Section 1

The Patient

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Section introduction

In this first section we focus on the practical aspects of prescribing for patients. As a new prescriber, you will find there are many factors specific to your patient, your profession and your employer which influence both your decision to prescribe and the prescribing decisions you make. Throughout this chapter you will be encouraged to think about prescribing in practice and we begin with the consultation, the starting point for prescribing. All prescribers must practise within the law and in a manner consistent with professional and public expectations of a prescriber. The legal framework of medical and non-medical prescribing are defined in this section and new prescribers are encouraged to think about their prescribing role in relation to these aspects. Your actions as a prescriber will reach far beyond the patients you prescribe for and this section encourages you to explore the ethical and public health issues associated with prescribing authority. As your prescribing experience grows, you will find it useful to revisit the definitions and the questions raised in this section.

The term non-medical prescriber is used throughout the book and refers to nurses, pharmacists and allied health professionals who, following successful completion of a programme of formal prescribing education, are on the professional record as a prescriber.
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Learning outcomes

By the end of this chapter the reader should be able to:

- recognise and analyse the important elements of a consultation
- identify the components of the traditional medical history
- appreciate the diagnostic process and distinguish between the treatment of symptoms and the treatment of a disease or condition
- identify the elements of the consultation essential for safe prescribing (‘bottom liners’)
- refine their professional assessment/consultation for the prescribing role.

As you begin your prescribing education you already have a wealth of professional experience in your own area of practice. The assessment and consultation skills learnt as part of professional registration are well practised but may need to be refined as you take on prescribing. We are not suggesting that you need to adopt a new or medical model of consultation, although this might be desirable in certain advanced practice roles. For the majority of new prescribers, the focus will be on analysing their current framework of assessment or consultation and identifying adaptations required to support prescribing decisions. In this chapter we will ask you to think about the elements of the consultation that you may need to adapt or work on. We will give practice tips and point out common errors that can affect the quality of a consultation.

Prescribing inherently brings with it a greater requirement to make a diagnosis. This responsibility may be new and quite daunting. Prescribers need to have an understanding of the diagnostic process. In most circumstances, the key factor for accurate diagnosis is eliciting a good history. For this reason we will look in detail at the elements of a history. Examination and investigations are directed by and supplement the history. The depth and focus of the history and examination will vary depending on the setting and your role. Wherever you work, however, it is essential to be thorough and systematic and above all to know the bounds of your competence. History taking, examination and clinical decision making are skills that need to be continuously practised under expert supervision.

Ideally your prescribing will be effective but above all it should be safe. The primary dictum of all healthcare practice is ‘primum non nocere (above all do no harm)’. In the final part of the chapter we will outline the elements of the consultation that are essential for safe prescribing, the ‘bottom liners’ of a prescribing consultation.

The consultation

There are many factors that influence consultations and no two encounters between a practitioner and a patient are the same. The nature of your role will influence the types of patients you treat and the environment in which you see them. Other factors include the purpose of the consultation, the urgency and seriousness of the presentation, time constraints and the personalities, culture, language and medical knowledge of both the patient and the clinician. Previous contact with the patient, autonomy and confidence are other clinician factors. Communication and consultation skills are inextricably interlinked. There are many excellent textbooks available for prescribers who wish to enhance their communication skills (Silverman, Kurtz and Draper, 1998; Berry, 2004).

Elements of a consultation

Although consultations differ in the specifics, there are common elements and generic skills that are applicable in varying degrees to any given situation. Numerous consultation models have been developed over the years, for example Neighbour (2005), Pendleton et al. (2003), Calgary Cambridge in Silverman, Kurtz and Draper (1998). Rather than dwelling on the theory underpinning consultations, we will describe a practical framework, the elements of which can be applied in varying degrees to all consultations – see Box 1.1.

Box 1.1 Elements of a Consultation

(a) Preparing for the consultation and setting goals for it.
(b) Establishing an initial rapport with the patient.
(c) Identifying the reason(s) for the consultation.
(d) Exploring the patient’s problem(s) and ascertaining their ideas, concerns and expectations (ICE) about it.
(e) Focusing questions to obtain essential information.
(f) Gathering sufficient information relating to the patient’s social and psychological circumstances to ascertain their impact.
(g) Coming up with a diagnosis or a number of differential diagnoses in order of likelihood.
(h) Performing a focused physical examination and near-patient tests to support or refute the differential diagnoses.
(i) Interpreting the information gathered and re-evaluating the problem.
(j) Reaching a shared understanding of the problem with the patient.
(k) Considering further investigations if necessary.
(l) Deciding what treatment options, pharmacological and non-pharmacological, are available.
(m) Advising the patient about actions needed to tackle the problem.
(n) Explaining these actions and the time of follow-up if required.
(o) Inviting and answering any questions.
(p) Summarising for the patient and terminating the consultation.
(q) Making a written record of the consultation.
(r) Presenting your findings to another health professional.

It is important for consultations to have a degree of structure. The skill in consulting is to maintain a structure and system that includes all the vital elements and yet does not feel like a straitjacket for the patient or clinician. In the following section we will analyse the different elements of the consultation in more detail and highlight those that are likely to change or need more emphasis for you as you take on prescribing.

Stop and think

Using Box 1.1 as a framework, reflect on your current consultations. What learning and development needs do you have?

(a) Preparing for the consultation and setting goals

Take time to study all the information available to you about the patient prior to the consultation. Study referral letters and available medical records for vital information, including the patient’s past history, medications and allergies. Set goals for the consultation and ensure that the environment is set up appropriately with adequate lighting and privacy.

(b) Establishing the initial rapport

First impressions are very important and will influence your subsequent relationship with the patient. If you have not encountered the patient before, introduce yourself by name and explain your role. Check the patient’s details (name, date of birth, address). Observe the patient’s demeanour and physical appearance. The patient will invariably be feeling nervous. Put them at ease by projecting confidence and warmth and they are more likely to open up to you during the consultation.

(c–g) History taking/diagnosis hypothesis

Elements ‘c–g’ in Box 1.1 are primarily concerned with the taking of a history and the consideration of differential diagnoses. The importance of the history cannot be overstated. In the vast majority of cases (>70%) the history will provide an accurate diagnosis or differential diagnosis even before the examination and investigations are performed. A good history will
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therefore facilitate effective prescribing. Certain minimum information must be elicited to ensure safe prescribing.

The history is two-way process. In reality, we do not ‘take’ a history. Rather, we ‘make’ a history with the patient. The result is influenced by both the practitioner’s and the patient’s prior knowledge, experiences and understanding of language. Where understanding of language is a barrier, clinical risk is significantly increased and an interpreter should be considered. There are psychodynamic processes at play during any consultation which the practitioner needs to be aware of. These are explored in detail in other publications (Berry, 2004; Stewart et al., 2003).

The scope and depth of the history will depend on the role of the practitioner and the circumstances surrounding the consultation. Whatever the nature of the history, it is essential to be systematic and as far as possible follow the same sequence of questioning each time. In this way vital information will not be overlooked. This becomes particularly important when the patient has multiple symptoms and/or a complicated medical history.

The majority of histories will contain some or all of the elements of the traditional medical history. This structure has limitations and has been criticised for being practitioner rather than patient centred. A full history is too time-consuming in most situations. However, we believe that it is important for prescribers to have an understanding of the elements of the traditional history before considering some of the modified and/or abbreviated versions that are used in practice.

The traditional medical history

Presenting complaint (PC)

Consider the symptom(s) or problem(s) that has brought the patient to seek medical attention and its duration. The presenting complaint should ideally be written or presented orally in the patient’s own words, for example ‘tummy ache for 3 hours’ ‘dizzy spells for 2 years’.

Remember that the complaint that the patient seeks medical advice about might not be their main concern, for example a man concerned about impotence might attend on the pretext of back pain. The true presenting problem will be elucidated by an empathetic and skilled interviewer.

History of the presenting complaint (HxPC)

This is where you clarify the presenting complaint. It is the most important part of the history and is essential for the formulation of a differential diagnosis. Explore the patient’s symptoms and try to build a clear picture of the patient’s experience. Avoid leading questions as far as possible. At some point, however, you will need to move to focused questioning to elicit essential information and fill in gaps in the patient’s story. When there are a number of symptoms, it is important to complete the questioning around each symptom in a systematic fashion before moving on to the next one. Pain is the one of the most common presenting symptoms. The following information should be elicited about pain – its onset (gradual or sudden), location, radiation, character, periodicity (does it come and go?), duration, aggravating and relieving factors and associated features (secondary symptoms). Similar questioning with modifications can be applied to most symptoms, for example for diarrhoea – the character (amount, colour, etc.), timing, aggravating and relieving factors and associated symptoms (e.g.
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Box 1.2 Symptom Analysis Mnemonic

PQRST
P – provocation or palliation.
Q – quality and quantity: what does the symptom look, feel, sound like?
R – region/radiation.
S – severity scale. May be rated on a scale of 1–10 which is useful for subsequent evaluation and comparison.
T – timing.

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<td>Q – quality</td>
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<td>I – intensity</td>
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<td>A – aggravating factors</td>
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<td>R – relieving factors</td>
<td>T – time intensity relationship</td>
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<td>S – secondary symptoms</td>
<td>E – exacerbating/relieving</td>
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<td>S – severity</td>
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abdominal pain) are all relevant. A number of mnemonics have been created as an aide mémoire for symptom analysis (see Box 1.2 for examples).

Always ask about the cardinal symptoms in any system potentially involved, for example for chest pain, ask about the cardinal symptoms relating to the cardiovascular and respiratory systems. The cardinal respiratory symptoms are cough, dyspnoea, wheeze, chest pain, sputum production and haemoptysis. Include within the history of the presenting complaint the presence of risk factors for conditions that may be the cause of the presenting symptom(s), for example if ischaemic chest pain is in the differential, hypertension, smoking and a positive family history are examples of such risk factors. Similarly, oral contraceptive pill (OCP) therapy or prolonged immobilisation would be risk factors for pulmonary embolism.

Past medical and surgical history (PMHx)

The past medical history, along with ‘medications, drug history and allergies’, provides the background to the patient’s current health or disease. Record previous illnesses, operations and injuries in chronological order. Include the duration of chronic conditions, for example diabetes mellitus or asthma, in your record and where appropriate, the location of treatment and the names of the treating clinicians. Remember that many medical conditions may impact on your choice and/or dose of drug treatment.

Family history (FamHx)

Information regarding the age and health or the cause of death of the patient’s relatives can be invaluable and provide vital clues in the diagnostic process. Many conditions have a
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well-defined mode of inheritance. Enquire specifically about the following common conditions – hypertension, coronary artery disease, high cholesterol, diabetes mellitus, kidney or thyroid disease, cancer (specify type), gout, arthritis, asthma, other lung disease, headache, epilepsy, mental illness, alcohol or drug addiction and infectious diseases such as tuberculosis. Depending on the clinical area, you may need to explore the family history of sensitive areas such as mental health, drug misuse or sexual health in more detail. The family history may also throw light on the patient’s ideas, fears and expectations, for example a patient whose sibling has died from a brain tumour is likely to be very concerned about a headache that is persisting.

Medications, drug history and allergies

The drug and allergy history is an extremely important part of the medical history. The presenting symptoms may result from the side effects or complications of drug therapy. Current medications and previous allergies will influence prescribing. Ask the patient to list the medications that they are taking on medical advice or otherwise. Ask to see a recent medication list or prescription. Ideally you should see the medications. Note the name, dose, route, frequency of use and indications for all medications. It is also important to establish if the patient is taking the medicines prescribed. List over-the-counter (OTC) drugs, complementary and herbal medicines. The oral contraceptive pill is often not perceived as a medication. Ask specifically about it in women of the appropriate age. Patients may omit to mention medications that are not tablets (e.g. inhalers, home oxygen, creams, eye or ear drops, pessaries, suppositories). Ask specifically about such agents.

Enquire about allergies or adverse reactions to medications, foods, animals, pollen or other environmental factors. If the patient gives a history of allergy, record the exact nature and circumstances of the reaction and the treatment given.

Personal and social history

The personal and social history is a critical aspect of the history. All illnesses, treatments and rehabilitation must be seen in the context of the patient’s personality, spirituality and personal and social circumstances. Occupation, habitation, hobbies and lifestyle habits can have a profound impact on health and disease. Where appropriate, do not neglect to ask about recent travel abroad and sexual history. Ascertain whether the patient smokes or has smoked in the past and quantify their smoking. Enquire about alcohol intake and, where appropriate, the use of illicit drugs. Some patients may be reluctant to reveal the full extent of their smoking, alcohol consumption or recreational drug use. Maintain a non-judgemental attitude to encourage such patients to share information.

Systems review

The systems review (SR), which is undertaken at the end of the history, involves a series of screening questions that systematically cover all the body systems. It is usually done in a head-to-toe sequence. Its purpose is to elicit any further information that might be relevant to
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The current illness or to uncover present or past problems that the patient has overlooked. The SR may provide information that leads you to suspect a multisystem disease process such as systemic lupus erythematosus or may demonstrate associated symptoms in another system, for example arthritis associated with inflammatory bowel disease. A comprehensive list of SR questions can be found in Randle, Coffey and Bradbury (2009).

(h) Physical examination/near-patient tests

The purpose of the physical examination and ‘near-patient tests’ is to supplement your findings from the history and to support or refute your diagnostic hypotheses. The extent of your examination will depend on your training and experience. It is not essential to be able to perform a physical examination to be a competent prescriber in a specialised area. Increasingly, however, healthcare practitioners (HCPs) are taking on advanced examination skills. It is important that these are taught and assessed appropriately.

Perform vital signs including temperature. Consider vital signs in the context of the patient’s age, physical fitness and medication and always seek a reason for abnormal vital signs. Perform a thorough examination and avoid taking shortcuts. In most cases, your examination will be a focused one, concentrating on a specific area of the body. It is important to expose adequately the area to be examined and always compare limbs with the contralateral one.

Near-patient tests are essentially tests that produce immediate results, for example electrocardiograms, urinalyses, arterial blood gases, blood glucose. Increasingly other investigations such as the full blood count and urea and electrolytes are becoming available as near-patient tests. These tests can be invaluable for diagnosis and can also direct or influence the prescription of medications. Remember always to check glucose level in a patient with confusion or altered consciousness.

(i–k) Diagnosis

Diagnosis is the process of ascertaining the nature and cause of a disease. This enables the practitioner to target treatments effectively. The diagnosis is made by evaluating the symptoms, signs and investigation results which together constitute the ‘diagnostic criteria’. The information is considered in the context of the patient’s physical, social and psychological status. A treatment plan is then formulated, ideally in partnership with the patient who should be kept informed throughout the diagnostic procedure.

Increasingly healthcare practitioners other than doctors are involved in the diagnostic process. The advent of non-medical prescribing has accelerated this trend. Practitioners moving into the diagnostic arena need to understand the process and be aware of potential pitfalls. The way clinicians diagnose alters as they become more experienced. The word diagnosis comes from the Greek words ‘through’ (dia) and knowledge (gnosis) and fundamental to the process for any practitioner is a thorough knowledge of the presenting features, examination and investigation findings of conditions likely to present to their area of practice. Some of this knowledge is gained through experience with patients (pattern recognition) and much of it is ‘book learnt’. The practitioner must apply their knowledge to extract information from the patient that will make conditions in the potential differential diagnosis more or less likely, for example eliciting the presence of haemoptysis, oral contraceptive pill therapy and a previous
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deep vein thrombosis in a 39-year-old woman presenting with pleuritic chest pain would make the diagnosis of pulmonary embolism extremely likely. If these features were absent and the same patient with pleuritic chest pain had fever and cough with purulent sputum, chest infection or pneumonia would be a more likely diagnosis. The presence of breathlessness, while an important symptom, would not help to differentiate between these two diagnoses. The speed of onset of the breathlessness might help, however, as an acute onset would be more typical of a pulmonary embolism.

Practitioners should know the ‘red flag’ features, suggesting serious pathology or high risk, in conditions likely to present to them. Examples of these would be new onset of back pain with urinary incontinence, warfarin therapy in a patient with a head injury or a suicide note written by a patient who has overdosed. Examples of generic red flag symptoms are unexplained weight loss, night sweats, unexplained chronic pain or pain that keeps the patient awake at night. You should also be aware of classic atypical presentations in your area of practice, for example myocardial infarction presenting with jaw, arm or abdominal pain or ectopic pregnancy masquerading as shoulder tip pain and collapse.

One of the common errors made by practitioners new to diagnosis is ‘premature closure’, that is, establishing a diagnosis early in the consultation and being blinkered to evidence that might refute that diagnosis or suggest an alternative, for example deciding that colicky abdominal pain with loose stools is due to gastroenteritis and ignoring the radiation of the pain to the scrotum which might suggest a urological cause. It is important to weigh up all the evidence from the history, examination and any investigations performed. The consideration of risk factors is also an important part of this process. Even though the chest pain of a 40-year-old man may not sound typical for cardiac pain, the fact that his brother died of a heart attack aged 38 will significantly alter your index of suspicion and consequently your management.

Stop and think

What is the difference between treating a symptom and a disease? Identify examples from your practice.

Symptom versus disease/condition

In the context of diagnosis, prescribing practitioners should have a clear understanding of the difference between a symptom and a disease or condition. A symptom is a manifestation of a disease described by the patient, for example chest pain, breathlessness and haemoptysis are symptoms associated with pneumonia. A symptom may give a clue as to the nature of the disease but it is not in itself a diagnosis. A diagnosis is the recognition of a disease or condition by its outward symptoms and signs. These are supplemented by the findings from near-patient testing, imaging and other investigations. A pneumonia, for example, might be diagnosed on the basis of symptoms (cough, dyspnoea, pleuritic chest pain, rusty coloured sputum), signs (tachypnoea, pyrexia, decreased breath sounds, crackles, bronchial breathing) and imaging (CXR).
Medications can be prescribed to treat symptoms or conditions/diseases, for example morphine can be used to treat the symptom of severe chest pain without knowledge of the underlying diagnosis. An ECG might reveal the diagnosis of myocardial infarction which may then be treated with a range of pharmacological and non-pharmacological interventions.

In many situations the diagnosis also includes the underlying physiological, biochemical or microbiological cause(s) of a disease or condition, for example pneumococcal pneumonia suggests not only the diagnostic criteria for pneumonia but also the causative micro-organism. Where causality is known, it is usually possible to target prescribing more effectively to treat or cure the condition. There are conditions, however, where the underlying cause has yet to be discovered. In such situations, palliative treatment targeted at reducing the symptoms may be the best that the clinician can achieve. It is vital, however, that symptoms are not treated without looking for an underlying diagnosis. Pain, the most common symptom for which patients seek healthcare advice, is frequently treated before the underlying diagnosis is identified. Constipation is another example of a symptom that may be treated without an effort being made to find a cause for it. You need to understand as a prescriber that it is not sufficient to treat a symptom. If for example the underlying diagnosis is bowel cancer for a patient who presents with constipation, failing to seek a cause may have disastrous consequences. You must seek to make a diagnosis and if the diagnostic reasoning lies outside your area of expertise, you must refer on to another appropriate health professional.

(l) Treatment

When you have made a diagnosis consider the various treatment options. Non-pharmacological options, for example weight loss and salt reduction for hypertension, should be considered before prescribing drugs with potentially debilitating side effects. Take into account the patient’s age, lifestyle, mobility, dexterity and potential compliance when prescribing. Ensure that the patient is not allergic to the treatment that you are considering and that it does not interact with other medications or worsen any existing medical conditions.

(m–p) Summarising and closing the consultation

When you have all the information required, share your conclusions with the patient in language appropriate to their intellectual and educational level, avoiding medical ‘jargon’. Ensure that the patient has understood the information that you have given and agreed the treatment plan. This will improve concordance. Give the patient verbal and ideally written information about the administration and common side effects of any prescribed medications.

Illnesses evolve. Initial mild viral-like symptoms may develop rapidly into a full-blown meningococcal septicemia. A patient may progress from having abdominal pain with minimal abdominal tenderness to obvious appendicitis with peritonism a few hours later. Give the patient a realistic timeframe for the resolution of symptoms and ask them to return or contact you if things deteriorate or do not improve as anticipated. Record this advice clearly in your notes. Always offer the patient the opportunity to ask questions. If you are unable to answer, be honest. Tell the patient that you will need to look up the answer or consult with another colleague. Finally summarise the findings and treatment for the patient and finish the consultation.
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(q and r) The recording and presentation of consultation findings

The written record is a medico-legal document that may be required to justify your diagnosis and choice of treatment. A satisfactory record of a consultation should include the presenting problem, the main features including important negatives (e.g. haemoptysis or the absence of risk factors for thromboembolic disease for a patient with pleuritic chest pain). The examination findings should also contain relevant negatives. It is good practice to write an impression after the history and examination with a list of differential diagnoses in order of likelihood. The investigations (and findings if available) should then be recorded followed by a final diagnosis and management plan. When prescribing medication(s), document the names of the drug(s), the dosage and the length of prescription. It is a useful exercise to critique your documentation, imagining that you are standing in a courtroom defending the contents 2 or 3 years after you have written them.

The ability to present the findings from a consultation in a systematic and concise fashion is vital in a busy practice area and when making referrals or requesting advice over the telephone. It is a difficult skill, which requires a great deal of practice. As you take on the role of prescribing, encourage your medical mentors and colleagues to critique your oral presentation skills.

Stop and think

What do you consider to be the essential components of a consultation to ensure safe prescribing?

‘Bottom liners’ when prescribing

Much of this chapter has related to factors that contribute to effective prescribing, for example the formulation of an accurate diagnosis. In this section we will highlight the elements of the consultation that are essential for safe prescribing.

(a) Ascertain that you have the right patient, by checking name, date of birth, address, hospital or NHS number.
(b) Check weight where appropriate, particularly when prescribing for children.
(c) Ascertain that the patient is not allergic to the medication and that there are no interactions with other medications that the patient is taking.
(d) Ensure that the patient is not suffering from any medical condition that might be exacerbated by the medication (e.g. peptic ulcer disease by NSAIDs) or require a different dosage (e.g. antibiotics in patients with renal failure).
(e) Inform the patient of both nuisance and serious side effects of the medication and advise them to return if serious side effects occur or if the medication is not working as anticipated.
Summary

- The consultation is made up of a number of elements. As a prescriber, you need to analyse your professional assessment, refine current skills and, where appropriate, develop new ones.
- The history is central to making a diagnosis. Incorporate the elements of the traditional medical history to your consultation. A systematic approach is required for gathering essential information. Combine this with a collaborative patient-centred approach.
- Diagnosis is important in prescribing. To diagnose, you should have an in-depth knowledge of conditions presenting to your practice. You need to integrate this knowledge with information systematically obtained from the history, examination and investigations. Be aware of red flags and early diagnostic closure.
- Both symptoms and conditions or diseases can be treated. It is important to understand the difference and to seek the underlying cause of any symptom you treat.
- ‘Bottom liners’ for safe prescribing are the reason for the prescription, date of birth/(weight), past medical history, medications, allergies and the provision of appropriate information to the patient.

Activity

1. What sort of preparation should you make in advance of a patient consultation?
2. List the seven elements of a traditional medical history.
3. The purpose of the physical examination and near-patient tests is diagnosis. Is this statement true or false?
4. Identify two generic ‘red flag features’.
5. There are a number of ‘bottom liners’ which are considered essential elements for safe prescribing. List as many bottom liners as you can.

References


**Further reading**


