
Overview of History Taking and Clinical Examination

1

INTRODUCTION

History taking (discussing patients' complaints with them) and clinical examination, together with performing or ordering relevant investigations, are important when trying to establish a diagnosis (Cox & Roper, 2005). Despite the advances in modern diagnostic tests, history taking and clinical examination remain fundamental to determining the most appropriate treatment (if any) for patients.

History taking and clinical examination require a structured, logical approach to ensure that all the relevant information is obtained and that nothing important is overlooked. History taking and clinical examination skills are difficult to acquire and, above all, require practice (Gleadle, 2004).

The aim of this chapter is to provide an understanding of the principles of history taking and clinical examination.

LEARNING OUTCOMES

At the end of this chapter, the reader will be able to:

- Discuss the objectives of history taking.
- Outline how to establish a rapport with the patient.
- Discuss the sequence of history taking.
- Discuss the symptoms of disease.
- Provide an overview to clinical examination.
- Outline the role of tests and investigations.

OBJECTIVES OF HISTORY TAKING

History taking is important for making a provisional diagnosis; clinical examination and investigations can then help to confirm

or refute it. The history will provide information about the illness as well as the disease; the illness is the subjective component and describes the patient's experience of the disease (Shah, 2005a). A carefully taken medical history will provide the diagnosis or diagnostic possibilities in 78% of patients (Stride & Scally, 2005).

The objectives of history taking are to:

- Establish a rapport with the patient.
- Elicit the patient's presenting symptoms.
- Identify signs of disease.
- Make a diagnosis or differential diagnosis.
- Place the diagnosis in the context of the patient's life.

HOW TO ESTABLISH A RAPPORT WITH THE PATIENT

Establishing a rapport with the patient is essential. If patients believe that they are getting the nurse's full attention, they are more likely to try to accurately answer questions and recall past events.

To establish a rapport and to put the patient at ease, it is helpful to start the examination/interview by considering such issues as:

- *Positive initial contact*: shake the patient's hand whilst introducing yourself.
- *Privacy*: reassure patients that their privacy and dignity will be maintained.
- *Patient's name*: establish how the patient would like to be addressed (forename or surname).
- *Patient's physical comfort*: ensure that the patient is in a comfortable position and position yourself so that the patient is not sitting at an awkward angle.
- *Confidentiality*: reassure patients that all of their information will be treated as confidential.
- *Posture*: avoid standing up, towering over the patient; ideally sit down at the same level as the patient (Figure 1.1).
- *Effective communication skills* (Box 1.1): in particular, allow time to listen to what the patient is saying and avoid appearing to be rushed.



Fig 1.1 Helping to establish a rapport with the patient: sit down at the same level

Box 1.1 Effective communication skills required for history taking

History taking involves effective communication skills such as:

- Opening and closing a consultation.
- Using open and closed questions.
- Using non-verbal language.
- Active listening.
- Showing respect and courtesy.
- Showing empathy.
- Being culturally sensitive.

(Shah, 2005a)

- *Appropriate language*: appropriate language and understanding are important aspects of history taking; as the patient may not understand a particular word or phrase, always have an alternative available, e.g. 'sputum' or 'phlegm'; ensure that the

patient understands the question or any information given (Shah, 2005b). Also, if the patient does not understand English, if possible communicate through an interpreter.

SEQUENCE OF HISTORY TAKING

The following sequence of history taking is recommended:

- Introduction.
- Presenting complaint and history of current illness.
- Systemic enquiry.
- Past medical history.
- Drugs.
- Allergies.
- Family history.
- Social and personal history.
- Patients' ideas, concerns and expectations.

(Source: Ford *et al.*, 2005)

Introduction

It is important to introduce yourself to the patient, e.g. name, position. Confirm the identity of patients: ask their name and how they prefer to be addressed. Consent should then be sought for history taking and clinical examination.

Presenting complaint and history of current illness

By far the most important part of history taking and clinical examination is the history of the patient's presenting complaint and history of current illness; the information elicited usually helps to make a differential diagnosis and provides a vital insight into the features of the complaints that the patient is particularly concerned about (Gleadle, 2004).

Therefore, a large part of history taking involves asking questions concerning the patient's presenting complaint(s) to establish the main symptom(s). The objective is to obtain a chronological account of the relevant events, including any interventions and outcomes, together with a detailed description of the patient's main symptoms (Ford *et al.*, 2005).

Ask patients to describe what has happened to bring them to hospital or to seek medical help. Their narrative will provide important clues as to the diagnosis and their perspective of the illness. Allow patients ample time to do this and it is important not to interrupt. Short responses, such as 'please tell me more', 'go on', etc., will encourage patients to elaborate.

Once the presenting complaint has been established, it must be carefully evaluated in detail:

- Start date/time.
- Who noticed the problem (patient, relative, caregiver, health-care professional)?
- What initial action did the patient take (any self-treatment) – did it help?
- When was medical help sought and why?
- What action was taken by the healthcare professional?
- What has happened since then?
- What investigations have been undertaken and what are planned?
- What treatment has been given?
- What has the patient been told about the problem?

(Source: Shah, 2005a)

Systemic enquiry

The systemic enquiry is a series of questions related to the bodily systems, which allows more information to be obtained that can be linked to the presenting complaint; considered as a safety net, it reduces the risk of missing an important symptom or disease (Shah, 2005b).

However, the systemic enquiry can cause confusion and misdirect the clinician if the patient has multiple symptoms or is talkative or garrulous. It should therefore be undertaken systematically and carefully: a suggested 'checklist approach' is detailed in Box 1.2.

It is standard practice to start with the most relevant system(s) to the presenting complaint. For example, if the patient presents with chest pain, questions about the cardiovascular and

Box 1.2 Systemic enquiry*General:*

- Well/unwell.
- Weight gain or loss.
- Appetite good or poor.
- Fevers.
- Sweats.
- Rigors.

Cardiovascular:

- Chest pain.
- Breathlessness.
- Orthopnoea.
- Paroxysmal nocturnal dyspnoea.
- Ankle swelling.
- Palpitations.
- Collapse.
- Exercise tolerance.
- Syncope.

Respiratory:

- Shortness of breath.
- Haemoptysis.
- Cough.
- Sputum.
- Wheeze.
- Pleuritic pain.

Nervous system:

- Headaches.
- Fits.
- Blackouts.
- Collapses.
- Falls.
- Weakness.
- Unsteadiness.
- Tremor.
- Visual and sensory disorders.
- Hearing disorder.

Gastrointestinal:

- Nausea.
- Vomiting.
- Diarrhoea.
- Abdominal pain.
- Mass.
- Rectal bleeding.
- Change in bowel habit.
- Dysphagia.
- Heartburn.
- Jaundice.
- Anorexia/weight loss.

Musculoskeletal:

- Weakness.
- Joint stiffness.
- Joint pain/swelling.
- Hot/red joints.
- Reduced mobility.
- Loss of function.

Genitourinary:

- Dysuria/urgency.
- Haematuria.
- Frequency.
- Nocturia.
- Urinary incontinence.
- Urethral/vaginal discharge.
- Menstrual cycle.
- Sexual function.

Skin:

- Rash.
- Lumps.
- Itching.
- Bruising.

respiratory systems should initially be asked (Shah, 2005b). The depth of questioning will depend on personal experience, the individual patient, the presenting complaint, the situation and circumstances.

Past medical history

It is useful to establish the patient's past medical history because:

- If the patient has a long-standing disease, there is a strong possibility that any new symptom could relate to it.
- It could help with making the correct diagnosis.
- It is helpful when establishing the most appropriate treatment for the patient.

Ask patients if they have ever had any serious illness, been admitted to hospital previously or had surgery. It is usual practice to record whether they have suffered from/suffer from any of the following illnesses:

- Jaundice.
- Anaemia.
- Tuberculosis.
- Rheumatic fever.
- Diabetes.
- Bronchitis.
- Myocardial infarction/chest pain.
- Stroke.
- Epilepsy.
- Asthma.
- Problems with anaesthesia.

(Gleadle, 2004)

Drugs

Obtaining a drug history is helpful because:

- Side-effects of drug therapy could be the cause of the patient's presenting complaint.
- Before starting or adjusting drug treatment, it is important to be aware of what the patient is already taking, e.g. old drug therapy could be ineffective or may interact with new drug therapy.

Establish if the patient is taking any of the following:

- Prescription drugs.
- Over-the-counter drugs, i.e. drugs bought without a prescription, e.g. aspirin.
- Herbal or 'natural' treatments.
- Illegal or recreational drugs.

(Shah, 2005b)

If the patient is taking medications, establish the dose, route of administration, frequency and duration of treatment. The possibility of non-compliance with prescription drugs should also be considered.

Patients may be unsure about what drugs they are taking. Under these circumstances, it is worthwhile using the medical history and asking them if they are taking any treatment for each problem, e.g. 'do you take anything for your arthritis?' (Shah, 2005b).

In addition, if patients know what drugs they are taking, it can be helpful to ask them what they are taking them for, because this may sometimes provide helpful additional information related to their illnesses (Shah, 2005b).

Allergies

An accurate and detailed description of any allergic responses of the patient to drugs or other allergens should be recorded; in particular, the patient should be asked about allergy to penicillin. If the patient has an allergy, try to determine what actually happened in order to differentiate between an allergy and a side-effect (Shah, 2005b): a side-effect refers to an effect of a drug which is not that which the doctor and patient require, whereas an allergy is a term usually used to describe an adverse reaction by the body to a substance to which it has been exposed (Marcovitch, 2005). The wearing of a 'medic alert' bracelet or similar (Figure 1.2) and the reason for doing so should be noted.

Family history

It is important to establish the diseases that have affected the patient's relatives, because there is a strong genetic contribution to many diseases (Gleadle, 2004).



Fig 1.2 Medic alert devices (image supplied by Medic Alert, reproduced with permission)

Shah (2005b) recommends the following approach to taking a family history:

- Ascertain who has the problem: is it a first- or second-degree relative?
- Determine how many family members are affected by the problem.
- Clarify what exactly is the problem. For example, 'a problem with the heart' could be several things – hypertension, ischaemia, valve problems, etc. Be exact as to the nature of the problem, because several family members may have 'heart problems', but they may be completely different and therefore not relevant to the patient's particular problem.
- Determine at what age the relative developed the problem; obviously, early presentation is more likely to be important than presentation later in life.
- Ascertain if the patient's parents are still alive and, if not, at what age they died and the cause of death.

Social and personal history

Social history

It is important to understand the social history of patients: their background, the effect of their illness on their life and on the life of their family (Gleadle, 2004):

- *Marital status and children*: ask if they are married/have a partner and whether they have children. This is particularly important if patients are frail and elderly, because it will help to ascertain whether the family will be able to look after them if required (Cox & Roper, 2005).
- *Occupation*: establish the occupation of patients (or previous occupation if they have been made redundant or have retired). As certain occupations are at risk of particular illnesses, all past occupations should be noted (Gleadle, 2004). For example, construction and associated workers, e.g. electricians, boiler engineers/laggers, may suffer from asbestos-related diseases. Some occupations can be affected by certain diseases, e.g. lorry drivers diagnosed with epilepsy will need to give up their job (Cox & Roper, 2005).
- *Living accommodation*: ascertain where the patient lives and the type of accommodation, e.g. a bungalow, house with an upstairs bathroom, block of flats etc., as this could be pertinent, both as a contributing factor to the presenting complaint and as a consideration when discharging the patient.
- *Travel history*: nowadays, with illnesses such as malaria and severe acute respiratory syndrome (SARS), a travel history is essential (Shah, 2005b), particularly if infection is suspected.
- *Patients' hobbies/interests*: having a knowledge of these allows a clinician to understand patients better and to determine what is important to them (Shah, 2005b).

Smoking and alcohol

It is important to establish patients' current and past smoking and alcohol history because both are implicated in many illnesses:

- *Smoking*: ask patients if they smoke; if they do, confirm details of what they smoke, i.e. cigarettes, cigars or a pipe, including quantity and how long they have been a smoker; if patients do not smoke, but have smoked previously, again confirm details of what they smoked, i.e. cigarettes, cigars or a pipe, the quantity, for how long and when they gave up.
- *Alcohol*: ask patients if they drink alcohol; use the standard unit as a measure (Box 1.3). As there is a tendency to underestimate

Box 1.3 Units of alcohol in common drinks

- 1 pint of ordinary strength beer – 2 units.
- 1 pint of ordinary strength cider – 2 units.
- 1 pub measure of spirit – 1 unit.
- 1 glass of wine – 2 units.
- 1 alcopop – 1.5 units

(Source: Department of Health, 2008)

alcohol intake, separate weekdays and weekend intake should be established, together with any history of binge drinking (remember to include wine taken with meals, as this is often forgotten) (Shah, 2005b). Adopt a non-judgemental approach, but get to the point; for example, 'how much alcohol do you normally drink?'; if there is no clear answer, 'how much did you drink in the last week/fortnight?' (Shah, 2005b).

Patients' ideas, concerns and expectations

An appropriate and sound history taking technique will help to identify patients' ideas, concerns and expectations. Effective communication techniques (listed above) are paramount. The most common cause of patient dissatisfaction following a consultation is a failure in communication (Ford *et al.*, 2005). To avoid this situation, it is helpful to:

- Thank patients for their cooperation.
- Ask patients if there is anything else they would like to say.
- Provide a short summary outlining the patient's problem or symptoms – this will help to confirm a mutual understanding, reducing the risks of a misunderstanding.

(Shah, 2005b)

SYMPTOMS OF DISEASE

A symptom can be defined as an indication of a disease or disorder noticed by the patient (a sign is an indication of a particular disease or disorder that is observed during clinical examination)

(McFerran & Martin, 2003). A comprehensive and effective history taking technique will help elicit the patient's symptoms (see pp. 19–20).

Each symptom must be analysed methodically following the 'TINA' system approach (see pp. 20–21 for a more detailed explanation):

- Timing – onset, duration, pattern, progression.
- Influences – precipitating, aggravating and relieving factors.
- Nature – character, site, severity, radiation, volume.
- Associations – any other associated signs and symptoms.

(Source: Ford *et al.*, 2005)

The main symptoms of disease are:

- Pain.
- Dyspnoea.
- Palpitations.
- Ankle oedema.
- Syncope.
- Dizziness.
- Headache.
- Dysphagia.
- Nausea and vomiting.
- Change in bowel habit.
- Abdominal pain.

These symptoms are discussed at length in Chapter 2.

AN OVERVIEW TO CLINICAL EXAMINATION

Having completed history taking, a differential diagnosis will be possible, which will help to direct the focus of the clinical examination (Ford *et al.*, 2005). A suggested approach to clinical examination is now described.

Preparation

- Obtain the patient's consent (Nursing and Midwifery Council, 2008b).

- Assemble any necessary equipment and aids required for the examination.
- Adhere to local infection control protocols as appropriate, e.g. wear appropriate clothing and wash and dry hands (Box 8.1, see pp. 197–198).
- Ensure privacy: screen the bed or couch.
- Consider the need for a chaperone, who should be of the same gender as the patient (Thomas & Monaghan, 2007). The patient has a right to request a chaperone when undergoing any procedure or examination; where intimate procedures or examinations are required, nurses should ensure that they are aware of any cultural or religious beliefs or restrictions the patient may have, which may prohibit the procedure being performed by a member of the opposite sex (Nursing and Midwifery Council, 2008a).
- Clear the left side of the bed (right side of the patient): always perform examination from the left side of the bed (Cox & Roper, 2005) (unless left-handed, in which case approach from the right), as this will provide a feeling of control over the situation (Thomas & Monaghan, 2007).
- Expose the area that needs to be examined (avoid embarrassing the patient): ensure that there are no draughts and close any open windows if necessary. It is important that the patient does not get cold during the examination: shivering will cause muscle sounds which will interfere with auscultation (Ford *et al.*, 2005).
- Position the patient appropriately on the couch/bed: initially, this will be sitting at an angle of 45° for examination of the cardiovascular system; the position will usually be changed for other aspects of the examination, e.g. for examination of the abdomen, the patient will need to be in a supine position. Sometimes the positioning of the patient will be determined by the patient's condition. For example, if patients are very breathless, they will probably need to sit at 90°; if they are unconscious, they will be supine throughout the examination.

- Ensure that the hands are warm before examining the patient: palpating using cold hands can result in the abdominal muscles contracting, impairing examination (Ford *et al.*, 2005).

Procedure for clinical examination

The procedure for clinical examination can be broken down into bodily systems, the format for this book. These bodily systems should be examined in turn:

- Cardiovascular system (Chapter 3).
- Respiratory system (Chapter 4).
- Gastrointestinal and genitourinary systems (Chapter 5).
- Neurological system (Chapter 6).
- Musculoskeletal system (Chapter 7).

The examination of each system should encompass the following:

- Inspection (looking).
- Palpation (feeling).
- Percussion (tapping).
- Auscultation (listening).

(Box 1.4) (Thomas & Monaghan, 2007)

Box 1.4 Principles of examination

Inspection:

- Look at the whole patient.
- Check there is adequate lighting.
- Look around the bed for clues, e.g. nebulizer, sputum pot.
- Look carefully and thoroughly.
- Look for abnormalities.

Palpation:

- Check whether the patient has any tenderness or pain.
- Initially palpate lightly and gently, then palpate firmly.
- Check for the presence of thrills.

Continued

Percussion:

- Percuss and compare both sides (listen and feel for any differences).

Auscultation:

- Ensure appropriate positioning of the patient to optimize sounds.
- Compare abnormalities with the norm.

(Source: Gleadle, 2004)

Although described separately in different chapters, the examination routines for each system should not be considered as entirely separate entities: when examining several systems at once, a single fluid routine should be used throughout the clinical examination.

Following clinical examination

Following clinical examination, it is important to:

- Thank patients for their help and co-operation.
- Invite and answer any questions they may have.
- Ensure that the examination routine is formally closed, so that the patient knows that it has finished.
- Leave the patient in a comfortable position and not exposed.
- Ensure appropriate documentation is made (Nursing and Midwifery Council, 2008b) (Chapter 9).

TESTS AND INVESTIGATIONS

Try to follow the sequence history taking, clinical examination and then tests and investigations when seeing a patient; a common mistake is to rush into investigations before considering the history or clinical examination (Stride & Scally, 2005).

When ordering tests and investigations, it is easy to mindlessly order a whole range of them. However, there are many problems with this approach:

- Investigations cannot be used in isolation – is the X-ray finding or blood test result relevant or an incidental finding?
- Investigations can be inaccurate – there can be problems with technique, reagents or interpretation of the findings.
- Investigations pose risks – radiation exposure, unnecessary further procedures, and so on.
- Investigations can be costly to the patient and to society.

(Stride & Scally, 2005)

Therefore, after history taking and clinical examination, order or perform tests and investigations relevant to the case (Beasley *et al.*, 2005).

CONCLUSION

This chapter has provided an overview to history taking and clinical examination. The objectives of history taking have been listed and how to establish a rapport with the patient has been described. The sequence of history taking, together with symptoms of disease, has been discussed. An overview to clinical examination has been provided.

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