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What is Pharmacy Practice?

Ben J Whalley

Introduction

The principal aim of this book is to provide an essential reference on Pharmacy Practice for Pharmacy Masters (MPharm) students, particularly those just embarking on their study of Pharmacy at undergraduate level. As such, it provides an overview of the major topics in Pharmacy Practice encountered by such students, in a practical, clear and succinct manner.

As a text aimed at new Pharmacy students, it is not intended as an exhaustive reference text for each topic covered; rather, it should be considered as a starting point for further study, facilitated by regular signposting and referencing to the many excellent advanced texts available. Students are strongly encouraged to pursue such directions as required, and as their overall level of understanding and ability develops.

The rapidly changing nature of the profession and the unfamiliar terminology and acronyms that are widely used often present barriers to students beginning their study of Pharmacy Practice. This book provides a glossary of common terms used in the discipline, which can be used either as the book is read as a whole, or as a companion text during the study of other texts on Pharmacy Practice.

This book also provides a practical guide to extemporaneous dispensing, including hints and tips for successful dispensing. This guide is to be used in conjunction with formal pharmaceutical texts such as:

- *British Pharmacopoeia* (BP)
- *British National Formulary* (*BNF*; published every 6 months)
- *Martindale: The Complete Drug Reference*
- *Pharmaceutical Codex*
- *Medicines, Ethics and Practice Guide for Pharmacists and Pharmacy Technicians* (*MEP*; published annually).

Pharmacy Practice: definitions

As a first step in undertaking the study of Pharmacy Practice, it is vital to understand what the term means. What is Pharmacy Practice? Which specific subject areas does it encompass? How does it relate and link to other relevant disciplines that comprise the undergraduate Pharmacy degree? Considering and answering these important questions will provide an overview of the subject, a prerequisite for its successful study and practice.

In simple terms, Pharmacy Practice is the discipline within Pharmacy that involves developing the professional roles of the pharmacist. Consequently, and within the scope of the MPharm degree, it can also be described as *application* of the knowledge and skills acquired as part of the other related disciplines within the MPharm programme to actual patient care.

By giving careful consideration to the definition above, it should be clear that a solid grasp of Pharmacy Practice is vital, since it facilitates and enables pharmacists to fully exploit their substantial knowledge and expertise in areas such as pharmacology, pharmaceutics, chemistry and therapeutics within a clinical context.

More than a definition

Whilst the definition used above provides us with the scope of the discipline, it is also important to consider the individual components that comprise the whole. The following areas can be considered as critical parts of the discipline.

Healthcare systems

To operate effectively and deliver the best care to patients, a pharmacist needs to understand the way in which healthcare provision to the general population is organised in the UK. A pharmacist should be able to comprehensively answer questions such as:

- Which public and private organisations deliver healthcare to the population?
- Which professionals work in which areas to provide such health care?
- What role does the UK Government play in such provision?
- How do individual patients enter such systems for treatment?

As one of the largest employers in Europe, the UK's National Health Service (NHS) has enormous scope and size, making the answers to the above questions important. An overview of past and current NHS structure and healthcare provision is provided in Chapter 2.

Public health (*Chapter 2*)

As health professionals, pharmacists are concerned not just with the treatment of existing disease states, but also with their prevention and the promotion of healthier lifestyles. Consequently, the area of public health concerns the prevention rather than the treatment of disease, often via the surveillance of specific disease states and the promotion of healthy behaviours shown to reduce the incidence and/or severity of such states. This has given rise to a definition of public health as the science and art of promoting health, preventing disease and prolonging healthy life through the organised efforts of society.

The role of the pharmacist *(see Chapters 3–5)*

Many students entering the study of Pharmacy are already aware of the traditional role of the pharmacist as a dispenser of medicines prescribed by doctors and other health professionals; however, it is critical to appreciate that the pharmacist's role has developed rapidly in recent years to include many other roles beyond the dispensing of drugs. In fact, with the advent and development of suitably qualified technical staff within the conventional dispensing process, the pharmacist's role in this area is now steadily reducing and so gives rise to opportunities that make better use of the pharmacist's unique range of skills and expertise alongside those of other members of the healthcare team. Furthermore, the variety and specialisation of the roles performed by pharmacists within different areas of the profession (community, hospital, industry, veterinary, etc.), have also produced considerable variety in what pharmacists actually do in their day-to-day work.

Communication skills *(see Chapter 8)*

The ability to communicate effectively and appropriately is a vital requirement for today's pharmacists. Given the number of people that a pharmacist communicates with on a regular

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Structure and function of the NHS in England

Rachel L Howard

Introduction

This chapter describes the structure and function of the National Health Service (NHS) in England. Following devolution of power in the UK, there are significant differences in the structure of the NHS in England, Scotland, Wales and Northern Ireland. Only the NHS in England is described in detail. Different prescription types for each country are, however, described in Chapter 9. This chapter begins by describing the history of the NHS and its structure, followed by recent developments in the NHS. The chapter closes with a description of the roles of pharmacists within the NHS. More detailed information on the roles of pharmacists working within community, hospital and industrial pharmacy is given in Chapters 3, 4 and 5. More detailed information on the history of the NHS and recent changes can be found at www.nhshistory.com.

History of the NHS

In 1942 Sir William Beveridge published *Social Insurance and Allied Services*, a report to the UK government in which he recommended the creation of an NHS to provide care for all citizens through a system of central taxation and other compulsory financial contributions (Beveridge, 1942). In 1946, the National Health Service Act established the structure of the NHS for England and Wales. The NHS was born on 5 July 1948, providing services, free of charge, for the prevention, diagnosis and treatment of disease. This was the first time in the world that completely free health care was made available on the basis of citizenship rather than the payment of fees or insurance premiums (BBC, 1998a).

Before the creation of the NHS in England and Wales, health care was a luxury that usually only the rich could afford. Most hospitals and doctors charged for their care, and many poor people

over 400 NHS acute trusts (Department of Health, 1997).

The New NHS

When the Labour government came to power in 1997, the NHS was once again in financial crisis. This government argued that there was little strategic coordination of NHS services, and that the internal market had increased expenditure on administration, created divisions between health professionals, and led to inequalities in patient care. Labour published *The New NHS. Modern. Dependable* and developed their first 10-year plan to modernise the NHS, replacing the competitive internal market with patient care that would be driven by integration and high standards of performance (Department of Health, 1997). Despite its criticism of the Conservative goverment's changes to the NHS, the majority of Labour's proposed reforms built on these changes, focusing on quality, efficiency and performance, and resulted in the introduction of the National Institute for Clinical Excellence (NICE; now called the National Institute for Health and Clinical Excellence), National Service Frameworks (NSFs), Primary Care Groups (PCGs), the Healthcare Commission and the concept of 'clinical governance' (Rivett, 2007). NICE develops evidence-based guidelines for public health, health technologies and clinical practice (see www.nice.org.uk for more information). The NSFs introduced national standards of care for a range of clinical conditions and patient groups, including older patients and children. Primary care groups (later changed to PCTs) encouraged local GPs and nurses to work together, focusing on prompt, accessible, seamless care delivered to a high standard. The Healthcare Commission was established to ensure high standards of health care throughout the NHS (see Box 2.11).

In addition, proposals to improve NHS performance centred on better use of information technology (Department of Health, 1997). NHS Direct (see Box 2.10) provides 24-hour care via telephone, and the NHSnet and internet allow rapid access to information. Linking laboratories to GPs' computer systems allows results of blood tests to be communicated electronically to GP surgeries, and the National Library for Health (www.library.nhs.uk) provides a wealth of information for health professionals. Patients can also get rapid access to information through NHS Direct online (www.nhsdirect.nhs.uk) and via digital television. Plans still to be implemented include the single electronic patient record. This will be an online record that will provide up-to-date and timely information to health professionals about patients' medical and medication histories, and care they have received.

The NHS Plan

The changes in healthcare provision set out in *The New NHS. Modern. Dependable* (Department of Health, 1997) did not achieve what the Labour government hoped for. Therefore, in their second term in government, Labour announced further changes, with the publication of their second 10-year plan '*The NHS Plan*' (Department of Health, 2000a). These changes encompassed government spending on the NHS (to increase by 50% over 5 years), staffing, infrastructure and patient involvement in the NHS. As a result of these changes, patients:

- can influence how NHS services are organised through patient consultations and patient advisory and liaison services (PALS) (where patients can comment on the health care they have received and suggest changes)
- receive more information about the type of care they receive and the performance of hospitals where they receive care
- choose which local provider they want to receive their care from.

Staffing changes included:

- increased numbers of, and better paid, healthcare staff – numbers of health professionals were initially increased under the Labour reforms; however, financial difficulties, caused by underestimating the cost of new contracts for doctors (under the new GP and consultant contracts) and other staff

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An overview of community pharmacy – the role of the community pharmacist: past, present and future

Sam E Weston

Introduction

More pharmacists currently work in the community sector than in any other part of the pharmaceutical industry – nearly 75% work in this setting, either employed by multiple pharmacy chains as pharmacists, pharmacy or store managers or relief pharmacists, or self-employed as pharmacy owners or locums. This role has changed significantly over the years, and continues to develop at a rapid pace as pharmacists rise to the challenges and changes presented to them by the ever-changing National Health Service (NHS).

In the UK, a community pharmacist can expect to consult with up to 15 patients a day on an over-the-counter (OTC) basis (Figure 3.1), as well as interacting with patients who are presenting prescription forms or collecting dispensed medications. At the time of writing, a community pharmacist rarely has access to a patient's full confidential medical record,

Figure 3.1 Over-the-counter prescribing.

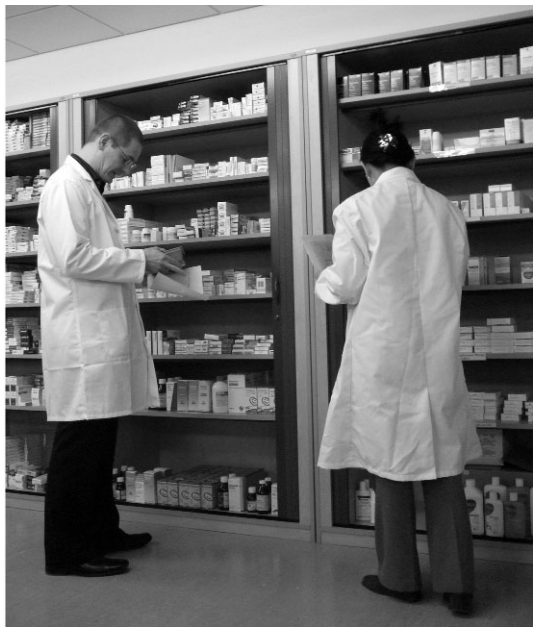

Figure 3.6 A working dispensary.

Essential services

Repeat dispensing

A community pharmacist can supply medication to the patient in the event that the patient receives a regular prescription from their GP for a particular condition, has been maintained successfully without need for any change to the medication regimen for a period of time, and is not due for a GP review of their medications. GPs supply prescriptions in advance to the pharmacy, allowing a reduction in their workload, as well as reduced drug wastage and greater use of the pharmacist's skills.

Adverse drug reaction reporting

The Yellow Card Scheme was launched in 1964, and is used to report suspected adverse drug reactions (ADRs) to the Medicines and Healthcare products Regulatory Authority (MHRA) and Committee on Safety of Medicines (CSM). Both hard copies (the yellow pages in the back of the BNF) and electronic versions (implemented in 2002 and available at www.mhra.gov.uk) of the yellow card are currently in use. Reports are divided into two categories:

- 'black triangle drugs' (noted as such in the BNF; these are drugs that have received market authorisation in the last 2 years) for which any suspected ADRs should be reported
- all other drugs, for which only serious suspected ADRs should be reported.

Currently the Yellow Card Scheme can be used by doctors, nurses, pharmacists, dentists, coroners, optometrists and radiographers (www.mhra.gov.uk). Members of the public are now able to use this scheme, both online and by directly contacting the manufacturer of a medication that may have caused an adverse event. This has allowed for more comprehensive profiles to be developed for any medicine that may have caused a suspected adverse reaction. More information about the Yellow Card Scheme can be found on the MHRA website (www.mhra.gov.uk).

Patient counselling

This involves giving advice to patients on how to use their prescribed medications, often used as an informal method of checking on how patients are coping with their medications. Early identification of problems, such as timing of medications, side-effects or problems with physical manipulation of the packaging can be addressed promptly, with minimum disruption to the patient's lifestyle.

Identification of interactions of prescribed medications with other medicines, herbal remedies and foodstuffs

The ageing population, both in the UK and worldwide (United Nations, 2001) means that many more patients are taking more than one clinically justified medication – so-called

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An overview of hospital pharmacy

Kate E Fletcher

Introduction

This chapter introduces hospital pharmacy and describes the roles of the pharmacist and other pharmacy staff within the hospital setting, clinical pharmacy (the role of the pharmacist and other pharmacy staff on hospital wards), the specialities that pharmacists can work in within hospital pharmacy and future developments for hospital pharmacy.

Traditional roles of the hospital pharmacist

Until about 30 years ago, pharmacists in UK hospitals were to be found in the dispensary, processing stock orders and prescriptions, and rarely setting foot outside of the pharmacy department, except to perform 'ward pharmacy', which at this stage was little more than collecting dispensing work from wards. Consequently, the traditional roles of the hospital pharmacist were dispensing and supplying stock drugs to wards and departments. Many products were made extemporaneously (Box 4.1), and therefore most departments had an in-house quality control (QC) section. QC, or quality assurance (QA) as it is now more often called, involves testing pharmaceutical products to ensure they are safe and suitable for use. These tests may therefore investigate aspects such as sterility or composition. QA also ensures that unlicensed medicines (Box 4.1) ordered by the pharmacy department are manufactured to the appropriate standards before being supplied for use in patients (see below).

In the early 1970s, with the development of clinical pharmacy and the increasing role of the pharmacy technician, pharmacists started moving out of the dispensary to work side by side with nurses and doctors on wards. As a result, the role of the hospital pharmacist in the 21st century would be barely recognisable to the pharmacist of 50 years ago because rather than the pharmacist being confined to the pharmacy

Figure 4.2 A pharmacy technician produces labels for a prescription.

Figure 4.4 A pharmacist performs the final technical check of a discharge prescription.

Figure 4.3 A pharmacy technician dispenses a discharge prescription.

Assistant technical officers (ATOs) play an important supportive role to pharmacists and technicians. They may be dispensary receptionists, for example, receiving work into the dispensary and answering the telephone; some ATOs are trained to dispense prescriptions and prepare sterile products; others may work in pharmacy stores, preparing stock orders for wards and departments. All wards and clinical departments within a hospital (i.e. areas that treat patients) have a stock of the drugs and equipment that are used regularly in that area. The stock drugs are listed on a pharmacy stock list, and staff in that area can order any item on the stock list from the pharmacy; these orders are processed in the pharmacy stores, and then delivered to the department that made the order.

Pharmacists, technicians and ATOs work side by side in the pharmacy, and tend to have parallel management structures. Pharmacists are usually managed by a more senior pharmacist, and technicians and ATOs are usually managed by a more senior technician. Most departments have a senior management team which is composed of the chief pharmacist, deputy chief pharmacist, clinical services manager and operational manager, and which oversees all parts of the department. The role of the chief pharmacist is described below. The deputy chief pharmacist may also be the clinical services manager or operational manager, or share some of the roles and responsibilities of the chief pharmacist. The

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An overview of industrial sector pharmacy

Clare F Rawlinson

Introduction

The role of the pharmacist as a distinct entity separate from the physician has emerged over the course of history. At its inception, this role involved the compounding of medicinal products, including chemist's nostrums and extemporaneously prepared items (see Chapter 14). Over time, this local preparation of medicines within individual pharmacies, whether to a formula prescribed by the doctor or by the pharmacist, has diminished. These formulations have been replaced by products developed, licensed and manufactured by companies with specific expertise in these areas. The majority of medicinal products dispensed to patients nowadays are prepared by central manufacturing processes performed by pharmaceutical companies.

This centralised development 'pipeline' for medicinal products has allowed a large range of new chemical entities (NCEs) to be discovered and more complicated dosage forms and devices to be developed. Potential NCEs must pass through a complex series of regulated clinical trials in order to become licensed and proceed to market. This strict framework aims to assess the safety and efficacy of these products and to prevent severe or unacceptable side-effects for potential patients. Pharmaceutical companies have various departments, employing people with particular skill sets, which deal with these different stages of getting a new drug successfully to the market. This development pipeline provides the benefit of effective, quality-assured and 'safe' medicines to the population. (Note: safety is subjective – no drug is truly safe. All drugs show some adverse effects or side-effects in some patient populations.) The drug development process aims to address previously untreatable conditions and improve on the treatments currently provided for other disease states.

Within their undergraduate training, pharmacists study a wide range of subjects. These include:

- medicinal chemistry – the design, synthesis and development of pharmaceutical drugs

at any stage of production; poor flow of powders from hoppers, segregation of mixed powders during movement of materials between stages of manufacture, and incorrect granulation mixture consistency are just some examples of the problems that may be encountered during tabletting.

Pharmacists are often involved in the product transfer process (i.e. from the formulation laboratory to the manufacturing plant). They can apply knowledge of pharmaceutics to deduce the cause of a problem. This information can be used to make slight alterations to the formulation whilst liaising with the R&D department to solve the particular problem without adversely affecting the final performance of the product.

Quality assurance

Quality assurance is an important part of the manufacturing process, and pharmacists often become involved in this area. Quality is a concept that means different things to different people. In relation to pharmaceutical products it means that the product is fit for purpose – it is fit to be given to a patient in the confidence that it will have the desired effects and will not harm or damage him of her in any way, through faults of manufacture (Sharp, 1994). Quality assurance involves testing the raw material and manufactured product at different stages to ensure

Box 5.2 Case study: Manufacturing

I studied Pharmacy at John Moore's University Liverpool and graduated in July 2004. I enjoyed all aspects of the degree course but particularly the Industrial Pharmacy module and my final year project, which was a study of dosage form design, in which I looked at the tabletting properties of various grades of hydroxypropylmethylcellulose (HPMC) and lactose.

I completed my pre-registration year in the community sector and, following registration, I spent a further 6 months as a relief manager, and then a permanent manager, for the same firm. Whilst enjoying my time in community pharmacy, I realised that I wanted to use more of the knowledge gained at university, so I decided to move into the industrial sector. I became a scientist in the pharmaceutical development group at Bristol-Myers Squibb (BMS).

Since beginning at BMS I have been involved in a number of different projects, each at a different stage in the drug development programme. Working on various projects has provided variety, as well as very useful experience. No two days are ever exactly alike. Typical activities range from small- to medium-scale manufacturing (using a wide range of equipment), dissolution testing and recording, reporting and summarising the resultant data.

Non-project related activities include the calibration and validation of equipment, audit, setting up and chairing a Pharmacist forum within the company, and being a representative on a number of sub-teams related to electronic laboratory notebooks.

Working in industry has allowed me to use much of the knowledge gained on my degree course, whilst presenting a constant and interesting challenge. BMS places strong emphasis on high-quality training, team work and cooperation whilst enabling individuals to plan and take responsibility for their own work.

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Scientist, Pharmaceutics Research and Development, Bristol-Myers Squibb

6

Introduction to medicines management

Rachel L Howard

Introduction

This chapter introduces the concept of medicines management and the role of the community pharmacist. The chapter begins by describing what medicines management is, why it is needed, the different types of medicines management, and how these are achieved. The chapter closes with a description of the medicines management services that community pharmacists in the UK can provide.

Many of the principles of medicines management described in this chapter also apply to hospital pharmacists. However, the specific roles can differ markedly between hospital and community pharmacists; a description of these individual roles is beyond the scope of this chapter.

What is medicines management?

The objective of medicines management is to provide the best possible outcome for patients at the lowest possible cost. Medicines management is not aimed solely at cost reduction, but at providing the most cost-effective care for the best possible patient outcomes. The term medicines management incorporates all aspects of medicines usage by patients and health professionals, including the ways in which medicines are selected, procured, delivered, prescribed, administered, monitored and reviewed. Medicines management has been given a variety of definitions (see Box 6.1), the most succinct of which is, 'the systematic provision of medicines therapy through a partnership effort between patients and professionals to deliver best

Box 6.4 *Building a safer NHS for patients: improving medication safety*

Following the report *An organisation with a memory* (see Box 6.2), the Department of Health published a series of reports entitled *Building a safer NHS for patients*. One of these – *Improving medication safety* (Smith, 2004) – focused specifically on medication safety. This report described the:

- frequency and causes of medication errors
- role of the National Patient Safety Agency in preventing medication errors
- risks of errors at various stages in the medication use process
- particular risks to patients at high risk of medication errors, such as patients with allergies to medications, seriously ill patients, and children
- risks associated with specific groups of medications
- ways in which medication errors can be avoided through better use of information technology, medication packaging and different ways of working.

The full report can be accessed via www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4071443

National Patient Safety Agency website: www.npsa.nhs.uk

Consequences of poor medicines management

The consequences of poor medicines management include medication errors, patient injury and wastage of NHS money. Medication errors can occur at all stages of the medicines management process (prescribing, dispensing, administering and monitoring). The majority of errors will be identified before the medicines reach patients (near misses) or will result in no harm to patients. However, a significant minority of medication errors (usually those described as serious errors) can result in patient harm (preventable drug-related morbidity; PDRM). The stages of the medicines management process at which errors can occur are described in detail below. The frequency of errors at each stage of the medicines management process is given in Table 6.1.

Table 6.1 Frequency of medication management errors

Error type	Patient group	Frequency of error	Reference
Prescribing error	Children in hospital	0.45–30 errors per 100 prescriptions	Ghaleb *et al.*, 2006
	Adults in hospital	1.5 errors per 100 prescriptions	Dean *et al.*, 2002
	All patients in primary care	0.2–1.9% of prescriptions dispensed in community pharmacy	Chen *et al.*, 2005
Dispensing error	Patients presenting prescriptions to a community pharmacy	22 per 10 000 items dispensed (near misses)	Ashcroft *et al.*, 2005
		4 per 10 000 items dispensed (errors)	
Administration error	Patients administering their own medication in the community	50% of patients with chronic conditions are poorly adherent	WHO, 2003
	All patients in hospital	15% of patients administered oral medications by nurses	Tissot *et al.*, 2003
		49% of intravenous medication doses administered; one-third of errors at least moderately serious	Taxis and Barber, 2003

7

Structure and function of the Royal Pharmaceutical Society of Great Britain

Kate E Fletcher

Introduction

This chapter describes the structure and function of the Royal Pharmaceutical Society of Great Britain (RPSGB) at the time of writing (late 2007). However, The Health Act 1999 may result in fundamental changes to the regulation of health professions and health professionals. This is likely to include pharmacists and the role of the RPSGB. Such changes have not yet been announced or formalised. A detailed description of the history and structure of the RPSGB can be found on their website www.rpsgb.org/societyfunctions/aboutthesociety, from which information in this chapter is taken.

The Royal Pharmaceutical Society of Great Britain

The RPSGB is the professional and regulatory body for pharmacists in England, Scotland and Wales. In order to practise as a pharmacist in these countries, an individual must be registered on the Register of Pharmaceutical Chemists. Entry on to the Register is controlled by the RPSGB.

To qualify for registration, an individual must have completed a 4 year masters degree in pharmacy from one of the 23 Schools of Pharmacy, completed 12 months' pre-registration work-based training, and passed the registration examination. A fee is payable to be added to the register, and an annual retention fee to remain on the register. Pharmacists who gained their qualifications in other countries may be eligible for registration with the RPSGB, although many of these individuals will have to undertake further study, examination and training to meet the standards for registration.

The primary objectives of the RPSGB are to lead, regulate, develop and represent the profession of pharmacy. The Society also works to advance science, practice, education and knowledge in pharmacy, and to promote the profession to external stakeholders, such as the Department of Health.

a body to take certain powers (Appelbe & Wingfield, 2005). A Charter of Incorporation enables a body to function as a corporation (i.e. a large company or group of companies authorised to act as a single entity and recognised as such in law). The Charter gave precedence to 'advancing chemistry and pharmacy and promoting a uniform system of education' over 'the protection of those who carry on the business of chemists and druggists' (The Royal Charter of Incorporation, 1843). The charter also gave the Society a corporate framework that has been refined by supplemental charters in 1901, 1948, 1953 and 2004.

King George VI became the Society's patron in March 1937, and the monarch has been the patron of the Society ever since. Queen Elizabeth II granted the title 'Royal' to the Society in May 1988.

The structure of the RPSGB

The Royal Pharmaceutical Council

The Royal Pharmaceutical Council governs the RPSGB and is responsible for deciding policy and practice relating to the RPSGB. It is composed of:

- 17 pharmacists, elected by the membership of the Society by postal single transferable vote
- 1 pharmacist appointed by universities awarding pharmacy degrees accredited by the Society
- 2 elected pharmacy technicians (elected by technicians on the voluntary register of pharmacy technicians)
- 10 lay members appointed by the Privy Council.

The Council elects its own President.

The purpose of the supplemental charter of 2004 was essentially to modernise the charter of 1953 and make it fit for the purpose of enabling the Society to function in the 21st century. One result of the charter was to alter the tenure of council members: members elected after the supplemental charter of 2004 came into force serve for terms of 1, 2 or 3 years, allocated according to the number of votes received. Before this elected members were appointed for a 3 year period.

The Council meets six times a year. It is advised on specialist areas of pharmacy by committees and subcommittees, membership and special interest groups. Examples include the Education Committee, Practice Committee, Science Committee, Community Pharmacists Group, Hospital Pharmacists Group and the Industrial Pharmacists Group.

The Committees of the RPSGB

The RPSGB exercises is powers through nine committees.

- **The Education Committee** is responsible for setting educational standards and accrediting providers. It covers undergraduate education, pre-registration training, continuing professional development (CPD) and pharmacy technician education.
- **The Law and Ethics Committee** implements policy relating to professional conduct and the legal aspects of pharmacy practice.
- **The Science Committee** is responsible for implementing science policy; considers scientific content of the British Pharmaceutical Conference (BPC); keeps the Council aware of scientific developments and UK science policy, and possible effects on pharmacy practice.
- **The Investigating Committee** is a key component of the fitness to practise committee structure. One of the functions of the Investigating Committee is to make initial decisions in relation to allegations of impairment of fitness to practise, by deciding whether to refer such allegations to other relevant parts of the committee structure.
- **The Adjudicating Committee** assesses pharmacists from outside the European Union (EU) who want to practise in the UK, and EU pharmacists who do not automatically qualify to register in the UK.
- **The Audit Committee** selects the Society's external and internal auditors, and reviews

8

Essential communication skills for pharmacists

Kate E Fletcher

Introduction

Pharmacists must be able to communicate effectively with many different groups of people in order to carry out their job:

- patients and their carers
- other staff within the pharmacy
- nurses and doctors
- other health professionals such as physiotherapists and dietitians.

Pharmacists need to be able to communicate in various situations, and using different methods, whether it is face to face in the community pharmacy or hospital ward, over the telephone, making presentations at conferences, or writing letters and emails. The ability to tailor one's approach to communication in all its forms for all of these groups is therefore a critical skill that today's pharmacist has to develop. This chapter introduces some of the verbal and non-verbal skills required to communicate effectively in these settings.

Having good communication skills will also contribute to one of the most important attributes for a pharmacist, that is, professionalism (see Box 8.1). This is a difficult concept to define, but good communication skills contribute towards it.

Interacting with patients

The main skills required to interact successfully with patients are active listening, questioning, responding and explaining. Each of these skills is explained below.

Active listening

Listening is more than simply hearing a person speak to you. It should be an active process, ensuring not only that all messages are received but also that the speaker knows that the listener has understood the message. For pharmacists, this is particularly important when talking with patients. It is essential that the patient knows that the pharmacist is listening to them and taking their situation and opinions seriously. Patients – who may not be feeling well or may be shocked and/or concerned by a diagnosis, for

Box 8.1 Definitions of professionalism in pharmacy

Bumgarner *et al.* (2007) described professionalism as, 'the enactment of the values and ideals of individuals who are called, as pharmacists, to serve individuals and populations, whose care is entrusted to them, prioritising the interests of those they serve above their own . . .'

In an extensive review of professionalism in pharmacy, Hammer *et al.* (2003) conceptualised professionalism in pharmacy as a bicycle wheel. The centre consists of values associated with professionalism, such as altruism, caring, honour, integrity and duty. From this centre arise spokes, which represent behaviours associated with professionalism, such as respect, accountability, empathy and compassion. The outer tyre of the wheel represents the surface of professionalism, encompassing such things as professional attire, courtesy and punctuality.

Chisholm *et al.* (2006) listed the following ten broad traits that enable pharmacists and pharmacy students to act professionally:

- accountability for his/her actions
- commitment to self-improvement of skills and knowledge
- conscience and trustworthiness
- covenantal relationship with client (patient)
- creativity and innovation
- ethically sound decision making
- knowledge and skills of the profession
- leadership
- pride in the profession
- service oriented.

example – are easily intimidated by someone in a 'white coat'; by demonstrating good listening skills, the pharmacist can help the patient to feel much more comfortable and relaxed about their situation and the means by which it can be resolved. This in turn will help the pharmacist to obtain more useful information from the patient, as the patient will find it easier to share such information relating to themselves, enabling the pharmacist to fulfil their role more effectively. It is not unusual for a patient to give the pharmacist information that they may feel unable to share with their doctor or nurse, as many patients perceive pharmacists to be more understanding and approachable.

The three main techniques involved in active listening are:

- maintaining eye contact – so that the speaker can see you are paying attention
- acknowledging what the speaker says – by suitable body language such as nodding and verbal agreement
- summarising or paraphrasing what has just been said (e.g. using a phrase such 'So, what you're saying is. . .').

Questioning

Pharmacists need to use effective questioning in order to obtain information from patients, usually relating to their medication. It is important not to ask leading questions, as patients will sometimes just agree or go along with the lead, because they are afraid to get the question 'wrong'. For instance, when trying to identify which inhaler a patient uses when the patient doesn't know the name of the inhaler, the pharmacist might want to find out what colour it is, as different types have a specific colour. A leading question would be, 'Is your inhaler blue?' However, the patient may be tempted to reply 'yes' to this as it might appear to be the 'right' answer. A better way to ask is, 'What colour is your inhaler?' Without giving the patient a colour, they are not prompted, and will hopefully remember what colour the inhaler actually is. This type of questioning also makes it is easier and more likely for a patient to admit that they don't know the answer.

Getting accurate information with regard to a medication history is essential, as this will result in the patient receiving the correct medication

9

Prescriptions – types and legal requirements

Sam E Weston

Introduction

This chapter describes current prescription forms seen in primary care. These forms are often updated, but they provide examples of the types of prescription form you might see during your career.

Types of medicine

At the time of writing, the Medicines Act (1968) classifies medicines into three categories:

- general sales list (GSL)
- pharmacy medicine (P)
- prescription only medicine (POM).

GSL medicines are available to the public through many outlets, from supermarkets to the local garage. These are medicines which have a history of being safe and effective, meaning they can be sold by a person with no medical or pharmacy training.

'P' medicines are available only from pharmacies and can only be sold under the supervision of a pharmacist. Some 'P' medicines are products that have been deregulated from POM status, whereas others may have potential for misuse or require the supervision of a pharmacist during the sale. Other 'P' medicines need a pharmacist's expert knowledge of drug actions and possible interactions in order to be supplied to patients in certain situations. For example, a patient who is taking certain antihypertensives should not take the decongestants that are included in many cold and flu remedies, as the two drugs can interact and cause an increase in the patient's blood pressure. Another example is the use of antihistamines for hay fever symptoms: people who use machinery or drive as part of their daily life should be counter-prescribed a non-drowsy once-a-day antihistamine.

POMs are only available on a prescription from an authorised prescriber (as currently defined by the Medicines Act 1968). The prescription may be either on a National Health Service (NHS) prescription form (subsidised) by the government, or a private prescription, the full cost of which is to be paid for by the patient. Authorised prescribers include a variety of health

(Department of Health, 2000), there has been a steady move towards the routine use of electronic prescriptions in both community and hospital environments. Electronic prescriptions will have the same legal force as a paper prescription and will eventually replace the latter completely. The benefits of electronic prescriptions include

- patient convenience
- easier ordering of repeat prescriptions
- availability of more complete information about prescribing to all members of a healthcare team.

By transferring information about the prescriber's choice of medication for a patient electronically, a more holistic picture about the treatment regimen can be seen by any member of the healthcare team, which will, in turn, improve the continuity of the patient's care. The only exception to the transformation from paper to electronic format will be private prescriptions, which will remain paper based for the immediate future.

Information required on a prescription

A prescription is a means of communication between the prescriber and the pharmacist. The minimum information and instructions that are required are shown in Box 9.1.

Types of prescription form

NHS prescriptions

Prescription forms currently exist in many guises. Prescription forms must be used for prescribing POMs and appliances. In addition, each prescribing group (doctors, dentists, nurses, etc.) is restricted in the prescription form that they can use. The information below was correct at the time of writing (December 2007). Up-to-date information can be obtained via the Prescription Pricing Division website: www.ppa.org.uk.

Box 9.1 Essential information to be included on a National Health Service prescription form

- **Name, address and telephone number of the prescriber** – this allows the prescriber to be contacted in the event of any problems with interpreting the prescription.
- **Date of the prescription** – some legislation governing dispensing requires certain medicines to be dispensed within a certain time from the date on the prescription (e.g. controlled drugs).
- **Name of the medicine, strength and dosage form** – in the UK it is advised that medicines are written using their generic (or approved) name (i.e. the name of the drug) rather than their proprietary or brand name. This is also sometimes referred to as the recommended international non-proprietary name (rINN). However, the brand name can be written for exceptions where it important that a patient receives the same dosage form; this is particularly the case with many drugs used to treat epilepsy.
- **Dose and dosing regimen** – this allows the pharmacist to ensure that the correct dose has been prescribed for the patient; note, however, that some products (e.g. creams and ointments), may not have a specific dose.
- **Total amount to be dispensed** – this can be written as a quantity or as the length of treatment course, for example 21 capsules can be written as '21' or as 'one capsule, three times a day for 7 days'.
- **Directions for use** – this includes instruction on how a medicinal product should be used (e.g. 'spread thinly' in the case of steroid creams).
- **Name and address** of the patient (and age if under 12 years old).
- **Prescriber's signature** – this must be in indelible ink.

10

Understanding and interpreting prescriptions

Sam E Weston

Introduction

This chapter describes in detail the FP10 – the prescription form use most frequently in England. It provides a thorough 'road map' to the details seen on such a form and also a comprehensive guide to interpreting the information presented on it. Before considering the prescription form and learning how to interpret it, some thought should be given to the whole prescribing process. Writing a prescription is only a small part of this process and there are several stages to go through – from diagnosis (defining the patient's problem), to choosing a suitable therapeutic objective (considering what needs to be treated), deciding on a suitable treatment regimen, prescribing the chosen regimen and, finally, monitoring the patient's progress.

The National Prescribing Centre (NPC) has developed seven principles of good prescribing for use in training supplementary prescribers (NPC, 1999), which have been adapted for the purposes of this chapter and are outlined in detail below.

Good prescribing principles – a stepwise approach

Figure 10.1 summarises the approach that should be adopted for good prescribing, the so-called pyramid. Each stage outlined in the diagram is explained below. Each step should be considered carefully before moving on to the next step.

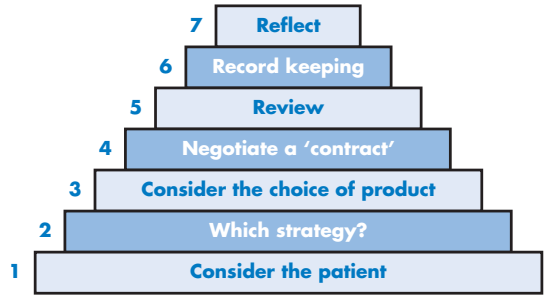

Figure 10.1 The prescribing pyramid. Each step should be considered carefully before continuing to the next step (NPC, 1999).

concerns. The prescriber should be familiar with the common ADRs associated with the treatments they are prescribing.

4 Negotiate a 'contract' and achieve concordance with the patient

The prescriber and the patient should come to an understanding about the patient's illness and discuss potential treatments that will help the patient to reduce the effect it has on his/her life. Further information on concordance can be found in Chapter 14. Effective communication is an essential part of good practice (see Chapter 8) and includes the need to make sure that the patient understands the information given. In the case of prescribing a medicine, the patient needs to understand:

- what the medicine is for
- how to take the medicine
- at what dose and frequency to take it
- how long it takes to work
- how long to take the medicine for
- the possible side-effects and what to do if they occur.

5 Review the patient on a regular basis

Reviewing the patient enables the prescriber to establish whether the treatment prescribed is effective, safe and acceptable. In an ideal world, patients should be reassessed at least every 6 months, with no more than six repeat prescriptions given without review, as outlined in a comprehensive document produced by the NPC (2004). Repeat prescribing without proper review may be wasteful and inefficient, and may even be potentially dangerous in some cases.

6 Record keeping

Record keeping must be both accurate and up-to-date – comprehensive notes on the patient's consultation, chosen drug regimen, test results and future appointments should be kept by the prescriber. In addition to this, the information recorded by the pharmacist (discussed in the following section) means a comprehensive record of the patient and their treatment is being maintained.

7 Reflection

This stage is often not considered until the patient returns for review with the prescriber. At this point the prescriber can decide whether the correct medicine regimen has been selected for the patient.

Interpretation of prescriptions

Once the prescription reaches you, the pharmacist, the next stage of the patient's care begins. To dispense a prescription, a methodical approach should be adopted in order to allow the prescriber's diagnosis and treatment choice to be conveyed accurately, with the correct medication, to the patient.

1 Check the patient's details

Firstly, the patient's details must be checked (see Figure 10.2). This allows the appropriateness of the treatment regimen for the particular patient to be assessed. Also, accurate records can be made of the product(s) dispensed, the product labelled for the patient, and the patient contacted, if necessary, after the medication has been dispensed and supplied to them. The full name of the patient is usually enough to indicate the sex of the patient, and therefore assess the appropriateness of a particular medication (e.g. finasteride should not be prescribed to women, except under certain circumstances when adequate contraceptive cover is in place, because it is highly toxic to developing male embryos).

The patient's address is also required (see Figure 10.2). This allows the pharmacist to