct.nhs.uk/pharmacy/cclg-ld.html  
A briefing paper for pharmacists to assist them in providing support to this client group (formerly known as suffering from a mental handicap) and their relatives and carers.

RD Direct  
www.rddirect.org.uk/  
Signposting service for all researchers working in health and social care settings. Links to research process flowchart, research courses and research funding sources.
Multiple choice questionnaire
Congratulations – you have made it to the end of the package. However, we require one more task of you – to complete the attached self-assessment questionnaire. This allows you to test your understanding of the package and receive feedback on the answers.

Tick each answer as true or false. Tear off the answer sheet on the last page along the perforation and copy your ‘ticks’ on this sheet. Please take a few minutes of your time to add your comments about all aspects of the package on the back. Your comments allow us to improve future distance learning packages. Once completed with your name and address details, return it to:

NHS Education for Scotland (Pharmacy)
3rd Floor, 2 Central Quay
89 Hydepark Street
Glasgow G3 8BW
www.nes.scot.nhs.uk

Alternatively, you may wish to complete the MCQs online at the NES Pharmacy website. You will receive an instant score if you choose this method!

Please note there is no negative marking, so do attempt all the questions.
Multiple choice questionnaire

Please answer the following questions by ticking the appropriate box.

true  false

1 After 5 minutes, how much of what you tell patients is usually remembered?
   a Up to 10%  
   b Up to 25%  
   c Up to 50%  
   d Up to 75%

2 Which of these benefits may come with promoting patient adherence?
   a Patient satisfaction  
   b Improved two-way communication with the patient  
   c Recognition of the value of pharmacists by doctors and patients  
   d All of the above

3 Which of these terms is incorrect and should not be used?
   a Patient adherence  
   b Patient concordance  
   c Intentional non-adherence  
   d Medicines partnership

4 Which of these situations cannot be described as ‘unintentional non-adherence’?
   a A patient forgetting to take their bendroflumethiazide  
   b A patient unable to use a salbutamol inhaler correctly  
   c A patient unwilling to take their atenolol due to side-effects  
   d A patients with rheumatoid arthritis unable to open blister packs

5 Research estimates suggest that the percentage of prescriptions in the UK not taken by patients for dispensing, is:
   a 2 – 3%  
   b 6-10%  
   c 15 – 20%  
   d 30 - 40%
According to Leventhal, the patient who does not take his statin medicine because he believes that his raised blood cholesterol will not lead to future ill health, is acting based on which ‘illness representation’?

a. Timeline
b. Cure
c. Identity
d. Consequences

Research by the RCP suggests that patients above which age are significantly less likely to take their medicines as prescribed?

a. 65
b. 75
c. 80
d. 85

What proportion of UK adults is thought to be ‘functionally illiterate’ in 1999?

a. 1 in 5
b. 1 in 7
c. 1 in 10
d. 1 in 20

Which of these communications skills are key when discussing adherence issues with patients?

a. Putting the patient at ease
b. Encouraging them to open up
c. Being alert to hints
d. All of the above

An empty multi-compartment compliance aid is returned to you. This could mean:

a. All medicines taken on the correct day
b. All medicines taken at the correct time
c. Some medicines taken correctly
d. All of the above
11 You are concerned that one of your patients may be over-dosing on their analgesics. Which of the following questions would be most likely to produce an honest and open discussion?

a. You do know over-dosing is bad for you don’t you?  
   -  

b. Are you taking too many of your painkillers?  
   -  

c. When the pain is really bad, do you sometimes need to take extra doses?  
   -  

d. Can you bring in your painkillers for me to count them?  
   -  

12 A patient’s carer from a residential home tells you that one of her residents is unable to swallow her methotrexate tablets. What would you advise the carer to do?

a. Crush the tablets and dissolve them in water  
   -  

b. Stop administering the tablets  
   -  

c. Tell the carer to try harder with the resident  
   -  

d. Inform the GP that a change in drug therapy is necessary  
   -  

13 You have been asked by another healthcare professional to supply a multi-compartment compliance aid to one of your patients. What steps do you need to take?

a. Consider simplifying the drug regimen  
   -  

b. Assess the patient’s ability to remove tablets from the device  
   -  

c. Check stability of drug in device  
   -  

d. All of the above  
   -  

14 Which type of question should you use when talking to patients

a. Closed questions  
   -  

b. Open questions  
   -  

c. Leading questions  
   -  

d. Combination of open and closed questions  
   -  

15 Which method(s) can be used to simplify a patient’s medication regime?

a. Synchronise doses  
   -  

b. Reduce number of dose taking times during the day  
   -  

c. Discontinue non-essential medicines  
   -  

d. All of these  
   -  

16 EU Directive 92/27 states that a Patient Information Leaflet supplied with a medicine should be written:

a. in English
b. in the language of the country of manufacture
c. in the language(s) of the country where the drug is marketed
d. in technical language

17 What advice would you give to a patient who is having trouble swallowing their tablets or capsules?

a. Put tablet or capsule in the middle of the tongue
b. Swallow with plenty of water
c. Swallow while standing or sitting upright
d. All of the above

18 Non-adherence is best described as:

a. A characteristic of problem patients
b. Normal behaviour
c. The consequence of inappropriate counselling
d. An opportunity to build relationships

19 Partners in medicines taking may include...

a. Patients’ family and friends
b. Patients
c. Doctors and nurses
d. All of the above

20 Effective pharmacy services are best focused on which of the following:

a. Supply of medicines
b. Therapeutic drug monitoring
c. The patient
d. Staff development
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Multiple choice answer sheet
Name

Address

RPSGB Reg. no.

Comments