



1 Taking a history 1



Section 1 Asking basic questions

Task 1



You will hear an extract from an interview between a doctor and his patient. As you listen, complete the Present Complaint section of the case notes below.

SURNAME <i>Hall</i>	FIRST NAMES <i>Kevin</i>
AGE <i>32</i>	SEX <i>M</i>
OCCUPATION <i>Lorry driver</i>	MARITAL STATUS <i>M</i>
PRESENT COMPLAINT	

Now compare your notes with those made by the doctor. These are given in the Key on p. 105. Explain these sections in the notes.

1 SEX *M*

2 MARITAL STATUS *M*

3 *3/12*

4 *a.m.*

5 "dull, throbbing" Why are these words in quote marks (" ")?

6 *%*

Language focus 1

Note how the doctor starts the interview:

- *What's brought you along today?*

Other ways of starting an interview are:

- *What can I do for you?*
- *What seems to be the problem?*

Note how the doctor asks how long the problem has lasted.

- *How long have they been bothering you?*

Another way of asking about this is:

- *How long have you had them?*

Task 2



Study this short dialogue.

DOCTOR: Well, Mrs Black. *What's brought you along today?*

PATIENT: I've got a bad dose of flu. (1)

DOCTOR: *How long has it been bothering you?*

PATIENT: Two or three days. (2)

Practise this dialogue. Your partner should play the part of the patient. He or she can select replies from lists (1) and (2) below. Use all the ways of starting an interview and asking how long the problem has lasted.

(1)

a bad dose of flu
terrible constipation
swollen ankles
a pain in my stomach

(2)

two or three days
since Tuesday
a fortnight
for almost a month

Language focus 2

Note how the doctor asks where the problem is:

- *Which part of your head is affected?*

Other ways of finding this out are:

- *Where does it hurt?**
- *Where is it sore?**

Note how the doctor asks about the type of pain:

- *Can you describe the pain?*

Other ways of asking this are:

- *What's the pain like?*
- *What kind of pain is it?*

* *Hurt* is a verb. We use it like this: *My foot hurts.*

Sore is an adjective. We can say: *My foot is sore* or *I have a sore foot.*

Task 3



Practise finding out information like this. Work in the same way as in Task 2. Use all the methods given in Language focus 2 in your questioning.

DOCTOR: *Which part of your head (chest, back, etc.) is affected?*

PATIENT: Just here.

DOCTOR: *Can you describe the pain?*

PATIENT: It's a dull sort of ache. (1)

(1)

a dull sort of ache

a feeling of pressure

very sore, like a knife

a burning pain

Language focus 3

Note how the doctor asks if anything relieves the pain of headaches:

– *Is there anything that makes them better?**

Similarly he can ask:

– *Does anything make them worse?*

Doctors often ask if anything else affects the problem. For example:

– *What effect does food have?*

– *Does lying down help the pain?*

* *Better* means *improved* or *relieved*. It does not mean *cured*.

Task 4



Work with a partner. In each of these cases, ask your partner where the pain is. Then ask two other appropriate questions to help you reach a diagnosis. There is a diagram in the Key showing your partner where to indicate in each case. Use all the ways of questioning we have studied in this section. For example:

DOCTOR: *Where does it hurt?*

PATIENT: Right across here. (indicating the central chest area)

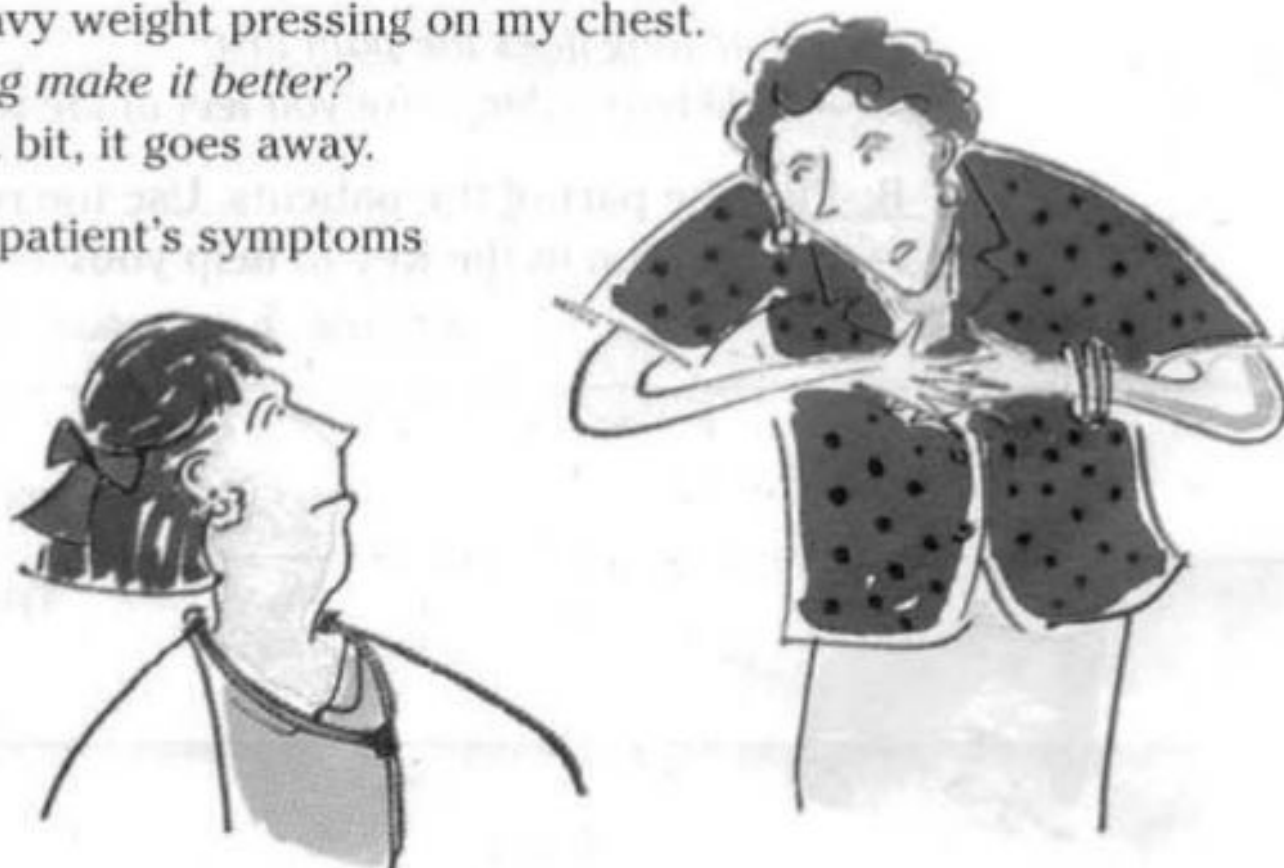
DOCTOR: *Can you describe the pain?*

PATIENT: It's like a heavy weight pressing on my chest.

DOCTOR: *Does anything make it better?*

PATIENT: If I stop for a bit, it goes away.

In this example, the patient's symptoms suggest angina.



Now try each of these four cases in the same way.

- 1 DOCTOR:
 PATIENT: Here, just under my ribs. (1)
 DOCTOR:
 PATIENT: It gets worse and worse. Then it goes away.
 DOCTOR:
 PATIENT: Food makes it worse.
- 2 DOCTOR:
 PATIENT: It's right here. (2)
 DOCTOR:
 PATIENT: It's a gnawing kind of pain.
 DOCTOR:
 PATIENT: Yes, if I eat, it gets better.
- 3 DOCTOR:
 PATIENT: Down here. (3)
 DOCTOR:
 PATIENT: It's a sharp, stabbing pain. It's like a knife.
 DOCTOR:
 PATIENT: If I take a deep breath, or I cough, it's really sore.
- 4 DOCTOR:
 PATIENT: Just here. (4)
 DOCTOR:
 PATIENT: My chest feels raw inside.
 DOCTOR:
 PATIENT: When I cough, it hurts most.

Task 5



Work in pairs. Student A should start.

- A: Play the part of the doctor. Repeat Task 4 but add two or three more questions in each case to help you decide on a diagnosis. For instance, in the example where the patient's symptoms suggest angina, you could ask:
 - Does anything make it worse?
 - How long does the pain last?
 - Is there anything else you feel at the same time?
- B: Play the part of the patients. Use the replies in Task 4 and the extra information in the Key to help you.

Section 2 Taking notes

Task 6



These notes show the doctor's findings when he examined Mr Hall. Note the explanations given for the abbreviations used. What do the other ringed abbreviations stand for?

	SURNAME	FIRST NAMES
	AGE	SEX
	MARITAL STATUS	
	OCCUPATION	
	PRESENT COMPLAINT	
	O/E General Condition obese, 1.65m tall, 85 kg	
Ear, Nose, Throat	ENT	wax ++ both sides
Nothing abnormal detected	RS	NAD
regular		
Pulse	CVS	P 80/min reg. BP 180/120
Heart sounds		H/S normal
Gastro-intestinal system	GIS	
	GUS	
	CNS	Fundi normal
	IMMEDIATE PAST HISTORY	
	POINTS OF NOTE	
	INVESTIGATIONS	
	Urine -ve for sugar and albumen	
	DIAGNOSIS	
	? hypertension	
	MANAGEMENT	
	See 1/52	

Task 7



Study this letter from a GP to a consultant. Write down the questions which a doctor might ask to obtain the information ringed in the letter. For example:

- 4 *How long did it last?*
- 8 *What was the cause of death?*

CLINICAL DETAILS

Date Oct 3rd 2004

Dear Dr Scott

I would be grateful for your opinion and advice with regard to

(Name) GREEN, Peter

URGENT
Please indicate
in the box

☐

A brief outline of history, symptoms and signs and present therapy is given below:

This 42-year-old ¹salesman had a severe attack of ²central chest pain ³six months ago which ⁴lasted 10 mins and was ⁵relieved by rest. This has recurred several times ⁶after exertion. His father ⁷died aged 56 of a ⁸coronary thrombosis. Physical examination was normal and I refer him to you for further assessment in view of his age.

Diagnosis: angina

Thank you for seeing him.

Yours sincerely,

If transport required please state:

☒ YES

☐ NO

Stretcher/Sitting case

Sitting case – two man lift

Signature Mary Chapman

Task 8



The hospital consultant made these notes of her interview with Mr Green. Complete as many of the gaps as you can with the help of the letter on p. 10.

Then listen to the recording and complete the remaining gaps. Use the abbreviations you have studied in this unit.

SURNAME(1)		FIRST NAMES Peter	
AGE(2)	SEX M	MARITAL STATUS M	
OCCUPATION(3)			
PRESENT COMPLAINT (4) chest pain radiating to L arm. Started with severe attack & dyspnoea. Pain lasted(5) relieved by rest. Has occurred since on exertion.			
O/E General Condition ENT RS Chest(6) CVS(7) 70/min(8) 130/80 (9) normal GIS GUS CNS			
IMMEDIATE PAST HISTORY			
POINTS OF NOTE			
INVESTIGATIONS			
DIAGNOSIS			

Task 9



Study these case notes. What questions might the doctor have asked to obtain the information they contain?

a)

SURNAME	James	FIRST NAMES	Robert
AGE	48	SEX	M
		MARITAL STATUS	S
OCCUPATION	Builder		
PRESENT COMPLAINT 1/2 frontal headache 4/7 following cold. Worse in a.m. and when bending down. Also 1/2 being "off colour" and feverish.			
POINTS OF NOTE Analgesics $\bar{c}$ some relief.			

b)

SURNAME	Warner	FIRST NAMES	Mary Elizabeth
AGE	34	SEX	F
		MARITAL STATUS	D
OCCUPATION	Teacher		
PRESENT COMPLAINT			
1/2 episodic headaches many years, lasting 1-2 days every 3-4 months.			
Pain behind eyes & nausea.			
"tightness" back of head.			
Depressed & pain, interfering & work.			

Task 10



Work in pairs and try to recreate the consultation. Student A should start.

A: Play the part of the patients. Use the case notes as prompts.

B: Play the part of the doctor. Find out what the patient is complaining of.
Do not look at the case notes.

Section 3 Reading skills: Scanning a case history

Task 11



Read the following case history and find and underline this information about the patient as quickly as you can.

- 1 previous occupation
- 2 initial symptoms
- 3 initial diagnosis
- 4 condition immediately prior to admission
- 5 reason for emergency admission
- 6 duration of increased thirst and nocturia
- 7 father's cause of death
- 8 alcohol consumption

CASE HISTORY

Mr Wildgoose, a retired bus driver, was unwell and in bed with a cough and general malaise when he called in his general practitioner. A lower respiratory tract infection was diagnosed and erythromycin prescribed. Two days later, at a second home visit, he was found to be a little breathless and complaining that he felt worse. He was advised to drink plenty and to continue with his antibiotic. Another 2 days passed and the general practitioner returned to find the patient barely rousable and breathless at rest. Emergency admission to hospital was arranged on the grounds of 'severe chest infection'. On arrival in the ward, he was unable to give any history but it was ascertained from his wife that he had been confused and unable to get up for the previous 24h. He had been incontinent of urine on a few occasions during this time. He had been noted to have increased thirst and nocturia for the previous 2 weeks.

His past history included appendicectomy at age 11 years, cervical spondylosis 10 years ago, and hypertension for which he had been taking a thiazide diuretic for 3 years. His father had died at 62 years of myocardial infarction and his mother had had rheumatoid arthritis. His wife kept generally well but had also had a throat infection the previous week. Mr Wildgoose drank little alcohol and had stopped smoking 2 years previously.

Section 4 Case history: William Hudson

Task 12



In this section in each unit we will follow the medical history of William Hudson. In this extract he is visiting his new doctor for the first time. As you listen, complete the personal details and Present Complaint section of the case notes below.

SURNAME	Hudson	FIRST NAMES	William Henry
AGE	SEX	MARITAL STATUS	
OCCUPATION			
PRESENT COMPLAINT			

Task 13



Work in pairs and try to recreate the consultation. Student A should start.

A: Play the part of William Hudson. Use the case notes to help you.

B: Play the part of the doctor. Find out what the patient is complaining of. Do not look at the case notes.

The case of William Hudson continues in Unit 2.





2 Taking a history 2



Section 1 Asking about systems

Task 1



You will hear an extract from an interview between a doctor and her patient. The patient is a 50-year-old office worker who has complained of feeling tired, lacking energy and not being herself. As you listen, indicate whether the patient has a significant complaint or not by marking the appropriate column with a tick (✓) for each system.

<i>System</i>	<i>Complaint</i>	<i>No complaint</i>	<i>Order</i>
ENT			
RS			
CVS			
GIS			1
GUS			
CNS			
Psychiatric			

Task 2

Listen again and number the order in which the information is obtained. The first one is marked for you.

Language focus 4

Note how the doctor asks about the systems:

- *Have you any trouble with your stomach or bowels?*
- *What's your appetite like?*
- *Any problems with your waterworks?*
- *What about coughs or wheezing or shortness of breath?*
- *Have you noticed any weakness or tingling in your limbs?*

Task 3

Match each of the suspected problems in the first column with a suitable question from the second column. For example: 1c.

Suspected problem

- 1 depression
- 2 cardiac failure
- 3 asthma
- 4 prostate
- 5 coronary thrombosis
- 6 cancer of the lung

Question

- a) Have you had any pain in your chest?
- b) Do you ever get wheezy?
- c) What sort of mood have you been in recently?
- d) Any problem with your waterworks?
- e) Have you ever coughed up blood?
- f) Have you had any shortness of breath?

Task 4

Work in pairs. Student A should start.

A: Play the part of the doctor. Ask questions about systems and specific problems for each of these cases. The patient has enough information to answer at least two key questions.

B: Play the part of the patients. Your information is given in the Key.

- 1 The patient is a man in late middle age. He has coughed up blood several times in the last few weeks.
- 2 The patient is an elderly man. He has been getting more and more constipated over the past few months.
- 3 The patient is a middle-aged woman. She gets pain in her stomach after meals.
- 4 The patient is a young woman. She has pain when she is passing urine.
- 5 The patient is a young man. He has a frontal headache.

When you have finished, look in the Key (p. 108) at the list of diagnoses. Select from the list the five diagnoses which match these cases.

Section 2 Asking about symptoms

Task 5



In this extract you will hear a physician interviewing a patient who has been admitted to hospital suffering from FUO (fever of unknown origin). The physician suspects TB. She has already asked about family history, etc. The following form is part of a FUO checklist. First listen and tick (✓) each point covered in the interview.

FEVER ☒ 1 duration ☐ frequency ☒ time ☐ chills ☐ sweats ☒ night sweats ☐ rigor GENERAL SYMPTOMS ☐ malaise ☒ weakness ☐ myalgia ☒ wt loss ☐ drowsiness ☐ delirium ☒ anorexia ☐ vomiting ☐ photophobia bleeding? ☐ nose ☐ skin ☐ urine	ACHES AND PAINS ☐ head ☐ teeth ☐ eyes ☐ abdomen ☒ chest ☐ neck ☐ loin ☐ back ☐ pubic ☐ muscle ☐ joints ☐ bone SKIN ☐ rash ☐ pruritis ☐ bruising	CVS ☐ dyspnoea ☐ palpitations ☐ ht irregularity GIS ☐ diarrhoea ☐ melaena RESPIRATORY ☐ cough ☐ coryza ☐ sore throat ☐ dyspnoea ☐ pleuritic pain ☒ sputum ☒ haemoptysis	URINARY ☐ dysuria ☐ frequency ☐ strangury ☐ d scoloration NEUROLOGICAL ☐ vision ☐ photophobia ☐ blackouts ☐ diplopia
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Task 6



Now listen again to indicate the order in which the points are covered by writing a number in the correct box. The first one is marked for you.

Language focus 5



Listen again to the FUO extract from Task 5. Note that the doctor uses rising intonation for these questions.

- Any pain in your muscles?
- Have you lost any weight?
- Have you had a cough at all?
- Is there any blood in it?
- Have you had any pains in your chest?

When we ask Yes/No questions like these, we normally use rising intonation. Note that the voice changes on the important word.

For example:

- Any pain in your *muscles*?

Underline the important word in each of the questions above. Then listen again to see if you can hear the change on these words. Check your answers with the Key.

Task 7



Study this extract from a case history.

The patient was a 59-year-old man, *head of a small engineering firm* (1), who *complained of central chest pain* (2) which occurred *on exertion* (3) and was *sometimes accompanied by sweating* (4). He *smoked 40 cigarettes a day* (5). The pain had *first appeared three months previously* (6) and was *becoming increasingly frequent* (7). He had noticed some *weight gain recently* (4 kg) (8) and also complained that his hair had become very dull and lifeless. He felt the cold much more than he used to. He *denied any palpitations* (9) or *ankle oedema* (10).

What questions might a doctor ask a patient to obtain the information in italics in the case history? Use the question types studied in Unit 1 and this unit. You may ask more than one question for each piece of information. For example:

- 1 What's your job?
- 2 What's brought you along today? Which part of your chest is affected?

When you have finished, put your questions in the most natural order for a consultation.

Task 8



Work in pairs. Student A should start.

A: Play the part of the patient. Base your replies on the information given in the extract above.

B: Play the part of the doctor. Find out what the patient is complaining of.

Task 9



Here are some other questions which a doctor might ask a patient complaining of FUO. Which problems in the checklist in Task 5 do they refer to? Indicate on the form by writing the appropriate letter in the correct box.

Example: a) Have you any pain in passing water?

URINARY ☒ a dysuria

- b) Do you suffer from double vision?
- c) Any shortness of breath?
- d) Does light bother you?
- e) Are your stools black?
- f) Do you have a cold?

Task 10



Match each of the medical terms for common symptoms in the first column with a term which a patient would easily understand or might use, from the second column. For example: 1k.

Medical term

Non-medical term

- | | |
|------------------------------|--|
| 1 paraesthesia | a) swelling, puffiness |
| 2 productive cough | b) indigestion |
| 3 anaesthesia | c) coughing up phlegm or spit |
| 4 retrosternal chest pain | d) trouble holding your water |
| 5 orthopnea | e) cramp in the leg muscles which comes and goes |
| 6 stress incontinence | f) numbness |
| 7 dysmenorrhoea | g) sleeplessness |
| 8 dyspepsia | h) out of breath, out of puff, breathlessness |
| 9 oedema | i) painful periods |
| 10 intermittent claudication | j) pain behind the breast bone |
| 11 insomnia | k) pins and needles |
| 12 dyspnoea | l) shortness of breath when you lie down |

Task 11



Work in pairs. Student B should start.

A: Play the part of a patient. Use the information in the Key to help you.

B: Play the part of the doctor. Try to find out what the patient's problems are. Remember your patient will not understand medical terms. Remember also to use rising intonation for Yes/No questions. Record your findings in the Present Complaint section of the form below.

When you have finished, Student A should check the doctor's notes. Student B should compare his or her notes with the Key.

SURNAME	Wilson	FIRST NAMES	Peter
AGE	48	SEX	M
OCCUPATION	Steelrope worker	MARITAL STATUS	M
PRESENT COMPLAINT			

Task 12



This is part of a letter of referral from a doctor to a consultant concerning the same patient. Using the notes in the Key, complete this section of the letter. Use the appropriate medical terms.

Letter of referral (part 1)

Dear Dr MacPherson,

I'd be pleased to have your advice on the future management of this 48-year-old steelrope worker who gives a history of (1) on exertion of one year's duration and a (2) cough which he has had for some years.

During the last three weeks he has had three attacks of chest tightness and pain radiating into the upper right arm. The attacks have come on after exertion and have lasted several minutes. He has noticed ankle (3) increasing during the day and relieved by overnight rest. He also gives a month's history of (4) of the right leg relieved by rest. Last night he had an attack of acute (5) chest pain lasting 15 minutes, associated with extreme restlessness and a (6) spit.

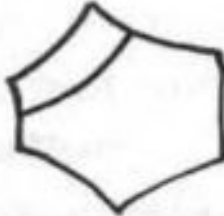
He gives a history of good health but had childhood whooping cough and a wheezy bronchitis. He smokes an average of 20 to 30 cigarettes a day. His sister has a history of possible pulmonary tuberculosis and his father died of a heart attack at the age of 56.

Task 13



Study these findings on examination and details of the treatment given. Then complete the second part of the letter of referral.

SURNAME	Wilson	FIRST NAMES	Peter
AGE	48	SEX	M
		MARITAL STATUS	M
OCCUPATION	Steelrope worker		
PRESENT COMPLAINT			
Retrosternal chest pain last night radiating to neck and R arm. Duration 15 mins. Accompanied by restlessness. Diff. sleeping. Cough & rusty spit. 1 yr SOBOE, productive cough some years, past $\frac{3}{52}$ tightness in chest x3, pain radiating to R arm, occurred on exertion, lasted mins. Also $\frac{1}{12}$ puffy ankles in the evening, intermittent claudication R calf for $\frac{1}{12}$.			

O/E	
General Condition	Short, barrel-chested, dyspnoea and peripheral cyanosis, early finger clubbing.
ENT	
RS	Poor resp. movt. Generalised hyper-resonance. Loss of liver dullness. Bilateral basal creps.
CVS	P 84 reg. BP $140/92$ sitting. Oedema up to knees. Sacral oedema +. JVP ↑ Apex beat outside MCL in 6th L interspace. HS I, II faint. No peripheral pulses below popliteals.
GIS	Liver palpable and tender.
GUS	
CNS	
	
2fb	
MANAGEMENT	
R_x frusemide 20 mg IV morphine tartrate/cyclizine tartrate 15 mg IM	

Letter of referral (part 2)

On examination, he is of (7) build with a barrel-shaped chest. He is (8) with some peripheral (9). There is also early finger (10). Pulse rate was 84, (11) in time and force. BP $140/92$ sitting. He has pitting (12) at the ankles to the level of the knee. There is also (13) sacral oedema. He has raised jugular (14) pressure.

On examination of his chest, he had poor respiratory movement, some hyper-resonance and loss of liver dullness. His apex beat was just outside the left-mid (15) line in the sixth left interspace. (16) sounds were closed but faint. He also had bilateral basal (17) while the liver seemed enlarged two finger breadths below the (18) costal margin and somewhat tender. The peripheral pulses in the lower limbs were impalpable below the popliteal arteries. He was given (19) frusemide, 20 mg, with good effect in relieving his breathlessness. Morphine tartrate/cyclizine tartrate, 15 mg was given (20).

Yours sincerely,

Task 14

Work in pairs. Student A should start.



A: Play the part of a trainee doctor. Ask about the findings on examination and treatment to date of Mr Wilson.

B: Play the part of the doctor who has examined Mr Wilson. Supply any information on Mr Wilson's examination and treatment using the notes given in Task 13.

Task 15



You will hear a discussion between a general practitioner and a consultant. Complete the case notes below.

SURNAME		FIRST NAMES
AGE	SEX	MARITAL STATUS
OCCUPATION		
PRESENT COMPLAINT		
IMMEDIATE PAST HISTORY		



Task 16



This is a transcript of the conversation between the two doctors. Try to complete the consultant's questions. Then check your answers by listening to the recording.

- GP: Hello, Jim. I wonder if you could see a patient for me?
- CONSULTANT: Certainly, John.(1) the story?
- GP: Well, it's a Mr Alan Jameson, a 53-year-old carpenter. He's been an infrequent attender in the past but he came to see me this morning complaining of *pain in his right leg and in his back* (a).
- CONSULTANT: And(2)(3) this start?
- GP: Well, *it came on about six weeks ago* (b) and it's become gradually more severe over the past couple of weeks.
- CONSULTANT:(4) the pain localised?
- GP: No, poorly. At first he thought he'd just pulled a muscle. But it's got so bad that he hasn't been able to do his work properly. It's also been getting to the stage where the *pain is waking him up at night* (c), it's been so severe, and he's *also noticed some tingling in his right foot* (d). *He's having difficulty in carrying on with his work* (e). He's *also lost three kilos* (f) and has become quite depressed.
- CONSULTANT:(5) he(6) anything similar(7) the past?
- GP: No, not exactly, but *he has suffered from intermittent pain in his back* (g). *Paracetamol gave some relief* (h) but didn't solve the problem completely.
- CONSULTANT: Apart from(8), any(9) problems(10) health(11) the past?
- GP: No, perfectly OK.
- CONSULTANT:(12) you(13) anything else(14) examination?
- GP: Yes, as well as the pain he has numbness in his toes on the right foot.

Task 17



Look at the information in italics in the transcript above. What questions might a doctor ask to obtain this kind of information from a patient? For example:

... *it came on about six weeks ago* (b)

Question: When did you first notice the pain?

Now try the other examples (a) to (h) in the same way. In which department do you think the consultant works?

Section 3 Reading skills: Noting information from a textbook

Task 18



Try to complete the table below which shows some of the key features of two medical problems. Then study the textbook extracts opposite to check your answers and to complete the table. This will help you make a differential diagnosis between the two problems.

	<i>Angina</i>	<i>Pericarditis</i>
Site		
Radiation		
Duration	<i>a few minutes</i>	<i>persistent</i>
Precipitating factors		
Relief of pain		
Accompanying symptoms and signs		

ANGINA PECTORIS

Angina pectoris is the term used to describe discomfort due to transient myocardial ischaemia and constitutes a clinical syndrome rather than a disease; it may occur whenever there is an imbalance between myocardial oxygen supply and demand.

FACTORS INFLUENCING MYOCARDIAL OXYGEN SUPPLY AND DEMAND

Oxygen demand

Cardiac work

- Heart rate
- Blood pressure
- Myocardial contractility

Oxygen supply

Coronary blood flow*

- Duration of diastole
- Coronary perfusion pressure (aortic diastolic-right atrial diastolic pressure)
- Coronary vasomotor tone

Oxygenation

- Haemoglobin
- Oxygen saturation

*N.B. coronary blood flow is confined to diastole

Coronary atheroma is by far the most common cause but angina is also a feature of aortic valve disease, hypertrophic cardiomyopathy and some other forms of heart disease.

Clinical features

The history is by far the most important factor in making the diagnosis. Stable angina is characterised by left-sided or central chest pain that is precipitated by exertion and promptly relieved by rest.

Most patients describe a sense of oppression or tightness in the chest – 'like a band round the chest'; 'pain' may be denied. When describing angina the victim often closes a hand around the throat, puts a hand or clenched fist on the sternum, or places both hands across the lower chest. The term 'angina' is derived from the Greek word for strangulation and many patients report a 'choking' sensation. Breathlessness is sometimes a prominent feature.

The pain may radiate to the neck or jaw and is often accompanied by discomfort in the arms, particularly the left, the wrists and sometimes the hands; the patient may also describe a feeling of heaviness or uselessness in the arms. Occasionally the pain is epigastric or interscapular. Angina may occur at any of these places of reference without chest discomfort but a history of precipitation by effort, and relief by rest or sublingual nitrate, should still allow the condition to be recognised.

Symptoms tend to be worse after a meal, in the cold, and when walking uphill or into a strong wind. Some patients find that the pain comes when they start walking and that later it does not return despite greater effort ('start-up angina'). Some experience the pain when lying flat (decubitus angina), and some are awakened by it (nocturnal angina).

Angina may also occur capriciously as a result of coronary arterial spasm; occasionally this is accompanied by transient ST elevation on the ECG (Prinzmetal's or variant angina).

CLINICAL SITUATIONS PRECIPITATING ANGINA

- Physical exertion
- Cold exposure
- Heavy meals
- Intense emotion
- Lying flat (decubitus angina)
- Vivid dreams (nocturnal angina)

ACUTE PERICARDITIS

It is useful to classify the types of pericarditis both clinically and etiologically, since this disorder is by far the most common pathologic process involving the pericardium. Pain of a pericardial friction rub, electrocardiographic changes, and pericardial effusion with cardiac tamponade and paradoxical pulse are cardinal manifestations of many forms of acute pericarditis and will be considered prior to a discussion of the most common forms of the disorder.

Chest pain is an important but not invariable symptom in various forms of acute pericarditis; it is usually present in the acute infectious types and in many of the forms presumed to be related to hypersensitivity or autoimmunity. Pain is often absent in a slowly developing tuberculous postirradiation, neoplastic, or uremic pericarditis. The pain of pericarditis is often severe. It is characteristically retrosternal and left precordial referred to the back and the trapezius ridge. Often the pain is pleuritic consequent to accompanying pleural inflammation, i.e. sharp and aggravated by inspiration, coughing and changes in body position, but sometimes it is a steady, constrictive pain which radiates into either arm or both arms and resembles that of myocardial ischemia; therefore, confusion with myocardial infarction is common. Characteristically, however, the pericardial pain may be relieved by sitting up and leaning forward. The differentiation of acute myocardial infarction from acute pericarditis becomes even more perplexing when with acute pericarditis, the serum transaminase and creatine kinase levels rise, presumably because of concomitant involvement of the epicardium. However, these enzyme elevations, if they occur, are quite modest, given the extensive electrocardiographic ST-segment elevation in pericarditis.

The pericardial friction rub is the most important physical sign; it may have up to three components per cardiac cycle and is high-pitched, scratching, and grating; it can sometimes be elicited only when firm pressure with the diaphragm of the stethoscope is applied to the chest wall at the left lower sternal border. It is heard most frequently during expiration with the patient in the sitting position, but an independent pleural friction rub may be audible during inspiration with the patient leaning forward or in the left lateral decubitus position. The rub is often inconstant and transitory, and a loud to-and-fro leathery sound may disappear within a few hours, possibly to reappear the following day.

Moderate elevations of the MB fraction of creatine phosphokinase may occur and reflect accompanying epimyocarditis.

Section 4 Case history: William Hudson

Task 19



You will hear an extract from a consultation with Mr Hudson. The doctor has not seen him for seven years. He has just retired from the Post Office. As you listen, complete the Present Complaint section of the case notes below.

SURNAME	Hudson	FIRST NAMES	William Henry
AGE	65	SEX	M
		MARITAL STATUS	
OCCUPATION	Retired postmaster		
PRESENT COMPLAINT			

Task 20



Here is an edited version of the consultation. Complete the doctor's questions. Then check your answers with the recording and the Tapescript.

- DOCTOR: Good afternoon, Mr Hudson. Just have a seat. I haven't seen you for a long time.(1) brought you here today?
- PATIENT: Well, doctor, I've been having these headaches and I've lost a bit of weight.
- DOCTOR: And how long(2) the headaches(3) bothering you?
- PATIENT: Well, for quite a while now. The wife passed away four months ago. I've been feeling down since then.
- DOCTOR:(4) part of your head is affected?
- PATIENT: Just here, on the top. It feels like a heavy weight pressing down on me.
- DOCTOR:(5) they affected your eyesight at all?
- PATIENT: No, I wouldn't say so.
- DOCTOR: They(6) made you(7) sick?
- PATIENT: No.
- DOCTOR: Now, you told me you've lost some weight.(8) your appetite(9) like?
- PATIENT: I've been off my food.
- DOCTOR:(10) about your bowels,(11) problems?
- PATIENT: No, I'm quite all right.
- DOCTOR: What(12) your waterworks?
- PATIENT: Well, I've been having problems getting started and I have to get up two or three times at night.

DOCTOR:(13) this(14) on recently?

PATIENT: No, I've noticed it gradually over the past few months.

DOCTOR:(15) pain when you(16) water?

PATIENT: No.

DOCTOR:(17) you(18) any blood?

PATIENT: No.

Note how the actual consultation on the recording differs slightly from this version. What differences can you note? This consultation continues in Unit 3.





3 Examining a patient



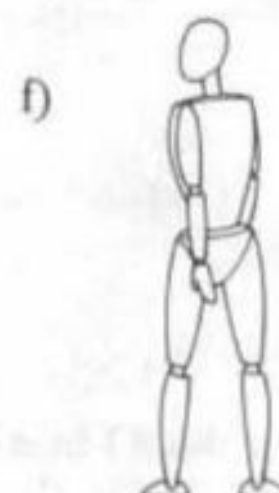
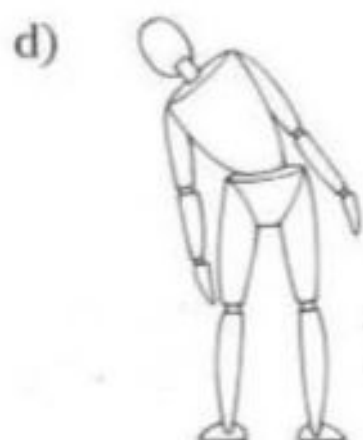
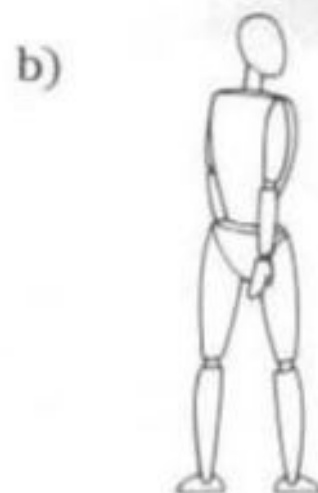
Section 1 Giving instructions

Task 1



Mr Jameson (see Unit 2, p. 22) was examined by a neurologist. Study these drawings which show some of the movements examined. Predict the order in which the neurologist examined her patient by numbering the drawings. Drawing (e) shows the first movement examined.

Now listen to the extract from the neurologist's examination and check your predictions.



Language focus 6

Note how the doctor instructs the patient what to do:

- Now *I just want to see you* standing.
- *Could you* bend down as far as you can?
- *Keep* your knees and feet steady.

Instructions, especially to change position or remove clothing, are often made like this:

- *Would you* slip off your top things, please?
- Now *I would like you* to lean backwards.

The doctor often prepares the patient for the next part of the examination in this way:

- *I'm just going to* find out where the sore spot is.

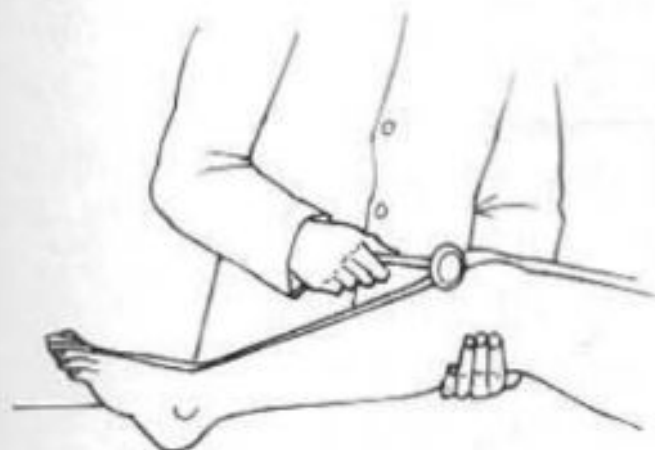
Task 2



These drawings show a doctor testing a patient's reflexes. Predict the order in which the reflexes were tested by numbering them.

Now listen to the extract and check your predictions.

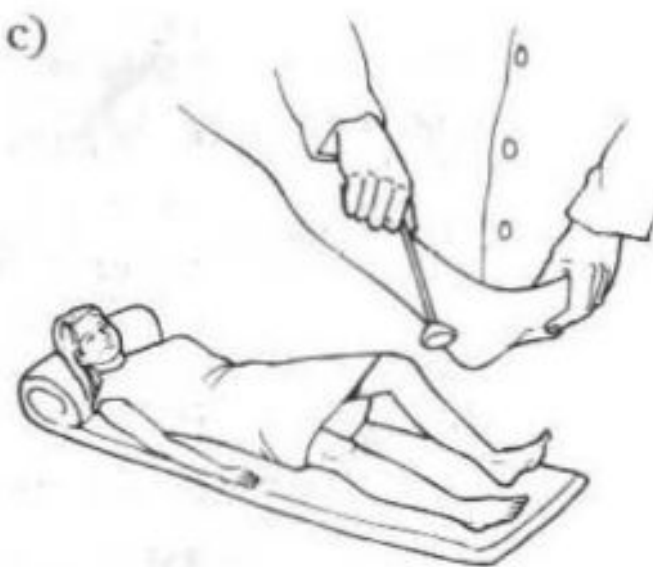
a)



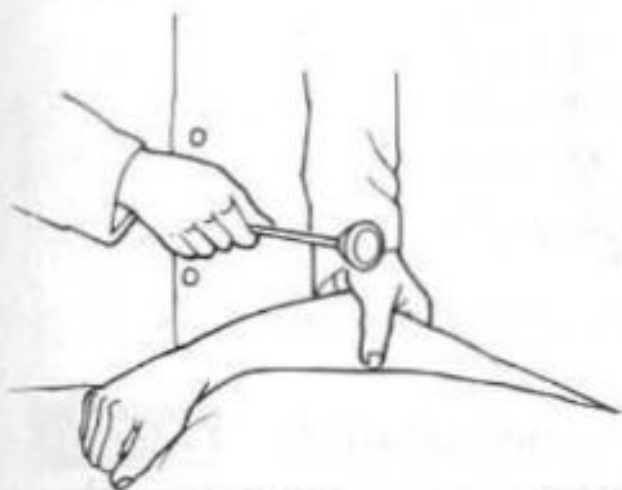
b)



c)



d)



e)



Task 3



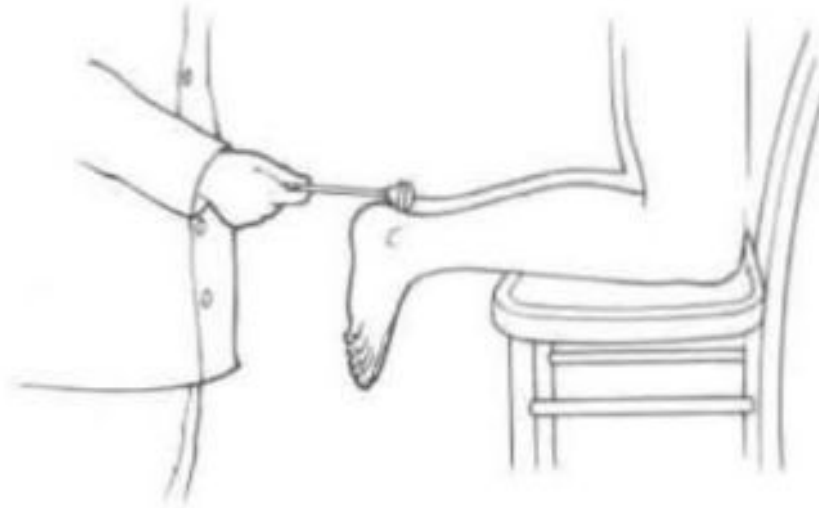
Using the pictures in Task 2 to help you, write down what you would say to a patient to test these reflexes. When you have finished, compare your instructions and comments with the recording.

Task 4

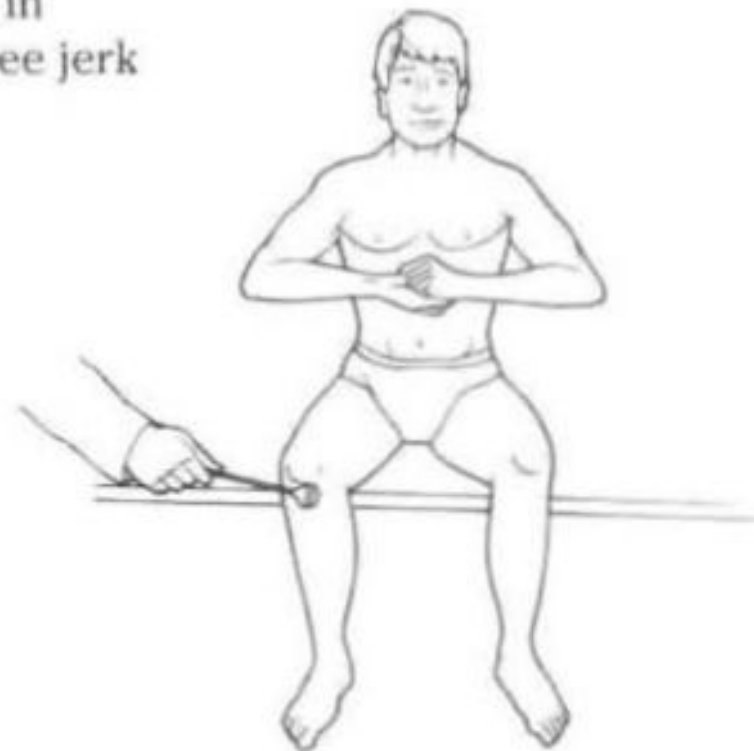


Instruct a patient to take up the correct position, prepare him or her for these tests, and comment on each one.

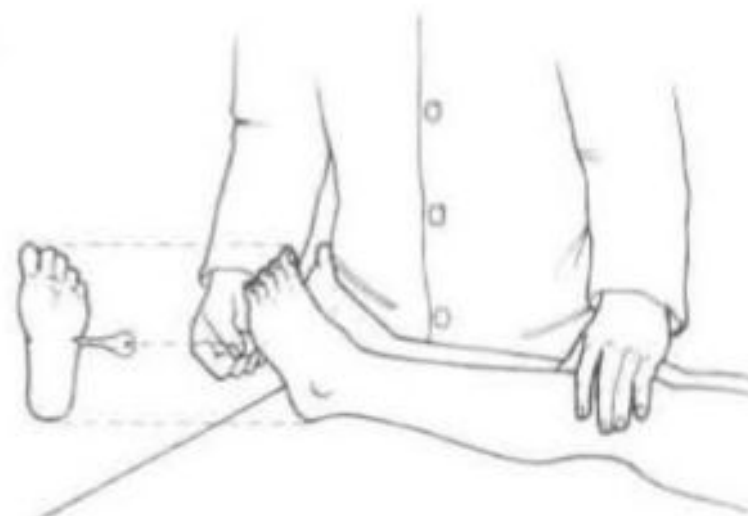
- 1 Alternative method of eliciting the ankle jerk



- 2 Reinforcement in eliciting the knee jerk



- 3 Eliciting the plantar reflex

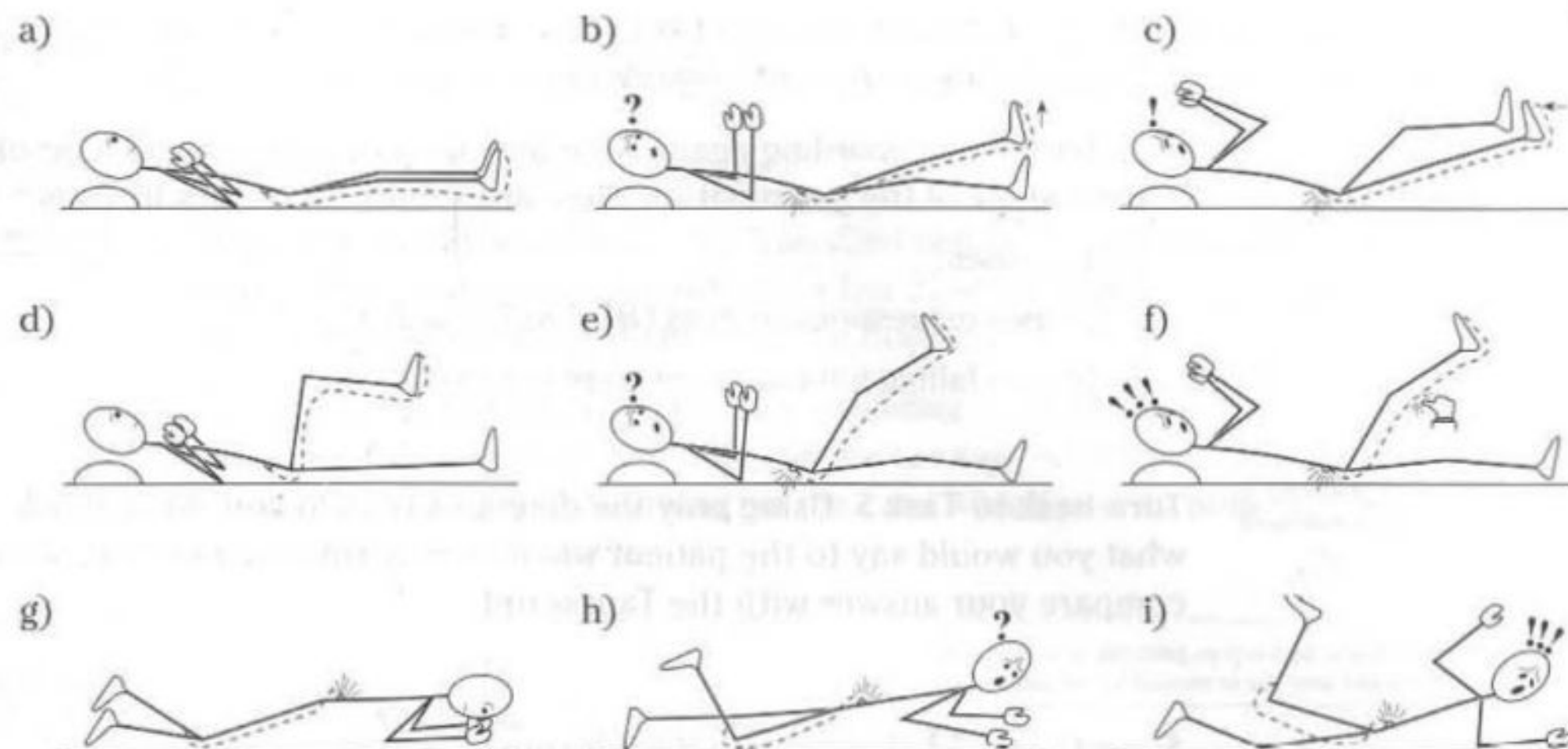


When you have finished, compare your instructions and comments with the recording.

Task 5



The neurologist carries out stretch tests on Mr Jameson for the sciatic and posterior tibial nerves and the femoral nerve. Complete the gaps in her instructions on the next page with the help of the drawings.



DOCTOR: Would you like to get onto the couch and(1) on your back, please? Now I'm going to take your left leg and see how far we can(2) it. Keep the knee straight. Does that hurt at all?

PATIENT: Yes, just a little. Just slightly.

DOCTOR: Can I do the same with this leg? How far will this one go? Not very far. Now let's see what happens if I(3) your toes back.

PATIENT: Oh, that's worse.

DOCTOR: I'm going to(4) your knee. How does that feel?

PATIENT: A little better.

DOCTOR: Now let's see what happens when we(5) your leg again.

PATIENT: That's sore.

DOCTOR: I'm just going to(6) behind your knee.

PATIENT: Oh, that hurts a lot.

DOCTOR: Where does it(7)?

PATIENT: In my back.

DOCTOR: Right. Now would you(8) over onto your tummy? Bend your right knee. How does that(9)?

PATIENT: It's a little bit sore.

DOCTOR: Now I'm going to(10) your thigh off the couch.

PATIENT: Oh, that really hurts.

Now listen to the recording to check your answers.

Task 6



A doctor has been called as an emergency to see a 55-year-old man at home with a history of high blood pressure who has collapsed with a sudden crushing central chest pain radiating to the back and legs. List what you would examine with such a patient.

Listen to the extract and note down what the doctor examined.

Compare your list with the examinations the doctor carried out.

Language focus 7

Listen to the recording again. Note how the doctor marks the end of each stage of the examination. Here are some of the ways he uses:

- 1 He pauses.
- 2 He uses expressions such as *OK, Fine, That's it.*
- 3 He uses falling intonation on these expressions.

Task 7



Turn back to Task 5. Using only the diagrams to help you, write down what you would say to the patient when making this examination. Then compare your answer with the Tapescript.

Section 2 Understanding forms

Task 8



Study this checklist for the first examination of a patient on attendance at an antenatal clinic. Some of these examinations are carried out as routine on subsequent visits. Mark them with a tick (✓) on the checklist.

THE FIRST EXAMINATION

- | | |
|---|---|
| 1 Height ☐ | 10 Blood sample for blood group ☐ |
| 2 Weight ☐ | 11 Blood sample for haemoglobin ☐ |
| 3 Auscultation of heart and lungs ☐ | 12 Blood sample for serological test for syphilis ☐ |
| 4 Examination of breasts and nipples ☐ | 13 Blood sample for rubella antibodies ☐ |
| 5 Examination of urine ☐ | 14 Blood sample for HIV antibodies ☐ |
| 6 Examination of pelvis ☐ | 15 Examination of abdomen to assess size of uterus ☐ |
| 7 Examination of legs ☐ | 16 Examination of vagina and cervix ☐ |
| 8 Inspection of teeth ☐ | |
| 9 Estimation of blood pressure ☐ | |

Now study these extracts from an obstetrician's examination of a patient attending for her 32-week antenatal appointment. Match each extract to the numbered examinations on the checklist. For example:

- a) Have you brought your urine sample? 5
- b) Now would you like to sit up and I'll take your blood pressure?
- c) Now I'll take a sample of blood to check your haemoglobin.
- d) Have you noticed any swelling of your ankles? ... Let's have a quick look.
- e) Now if you'd like to lie down on the couch, I'll take a look at the baby. I'll just measure to see what height it is.

Task 9



Put the extracts on the previous page in the order in which you would prefer to carry out these examinations.

Task 10

Work in pairs. Student A should start.



A: Play the part of the obstetrician. The card below shows the findings on examination of a patient attending for her 32-week appointment. Base your comments to the patient on these findings.

B: Play the part of the patient. You are attending for a 32-week appointment. Ask about anything the doctor says which you do not understand. Ask about anything on the card which you do not understand.

ANTENATAL No.										N.B. If there is anything on this card which you do not understand, do not hesitate to ask your Doctor or Midwife				
L.M.P. 22/3/03		Age 26		Pregnancy Test: Date Result		Ultrasound Scans				Surname Wallace				
E.D.D. 1. 3/2/04 2.		Parity 0 + 0		1. 4/5/03 +ve		Date	BPD	Weeks	First Names Mary					
F.M.E.F.		Height 1.55		2.					Address 4 Waverley Park Wellington					
		Blood Group O Rh + ve		3.										
Date	Wks	Weight (kg)	Urine P S	BP	Fundus (cm) Girth	Pres.	Level	FHH	Hb	Oed.	Problems, Investigations, Treatment etc (Please record all medicines)	Return Visit Date	Place	G.P. Copy Sent
10/6/03	6	76		126/76							Discussed screening tests, diet, etc.			
22/7/03	12		Neg	125/90	N.P.				12.6					
19/8/03	16			120/80	16						AFP 16 wks. (Yes) No 16/8/03 Result normal			
7/10/03	22		Neg	110/80	22						FMF 3/52 ago			
11/11/03	26			120/80	28	Capt.		✓						
30/12/03	32		Neg	124/80	29	C	NE	✓	12.4		small for dates, ref. for scan			
Signature		Special features				FOR OFFICE USE								

When you have completed your role-play, compare your version with the recorded consultation.

Section 3 Reading skills: Using a pharmacology reference

Task 11



Using the prescribing information which follows, choose the most appropriate antibiotic for these patients.

- 1 A 4-year-old-boy with meningitis due to pneumococcus. He is allergic to penicillin.
- 2 A 67-year-old man with a history of chronic bronchitis now suffering from pneumonia. The causative organism is resistant to tetracycline.
- 3 A 27-year-old woman with urinary tract infection in early pregnancy.
- 4 A 4-year-old girl with septic arthritis due to haemophilus influenzae.
- 5 An 18-year-old man with left leg amputation above the knee following a road traffic accident.
- 6 A 50-year-old woman with endocarditis caused by strep. viridans.
- 7 A 13-year-old girl with disfiguring acne.
- 8 An 8-year-old boy with tonsillitis due to β -haemolytic streptococcus.
- 9 A 43-year-old dairyman with brucellosis.
- 10 A 4-year-old unimmunised sibling of a 2-year-old boy with whooping cough.

ERYTHROMYCIN

Indications: alternative to penicillin in hypersensitive patients; campylobacter enteritis, pneumonia, legionnaires' disease, syphilis, non-gonococcal urethritis, chronic prostatitis, diphtheria and whooping cough prophylaxis; acne vulgaris and rosacea (section 13.6)

Cautions: hepatic and renal impairment; prolongation of QT interval (ventricular tachycardia reported); porphyria (section 9.8.2); pregnancy (not known to be harmful) and breast-feeding (only small amounts in milk); **interactions:** Appendix 1 (erythromycin and other macrolides) ARRHYTHMIAS. Avoid concomitant administration with pimozide or terfenadine [other interactions, Appendix 1]

Side-effects: nausea, vomiting, abdominal discomfort, diarrhoea (antibiotic-associated colitis reported); urticaria, rashes and other allergic reactions; reversible hearing loss reported after large doses; cholestatic jaundice, cardiac effects (including chest pain and arrhythmias), myasthenia-like syndrome, Stevens-Johnson syndrome, and toxic epidermal necrolysis also reported

Dose: by mouth, ADULT and CHILD over 8 years, 250–500 mg every 6 hours or 0.5–1 g every 12 hours (see notes above); up to 4 g daily in severe infections; CHILD up to 2 years 125 mg every 6 hours, 2–8 years 250 mg every 6 hours, doses doubled for severe infections
Early syphilis, 500 mg 4 times daily for 14 days
Uncomplicated genital chlamydia, non-gonococcal urethritis, 500 mg twice daily for 14 days

By intravenous infusion, ADULT and CHILD severe infections, 50 mg/kg daily by continuous infusion or in divided doses every 6 hours; mild infections (oral treatment not possible), 25 mg/kg daily; NEONATE 30–45 mg/kg daily in 3 divided doses

AMOXICILLIN

(Amoxycillin)

Indications: see under Ampicillin; also endocarditis prophylaxis (Table 2, section 5.1); and treatment (Table 1, section 5.1); anthrax (section 5.1.12); adjunct in listerial meningitis (Table 1, section 5.1); *Helicobacter pylori* eradication (section 1.3)

Cautions: see under Ampicillin

Contra-indications: see under Ampicillin

Side-effects: see under Ampicillin

Dose: by mouth, 250 mg every 8 hours, doubled in severe infections; CHILD up to 10 years, 125 mg every 8 hours, doubled in severe infections
Pneumonia, 0.5–1 g every 8 hours
Anthrax (treatment and post-exposure prophylaxis—see also section 5.1.12), 500 mg every 8 hours; CHILD body-weight under 20 kg, 80 mg/kg daily in 3 divided doses; body-weight over 20 kg, adult dose

Short-course oral therapy

Dental abscess, 3 g repeated after 8 hours

Urinary-tract infections, 3 g repeated after 10–12 hours

Otitis media, CHILD 3–10 years, 750 mg twice daily for 2 days

By intramuscular injection, 500 mg every 8 hours; CHILD, 50–100 mg/kg daily in divided doses

By intravenous injection or infusion, 500 mg every 8 hours increased to 1 g every 6 hours in severe infections; CHILD, 50–100 mg/kg daily in divided doses

PHENOXYMETHYLPENICILLIN

(Penicillin V)

Indications: tonsillitis, otitis media, erysipelas; rheumatic fever and pneumococcal infection prophylaxis (Table 2, section 5.1)

Cautions: see under Benzylpenicillin; **interactions:** Appendix 1 (penicillins)

Contra-indications: see under Benzylpenicillin

Side-effects: see under Benzylpenicillin

Dose: 500 mg every 6 hours increased up to 1 g every 6 hours in severe infections; CHILD, every 6 hours, up to 1 year 62.5 mg, 1–5 years 125 mg, 6–12 years 250 mg

NOTE. Phenoxyethylpenicillin doses in the BNF may differ from those in product literature

5.1.3 Tetracyclines

The tetracyclines are broad-spectrum antibiotics whose value has decreased owing to increasing bacterial resistance. They remain, however, the treatment of choice for infections caused by chlamydia (trachoma, psittacosis, salpingitis, urethritis, and lymphogranuloma venereum), rickettsia (including Q-fever), brucella (doxycycline with either streptomycin or rifampicin), and the spirochaete, *Borrelia burgdorferi* (Lyme disease—see section 5.1.1.3). They are also used in respiratory and genital mycoplasma infections, in acne, in destructive (refractory) periodontal disease, in exacerbations of chronic bronchitis (because of their activity against *Haemophilus influenzae*), and for leptospirosis in penicillin hypersensitivity (as an alternative to erythromycin).

Microbiologically, there is little to choose between the various tetracyclines, the only exception being minocycline which has a broader spectrum; it is active against *Neisseria meningitidis* and has been used for meningococcal prophylaxis but is no longer recommended because of side-effects including dizziness and vertigo (see section 5.1, table 2 for current recommendations). *Deteclo*[®] (a combination of tetracycline, chlortetracycline and demeclocycline) does not have any advantages over preparations containing a single tetracycline.

CAUTIONS. Tetracyclines should be used with caution in patients with hepatic impairment (Appendix 2) or those receiving potentially hepatotoxic drugs. Tetracyclines may increase muscle weakness in patients with myasthenia gravis, and exacerbate systemic lupus erythematosus. Antacids, and aluminium, calcium, iron, magnesium and zinc salts decrease the absorption of tetracyclines; milk also reduces the absorption of demeclocycline, oxytetracycline, and tetracycline. Other **interactions:** Appendix 1 (tetracyclines).

CONTRA-INDICATIONS. Deposition of tetracyclines in growing bone and teeth (by binding to calcium) causes staining and occasionally dental hypoplasia, and they should **not** be given to children under 12 years, or to pregnant or breast-feeding women (Appendices 4 and 5). However, doxycycline may be used in children for treatment and post-exposure prophylaxis of anthrax when an alternative antibacterial cannot be given [unlicensed indication]. With the exception of **doxycycline** and **minocycline**, the tetracyclines may exacerbate renal failure and should **not** be given to patients with kidney disease (Appendix 3).

SIDE-EFFECTS. Side-effects of the tetracyclines include nausea, vomiting, diarrhoea (antibiotic-associated colitis reported occasionally), dysphagia, and oesophageal irritation. Other rare side-effects include hepatotoxicity, blood dyscrasias, photosensitivity (particularly with demeclocycline), and hypersensitivity reactions (including rash, exfoliative dermatitis, urticaria, angioedema, anaphylaxis, pericarditis). Headache and visual disturbances may indicate benign intracranial hypertension (discontinue treatment); bulging fontanelles have been reported in infants.

TETRACYCLINE

Indications: see notes above; acne vulgaris, rosacea (section 13.6)

Cautions: see notes above

Contra-indications: see notes above

Side-effects: see notes above; also reported, pancreatitis, acute renal failure, skin discoloration

Dose: by mouth, 250 mg every 6 hours, increased in severe infections to 500 mg every 6–8 hours

Acne, see section 13.6.2

Non-gonococcal urethritis, 500 mg every 6 hours for 7–14 days (21 days if failure or relapse after first course)

COUNSELLING. Tablets should be swallowed whole with plenty of fluid while sitting or standing

CEFUROXIME

Indications: see under Cefaclor; surgical prophylaxis; more active against *Haemophilus influenzae* and *Neisseria gonorrhoeae*; Lyme disease

Cautions: see under Cefaclor

Contra-indications: see under Cefaclor

Side-effects: see under Cefaclor

Dose: by mouth (as cefuroxime axetil), 250 mg twice daily in most infections including mild to moderate lower respiratory-tract infections (e.g. bronchitis); doubled for more severe lower respiratory-tract infections or if pneumonia suspected

Urinary-tract infection, 125 mg twice daily, doubled in pyelonephritis

Gonorrhoea, 1 g as a single dose

CHILD over 3 months, 125 mg twice daily, if necessary doubled in child over 2 years with otitis media

Lyme disease, ADULT and CHILD over 12 years, 500 mg twice daily for 20 days

By intramuscular injection or intravenous injection or infusion, 750 mg every 6–8 hours; 1.5 g every 6–8 hours in severe infections; single doses over 750 mg intravenous route only

CHILD usual dose 60 mg/kg daily (range 30–100 mg/kg daily) in 3–4 divided doses (2–3 divided doses in neonates)

Gonorrhoea, 1.5 g as a single dose by intramuscular injection (divided between 2 sites)

Surgical prophylaxis, 1.5 g by intravenous injection at induction; up to 3 further doses of 750 mg may be given by intramuscular or intravenous injection every 8 hours for high-risk procedures

Meningitis, 3 g intravenously every 8 hours; CHILD, 200–240 mg/kg daily (in 3–4 divided doses) reduced to 100 mg/kg daily after 3 days or on clinical improvement; NEONATE, 100 mg/kg daily reduced to 50 mg/kg daily

GENTAMICIN

Indications: septicaemia and neonatal sepsis; meningitis and other CNS infections; biliary-tract infection, acute pyelonephritis or prostatitis, endocarditis (see notes above); pneumonia in hospital patients, adjunct in listerial meningitis (Table 1, section 5.1)

Cautions: pregnancy (Appendix 4), renal impairment, infants and elderly (adjust dose and monitor renal, auditory and vestibular function together with serum gentamicin concentrations); avoid prolonged use; conditions characterised by muscular weakness; significant obesity (monitor serum-gentamicin concentration closely and possibly reduce dose); see also notes above; **Interactions:** Appendix 1 (aminoglycosides)

Contra-indications: myasthenia gravis

Side-effects: vestibular and auditory damage, nephrotoxicity; rarely, hypomagnesaemia on prolonged therapy, antibiotic-associated colitis; also reported, nausea, vomiting, rash; see also notes above

Dose: by intramuscular or by slow intravenous injection over at least 3 minutes or by intravenous infusion, 3–5 mg/kg daily (in divided doses every 8 hours), see also notes above

CHILD up to 2 weeks, 3 mg/kg every 12 hours; 2 weeks–12 years, 2 mg/kg every 8 hours

Streptococcal or enterococcal endocarditis in combination with other drugs, 80 mg twice daily

Endocarditis prophylaxis, Table 2, section 5.1

By intrathecal injection, seek specialist advice, 1 mg daily (increased if necessary to 5 mg daily)

NOTE. One-hour ('peak') serum concentration should be 5–10 mg/litre (3–5 mg/litre for streptococcal or enterococcal endocarditis); pre-dose ('trough') concentration should be less than 2 mg/litre (less than 1 mg/litre for streptococcal or enterococcal endocarditis)

BENZYL PENICILLIN

(Penicillin G)

Indications: throat infections, otitis media, streptococcal endocarditis, meningococcal disease, pneumonia (Table 1, section 5.1); anthrax; prophylaxis in limb amputation (Table 2, section 5.1)

Cautions: history of allergy; renal impairment (Appendix 3); **interactions:** Appendix 1 (penicillins)

Contra-indications: penicillin hypersensitivity

Side-effects: hypersensitivity reactions including urticaria, fever, joint pains, rashes, angioedema, anaphylaxis, serum sickness-like reactions, haemolytic anaemia and interstitial nephritis; neutropenia, thrombocytopenia, coagulation disorders and central nervous system toxicity including convulsions reported (especially with high doses or in severe renal impairment); diarrhoea and antibiotic-associated colitis

Dose: by intramuscular or by slow intravenous injection or by infusion, 2.4–4.8 g daily in 4 divided doses, increased if necessary in more serious infections (see also below); PREMATURE INFANT and NEONATE, 50 mg/kg daily in 2 divided doses; INFANT 1–4 weeks, 75 mg/kg daily in 3 divided doses; CHILD 1 month–12 years, 100 mg/kg daily in 4 divided doses (higher doses may be required, see also below)

Bacterial endocarditis, by slow intravenous injection or by infusion, 7.2 g daily in 6 divided doses

Anthrax (in combination with other antibacterials, see also section 5.1.12), by slow intravenous injection or by infusion, 2.4 g every 4 hours; CHILD 150 mg/kg daily in 4 divided doses

Meningococcal disease, by slow intravenous injection or by infusion, 2.4 g every 4 hours; PREMATURE INFANT and NEONATE, 100 mg/kg daily in 2 divided doses; INFANT 1–4 weeks, 150 mg/kg daily in 3 divided doses; CHILD 1 month–12 years, 180–300 mg/kg daily in 4–6 divided doses

Important. If bacterial meningitis and especially if meningococcal disease is suspected general practitioners are advised to give a single injection of benzylpenicillin by intravenous injection (or by intramuscular injection) before transferring the patient urgently to hospital. Suitable doses are: ADULT 1.2 g; INFANT 300 mg; CHILD 1–9 years 600 mg, 10 years and over as for adult. In penicillin allergy, cefotaxime (section 5.1.2) may be an alternative; chloramphenicol may be used if there is a history of anaphylaxis to penicillins

By intrathecal injection, **not recommended**

NOTE. Benzylpenicillin doses in BNF may differ from those in product literature

CEFOTAXIME

Indications: see under Cefaclor; gonorrhoea (section 5.1, table 1); surgical prophylaxis; *Haemophilus epiglottitis* and meningitis (section 5.1, table 1); see also notes above

Cautions: see under Cefaclor

Contra-indications: see under Cefaclor

Side-effects: see under Cefaclor; rarely arrhythmias following rapid injection reported

Dose: by intramuscular or intravenous injection or by intravenous infusion, 1 g every 12 hours increased in severe infections (e.g. meningitis) to 8 g daily in 4 divided doses; higher doses (up to 12 g daily in 3–4 divided doses) may be required; NEONATE 50 mg/kg daily in 2–4 divided doses increased to 150–200 mg/kg daily in severe infections; CHILD 100–150 mg/kg daily in 2–4 divided doses increased up to 200 mg/kg daily in very severe infections

Gonorrhoea, 500 mg as a single dose

Important. If bacterial meningitis and especially if meningococcal disease is suspected the patient should be transferred urgently to hospital. If benzylpenicillin cannot be given (e.g. because of an allergy), a single dose of cefotaxime may be given (if available) before urgent transfer to hospital. Suitable doses of cefotaxime by intravenous injection (or by intramuscular injection) are ADULT and CHILD over 12 years 1 g; CHILD under 12 years 50 mg/kg; chloramphenicol (section 5.1.7) may be used if there is a history of anaphylaxis to penicillins or cephalosporins

Section 4 Case history: William Hudson

Task 12



Study these case notes from Mr Hudson's consultation, part of which you studied in Unit 2, Section 4. Try to work out the meanings of the circled abbreviations. Refer to Appendix 2 for help.

SURNAME	Hudson	FIRST NAMES	William Henry
AGE	65	SEX	M
		MARITAL STATUS	W
OCCUPATION	Retired postmaster		
PRESENT COMPLAINT	Headaches for 4 mths. Wt loss. Headaches feel "like a heavy weight". No nausea or visual symptoms. No appetite. Diff. starting to (PU). Nocturia x3.		
O/E	General Condition		
ENT			
RS	chest clear		
CVS	P 110/min irreg. (? AF) BP 160/105 (HS) I, II		
GIS	(abdo.) NAD		
GUS	(p.r.) prostate moderately enlarged		
CNS	(NAD)		
IMMEDIATE PAST HISTORY			
POINTS OF NOTE	Wife died (4/12) ago of (Ca.) ovary.		
INVESTIGATIONS			

You decide to refer Mr Hudson for further treatment. The surgeon is Mr Fielding. Write a letter to him outlining Mr Hudson's problems. Use the form below. When you have finished, compare your version with the Key. The case of Mr Hudson continues in Unit 4.

3.4 Case history: William Hudson



4 Special examinations



Section 1 Instructing, explaining and reassuring

Task 1



You will hear an interview between a hospital consultant, Mr Davidson, and a patient, Mr Priestly. As you listen, complete the case notes and decide which department the patient has been referred to.

SURNAME		FIRST NAMES John	
AGE 58	SEX M	MARITAL STATUS M	
OCCUPATION			
PRESENT COMPLAINT			

Task 2



Now listen again to complete the doctor's questions.

- 1 Can you see any letters at(a) ?
- 2 Well, with the right eye,(b) you see(c) ?
- 3 Now does(d) make(e) difference?
- 4 What about(f) one? Does(g) have any effect?

What do you think (d) and (f) refer to?

Task 3

Think about the intonation of the completed questions in Task 2. Mark the words where you expect the speaker's voice to go up or down.

Now listen to the recording to check your answers.

Language focus 8

Note how the doctor starts the examination:

- *I'd just like to ...*
- *Could you just ... for me?*

Note how the doctor indicates the examination is finished:

- *Right, thank you very much indeed.*

Task 4

You want to examine a patient. Match the examinations in the first column with the instructions in the second column. Then practise with a partner what you would say to a patient when carrying out these examinations. Rephrase the instructions according to what you have studied in this unit and in Unit 3. For example:

- 1–d I'd just like to examine your throat. Could you please open your mouth as wide as you can?

Examinations

- 1 the throat
- 2 the ears
- 3 the chest
- 4 the back
- 5 the foot
- 6 the nasal passage

Instructions

- a) Remove your sock and shoe.
- b) Remove your top clothing.
- c) Turn your head this way.
- d) Open your mouth.
- e) Tilt your head back.
- f) Stand up.

Task 5

What do you think the doctor is examining by giving each of these instructions?

- 1 I want you to push as hard as you can against my hand.
- 2 Breathe in as far as you can. Now out as far as you can.
- 3 Say 99. Now whisper it.
- 4 Could you fix your eyes on the tip of my pen and keep your eyes on it?
- 5 I want you to keep this under your tongue until I remove it.
- 6 Would you roll over on your left side and bend your knees up? This may be a bit uncomfortable.
- 7 I want to see you take your right heel and run it down the front of your left leg.
- 8 Put out your tongue. Say Aah.

Task 6



Work in pairs and look back at Task 1. Student A should start.

A: Play the part of Mr Davidson.

- 1 Greet the patient.
- 2 Indicate that you have had a letter of referral.
- 3 Ask about the duration of the problem.
- 4 Ask about the patient's occupation.
- 5 Ask about the effect on his occupation.
- 6 Indicate that you would like to examine him.
- 7 Ask him to read the chart.
- 8 Ask about the right eye.
- 9 You change the lens – does it make any difference?
- 10 You try another one.
- 11 Indicate that the examination is over.

B: Play the part of Mr Priestly. Use the case notes as prompts.

Task 7



You will hear an extract from an examination. As you listen, tick off the systems examined.

<i>System</i>	<i>Examined</i>
ENT	
RS	
CVS	
GIS	
GUS	
CNS	
Others (specify)	

What kind of examination is this?

How old do you think the patient is?

How do you know?

Language focus 9

Note how the doctor carefully reassures the patient by explaining what she is going to do and indicating that everything is all right:

– *Can I have a look at you to find out where your bad cough is coming from? ... That's fine.*

Task 8

Try to complete the doctor's explanations and expressions of reassurance by adding one word in each gap.

Now listen to the extract again and check your answers.

- 1 Now I'm(a) to put this thing on your chest.
- 2 It's(b) a stethoscope.
- 3 It(c) be a bit cold.
- 4 OK? First(d) all, I listen(e) your front and(f) your back.
- 5 Well(g), you didn't move at all.
- 6 Now I'd(h) to see your tummy,(i) will you lie on the bed for a minute?
- 7 Now while(j) lying there,(k) feel your neck and under your arms.
- 8 Are you(l)?
- 9(m) the top of your legs.
- 10 That's(n) very quick,(o) it?

Listen again. Try to note the intonation of the question forms.

Task 9

Look back to Task 4. How would you rephrase the instructions for a 4-year-old? When you have finished, look at the Key and listen to the recording.



Section 2 Rephrasing, encouraging and prompting

Task 10



The form below is used to measure mental impairment. Discuss with a partner:

- in what order you might ask these questions
- in what form you might ask them

ISAACS-WALKEY MENTAL IMPAIRMENT MEASUREMENT	
Date of test / /	
Ask the patient the following questions. Score 1 for a correct answer, 0 for an error.	
	Score
1 What is the name of this place?	
2 What day of the week is it today?	
3 What month is it?	
4 What year is it?	
5 What age are you? (allow ± 1 year error)	
6 In what year were you born?	
7 In what month is your birthday?	
8 What time is it? (allow ± 1 hour error)	
9 How long have you been here? (allow 25% error)	
Total score 	
Significance of score	
8 or 9	No significant impairment
5 to 7	Moderate impairment
1 to 4	Severe impairment
0	Complete failure
Signature of examiner	

Task 11



You will hear an interview between a doctor and a patient he has known for years. As you listen, number the questions above in the order they are asked. Compare the order with your predictions.

Complete Task 12 before you check your answers in the Key.

Task 12



Study the information about the patient given below. Then listen to the interview again with the purpose of giving the patient a score.

SURNAME	Walters	FIRST NAMES	John Edward
AGE	83	SEX	M
		MARITAL STATUS	W
OCCUPATION	Retired millworker		

Date of test: Thursday 27 February 1997

Patient's DOB: 17 April 1913

How does your score compare with that given by your partner and in the Key?

Language focus 10

Note how the doctor uses a rephrasing technique to encourage the patient and give him time to answer. For example:

Question 9: Have you been here long?

In this house, have you been here long?

How long have you been living in the High Street?

Note also that the rephrased question is often preceded by an expression like *Do you remember ...?* For example:

– *Do you remember where this is? Where is this place?*

Task 13



Predict the missing words in these extracts. Several words are required in most of the gaps. Then listen again to the interview to check your predictions. Try to match the rephrasings with the corresponding test questions. Example (a) is done for you.

- Question ⁶ : Do you remember when you were born?
What(1)?
Can you(2)?
- Question : Do you remember what time of the month?
What(3)?
- Question : How old will you be now(4)?
- Question : What year is it this year? Do you(5)?
- Question : Fine, and what month are we in?
Well,(6)?
- Question : Do you remember what day of the week it is?
Or do the(7) now that you're
.....(8)?

Task 14



Think about the intonation of the completed questions in Task 13. Mark the words where you expect the speaker's voice to go up or down.

Now listen to the recording to check your answers.

Task 15



Look back at the test form in Task 10. Think of at least two ways of rephrasing each question.

Task 16



Mr Jameson (see Unit 3, p. 28) was referred to a neurologist for examination. During the examination the neurologist touches Mr Jameson with:

- a) a needle
- b) a piece of cotton wool
- c) hot and cold tubes
- d) a vibrating fork

Listen to Parts 1 to 4 of the examination and number the steps in the order that the neurologist carries them out.

Language focus 11



Note how the neurologist explains what she is going to do in Part 1 of the examination:

- *I now want to ...*
- *I'm going to ...*
- *I'll ...*

Listen to Part 1 of the interview to complete these explanations. Then listen to Parts 2, 3 and 4 to note:

- a) How the doctor instructs the patient.
- b) How the doctor marks the stages of her examination.

To instruct the patient, she uses:

- *I want you to ...*

To mark the stages of her examination, she says:

- *Now I'm going to try something ...*
- *Next I'm going to test you ...*

Task 17



Using the expressions studied in Language focus 11, explain to Mr Jameson each stage of the examination and instruct him.

Task 18

The neurologist then examines Mr Jameson's leg pulses. The sequence of examination is as follows:

- 1 the groin
- 2 behind the knee
- 3 behind the ankle bone
- 4 the top of the foot
- 5 the other leg

Write what you would say to Mr Jameson. Then listen to Part 5 of the examination to compare.

Task 19

Work in pairs. Choose a specialist examination in your own field. Together decide how you can explain to the patient each stage of the examination and how you would instruct the patient. Then find a new partner to play the patient.

Section 3 Reading skills: Reading articles 1

Task 20

Here are the headings that are commonly used in articles from American journals. Number them in the order that you would expect them to feature.

References

Summary

Comment

Materials and methods

Authors

Editor's note

Title

Results

Introduction



Task 21



Here are some brief extracts from an article that featured in the *Archives of Pediatric and Adolescent Medicine*. Try to match them to the headings given in Task 20. What features of the text helped you to identify the parts?

Now put the headings in the order that you would expect to find them.

a) Kathi J. Kemper, MD, MPH; Paul L. McCarthy, MD; Domenic V. Cicchetti, PhD

b)

Abstract scoring and selection remained constant throughout the study years. All abstracts were rated anonymously, ie authors' names and institutions were omitted. All abstracts were rated from 1 to 5, with 1 indicating unsuitable for presentation; 2, consider only if necessary; 3, borderline; 4, good; 5, a "must". The ratings for each abstract were averaged. Abstracts were sorted by rank, with the highest average scores at the top. The top abstracts were selected for platform (oral) presentation. As space allowed, the next highest-scoring abstracts were selected for poster presentation.

Between 1990 and 1991, the number of reviewers per abstract was reduced from 11 to six. In 1995, the pool of reviewers was expanded to include the chairpersons of two SIGs—ER and BEH—and 10 regional chairpersons (RCs). Abstracts were divided into three categories: ER, BEH, and GP. The ER abstracts were reviewed by the chairperson of the ER SIG, two RCs, and one member of the BOD. The BEH abstracts were reviewed by the chairperson of the BEH SIG, two RCs, and two members of the BOD. The GP abstracts were reviewed by five members of the BOD and six RCs, so every abstract was reviewed by at least five raters. Specific assignments were made randomly by administrative staff at the APA office.

c)

1. Standards of Reporting Trials Group. A proposal for structured reporting of randomized controlled trials. *JAMA*. 1994; 272: 1926-1931.
2. Working Group on Recommendations for Reporting Clinical Trials in the Biomedical Literature. Call for comments on a proposal to improve reporting of clinical trials in the biomedical literature. *Ann Intern Med*. 1994; 121: 894-895.
3. Haynes RB, Mulrow CD, Huth EJ, Altman DG, Gardner MJ. More informative abstracts revisited. *Ann Intern Med*. 1990; 113: 69-76.
4. Purpose and procedure. *ACP J Club*. 1991; 115 (suppl 2): A-13-A-14.

d)

The number of abstracts submitted and selected for presentation in 1990, 1991, 1993, and 1995 are given in **Table 1**. Data from 1991 and 1993 are included for comparison.

The number of abstracts submitted for consideration for presentation at the annual APA meeting increased steadily between 1990 and 1995. The increased capacity for poster presentations each year since 1990 increased the overall acceptance rate from 42% in 1990, when 14 posters were presented, to 62% in 1995, when 182 posters were presented. The number of oral presentations remained constant at about 90 per year since the late 1980s.

Of all abstracts submitted to APA in 1995, 246 were reviewed by the GP committee (11 reviewers), 118 were reviewed by the ER committee (four reviewers), and 43 were reviewed by the BEH committee (five reviewers). There were no reported logistical problems as a result of increasing the number and variety of reviewers. All reviews were returned within 10 days.

- e) A few cannot agree. Add more, and they also cannot agree. If not reliable, at least they are consistent. Perhaps this should be entitled "Raters of the Lost Art".

Catherine D. DeAngelis, MD

g)

PEER REVIEW is a cornerstone of the modern scientific process. It is the means by which grant applications are selected for funding, experiments involving human subjects are approved, manuscripts are selected for publication, and abstracts are selected for presentation at scientific meetings. Research presentations help disseminate new knowledge and may improve patient care, health services, and health education. Through abstract presentations, new researchers are introduced to the academic community and career development is enhanced. Failure to be accepted for presentation often has damaging effects on junior investigators' self-esteem and interest in a research career.

f)

These results are consistent with previous studies of the peer review process indicating that after correcting for chance, interrater agreement is poor. Without specific criteria and training for reviewers, interrater agreement is only slightly better than chance. This is also true for evaluating funding proposals²³ and in clinical medicine.²⁴ Interrater agreement on the quality of patient care often shows κ values less than 0.40.²⁵

h)

Improving Participation and Interrater Agreement in Scoring Ambulatory Pediatric Association Abstracts

How Well Have We Succeeded?

Task 22



Usually the part of the article that one reads first is the abstract or the summary. In American journals it usually comprises four parts:

Conclusions
Methods
Objective(s)
Results

Put the headings in the order you would expect them to appear.

Task 23



Here is the Summary of the article from Task 21. Complete the text by putting in the appropriate headings and missing words. Each gap can be completed by adding either one word, or one word plus an article (*the, a* or *an*).

.....(1): To determine whether increasing the number and types of interrater agreement in scoring abstracts submitted(2) Ambulatory Pediatric Association.

.....(3): In 1990, all abstracts were rated by each(4) 11 members of the board of directors(5) Ambulatory Pediatric Association. In 1995, abstracts were reviewed(6) four to five raters, including eight members of the board of directors, two chairpersons of special interest groups, and ten regional chairpersons, for a total of 20 potential reviewers. Submissions were divided into the following three categories(7) review: emergency medicine, behavioural pediatrics, and general pediatrics. Weighted percentage agreement and weighted K scores were computed for 1990 and 1995 abstract scores.

.....(8): Between 1990 and 1995, the number of abstracts submitted(9) Ambulatory Pediatric Association increased from 246 to 407, the number(10) reviewers increased from 11 to 20, the weighted percentage agreement between raters remained approximately 79% and weighted K scores remained less(11) 0.25. Agreement was not significantly better for the emergency medicine and behavioural abstracts than for general pediatrics,(12) was it better for the raters(13) reviewed fewer abstracts than those who reviewed many.

.....(14): The number and expertise(15) those rating abstracts increased from 1990 to 1995.(16), interrater agreement did(17) change and remained low. Further efforts are needed(18) improve the interrater agreement.

Think about some of the journal articles that you regularly read. Do they follow the same structure, or are there some differences? Compare notes with a partner or other members of your group.

If you have the opportunity, visit the medical library, or a library that has some medical and scientific journals and compare their structures. How do they compare with the structures of journal articles written in your mother tongue?

Section 4 Case history: William Hudson

Task 24



Mr Hudson was put on a waiting list for a TURP following his consultation with Mr Fielding. However, after five weeks he was admitted to hospital as an emergency. Study the registrar's case notes on Mr Hudson following his admission.

PRESENT COMPLAINT	
Unable to PU for 24hrs In severe pain Awaiting TURP for enlarged prostate	
O/E	
General Condition	Restlessness due to pain Sweating ++
ENT	
RS	Chest clear
CVS	P120 AF BP 180/120 HtS I, II no murmurs
GIS	
GUS	PR prostate enlarged, soft
CNS	NAD
 bladder distended to umbilicus	
DIAGNOSIS	
(1) Acute retention due to prostate hypertrophy (2) Atrial fibrillation ? cause	
MANAGEMENT	
Sedate Catheterise Ask physician to see him	

The following notes were added after catheterisation:

INVESTIGATIONS
urinalysis 3+ sugar
MANAGEMENT
Rx digoxin 0.25 mg daily metformin 500 mg t.d.s.

What addition would you make to the Diagnosis section?

Write a letter to Mr Hudson's doctor, Dr Watson, explaining your findings.



Getting Started

Language is our favorite toy. We encourage you to play with it, develop your own skill set, and have fun inventing and reinventing your unique use of it. At the same time, we want you to develop a consistently excellent professional writing (and speaking) style, using conventions universally understood by speech-language pathologists and audiologists. The professional and personal language you use will be quite different from what we wrote and said as undergraduate and graduate students. Emerging technology, especially in audiology, but also in areas of speech-language pathology such as alternative and augmentative communication, has resulted in a new and richer vocabulary, with terms borrowed from computer science, engineering, and medicine.

Nowhere is the flux of language more evident than in the words used by young adults to represent something or someone in exceedingly positive terms. These have evolved from “the cat’s pajamas” to “groovy,” “far out,” and “def.” The last term gives us an opportunity to examine what is claimed here to be a misunderstanding based on vernacular English. The term *def* does not refer to hearing loss; rather, as it originated in inner cities, it refers to *death* in an ironic way. There is a phonological rule in African American Vernacular English (AAVE) where the sound made by the voiceless *th* (theta), when appearing after a vowel, is pronounced as the sound made by the letter *f*. We write the rule as follows: postvocalic /θ/→/f/. This rule, as legitimate as any other in phonology, represents the accepted practice of a large linguistic community. It is important to note the difference between vernacular English and language disorder, as Jones, Obler, Gitter-

man, and Goldfarb (2002) indicate in a comparison of AAVE to agrammatism in aphasia. We can see now that the use of *def* actually corresponds to a phrase—*the livin’ end*—used as a superlative several generations ago, for what is the end of life (*the livin’ end*), but *def*?

Finally, as you play with your new language toy, resist the urge to turn nouns into verbs or verbs into nouns. Former President George W. Bush caused himself political harm by creating a noun from the verb *to decide*. Calling himself “the decider” resulted in a cascade of political cartoons, usually with a superhero in cape and tights (and the President’s face) and a capital *D* emblazoned on his chest. The President would have been much better served by using the term *commander-in-chief* or even *the boss*. Similarly, creating a verb form of *clinician* is not the most apt way of expressing the notion that a speech-language pathologist or audiologist should be well rounded, as in, “To be a good clinician, you should *clinicbe* with all types of cases.”

Beginnings of Speech-Language Pathology

This section is devoted to the beginnings of the field of speech-language pathology as well as the professional titles we use when referring to our colleagues and ourselves. The origins of speech-language pathology are usually traced to physicians in German-speaking countries in Europe during the early 1900s and shortly thereafter to the University of Iowa in the United States

However, the purpose of this chapter is to define, describe, and help in the practice of some basic concepts of English mechanics as they apply to professional writing in speech-language pathology and audiology.

The section includes information and practice on grammatical classes (parts of speech) and structure rules (syntax). We have devoted considerable attention to most parts of speech, but have given others a cursory review. Most writers have no difficulty using *conjunctions* (and, but, yet) to join two simple sentences to form a compound sentence, or to use them to join words, phrases, and clauses. Similarly, we don't need to teach you that *articles* (a, an, the) identify and specify nouns. Finally, *interjections* (ouch, ah, whoops) express emotion, and do not belong in professional writing. We have chosen to describe *particles* briefly, because the prepositional and adverbial forms they take may be somewhat confusing. Finally, we relate concepts of English mechanics to theories of language development and language disorders, and demonstrate how knowledge of syntax can apply to clinical intervention.

We have tried to answer the following questions: What are characteristics of nouns and verbs? How do we use pronouns? How do adjectives/attributes develop in typical children? What are the differences between adjectives and adverbs? What are content (lexical) and function (functor or helping) words? What is a noun phrase? What is a verb phrase? How do we put them together to form sentences? What kinds of sentences can we create?

Parts of Speech

(See Goldberg & Goldfarb, 2005)

Nouns

Acquired earlier than verbs

Processed more quickly

Have an identity independent of verbs

More typical stress patterns in English

More syllables and longer durations

Conceptually, mapped as things

Verbs

Verb relations often include nouns

More complex syntactically and morphologically

Greater range of meaning than nouns

Less typical stress patterns

Fewer syllables and shorter durations

Conceptually, mapped as relations

Limited number of verb forms convey a wide variety of meanings

Pronouns

There are nine types of pronouns, and some of them give professional writers considerable trouble. Let's look at the easier ones first.

1. An *indefinite pronoun* refers, in general terms, to a person or thing. Indefinite pronouns include *all, any, both, each, everyone, few, many, neither, none, nothing, several, some, and somebody*. Some examples of indefinite pronouns in sentences are:

Several answers come to mind.

Any exercise is usually better than none.

Nothing good will come of this.

2. A *reflexive pronoun* refers back to the subject of a sentence. The reflexive pronouns are *herself, himself, itself, myself, ourselves, themselves, and yourselves*. These same words can also act as intensive pronouns (see C, below). Some examples of reflexive pronouns in sentences are:

They should take better care of themselves.

You should make yourself scarce.

I learned much about myself in clinical practicum. (Note that *much* is preferable to *a lot*. In professional writing, try to avoid colloquial usage.)

3. An *intensive pronoun* strengthens or emphasizes the noun or pronoun that comes before it. Some examples of intensive pronouns in sentences are:

Professor Serpanos herself told me to take this course.

I myself would not have chosen to go.

4. A *demonstrative pronoun* points out a noun. The demonstrative pronouns are *that*, *these*, *this*, and *those*. Even though these pronouns may look like demonstrative adjectives, they are taking the place of a noun, as pronouns do. When *that*, *these*, *this*, and *those* are followed by nouns, they function as adjectives. If we say, "Take these before bedtime," then *these* functions as a demonstrative pronoun. However, if we say, "Take these pills before bedtime," then *these* functions as an adjective. Some examples of demonstrative pronouns in sentences are:

That is what we should use.

How can you handle all those?

5. An *interrogative pronoun* is used, as the reader has probably already guessed, when asking a question. Interrogative pronouns include *what*, *which*, *who*, and *whom*. They also attach to *ever*, as in the compound words *whatever*, *whichever*, *whoever*, and *whomever*. As with demonstrative pronouns, interrogative pronouns may look like interrogative adjectives, but these pronouns take the place of nouns. Note that *which*, *who*, *whose*, and *whom* may also be used as relative pronouns (see 6, below). Some examples of interrogative pronouns in sentences are:

Which hat goes with this dress?

What is the meaning of this?

Whatever does Lola want? Note that in the song from the musical *Damn Yankees*, "Whatever Lola Wants (Lola Gets)," the word *whatever* is used as the object of a verb in a dependent clause.

6. A *relative pronoun* introduces a clause, or part of a sentence, that describes a noun. The relative pronouns are *that*, *which*, *who*, *whose*, and *whom*. Some examples of relative pronouns in sentences are:

Use the test that you find most appropriate. *That* introduces "appropriate," which describes the test.

Larry is a scientist who is familiar with the CSL. *Who* introduces "familiar with the CSL," which describes Larry.

7. A *subjective pronoun* acts as the subject of a sentence; a person or thing that performs the action of the verb. The subjective pronouns are *he*, *I*, *it*, *she*, *they*, *we*, and *you*. Some examples of two subjective pronouns in sentences are:

She and I are assigned to the same client.

We are never late, but they always are.

It seems as if we'll never finish our 400 hours of practicum.

8. An *objective pronoun* acts as the object of a sentence; a person or thing receives the action of the verb. The objective pronouns are *her*, *him*, *it*, *me*, *them*, *us*, and *you*. Some examples of two objective pronouns in sentences are:

Blame him for the mess, not us.

Take her along with them.

9. A *possessive pronoun* indicates who owns something. The possessive pronouns are *hers*, *his*, *its*, *mine*, *ours*, *theirs*, and *yours*. As we note elsewhere, punctuation errors are the bane of professional writers who make errors when using possessive pronouns. We also note regional dialectal

variations for some possessive pronouns, especially *mine*s. Some examples of possessive pronouns in sentences are:

The responsibility is mine, not hers.

When we get married, what was yours becomes ours.

Adjectives and Adverbs

Adjectives describe nouns or pronouns. It makes no difference if the description comes before (What a *cute* baby) or after the noun (That baby is so *cute*). *Adverbs* modify adjectives, verbs, and other adverbs, but not nouns or pronouns. *Adverbs* answer questions of how (where the adverb usually has the *-ly* ending), as well as when and where. The non-*ly* adverbs are called flat adverbs. If you are describing a careful worker, then you are using an adjective (to modify the noun, *worker*); but if you write about someone who works carefully, then you have used an adverb (to modify the verb, *works*).

Of course, as we are discussing English grammar, there are special rules regarding the *-ly* ending, which is not used when describing sense experiences of taste, smell, look, and feel. Then we drop the ending when using adverbs. Accordingly, a baby's head smells sweet, not sweetly; you look happy, not happily; a poor grade on an exam makes you feel bad, not badly; and chocolate tastes delicious, not deliciously. Another special rule applies to *good* and *well*. In general, *good* is an adjective (You did good work), and *well* is an adverb (You worked well). However, use *well*, and not *good*, when describing health. You may look good in your new clothes, but you will look well once you get over the flu. Elsewhere in this book we refer to comparatives (usually taking the ending *-er*) and superlatives (*-est*) in reference to adjectives and adverbs. However, we do not drop the *-ly* from an adverb when using the comparative form. That is, we do not speak *quieter*, but *quietly* in the audiology booth.

The use of certain classes of adjectives changes as children get older. Cognitive discrimination relates to stages of development in children, and reflects impairment related to brain damage

in adults. According to Piaget's decentration theory (2001), the child develops the ability to move away from one system of classification to another. For some children, the ability to decenter from color to various aspects of form (that is, initially describing an object as blue, but then changing the description to big, round, and soft) begins in the preoperational period, between 2 to 7 years, and is usually completed during the concrete operational period of 7 to 11 years. Choosing color or form as the primary attribute in a controlled experiment has been shown (Goldfarb & Balant-Campbell, 1984) to differentiate neurotypical adults from those with left- and right-brain damage.

Prepositional Phrases

Most of us have heard (or even said), "Between you and I . . ." This prepositional phrase represents correct usage of *between*, because two elements are involved, but it is incorrect usage of the object of the preposition. That is, the sentence should start as, "Between you and me," because *between* is a preposition and *me* is the objective pronoun.

While (or, perhaps, *whilst*) it is appropriate to use the term *amongst* in British writing, the term *among* is preferred in American English usage. The same sentence that has the word *between* might also have the indefinite pronoun *both*; a sentence with *among* might also have the indefinite pronoun *all*.

Prepositions often refer to the position of one object in relation to another. One common clinical assignment for new SLP student clinicians is to work on basic spatial relations with young children who have a language delay. Therapy often begins with *in*, *on*, and *under*, which are used in grammar as prepositions. We remember taking an old shoebox, and cutting out a square in the lid to make a "preposition box." The clinician could put a toy "in" the box through the cutout; "on" the box, somewhere else on the lid; and, by lifting the shoebox, "under" the box.

Particles

Have you noticed that you can drink up and drink down, but you eat in only one direction (up,

although you can chow down)? When a word that is usually a preposition or an adverb in another context joins with a verb to form a multi-word verb, that word is called a *particle*. An alphabetical list of the most commonly used particles are *along, away, back, by, down, forward, in, off, on, out, over, round, under, up*. The word *out* forms a phrasal verb in “look out,” and the word *for* forms a prepositional verb in “care for.”

Grammatical Morphemes

A morpheme is a minimal grammatical unit of a language that cannot be divided into smaller grammatical parts. The morpheme may be a word or a meaningful part of a word. How many morphemes are in the word “unconstitutional”? Your first job is to locate the free morpheme (also called a bound root) and then see which bound morphemes attach to it. If you said that the free morpheme was “constitution,” nice try. Actually, “constitution” is a combination of the free morpheme “constitute,” with the *-tion* ending needed to change a verb to a noun. The *-al* ending changes the word from a noun to an adjective, and the *un-* changes the word from affirmative to negative. So the correct answer is that there are four morphemes, one free and three bound.

In the Frank Loesser musical, *Guys and Dolls* (based on a story by Damon Runyon), the curtain rises to reveal a trio of men, one called Nicely-Nicely Johnson, singing, “Fugue for Tinhorns.” Runyon and Loesser knew that an inappropriate adverbial form was required for the character’s nickname. When asked how he was feeling, Johnson always replied, “Nicely-Nicely.” Remember that we do not use the *-ly* ending for adverbs describing sense experience. Even though he was a morally sketchy character, Johnson’s failed attempt at good grammar showed, paradoxically, that he was an upwardly mobile striver.

It is sometimes useful to have an operational definition of an utterance, especially when collecting pre-treatment data that will be compared to results of therapy. Our operational definition of an utterance is that it consists of two or more

meaningfully related morphemes. Consider the following clinician–child interaction:

Clinician: Where do you live?

Child: New York

Clinician: What do you have?

Child: Toys

Even though “New York” has two words, it does not qualify as an utterance, because there is only one unit of meaning, or one morpheme. However, “Toys” does qualify as an utterance, because there is a free morpheme (toy) and a bound regular plural morpheme.

There are usually more morphemes than words in a series of utterances, but an individual utterance may have more words than morphemes. For example, consider the sentence, “Is the Empire State Building in New York City?” There are nine words, but only five morphemes, because “Empire State Building” and “New York City” have only one unit of meaning, even though there are three words. Much more frequently, bound morphemes tilt the imbalance in the other direction. For example, the sentence, “Nine miners were trapped irretrievably” has five words but 13 morphemes, as follows:

1. Nine: one word, one morpheme
2. Miners: one word, three morphemes (free morpheme “mine” and two bound morphemes of [er] for “one who” works in a mine, and the bound regular plural morpheme [s]).
3. Were: one word, three morphemes (present singular form of auxiliary verb “to be,” plural form [is → are], and irregular past tense morpheme [are → were])
4. Trapped: one word, two morphemes (free morpheme “trap” and bound regular past tense morpheme)
5. Irretrievably: one word, four morphemes (free morpheme “retrieve” with negative morpheme [ir-], adjectival form [-able] and adverbial form [-ly]). It can even be argued that “retrieve” is composed of a prefix (re) and a bound root (trieve).

There are different ways to calculate mean length of utterance (*mlu*), which we hasten to add is a useful measure for baseline and baseline recovery, but much less useful as a therapy goal. Recursion rules, as noted below, can artificially inflate *mlu* without adding to syntactic complexity. Calculating *mlu* as number of words per utterance will usually yield a lower score than calculating by number of morphemes per utterance. We prefer to base *mlu* on a word-morpheme index. For example, if the average number of words in 100 consecutive utterances is 3.0 and the average number of morphemes in the same 100 utterances is 3.4, then the word-morpheme index will be 3.2.

Phrase Structure Rules

We don't read word by word, and we shouldn't think of writing in that way, either. If we consider the phrase to be the minimal unit for both reading and writing, then we need to learn some rules about phrases. Phrases are structured by *constituents*; that is, the word or group of words that function as a unit or can make up larger grammatical units. The property of language called *recursion* allows categories to be embedded (left-branching, right-branching, or center embedded). Recursion can theoretically produce infinitely long phrases. Some examples of recursion are in the increasingly longer, "This is the house that Jack built" and the Passover tale, "An only kid." In both cases, progressively longer sentences are constructed by appending right-branching dependent clauses beginning with the demonstrative pronoun *that*.

Here is an example of a simple sentence, followed by three dependent clauses. It comes from a song Sylvia Fine wrote for her husband, Danny Kaye to perform in the movie, "The Secret Life of Walter Mitty" (1947). Note that the first dependent clause makes the sentence syntactically correct, but preposterous. It is followed by the second of a pair of rhymed couplets that reveals the joke:

I'll never forget the morning
that Grandpa ate the awning
to impress a pretty lady
who went for men that were shady.

A sentence must contain a noun phrase (or a noun or pronoun) and a verb phrase. The minimal noun phrase consists of an article and a noun (e.g., *the student*; *a ball*). Other noun phrases can be created from a possessive pronoun + noun (e.g., *her mother*) or a possessive noun + noun (e.g., *John's house*). We can have an infinite number (theoretically, at least) of adjectives before the noun and still have a noun phrase (e.g., *the big red ball*). Look at our section (in the website) on building your vocabulary by using Shakespeare's insults to see some colorful examples of adjectives attached to nouns. The noun phrase can be the subject in a sentence, usually appearing at the beginning, or the object, usually appearing at the end.

Verb phrases are a bit more complicated. Transitive verbs require an object, whereas intransitive verbs do not. For example, *throwing* is usually a transitive verb, requiring a noun phrase, such as *the ball*, *a fit*, or *the game*. We can also combine *throwing* with a particle, as in *throwing up*, where *up* creates a phrasal verb, and the object of the phrase (*lunch* or *her food*) is understood. An intransitive verb does not take an object, either specified or understood. For example, *the word sleep* is intransitive, because you do not sleep anything (except, perhaps, a wink).

Sentences, in their basic form, are usually expressed in what is called *canonical order*, sometimes called *subject + verb + object* (or SVO), *agent-action-object*, or *who does what to whom* order. The construction is a noun phrase + a verb phrase, where the verb phrase includes a verb + a noun phrase. This becomes clearer when looking at tree diagrams (Figure 1-1), where S indicates a sentence, N is a noun, V is a verb, NP is a noun phrase, VP is a verb phrase, and T is an article (*the*, in the present example). We are using T here for clarity, instead of ART for article or DET for determiner, as is typically used in books on linguistics.

Tree diagrams are used principally in mathematics and linguistics. A parse tree represents an entire linguistic structure, from S (sentence) to leaf nodes (Singh + wrote + the + book). In the example above, the definite article ("the") is indicated by D for *determiner*. It can be a *cl* to diagram ambiguous sentences. F

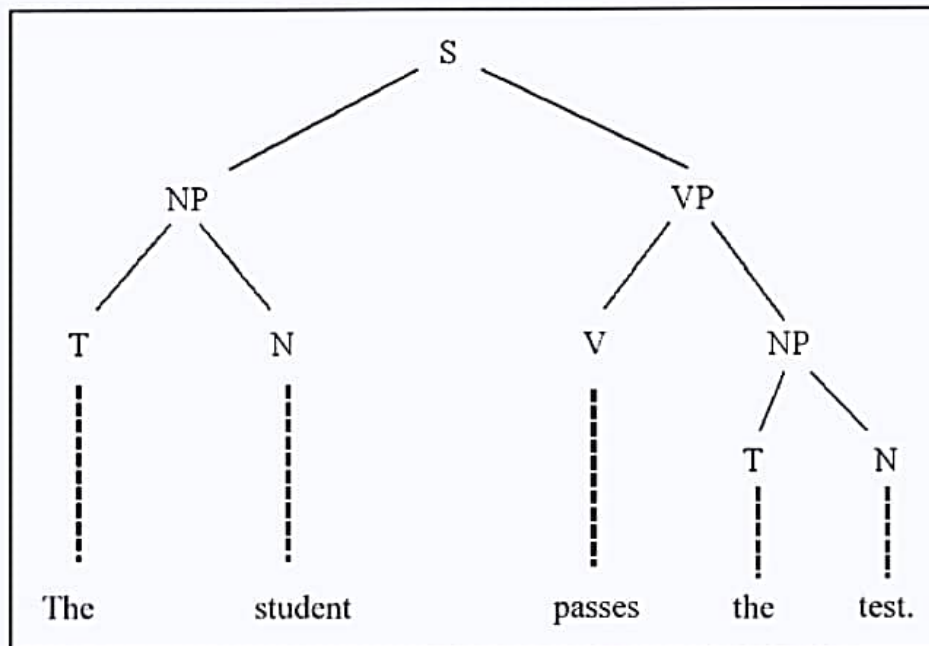


Figure 1-1. Example of a tree diagram, with a sentence in canonical order.

in the sentence, "Visiting relatives can be boring," the word *visiting* is an adjective if relatives have come to visit you, but a verb if you have gone to visit them. Try to create two parse trees for the sentence, "Flying airplanes can be dangerous."

The tree diagrams shown in Figures 1-1 and 1-2 represent examples of a simple sentence. They are also examples of **SAAD** (simple, active, affirmative, declarative) form, written in the present tense in Figure 1-1 and past tense in Figure 1-2. Now let's take out our language toy to play with each element.

We can change a simple sentence to one that is compound or complex. Using the example above, we can create a compound sentence by adding a conjunction (usually *and* and *but*, as well as others) and another simple sentence, such as, *The student passes the test, and the teacher is happy*. To create a complex sentence, add a phrase, not a sentence, and do not include a conjunction. We often add a prepositional phrase to a simple sentence to make it complex, as in, *The student who studied hard passes the test*.

The second part of SAAD is active, which we can change to passive. There are sentences that can become reversible passives, such as *The*

cow chased the sheep where subject and object can switch places. In the passive form, both *The sheep was chased by the cow* (correct, given the active form above), and *The cow was chased by the sheep* (incorrect) are logical sentences. Errors occur when canonical order is assumed in a passive sentence. In non-reversible constructions, such as *The boy ate the ice cream cone*, S and O (or agent and object) cannot logically switch places. After all, cows can chase sheep and sheep can chase cows. Boys can eat ice cream cones, but ice cream cones cannot eat boys (except, perhaps, on Sesame Street). Not surprisingly, children and adults with language disorders have more comprehension problems when dealing with reversible passives than with non-reversible passives.

The opposite of affirmative is negative, and *The student does not pass the test* is an example of the negative transformation. Finally, there are three options for the last component, which can be declarative, interrogative, or imperative. An interrogative form might be, *Does the student pass the test?* and an imperative form might be, *Student, pass the test!* Of course, we can also change tense to past tense, as in, *The student passed the test*, or future tense, as in, *The student will pass the*

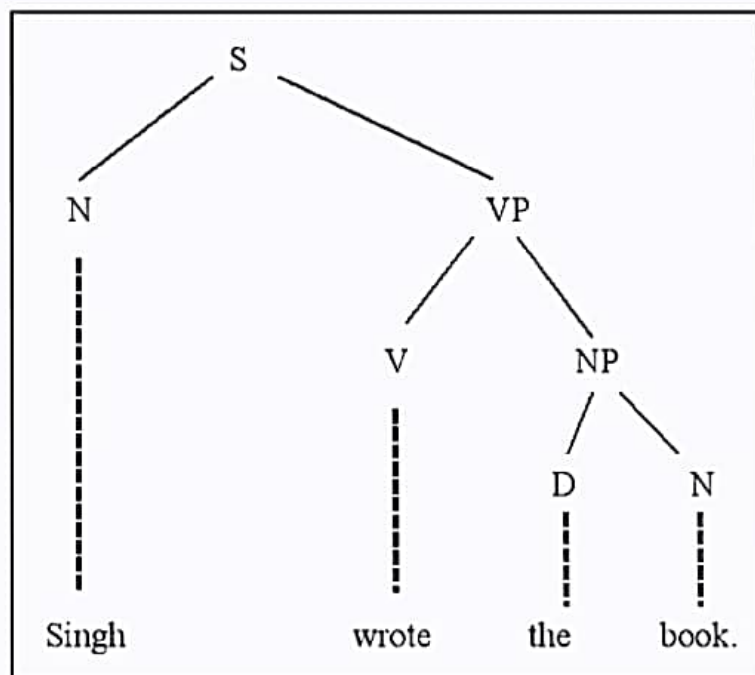


Figure 1-2. A parse tree.

test. We can combine transformations and make the sentence past tense, negative, and interrogative, for example, as in, *Didn't the student pass the test?*

Competence and Performance

The work you will do in the exercises that follow reflect what Chomsky (1957) called linguistic performance, which refers to actual acts of speaking, listening, reading, and writing, with temporal limitations (your instructor may have given you only five minutes to complete the exercise), and subject to a variety of distractions (stomach rumbling from hunger; noisy class next door). The task also requires linguistic competence, which refers to the underlying set of rules for syntax, meaning, and sound that make performance possible. We can't always infer competence from performance. The following is offered as an example of how a typical adult's syntactic competence may be challenged, even by a short sentence.

The cow the sheep chased jumped. We understand that the cow did the jumping and the sheep

did the chasing. Look what happens when we add one more element: *The cow the sheep the dog chased jumped ran.* Now we're scratching our heads, even though the sentence is syntactically correct, if unusual. Adding the word "that" and changing the order helps: *The cow that the sheep chased, that the dog jumped, ran.* Does this give you a bit more empathy for children and adults with syntactic comprehension deficits?

Theoretically, we can insert an infinite number of relative clauses into a grammatically correct sentence. However, when we insert even two relative clauses instead of one, our comprehension is severely challenged. The advice given many years ago by Rolnick and Hoops (1969) to use short, simple sentences when speaking to adults with aphasia certainly makes sense in this context.

The three sentence types—simple, compound, and complex—are well named. Not surprisingly, most writers have greatest difficulty with complex sentences. Think of a complex sentence as an independent clause plus a dependent clause. It is fairly easy to write an independent clause, such as *The man ran up the stairs*, and a dependent

Level IV: Tell me about this picture. No contextual or grammatical support is provided.

Brain Mechanisms Underlying Syntax

Individuals with nonfluent (Broca's type) aphasia tend to have more difficulty retrieving verbs than nouns, whereas the reverse is true for those adults with fluent (Wernicke's type) aphasia. Nonfluent aphasia is associated with damage to the frontal lobe in the left hemisphere of the brain, and fluent aphasia with left temporal infarction. It is not surprising that Broca's area, located near the primary motor cortex, may be expected to influence action words (verbs); and that Wernicke's area, near what is sometimes called the "mental dictionary" in the fusiform gyrus, is more associated with nouns.

Some programs in communication sciences and disorders have a laboratory for research with a form of electroencephalography (EEG) called event-related potentials (ERP). An electrode net is placed on the head, and one-second EEG signal plots may be averaged over "easy," "difficult," and "control" trials from -100 ms to 900 ms. ERP signals are described in terms of positive and negative peaks and their latencies. Early components indicate intensity of the stimulus, and later components show attention to the stimulus. Brain responses may yield N400 signals (a negative peak occurring 400 milliseconds after presentation of the stimulus) for associative/semantic tasks. The response may be generated by having an individual engage in picture naming. A P600 signal may occur for syntactic processing, when individuals engage in a verb generation task.

Agrammatism and Paragrammatism

Individuals with nonfluent aphasia often have impaired expressive syntax, sometimes called agrammatism. There does not have to be an equivalent impairment (concordance) in receptive syntax, so some individuals who show the characteristic omission of function words (such as articles, auxiliary verbs, and prepositions) can recognize their absence in comprehension tasks.

Agrammatic language is sometimes described as telegraphic, referring to pre-electronic communication days, when people would pay by the word to send a telegram. Accordingly, the lexical or content words were included, and the helping or function words were omitted. If you were robbed overseas, and could pay for only five words, "American Embassy Geneva Send Money" would probably work. Deleting the functors "[I am at the] American Embassy [in] Geneva" might not detract from your message, and you would have saved the cost of another five words. Where one notable characteristic of agrammatism is deletion of functors, individuals with paragrammatism (associated with fluent aphasia) may substitute one function word for another. One of our rules for writing diagnostic reports (see Chapter 8) is to say what the patient does, not what the patient is, so it is not appropriate to label an individual as having paragrammatism because of a substitution or two of a function word.

Typical Errors in Grammar

What about errors that people with typical brains (such as yours) might make? In our experience, they include run-on sentences and sentence fragments. We have addressed other frequent errors, including lack of agreement, as well as the misplaced apostrophe, in other sections of this book.

Run-on sentences: "Don't walk on the kitchen floor I just washed it." Does this sound like your mother, spoken in exasperation and haste? **Run-on sentences can often be saved by a** single strategic placement of a **semicolon**; in the present example, after the word "floor." Other sentences run on intentionally, as is apparent to anyone attempting to read James Joyce. We grant Joyce, one of the greatest writers in the English language, some leeway, but in professional writing, clarity, not literary merit, is paramount.

Sentence fragments: We have been told that the only people who insist on complete sentences in oral English are elementary school principals and speech-language pathologists. Most people would agree, though, that written sentences should be complete. **A sentence fragment is not necessarily a short one.** In fact, some writers lose

control of their long sentences and don't realize they have not included a subject.

A **run-on sentence** is a sentence with at least two independent clauses and insufficient punctuation to separate them. Another way to view this is to think of a sentence with at least two complete thoughts that are forced together instead of connected properly.

To correct these sentences, you may use one or more of the following three options:

1. Separate clauses using punctuation.
2. Separate clauses using a conjunction.
3. Rearrange the sentence by adding or removing words.

Run-on sentence: *She wanted to do a pure-tone screening, the audiometer wasn't working properly, and she thought she should tell her supervisor.*

1st clause: *"She wanted to do a pure-tone screening"*

2nd clause: *"the audiometer wasn't working properly"*

3rd clause: *"she thought she should tell her supervisor"*

Corrected sentence: *She wanted to do a pure-tone screening, but the audiometer wasn't working properly. She thought she should tell her supervisor.* In the corrected sentence, we separated the first and second clauses using the conjunction "but." We also separated the second and third clauses using a period, and deleted the conjunction "and."

A long sentence is not necessarily a run-on. Some long sentences are grammatically correct, whereas some short sentences are run-ons. In clinical file writing, we tend to use simple, short sentences because they are easier to read and understand.

A **sentence fragment** cannot stand by itself because it does not contain even one independent clause. There are four reasons why a group

of words may seem to act like a sentence but lack the components of a complete thought. Note that the word *phrase* means a group of words that does not contain a subject-verb pair. Also note that the auxiliary verb *to do* is written in its singular form (*does*) and not the plural form (*do*) because it refers to the single *group*, not the plural *words*.

1. A **prepositional phrase** locates a noun in time and place, but does not have a subject-verb relationship within an independent clause. Example: *In our clinic, after registration, but before midterms.* We know the time and place, but there is no subject or verb.
2. A **verbal phrase** describes a noun or verb, but does not have a subject. Example: *Thrilled to be accepted into the graduate program of such a prestigious institution.* The subject of the sentence, probably a student, has not been identified.
3. The phrase uses the gerund (-ing) form of a verb without an auxiliary verb. *Most of the people receiving aural rehabilitation after their cochlear implants.* The gerund form can never function as a verb without an auxiliary verb (e.g., *are receiving*).
4. There is a dependent clause without an independent clause. *For the applicant to earn the Certificate of Clinical Competence awarded by ASHA.* The dependent word "for" is a subordinating conjunction. Even though there is a subject (*applicant*) and verb (*earn*), we need an independent clause (e.g., *Have the program director sign the form.*) to be included in the sentence. Note that the dependent clause can come before (*For the applicant to earn the Certificate of Clinical Competence awarded by ASHA, have the program director sign the form.*), after (*Have the program director sign the form for the applicant to earn the Certificate of Clinical Competence awarded by ASHA.*), or sometimes in the middle of the independent clause.



Writing Rules

The following may look like the drill portion of the book, but, before you have a MEGO (my eyes glaze over) moment, remember that we are playing with our language toy. It probably will take less time to learn the skills in this chapter than to learn the intricacies of a new website or video game, and it will pay off handsomely in terms of your credibility as a professional writer.

In this chapter, you will be required to edit worksheets on basic rules of form (punctuation, spelling, grammatical morphemes), as well as content and composition (semantics, sentence structure).

1. Identify errors on the worksheets.
2. Correct the errors.

Many of the examples in the worksheets are composites of student writing. That is, we have attempted to combine examples from thousands of students and decades of courses. If we have taught you at some level, graduate or undergraduate, don't worry that your most egregious errors will be included for all to see. In fact, we are grateful to you for showing us what aspects of professional writing are most likely to cause errors.

There are 33 exercises in this chapter, beginning with basic rules of form and ending with general problems of content and composition. Work on specific issues related to form in Worksheets 1 to 20. Then try to correct the errors of form, content, and composition in Review Worksheets 21 to 33. In all cases, indicate which errors you have found. Even if you are not sure how to correct these errors, it is important to identify them. An important goal of speech-language or hearing intervention is improving the client's self-

correction, but success depends first on sharpening self-monitoring skills. Similarly, noticing writing errors is a prerequisite to correcting them.

Errors in Form

Errors in form may often be detected by judicious proofreading. It is helpful to have a second set of eyes proofread your professional writing before you submit it (that's what roommates and loved ones are for). Be on the lookout for spelling and punctuation errors, as well as more hard-to-find errors involving grammatical morphemes and abbreviations. For example, consider expanding an abbreviation as a plural: Similar to the rule of plural usage (see Apostrophes, Possessives, and Plurals below), when referring to more than one item that has been abbreviated, no apostrophe is required, for example:

Auditory brainstem responses (ABRs),
Electroencephalograms (EEGs)

Writing Form (punctuation, spelling, grammatical morphemes)

Punctuation

Our Pet, Peeve

For those whose eyes glaze over at the thought of punctuation and cannot imagine anyone using a

comma, dash, semicolon, or colon as a toy, please avail yourselves of a recording of the legendary Victor Borge performing “phonetic punctuation.” You may laugh yourself off your seat.

Target Skill: **Commas**

Rules of punctuation seem to be guided by the notion that every generalization is false, including this one. Regarding commas, high school English teachers may invoke the *when in doubt, leave it out* rule, based on student compositions with commas appearing after rather than before conjunctions. Beyond the accepted convention that commas are needed between every three numbers in a group (e.g., 1,000,000 to represent one million; note the comma after *e.g.*; there would also be a comma after *i.e.*; see Latin Abbreviations below for rules on those), there are other situations where writers tend to have more trouble (Shipley, 1982).

Most references on punctuation insist on a comma before the *and* to separate items of a series of three or more (e.g., parsley, sage, rosemary, and thyme), which is called “closed punctuation.” Shipley (1982) agrees, rejecting the “open punctuation” model of no comma before the *and*, and so do we.

As noted in Out-of-Control Sentences below, commas are needed in sentences with relative or nonessential clauses. However, we do not use a comma after *relative* in the sentence above, because *relative* or *nonessential* describes and identifies the clause. A comma is also not used between two parts of a compound predicate (e.g., *The client progressed well and was discharged from therapy.*) Finally, there is a comma after *however* (and *finally* in this sentence) when used alone to begin a phrase or sentence, but not when used as part of a phrase (e.g., *However you go, don't take the train.*) Our colleague (Behrens, 2010) notes that the #1 hotspot for comma splices resulting in run-on sentences is the independent clause-comma-however-comma-independent clause, e.g., *The client arrived early, however, the clinician was running late.* If the punctuation is revised by substituting a semicolon for the comma after *early*, then the sentence

is correct, e.g., *The client arrived early; however, the clinician was running late.*

Target Skill: **Hyphens and Dashes**

Both hyphens and dashes are made with the lowercase key to the right of the zero, one press for hyphen and two for dash. Microsoft Word will automatically reformat the double dash into a single longer “em” dash. Dashes are to be used sparingly, and only when interrupting the flow of a sentence. The em dash is used to set off an element added to amplify or to digress from the main clause. Most sentences can be changed to avoid the use of dashes, without any obvious loss of clarity. The single dash or hyphen, also called “en” dash in different contexts, is used much more frequently, and is used between words of equal weight in a compound adjective; use no space before or after. The en dash is different from a hyphen. For example, number ranges are separated with en dashes in this book, not hyphens. The *Publication Manual of the American Psychological Association* (6th ed.; American Psychological Association, 2010) notes that, with some exceptions, hyphens are not used after the following prefixes:

after	intra	semi
anti	multi	sub
bi	non	super
co	over	supra
counter	post	ultra
extra	pre	un
infra	pseudo	under
inter	re	

Some words that do not use a hyphen include bilateral, interjudge, and posttest. The hyphen is always used when the same vowel is doubled, such as re-elect, and co-occur. An important qualification (Hegde, 2010) is that some words lose their hyphen and become solid words, so make sure to check current usage with an up-to-date dictionary. We note that email (hyphen

was in current use in the second edition of this book) is now email. Finally, some compounds take the hyphen only when they precede, but not when they follow, the terms they modify (e.g., first-generation male relatives/male relatives in the first generation), or when used as an adjective, but not as a verb (follow-up activities/no need to follow up).

Target Skill: Colons and Semicolons

Most of us know that we use a colon before a series of items in a list, with the colon frequently preceded by the phrase, *the following*. For example, ASHA certification requires evidence of coursework in the following disciplines: biological sciences, including biology and other life sciences; physical sciences, including physics, earth science, and astronomy; social sciences, including sociology and psychology; and mathematics. Note that the items in the series of biological, physical, and social sciences are separated by semicolons, and descriptors of these items are separated by commas.

We also use colons to represent ratios, either with numerals, such as 10:1, or with words, such as male: female. For example, most authors estimate the male: female ratio of individuals who stutter as 3:1.

There remains some confusion about punctuation in notation of years and months of age in describing participants in an experiment. Generally agreed upon is the notion that a period separating years and months may be misleading. An individual who is 7 years 6 months of age is not 7.6 years; the correct notation is 7.5, because that person is 7½ years old. If it is better to avoid the confusion of the period between years and months, should there be a colon or semicolon separating them? Both have been used, with colons having more frequent use. That is, our 7½-year-old individual would be 7:6, representing 7 years and 6 months.

Finally, colons are used after the place of publication in book citations. An example, using the present publisher, is San Diego, CA: Plural.

We have seen semicolons used above, where there are items already separated by commas.

Semicolons often take the place of a conjunction, when the two independent clauses are related.

For example, we may write about two sets of scores with a semicolon separating the clauses instead of the conjunction *and*. Thus, JK's bone conduction thresholds were within normal limits; his air conduction thresholds were 40 dB in the right ear.

Semicolons are also used in referencing, using the separation by comma rule, when multiple citations are listed. For example, we might indicate that Nursery rhymes are useful in child language development (Horner, 2006; Winkin, Blinkin, & Nod, 2007).

Colon or Semicolon? (see Shipley, 1982, p. 54)

For ratios or proportions (colon, as in 10:1)

Before listing a series (colon, as in, We evaluated the following clients:)

When items are already separated by commas (semicolon, as in, ASHA conventions were held in Philadelphia, PA, in 2010; San Diego, CA, in 2011; and Atlanta, GA, in 2012.)

When independent clauses are not separated by a conjunction (semicolon, as in, Our meeting will be held at 12:00; pizza will be served.)

When indicating discontinuous pages (semicolon, as in pp. 14; 23–27)

Spelling

Target Skills: Archaic and Stilted Usage; American Spelling

Ye Olde Antique Shoppe

Driving through some of the beautiful small towns of New England is an antique-lover's paradise. Some of the shops have adopted pseudo-old-fashioned spelling as a way of highlighting the antiques they sell. Unfortunately, the titles often make an unintentionally humorous mistake. The word *ye* in *Ye Olde Antique Shoppe*, combined

with the spelling of *olde*, suggests Middle English (Remember when you read Chaucer's *Canterbury Tales*?), whereas a more recent definition of *ye* is "you." Of the many, varied, and ingenious insults created in American English, no one has ever hurled the epithet, *You old antique shop* at a transgressor. In fact, the *y* in *ye* was a variation of the thorn (/ð/, or voiced *th* sound) in Middle English, so that *ye* was pronounced as "the." The message of this anecdote is to avoid archaic usage.

American spelling does not permit the use of European English forms, such as *colour*, *centre*, and *programme*, even if Spell-Check™ does not highlight *centre*. European journals will accept manuscripts with American spelling, although some will change it to the forms noted above. The European notation of calendar dates is probably clearer than the American version. For example, in the section Beginnings of Speech-Language Pathology, writing the dates of the first meeting of the ICLP as 3–5 July 1924 avoids a comma, and nicely separates the days of the month from the year. However, American writers should continue to use the less clear version of July 3–5, 1924.

More than 20 years ago, RG had a meeting with his daughter's first-grade teacher on Open School Night. The teacher gave a very positive report, but expressed concern about the topic of inventive spelling. It seems Elizabeth was insisting on spelling words correctly, rather than the way she thought they should be spelled, based on the way the words sounded. In an odd way, the teacher was making an interesting point. Communication through the Internet, in chat rooms, and in emails has resulted in a fascinating and inventive spelling system. Similarly, new terms and new forms of familiar terms seem to go through a period of natural selection where only the fittest ones survive. In the 1980s the adverbial form of the word *auditory* was written as *auditorily*, *auditorally*, and *auditorially*. Spell-Check doesn't have a reasonable substitution for any of these terms. The *auditorily* form seems to have survived, probably because it follows a rule (e.g., happy → happily; hungry → hungrily) accepted for other words.

Finally, professors and supervisors will not be impressed if their students use stilted vocabulary. There are places for stilted words, or they

would not exist, but clinical and professional reports are generally not such places.

Grammatical Morphemes and Common Confusions

Target Skills: Apostrophes, Possessives, and Plurals

Apple's and Orange's

He who sells what isn't his'n
Must buy it back or go to prison.

(Daniel Drew, July 29, 1797–
September 18, 1879)

Most of us have been to markets where *apple's* and *orange's* are for sale. If we learn the rule that the apostrophe is used only for possession and abbreviation, but never for plurals, we will not make this mistake. We may make another mistake with possessive pronouns, though, writing *their's*, *our's*, *her's*, and especially *it's* (curiously never *hi's*; it must have to do with the placement of a vowel before the *s*), where the apostrophe should not appear. On the other hand, slavish devotion to correcting "mistakes" may interfere with our appreciation of diversity in English usage. For example, 19th-century American English included such pronouns as *your'n*, *our'n*, and *his'n*. Indeed, Drew's aphorism above works only because of the rhyme enabled by the use of *his'n*. Current usage of *dem* ("them," with the phonological rule of prevocalic /ð/ → /d/) as a plural allomorph in rural areas of the West Indian island of Jamaica differs from the [s] morpheme applied to the ends of words to represent plural in urban areas of Jamaica, but is not a mistake. In a way, it may be seen as an improvement. Saying *gimme dem book* refers to a request for generic books, whereas *gimme de book dem* refers to a request for specific books.

With the *caveat* (Latin for "warning," as in *caveat emptor*, or, "Let the buyer beware") about diversity understood, some examples and exercises for apostrophes, possessives, and plurals follow. We also note that, in current professional and scholarly usage, it is no longer appropriate to use *apostrophe* + *s* after the name of the scientist

associated with a disease. That is, *Alzheimer disease* and *Parkinson disease* are used, rather than *Alzheimer's* and *Parkinson's*. For more examples and exercises in this and other writing topics, see Hegde (2010).

Just as we exercise care to avoid using an apostrophe to turn a plural into a possessive (e.g., I bought two delicious *apple's*), we must also avoid turning a possessive into a plural (e.g., The *supervisors* desk is down the hall). Remember that the apostrophe may also be used to mark a missing letter or letters (e.g., I *can't* [cannot] do it. *That's* [that is] mine.).

Evaluate the following as *correct or incorrect* and explain *why or why not*. Try adding your own examples.

Supervisor: Which students therapy plan is this?

Student: Its not mine; its her's. Mine already received its grade.

The supervisor above may be referring to one or more students. If the therapy plan represented individual effort, it would be the *student's* therapy plan; if it was a group project, it would be the *students'* work. The answer by the student indicated that the therapy plan was individual work, but used an unnecessary apostrophe in the pronoun *hers*. Finally, there are different uses of the pronoun *it*. The first two uses represent an abbreviation of *it is*, and should be written as *it's*; the last usage, indicating that the therapy plan already possessed a grade, was correct. A good strategy for deciding if an apostrophe belongs with a pronoun is to use the word *is*, and then decide if an abbreviation is appropriate. In the example above, we can reasonably write, *It is not mine*, so *It's not mine* would also be correct. There is never a time that *her is* would be correct, so there can be no apostrophe in *hers*. The interaction, written correctly, follows.

Supervisor: Which student's therapy plan is this?

Student: It's not mine; it's hers. Mine already received its grade.

The owner of a diner is pleased with his new line cook and decides to send a text of congratulations. Instead of writing "You know your toast," the owner writes, "You know you're toast." Errors in punctuation (and grammar in the present case) can cause anxiety.

Students tend to have problems with *your/you're*, *its/it's*, and *their/they're*, because they are homonyms; they sound the same. In addition, the apostrophe is used for the possessive form of proper nouns or names, so the extension of the apostrophe to the possessive form of the pronoun "its" may seem logical in a way. Word order doesn't always help; here are some examples:

Show the dog its bone. Show the dog it's wrong.

Imagine their reaction. Imagine they're coming.

The confusion doesn't affect *were/we're*, because they're pronounced differently, unless you're confusing "We're wolves" with "werewolves."

The simple solution is to use the noncontracted forms—*I am*, *you are*, *it is*—until you reach a comfort level with the contractible form. In other words, if you write, "Show the dog it is wrong," you won't (or will not) have a problem with a misplaced apostrophe. If you write, "Show the dog it is bone," you will likely realize that the contraction "it's" does not apply, and that the sentence requires "its" as a possessive pronoun.

Target Skills: Correct Use of Upper- and Lowercase Letters

A Capital Offense

Some school districts have taken cursive writing out of the elementary school curriculum. We never much liked the cursive uppercase "Q," which looks like an overgrown number 2. At the same time, we grieve for the future pharmacists who will have to read handwritten prescriptions written by these children who may grow up to become medical doctors. When inkwells are replaced by modems, that is progress, but when professional writers don't know up (capital letter) from down (lowercase), then that is regression.

Later in this book we will show how to go up and down in the Harvard Outline.

Most writers are familiar with basic rules of capitalization relating to first words and proper nouns. Frequent errors occur when capital letters are sometimes used, and sometimes not, in the same word. For example, there is a lowercase *p* in *the professor*, but a capital letter in *Professor Singh*. Another inconsistency relates to hyphenated terms. We capitalize all first letters in hyphenated titles of organizations (e.g., American Speech-Language-Hearing Association) or volumes (e.g., *Models of Short-Term Memory*), but not in titles of articles or books appearing in a reference list (e.g., *Smith, J., 2006. Noun-verb ambiguity in aging*). We also capitalize the first letter of a noun when it is followed by a numeral or a letter, such as *Section 1.3* or *Exhibit A*. There is no universal use of the convention of using a capital letter after a colon in the title of a book or article. We agree there should be a capital *A* in such a title as, *Neurolinguistics: A book of readings*, when cited in the reference section of a journal article.

The poet e. e. cummings distinguished himself not only by his writing, but also by his signature, which he insisted be in the lower case. Users of social media, such as Twitter, may try to subvert the 140-character limit by abbreviating, with capital letters substituting for words typically written in lower case. Twitter officially expanded its character count to 280 on November 7, 2017. And yes, we old folks know that POMS means, "parent over my shoulder." There is no claim here that individual expression should be suppressed on social media. It's hard to stand out if everyone writes the same way, and who is harmed if the individual refers to herself as *i* in the lower case? Problems arise when these adopted quirks generalize to email correspondence to professors, employers, or professional colleagues. Not all electronic media or written communicative interactions are appropriate for rule bending.

When she is out of town, and a student needs the signature of the AuD coordinator (YCS), our office administrator, Jill Wishney, will (with permission of Prof. Serpanos) sign her name and add her initials in parentheses and in lowercase. In other words, she will sign Yula C. Serpanos, PhD (jw). This shows that someone else has signed the

form. Adhering to this notation might have prevented an enormous amount of suffering caused in part by the use of unauthorized electronic signatures, when banks automatically approved balloon payment mortgage loans that should not have been offered. Both the authorized individual and the person who has been given permission to sign in the signatory's absence (and add lowercase initials) are accountable for the approval of the document.

Target Skills: Noun-Pronoun, Subject-Verb, and Tense Agreement

Are We in Agreement?

Many errors of agreement represent the writer's effort to avoid gender bias by using a plural pronoun, such as *them* or *their*. For the past few years, it has been accepted that a person who prefers *they* can use it as *their* pronoun. Although gender neutrality is a laudable goal (see Put Your Gender in Neutral below), it is no excuse for poor grammar. The most common error of agreement is lack of correspondence between the noun and pronoun (e.g., *A student wishing to receive a change of grade must speak to their instructor first.*). The error here is lack of agreement between the singular noun, *student*, and the plural pronoun, *their*. The two easiest ways of correcting agreement are to change the subject of the sentence to a plural, (*students*), or to substitute an article for a pronoun before the object of the sentence, (*an instructor* or *the instructor*).

EXAMPLE:

Correct versions, without gender bias:

1. Students wishing to receive a change of grade must speak to their instructor first.
2. A student wishing to receive a change of grade must speak to an instructor first.
3. A student wishing to receive a change of grade must speak to the instructor first.

Subject and Verb Must Agree in Number

That is, if the subject of the sentence (which may or may not be the first noun or pronoun in the sentence) is a plural, then use the plural form of the verb. Here are some tricky examples:

EXAMPLE:

No model, whether organismic, environmental, or interactive, *is/are* adequate to explain the onset of stuttering.

Answer: *is*, because the singular form of *to be* corresponds with the singular form of *model*.

EXAMPLE:

Schuell is among the aphasiologists who *propose/proposes* a reduction-of-efficiency model.

Answer: *propose*, because the verb relates to the plural *aphasiologists*, not the singular *Schuell*.

Another Error in Agreement Involves Tense Markers

This error occurs when the writer loses control of the sentence or paragraph, usually by creating sentences that are unnecessarily complex. Consider the following:

EXAMPLE:

When he discussed whether or not conductive hearing loss led to delayed language development or other language disorders, Ventry shows that we must study the literature carefully.

The agreement error in the sentence above relates to the verbs *discussed* and *led* (past tense) and *shows* (present tense). The injunction *to study* (present tense) the literature carefully does not violate agreement, even if the other verbs are past tense, because it is advice for us to take now.

Target Skills: *Imply/Infer; Creeping/Crawling; Home/Hone; Eager/Anxious; Regard/Regards*

Confused Pairs (and Other Dazed Fruit)

Understanding inferences requires decoding of implied meanings of spoken words, sentences, and discourse. Both speaker and hearer must have prior knowledge of the world, of lexical items, and of grammatical rules. Adults with aphasia, traumatic brain injury, and right hemisphere damage

may have impaired ability to construct inferred meanings from given linguistic stimuli. The clinician who describes such behavior needs to know the difference between *imply* and *infer*.

An old doctoral dissertation (Fuchs, 1981, cited in Santo Pietro & Goldfarb, 1995, p. 124) examined the following four categories of inferences.

Implied instruments are tools, containers, vehicles, or other objects conceptually necessitated by the function or operation of certain verbs. For example, the statement, "She cut out paper dolls," strongly suggests that a pair of scissors was used.

Semantic entailments are lexical items that can be conceptually subsumed within superordinate classes. The listener knows that statements valid for the member element may also be valid for the class in general. For example, for the statement, "I ate an apple," a valid inference would be that a piece of fruit was eaten.

Presuppositions refer to prior actions or states of being suggested by an event or series of events. For example, from the statement, "I drank a quart of water after football practice," one can infer that the speaker was thirsty.

Consequences are subsequent actions or states of being suggested by an event or series of events. For example, "He watched in horror as the baseball headed toward Mrs. Jones' living room window," one could infer with a high probability that the window was about to break.

Imply/infer errors almost always go in only one direction. The speaker implies and the hearer infers. The confusion relates to incorrectly saying that the speaker inferred, and not that the hearer implied.

Was he creeping or crawling? Gilbert and Sullivan's "The Yeoman of the Guard" opened at the Savoy Theatre in London on October 3, 1888. Fun fact: Did you know that someone actually invented the line (called "queue" in England)?

Richard D'Oyly Carte instituted the queue to ease entry into the pit and gallery of his Savoy Theatre, where Gilbert and Sullivan's enormously popular operettas were performed.

From Act 2 of "The Yeoman of the Guard"

Like a ghost his vigil keeping —

Or a spectre all-appalling —

I beheld a figure creeping —

I should rather call it crawling —

He was creeping —

He was crawling —

He was creeping, creeping —

Crawling!

He was creeping —

He was crawling —

He was creeping, creeping —

Crawling!

Not a moment's hesitation —

I myself upon him flung.

With a hurried exclamation

Creeping and crawling are different, and need to be observed and documented correctly, especially for infants and young children with movement disorders. In creeping, the stomach makes contact with the floor; not so in crawling. Early locomotion may start as creeping, or pushing around on the stomach. Crawling may follow, and there may even be an intermediate stage of scooting, where the youngster crawls on one leg and drags the other. Various combinations on the stomach, side, and back are also possible in early movement.

The other confused pairs in this exercise result from lack of a clear definition. For example, an individual who says she is "honing in" on the appropriate therapy to use (rather than the correct form of "homing in" or "zeroing in") needs to understand that "to hone" means to sharpen. She can hone her clinical skills, so that she will be better at homing in on the solution to the problem.

Anxiety is a troubled mental state, but it is often used instead of the positive mental state of eagerness. You can be *eager to* (but not anxious

to) do something or *anxious about* something. You may also have both feelings at once, where you are eager to start a private practice, but anxious about the financial commitment that a private practice entails.

Finally, if you think of regards as meaning best wishes, you will not write, "In regards to the memo you sent last Monday . . ." The word *regard* means consider or look (as it also does in French). Think of "in re" used in memos to be an abbreviation of "in regard to . . ." So feel free to send regards, in regard to a certain situation or event.

Target Skills: *Euphemisms, Political Correctness, Use of Adjectives as Nouns*

Corporeally Challenged

How far is too far to go in terms of political correctness? Clearly, to describe an individual as "dead" instead of the example of "corporeally challenged" used above will not offend the decedent. Should a wheelchair-borne individual see a staircase as a "physical challenge" when it is actually an impossibility?

The concept of referring to challenges stems from an important concept in rehabilitation, which is expressed as the ratio of challenge to assistance. In speech-language rehabilitation, we work to increase the client's challenge, in terms of communicative responsibility, while decreasing assistance in the form of prompts or cues. In audiology, we challenge the consumer of hearing aids to assume responsibility for maintenance and use. The philosophy is to maximize therapeutic challenge while minimizing therapeutic assistance; the more we assist, the more we have to assist, until we are figuratively killing our clients with kindness.

Euphemisms, including the family of "challenges," are created for noble reasons. We want to include people with differences, impairments, disabilities, disorders, and handicaps in the great sea of humanity; we want to focus on what makes us one, not what separates us. Accordingly, in the early 1980s, our national organization (ASHA) took a first step when it stopped using the term

aphasic as a noun (e.g., separating *aphasics* from *controls* in experimental research) in its professional journals. The term *aphasic*, an adjective, never made much sense when used as a noun. It probably should have been *an aphasiac*, to correspond with the politically (and diagnostically) incorrect use of *maniac* to describe an individual with schizoaffective disorder. Recent use of the term *an aphasiac* in a television program about a neuroscientist with schizophrenia suggested that the show could have benefited from an expert consultant. We currently prefer to think of an individual who is “wearing” a disorder, rather than the other way around. We also refer to unimpaired individuals as *typical* rather than *normal*, and to individuals in experimental research as *participants* rather than *subjects*.

Here are some examples of correct usage.

1. Change *stutterer* to *individual who stutters*.
2. Change *autistic child* to *child with autism*.
3. Change *cleft-palate child* to *child with orofacial anomaly*.

There continues to be controversy in the use of such terms as *bearing impaired* versus *hard of hearing* and *deaf*, depending on the community using the terms (see About the Deaf Community and “Hearing Impairment” in Chapter 1).

Target Skill: **However**

“Professor” Irwin Corey, who was self-titled “The World’s Foremost Authority,” had a comedy routine that frequently included a discourse in (not on) gibberish. He would ramble on about such topics as the barometric pressure of the knee, until the audience was roaring. His next sentence would consist only of the word, “however,” punctuated by a raised index finger, which would set the audience off again.

We single out the word “however” as an example of particular difficulty for professional writers. It usually is used to signify contrast, as a synonym for the following:

1. on the other hand;
2. despite anything to the contrary;

3. nevertheless;
4. nonetheless;
5. even so;
6. by contrast;
7. that said;
8. in spite of this;
9. although;
10. though;
11. but;
12. yet.

For the above uses, “however” starts a sentence or a phrase. Accordingly, we must use a period or a semicolon, *not a comma*, before it. Note that when you use “however” to substitute for numbers 1 to 12 above, you must write a comma after the word. If you write the words in numbers 9 to 12 above instead of “however” (“although,” “though,” “but,” and “yet”), do not write commas following their use. As conjunctions, numbers 9 to 12 require a comma before usage, but not after (e.g., I emailed five times, yet he didn’t get back to me). If numbers 10 and 12 are not used as conjunctions, there are different rules. For some constructions, there is a comma before usage (e.g., I’m pretty satisfied, though), and for others, there is no comma at all (e.g., She didn’t get home yet).

In the examples below, the odd numbers have correct punctuation, and the even numbers do not.

EXAMPLES:

1. Correct: I could not get through to Professor Smith; however, I left a message.
2. Incorrect: Jane was not home, however, I’ll call her tomorrow.
3. Correct: My driveway was snowed in. However, I managed to get to school by bus.
4. Incorrect: The icy roads were tricky, however, I have snow tires.

We also use “however” to indicate degree, as in the following synonyms:

1. to whatever degree;
2. to whatever extent;

3. in whatever way;
4. in whatever manner.

We do not use a comma after “however” when we use the word to indicate degree.

Here are some examples of common “however” errors, with explanations, followed by examples to be corrected by the student.

EXAMPLES:

Correct: However you decided to go to school, don't take the bus.

Incorrect: However, often he asks, don't go out with him.

Correct: Make sure you come to class however you can.

Incorrect: Finish your assignment, however, long it takes.

Target Skill: Past Participle

How many fathers you got: A tale of participles passed down.

William Stewart was a linguist who studied Ebonics, and was particularly interested in the creole language of Gullah. Based on West African languages, Gullah is spoken in the Sea Islands off South Carolina and Georgia. Bill told the following story about a conversation between two 9-year-olds, one of whom was showing off the bike he had received for his birthday. The boy with the bike spoke a dialect that was more closely associated with Gullah than the dialect spoken by the other lad, one which differentiated a less recent performance (*bas did*) from a more recent one (*did*). Temporal distinctions are also expressed in the South African Ndebele and Zulu dialects of English, where *now* means in the next day or so, *just now* means probably today, and *now* means right away. Back to Gullah, the fellow without the wheels asked his friend, “Who got you the bike?” The kid replied, “My father's did” (an abbreviation of *My father bas did*), and his friend asked, “How many fathers you got?”

Dialectal variations, fascinating as they are, can result in confusion of a message. For this

reason, they are not accepted in professional writing. A descriptive linguist (Behrens, 2010) thinks that biases against non-standard English run deep enough that even with an unambiguous utterance, a listener might still reject the message. In this section we turn our attention to past and present participles. The past participle occurs in five verb forms and one form as an adjective. We use past participles for all perfect tense forms of a verb as well as for the passive voice. Regular verbs take the typical *-ed* ending to form its past participle, but irregular verbs, by definition, do not adhere to rules.

The highlighted words below are examples of past participles:

1. Present perfect

A. Regular verb forms

She hasn't **finished** her homework yet.

They haven't **tested** his hearing through bone conduction.

B. Irregular verb forms

I still haven't **found** my keys.

We haven't **gone** to the movies in ages.

2. Past perfect

A. Regular verb forms

The surgeon's wide cannula had **traumatized** the patient's vocal folds.

Janet came back for a complete audiologic evaluation because she had **failed** the initial screening.

B. Irregular verb forms

John was **aspirating** because he had **eaten** chocolate.

She missed her first class because she hadn't **set** the alarm.

3. Future perfect

A. Regular verb forms

Dana will have **completed** her PhD in June.

If you come after 5:00, I will have **finished** my office hours.

B. Irregular verb forms

Kristen will have **given** birth by the end of the summer.

Elaine will have **been** an associate professor for 20 years by the time she is promoted to professor.

4. Conditional perfect

A. Regular verb forms

"If it had not been for these things, I might have **lived** out my life talking at street corners to scorning men." (This was part of a statement made by Bartolomeo Vanzetti in 1927, shortly before he was executed.)

If I were a carpenter and you were a lady, would you have **married** me anyway?

B. Irregular verb forms

If you couldn't stand the heat, you shouldn't have **gone** into the kitchen.

Would you have **told** me if I had been home?

5. Passive Voice

A. Regular verb forms

We were **amazed** by the positive response to our petition.

Dr. Singh was **satisfied** that the revised book was better than the original one.

B. Irregular verb forms

We were **given** two hours to complete the Praxis II examination.

The entire class was **brought** low by the sad news.

Past participles as adjectives

A past participle may serve as an adjective when it appears before a noun.

1. Regular forms

The **famished** student couldn't wait for his class to end.

If you bring your **completed** assignment in by Friday, you will get full credit.

2. Irregular forms

Bob was walking around as if in a **drunken** stupor.

Mariano Rivera rarely had a **blown** save.

A classic example: Use punctuation to make sense of this statement about past participles.

John where Mary had had had had had had had had had had the teacher's approval.

Present participles use the *ing* ending after a verb in several ways. However, when a verb + *ing* functions as a noun, it is called a **gerund**, as in, John decided that *stuttering* was something he could change.

1. The present action is continuous, as in, I'm **wondering** what to do with the client in therapy.
2. The present participle follows movement and position and is used with forms of *to go*, as in, She goes **shopping** as a reward for a grade of A.
3. The present participle follows verbs of perception (see, hear, touch, taste, smell), as in, I saw my supervisor **testing** a new client. The present participle indicates that the action is ongoing, as opposed to a complete action (I saw my supervisor *test* a new client).
4. The present participle is used as an adjective, as in, The research on cochlear implants yielded **stunning** results.
5. The present participle explains a reason, as in, **Knowing** that her next client stuttered, she reviewed her course notes. This construction can substitute for a phrase that starts with *as*, *because*, or *since*.

6. The present participle may be used when the same person or thing does two actions at the same time, as in, *Testing* for air conduction of sound, the audiologist put the earphone with the red dot over the patient's right ear.
7. The present participle may be used with specific words.
 - a. With the verbs *spend* or *waste*, an example is, We spend too much time in class *reviewing* basic concepts.
 - b. With the verbs *catch* or *find*, an example is, I caught him *copying* his neighbor's answers.

Target Skills: Numbers and Numerals, Arabic and Roman Numerals

Let Me Count the Ways

Numbers Versus Numerals

As a general rule, write numbers below 10 as words, and numbers 10 and above as numerals. Never start a sentence with a numeral.

Some applications of the rule follow.

EXAMPLES:

1. Correct

There were 33 children with sensorineural hearing loss in the study.

Incorrect

33 children with sensorineural hearing loss participated in the study.

2. Correct

I saw nine clients in the clinic today.
Nine clients came to the clinic today.

Incorrect

The # one reason for absence in the speech and hearing center is illness.

(Use the numeral 1, because it follows the # sign).

Even if the number is less than 10, use numerals to represent time, date, age, as well as mathematical and statistical functions or units of measurement

(e.g., Figure 3, 5%, 4 weeks, 8-channel). Recall that punctuation for age in years and months requires a colon or semicolon (preferred), and not a decimal point. Writing that "The child we tested was 4;5 years" means that the child was 4 years and 6 months or 4½ years old.

Roman Numerals

Convention dictates that Roman numerals are used for cranial nerves, statistical errors, and three or more generations of males with the same name (except for royalty, which is not gender-biased, and begins with the first generation).

EXAMPLES:

1. Correct

The son of John Smith is John Smith, Jr., and his son is John Smith III.

Incorrect

Shakespeare wrote Hamlet during the reign of Queen Elizabeth (should be Queen Elizabeth I).

Queen Elizabeth, Jr. (should be Queen Elizabeth II) did not abdicate the throne in favor of her son, Prince Charles.

2. Correct

The cricothyroid muscle is the only intrinsic muscle of the larynx innervated by the superior laryngeal nerve, a branch of Cranial Nerve X, the vagus.

Incorrect

There are three branches of the 5th cranial nerve (should be Cranial Nerve V or CN V).

3. Correct

Assuming an effect or relationship exists when it does not is an example of a Type I error.

Incorrect

A type 2 error (should be Type II) accepts the null hypothesis when it should have been the rejected alternative.

Target Skills: **Amount Versus Number, Less Versus Fewer**

Use “number” and “fewer” when describing a complete unit; use “amount” and “less” when using a portion of the unit. Although it is unlikely that you would write, “number of milk” instead of “amount of milk,” it is entirely possible that you might have written, “amount of ounces of milk,” instead of “number of ounces of milk.” Similarly, you would not claim to “weigh fewer than she does,” but you might have noted that you have “less classes than he does.” So do the assignments carefully, or you won’t amount to anything, and your number will be up. By the way, the “tastes great, less filling” beer commercial is grammatically correct (“fewer filling” doesn’t make sense). Another way to remember the differences above is to think of **nouns that indicate mass, such as weight (less, not fewer) versus nouns that count something, such as calories (fewer).** You can also think of the count noun, *courses* (number), versus the mass noun, *information* (amount).

Your first job is to find the noun in the sentence and then ask if it is a complete unit. For example, the word “dollar” is used to describe something that is always 100 cents. If it is more or less than 100 cents, it no longer amounts to a dollar. Therefore, it is wrong to talk about “amount of dollars,” but fine to say “number of dollars.” Money can fluctuate (Don’t we know it!), and still be appropriately defined as “money.” We can lose some of it (and have a smaller amount of money), and it will still be money. When cooking pasta for a campus event, remember that a large *amount* of sauce calls for a good *number* of tomatoes.

Target Skill: **Forms of Address**

Meet You at the Convention

This does not refer to A-line or Empire-style, which are forms of a dress. There goes our language toy again.

Academic degrees

Many years ago, a striving externship student offered written congratulations to one of us “on

your P.H.D.” In the past, the Doctor of Philosophy degree was abbreviated as Ph.D., with no spaces between letters; currently, the periods are often deleted. Notation for the AuD, an abbreviation for Doctor of Audiology, does not use periods. These rules are apt to change and may also vary according to journal style (e. g., Chicago Manual versus APA).

Miss, Mrs. or Ms.?

In 1972, Gloria Steinem became editor of *Ms.*, a magazine devoted to the Women’s Movement. The title reflected the two terms (Miss and Mrs.) used to refer to single and married females, compared to only one (Mr.) that referred to both single and married males. There was some tongue-in-cheek blowback at the time to refer to single males as Smr. (to be pronounced “smur”) and married males as Mrm. (to be pronounced “murm”), in order to parallel Miss and Mrs. To complicate the matter, a popular British television program that started in 1971, “Upstairs, Downstairs,” referred to the cook as “Mrs. Bridges,” even though she was unmarried. This reflected conventional Edwardian British usage, in the years just before World War I, of “Mrs.” as an honorific for any older woman. If you adopt the newer usage, then you cannot write “Ms.” only for single females and “Mrs.” for married women.

What’s up, Doc?

There is a story about a deputy sheriff in a small town in the southern United States who stopped a late-model Lexus bearing Massachusetts license plates. The deputy, noting the driver to be African-American, requests driving documents and asks, “What’s your name, boy?” The driver responds, “Dr. Johnson,” and the deputy rephrases, “What’s your first name, boy?” The power differential and racial discrimination could not be maintained if the deputy used the title “Doctor” while trying to infantilize the driver.

In England, a general medical practitioner would be called “Doctor Higgins” while a medical specialist would be addressed as “Mister Higgins.” Not all doctors are professors, and not all professors have doctoral degrees. In addition, there are

assistant, associate, and full professors, as well as some named, distinguished, and presidential professors. In some countries in South America, individuals with a masters (or master's; the jury is still out on which form is preferred) degree are called "doctor," and in France, a *doctorat ès lettres* is not equivalent to a PhD. Finally, in some European countries, a speaker at a convention was introduced as Professor Doctor Goldfarb, but only because the individual held the rank of (full) professor.

So what is a student to do? Of course, spelling counts, so writing "Hi Proffesor" in an email is never correct. We recommend that you ask your adviser about the conventional forms of address at your college or university. At some institutions, the term "Professor" applies to anyone with any professorial rank, and even to adjunct lecturers. At others, the title of *Professor* supersedes that of *Doctor* on campus. Still others will insist that faculty be addressed by first names, especially by doctoral students. Once you know how to address your teachers, use that form, even in emails. However, it is never appropriate to use slang, such as "Hey, Prof," even in electronic communications. Here is a recent example of an email gone astray.

Student's Email

Hell Dr. Goldfarb,

I have been accepted at the Manhattan Center campus for my CSD graduate study.

Professor's reply

Ms. R____: First, please proofread your emails. It seems you're very angry with me, based on your salutation, but I'll assume it's just a typo.

Student's response

Dr. Goldfarb,

I am so very sorry about that salutation. It was an awful typing error to make and not my intended greeting. I will of course be sure to proofread so this mistake does not happen again.

Sincerely,
R____

There is one form of address that is completely your decision. You are the final authority on the pronunciation of your own name. If your name is Michaela, and you choose to call yourself "Mick Ayla," "Me Shella," or "My Sheila," that is your choice. The rap artist and entrepreneur Sean Combs has decided to refer to himself professionally as Sean "Puffy" Combs; that is, Puff Daddy; or rather, P. Diddy; we mean, Diddy. He has every right to do so, and to make as many changes as he wants that are not illegal, scatological, or obscene.

Target Skills: *she* and *[s]he*; Gender Neutral; Agreement

Put Your Gender in Neutral

Most audiology students and practicing audiologists are female; the overwhelming majority in speech-language pathology is female. Some reasons for the large proportion of women in communication sciences and disorders may be the tendency to practice in schools (where the majority of teachers are female), and the ability to maintain flexible schedules in private practice and agency work, which is attractive to mothers of young children. Therefore, the default position of using the male pronoun to represent both genders seems inappropriate for our professions. Some attempts at gender neutrality in English seem natural, graceful, and effortless, whereas other formulations are awkward, clunky, and reeking of political correctness. In many instances the efforts to avoid gender bias result in grammatical errors. Consider the following example, and try adding some of your own:

EXAMPLE:

A new graduate undertaking a clinical fellowship (CF) has questions about the ASHA Certificate of Clinical Competence. The Clinical Fellow is advised to call the toll-free ASHA hotline for clarification.

1. Standard construction, with gender bias:
When the Clinical Fellow had questions about certification, he was told to call the ASHA hotline.

2. Politically correct, but awkward construction: *When the Clinical Fellow (Clinical Gal?) had questions about certification, she was told to call the ASHA hotline.*
3. Gender-neutral construction with grammatical error (lack of agreement between noun, *Clinical Fellow*, a singular form, and pronoun, *they*, a plural form): *When the Clinical Fellow had questions about certification, they were told to call the ASHA hotline.*
4. More graceful construction, avoiding gender, active voice: *Tell the Clinical Fellow with questions about certification to call the ASHA hotline.*
5. More graceful construction, avoiding gender, passive voice: *The Clinical Fellow with questions about certification was told to call the ASHA hotline.*

As noted above, the best way to cope with potential gender bias is to avoid using gender-specific terms. Writing *s/he* or *[s]he* is clumsy and is not accepted in professional publications. See Battistella (1990) for guidelines for nonsexist usage. Gender identity is a protected class in many institutions, along with race, disability, and many other classes. If you are a student who identifies as gender fluid and does not want to be referred to by the pronoun *he* or *she* or any of the inelegant forms such as *hir* (combining *his* and *her*), then that is your right. The National Council on Teachers of English (2002) indicate strategies for avoiding exclusionary forms, such as the pseudo-generic *he* and *man*, and adopting the following inclusionary strategies:

Substitute a plural noun for a singular noun.

Substitute an article for a pronoun.

Substitute the first-person (*we*) or second-person (*you*) pronoun for the third-person singular pronoun of *he* or *she*.

Use *one* or *one's* instead of pseudo-generic *he* or *his*, but use it sparingly to avoid changes in the tone of writing.

Recast the sentence in the passive voice, although some editors malign this usage.

Substitute a participial phrase for a clause, such as, "Help the child who is speaking with a lisp," instead of "Help the child when he speaks with a lisp."

Use the singular *they* or *their*, such as, "Does each student have their assignment?" The NCTE warns that some state or national assessments may regard this form as incorrect.

EXAMPLE:

Avoid using *s/he* or *[s]he* by changing syntax.

1. Clumsy avoidance of gender bias: If a student arrives late to class, he or she will be penalized.
2. Better construction: A student arriving late to class will be penalized.

Change these constructions:

1. A student will become a successful audiologist if *s/he* excels in science.
2. Everyone should accept his or her responsibilities in clinic.
3. Completing all exercises in this book will make him or her a better writer.

In a study comparing comprehension in non-fluent aphasia (where verbs are more impaired) and fluent aphasia (where nouns are more impaired; Goldberg & Goldfarb, 2005), one task involved ambiguous sentences. The female pronoun, *her*, was needed; the sentence could not be ambiguous with male pronouns. In the sentence, *He saw her slip on the floor*, the word *slip* could be interpreted as a noun (i.e., he saw her petticoat) or a verb (he saw her fall). However, it would take two forms of the male pronoun to make the word *crash* appear as both noun and verb.

1. She saw *him* crash at the corner (verb), and,
2. She saw *his* crash at the corner (noun).

There are times when experimental design and English syntax do not permit gender neutrality.

Gender neutrality in professional titles results in constructions that range from elegant to laughable. Some waiters and waitresses are now *waitrons*, *waitstaff*, or *servers*. The mailman has become the *letter carrier* or the *postal worker* (better than *mailperson*, *femailperson*, or *personperson*—excuse us, we're playing with our language toy again). Employment titles are an important part of an adult's case history. The following examples show gender-biased and gender-neutral names for occupations.

Occupations and places (try adding some of your own examples).

Gender-biased	Gender-neutral
Steward/stewardess	Flight attendant
Policeman/ policewoman	Police officer
Fireman/firewoman	Firefighter
Actor/actress	Actor would work, but is not used; some female theatre majors choose to be called actor
Singer/songstress	Male version is accepted for both
Ballerina/danseur	Gender-biased foreign language terms are accepted
Bachelor/bachelorette (or worse, spinster)	?
Men working	?
Cameraman	?
YMCA/YWCA	?
Men's/women's room	?

Most instances of lack of agreement, especially where a singular noun in a sentence is followed by a plural pronoun, stem from the writer's attempt to maintain gender neutrality. This is laudable, but incorrect. As you will see in the examples below, there are ways to maintain both gender

neutrality (without resorting to the dreaded s/he, [s]he, or he/she) and noun-pronoun (or N-PN) agreement.

EXAMPLES:

1. Record a speech sample of the child speaking in their natural environment.
Easy fix: change "their" to "the."
2. Consider the entire person, their communication partners, and environment in order to form a thorough diagnosis.
Easy fix: delete "their."
3. At the start of the parent interview, the clinician lets them know what they will be doing with them and their child during the evaluation.
No easy fix here: Try including both parents at the interview, among the other required changes.

The final comment is an injunction for all audiologists and speech-language pathologists to earn doctoral degrees (already required for audiologists), to avoid gender bias. The doctorate is the ultimate "Ms." No one will have to decide whether or not you are to be addressed as "Mrs." or "Miss" if you are called *Doctor*. On the other hand, we recall an instructor who wrote the following on the board: *Mrs. Smith, Dr. Smith, Prof. Smith*. She said, "You may call me by any of these titles. I worked hard for all of them." Please remember that you may not be called "the doctor," which is reserved for medical practitioners.

Target Skill: Superlatives

The slain hero in *The Princess Bride* is taken to Miracle Max, who says, "I've seen worse. He's only mostly dead." In general, we form the superlative by adding *-est* to the ends of adjectives, as in smartest, cleanest, and strongest. When an adjective of one syllable ends with one vowel and one consonant, then we double the consonant before adding *-est*, as in biggest, fattest, and drabest (but be careful of words such as honest, where the *-est* does not signify superlative). A one-syllable word ending in "e" requires only *-st* to become a superlative (e.g., wise-wisest). When a

two-syllable adjective ends in a “y,” we change the last letter to “i” before adding *-est* (e.g., prettiest). Words of two or more syllables that do not end in “y” do not take *-est*; instead, use *most* before the adjective (e.g., most beneficial). Of course, there are exceptions to these rules, such as the superlative of good, which is best. Some language users intentionally change the rules, either for emphasis or for reasons of regional dialect. In a song by Jim Croce, Leroy Brown was the baddest man in town. Some adjectives, such as dead, are superlatives on their own, and degrees or levels do not apply.

Target Skills: Abbreviations

We Saw the FLK with SOB

Not long ago, an obstetrician who noted something wrong with a newborn would note *FLK*, for *funny-looking kid*, in the baby's chart. This practice has, thankfully, stopped, but the avalanche of abbreviations has not. Students and practitioners in communication sciences and disorders must become familiar with a large body of abbreviations and must be able to differentiate CAPD (central auditory processing disorder) from COPD (chronic obstructive pulmonary disease). The following noninclusive list includes abbreviations and their meanings related to imaging, testing, and diagnosis. Try adding some of your own examples. By the way, SOB means *shortness of breath*.

Our preferred strategy for abbreviations is to write the complete version followed by the abbreviation in parentheses, when used for the first time. Accordingly, write above the knee (A/K) the first time, and A/K after that. However, many professionals in medical settings assume the reader understands the abbreviations and write the shortened form the first time and every time.

ABBREVIATION LIST

(C)APD	(central) auditory processing disorder
a.c.	before meals
A.H.	adult home

a/b	antibiotic
A/E	above the elbow
A/K	above the knee
aa	equal parts of each
AAA	American Academy of Audiology
aaa	abdominal aortic aneurysm
abd	abduction
Abd.	abdomen
ABE	acute bacterial endocarditis
ABG	arterial blood gases
ABN	abnormal
ABR	auditory brainstem response
abs	absent
Act	activities
ad lib	as desired/as needed
AD	right ear
ADA	American Diabetes Association
add	adduction
ADL	activities of daily living
adm	admission, admitted
admin	administration
AF, AFIB	atrial fibrillation
AKA	above knee amputation; also known as
Alz	Alzheimer disease
AM	morning
AMA	against medical advice
amb	ambulation
AMB	ambulance
A-P	anterior and posterior
APAP	Tylenol (acetaminophen)
APE	acute pulmonary embolism
aq	water
AROM	active range of motion
ART	acoustic reflex threshold
AS	left ear
ASA	aspirin
ASHA	American Speech-Language-Hearing Association

ASHD	arteriosclerotic heart disease	D.P.	discharge plan
AU	bilaterally; both ears	D/C	discharge/discontinue
Aud	audiology/audiologist	DCP	dietary care plan
A-V	atrio-ventricular	decub	decubitus
B/R	bathroom	dep/depr	depression
BDAE	Boston Diagnostic Aphasia Examination	DM	diabetes mellitus
BE, B/E	below elbow	DOB	date of birth
Bid	twice a day	DSS	Department of Social Service
BIM	twice a month	dx	diagnosis
BIW	two times weekly	E	extremity
BK, B/K	below knee	e.g.	for example
BJA	below knee amputation	E.R.	emergency room
BM	bowel movement	ECT	electroconvulsive therapy
BP	blood pressure	EEG	electroencephalogram
BRP	bathroom privileges	EKG/ECG	electrocardiogram
BS	blood sugar/bowel sounds/breath sounds	EMG	electromyogram
BSL	blood sugar level	ENT	ear, nose, throat
C.P.	chest pain	ERP	event- (or evoke-) related potential
c/o	complains of	ETOH	alcohol
CA	carcinoma, cancer	eval	evaluation
CAE	complete audiologic evaluation	F/f	female/Fahrenheit
CELF	Clinical Evaluation of Language Fundamentals	F/U	follow up
CHL	conductive hearing loss	FBS	fasting blood sugar
COPD	central obstructive pulmonary disease	Fe	iron
CP	cerebral palsy	FH	family history
CPR	cardiopulmonary resuscitation	fMRI	functional magnetic resonance imaging
CR	correct responses	FUO	fever of unknown origin
CRF	chronic renal failure	fx	fracture
CSF	cerebrospinal fluid	GC	geri(atric) chair
CT, CAT	scancomputerized (axial) tomography	GCE	general conditioning exercises
CVA	cerebrovascular accident	GI	gastrointestinal
CVD	cardiovascular disease	gm	gram
CW	case worker	GSS	general social service
		GT	gastrostomy tube
		gtt(s)	drop(s)
		G-U	genitourinary

gyn	gynecology	LTC	long-term care
h.s.	at bedtime	LUE	left upper extremity
H/O	history of	M	murmur/male/man
hx	history	MA(P)	medical assistance (program)
hct	hematocrit	MC	Medicare
HD	Huntington disease	MCE	medical care evaluation
HEENT	head, eyes, ears, nose, throat	MD	muscular dystrophy/medical doctor
hemi	hemiplegia/half	met	metastatic/metastasis
hgb	hemoglobin	mg/mgm	milligram
HH/hh/HOH	hard of hearing	MI	myocardial infarction
hr	hour	mL	milliliter
HRF	health-related facility	mod	moderate
HTN	hypertension	MOM	milk of magnesium
Hx	history	MP	muscle power
Hz	hertz (cycles per second)	MRI	magnetic resonance imaging
I + D	incision and drainage	MS	multiple sclerosis/mental status
I + O	intake and output	M-S	muscular-skeletal
I	independence	MTDDA	Minnesota Test for Differential Diagnosis of Aphasia
i.e.	that is	NA	no answer; not applicable
IBW	ideal body weight	Na	sodium
IDDM	insulin-dependent diabetes mellitus	NAD	no acute distress
IM	intramuscular	NCP	nursing care plan
imp	impaired	NGT	nasogastric tube
inj	injection	NH	nursing home
ITPA	Illinois Test of Psycholinguistic Abilities	NL	normal
IV	intravenous	NMR	nuclear magnetic resonance (largely replaced by MRI)
JVP	jugular venous pressure	NPO	nothing by mouth
K	potassium	NWB	non-weight-bearing
KCL	potassium chloride	O.R.	operating room
kg	kilogram	O ₂	oxygen
L	liter	OA	osteoarthritis
lb	pound	OBS	organic brain syndrome
LE	lower extremity	OD	right eye/every day
liq	liquid	OM	otitis media
LLE	left lower extremity	OME	otitis media with effusion
LPN	licensed practical nurse		

OMS	organic mental syndrome	quad	quadriplegia
OOB	out of bed	R	right/respiration
OPD	outpatient department	r/o	rule out/reality orientation
OS	left eye	RA	rheumatoid arthritis
OT	occupational therapy	RBC	red blood cell
OU	both eyes	re	about
oz.	ounce	Rec	recommendation
P	post/after/pulse	RLE	right lower extremity
p.c.	after meals	RN	registered nurse
P.Op	postoperative	ROM	range of motion
P/A	percussion and auscultation	RUE	right upper extremity
P-A	posterior-anterior	Rx	treatment
PA	physician assistant	s	without
PD	Parkinson disease	s.c.	subcutaneous
PE/px	physical examination	s/p	status post
PECS	Picture Exchange Communication System	S1S2	first heart sound, second heart sound
per	by	SD	seizure disorder
PET (scan)	positron emission tomography	sec	seconds
PICA	Porch Index of Communicative Ability	sig.	label as/give as
PLS	Preschool Language Scale	SLB	short leg brace
PMH/PMHx	past medical history	SLE	systemic lupus erythematosus
PN	progress notes	SLP	speech-language pathologist
PO	by mouth	SNF	skilled nursing facility
PPVT	Peabody Picture Vocabulary Test	SNHL	sensorineural hearing loss
PRE	progressive resistive exercises	SOB	shortness of breath
prn	as necessary	SPECT	single photon emission computed tomography
PROM	passive range of motion	ss	one-half
PT	physical therapy	SSA	Social Security Administration
Pt	patient	STAT	immediately
PTA	physical therapy assistant/prior to admission	SW	social worker
PVD	peripheral vascular disease	Sx	symptoms
q	every	T	temperature/thoracic
q2h	every two hours	T & A	tonsillectomy and adenoidectomy
qd	every day	tab	tablet
qh	every hour	TM	tympanic membrane
qid	four times a day	URI	upper respiratory infection
		VA	Veteran's Administration

VNS	Visiting Nurse Service
VS, V/S	vital signs
w/o	well oriented, without
w/u	work up
WAB	Western Aphasia Battery
wbc	white blood cells, white blood count
WC (w/c)	wheelchair
wfl	within functional limits
wn	well nourished
wnl	within normal limits
wt	weight
x, X	times
xs	excess
yo	year old

Latin Abbreviations

In samples of students' writing, we have found considerable evidence of confusion in the use of Latin abbreviations. Here are some of the most common of them.

The abbreviation *e.g.*, for *exempli gratia*, means "for example." If you are not sure about the use of *e.g.*, then by all means write "for example," but never write *ex*, unless you are referring to a former partner or spouse.

The abbreviation *i.e.*, for *id est*, means "that is." Be careful not to use *i.e.* and *e.g.* interchangeably.

The abbreviation *etc.* may be confusing, because it is an abbreviation for two words, *et cetera*, which means, "and others" (usually other things). Compare *etc.* with *et al.*, which we discuss further in our chapter on using library resources. The abbreviation *et al.* also means, "and others," but refers to other people, usually authors of a publication. Note that the Latin *et* is a whole word, meaning "and." Accordingly, there is no period after *et*, but there is a period after *al.*, which is an abbreviation for the Latin *alii* (others).

Writing Content and Composition (Semantics, Sentence Structure)

Target Skill: Say What the Client Does, Not What the Client Is

Eschew Obfuscation

See Chapter 8 on The Diagnostic Report for more information about this rule. Consider the following interaction:

Doctor: You are suffering from reflux esophagitis. Go to the hospital pharmacy and fill this prescription for 700 mg of calcium carbonate and 300 mg of magnesium hydroxide.

Patient: Gosh, I thought I had heartburn. I was going to go to the drug store and get some Mylanta.

Doctor: That's what I just said.

Why do professionals of every stripe insist on using so much professional jargon? The jaded answer is so we can charge more. Under the title of "Loose, baggy sentences," Cook (1985) skewers "officialese, prolixity, verbiage, periphrasis, wind-foggery, and jargon" (pp. 1–17). Graff (2003, p. 1) argues that academia makes ideas, problems, and ways of thinking look more opaque, narrowly specialized, and beyond normal learning capacities than they are or need to be.

However, there is improved clarity in using precise terms. A careful examination of the interaction between the doctor and patient above shows that professional terminology, properly used, yields more accurate descriptions. For example, the term *heartburn* does not refer to the heart; it is more likely a stomachache. The common use of the term *stomachache*, though, generally refers to intestinal pain. Our general rule is that the first use of a professional term that may not be universally understood should be followed by an explanatory phrase beginning with *characterized by*, or by a commonly understood synonym.

EXAMPLES:

1. *Speech-language pathology example:*

JR presented with Broca's aphasia, flaccid dysarthria, and right hemiparesis.

Expand as follows:

JR presented with Broca's aphasia, characterized by reduction of available vocabulary (especially verbs), impaired expressive syntax, and reduced speech fluency; flaccid dysarthria, characterized by reduction of speech rate, imprecise consonant formation, and hypernasality; and right hemiparesis, characterized by inability to grasp a pen to write with his dominant hand.

2. *Audiology example:*

ST presented with bilateral otitis media, mild conductive hearing loss, and tinnitus.

Expand as follows:

ST presented with bilateral otitis media, characterized by redness and retraction of the tympanic membranes; mild conductive hearing loss, characterized by normal bone conduction thresholds and elevated air conduction thresholds; and tinnitus, characterized by an intermittent ringing sound.

Target Skills: **Redundancy;** *Modifying Prepositional Phrases; Hyperbole; Parallelism*

Out-of-Control Sentences***Catching Redundancy with the Squad Squad***

William Safire, the former presidential speechwriter and late newspaper columnist, deputized his readers as members of "The Squad Squad" if they provided examples of redundancies. "The Squad Squad" is a pun on the old TV series "Mod Squad" and a reference to unnecessary repetition in words or meanings. One of his deputies found three consecutive examples in a row. Get it? Writing "consecutive" makes "in a row" redundant.

Superlatives do not admit of degree. It is redundant for a merchant to describe an object as

"uniquely one of a kind," because if it is unique, then by definition it is one of a kind. An infatuated boy, noting that the prettiest girl he ever saw was sipping cider through a straw, would not push his luck by describing her as the "most prettiest girl he ever saw." The rule becomes blurred when using the superlative *perfect*. The preamble to the U.S. Constitution begins, "We the People of the United States, in order to form a more perfect Union . . ." In addition, "very unique" has become commonly used, but it is still grating for us to hear.

Other terms, through accepted usage, violate the redundancy proscription with impunity. One of the more egregious of these is the part of the brain called the prefrontal area. How can an area be *pre* (meaning "in front of") the front? Another term, used widely in advertising, is *free gift*. If it is a gift, then it is free; if it is free, then it is given away. Beware, also, of redundancies when languages are combined. Students taking winter break at *the El San Juan Hotel* in Puerto Rico probably enjoyed a *merry feliz Navidad*. Other redundant terms are found in this construction: number + "different" + varieties, kinds, or types. If a client received three kinds of language assessments, then it is redundant to write that they were "different" kinds. Hegde (2003, p. 72) has compiled a list of redundant phrases. Which word (or part) in the following phrases, appearing in our students' reports, should be deleted as redundant?

successfully completed	repeat again
precondition	hospital facilities
facilitate better comprehension	explicitly instructed
objective judges	as of yet
actual facts	in-depth analysis

The redundant word or part of word is indicated in parentheses

(successfully) completed	repeat (again)
(pre)condition	hospital (facilities)
facilitate (better) comprehension	(explicitly) instructed

(objective) judges as (of) yet
 (actual) facts (in-depth) analysis

Find the redundancies.

1. Three weeks following the experiment, the participants with brain damage repeated the same experiment a second time, undergoing an identical procedure.

Answer: The word "repeated" means that the participants undertook the experiment a second time. Repeating "the same experiment" means they were undergoing an identical procedure.

2. The story was presented to the participant, who was then instructed to retell the story (back) to the experimenter.
3. As aphasia severity increased, the patients were more impaired. Degree of language impairment increases with severity level in aphasia.

Modifying prepositional phrases

A prepositional phrase may be defined as a modifying phrase consisting of a preposition and its object. These phrases can modify nouns, verbs, phrases, or complete clauses. They are not complete sentences. Prepositional phrases may appear at the end of a sentence (called right-branching, e.g., Students must submit paperwork on time to pass the course.), at the beginning of a sentence (called left branching, e.g., To pass the course, students must submit paperwork on time.), or in the middle of a sentence (e.g., Students, to pass the course, must submit paperwork on time.).

Hyperbole: "I've told you a million times, don't exaggerate."

The term *hyperbole* refers to poetic exaggeration. Most instances of hyperbole result from the clinician's inexperience. One's first client is bound to be the most fascinating, interesting, challenging, rewarding, and so on—not that we have become jaded after more than a combined half-century of academic and clinical practice. To the contrary, we continue to be surprised by how much our students and clients teach us, and

we are genuinely delighted when we can make a positive impact. It is in our writing that we are less effusive.

We frequently read reports which are flowery, overwritten, and overwrought. You may note that some of the following examples contain both hyperbole and redundancy:

EXAMPLES:

1. Language and communication are two such closely interweaving elements as to oftentimes be virtually indistinguishable.
2. As language and communication are far from synonymous, research does well to conjecture that perhaps the collective level of communication exceeds expectations as far as the language impairment would dictate.
3. Evaluating the patients were eleven objective judges.
4. This particular study involved in-depth analysis, utilizing countless hours of videotapes, patient observations, interviews, and videotape review.
5. Throughout the exhaustive analysis of these two patients, clinicians were targeting the use of compensatory strategies employed by the patients to combat their disability.

Parallelism

Parallel Lines Meet at the ASHA Convention
 Imagine if Hamlet said, "To be or not being."
Components of a construction must be matched.
 George Bernard Shaw's play *Pygmalion* (1916, Act II) featured the phonetician Henry Higgins (based on the English phonetics professor Henry Sweet), who was impressed by Eliza Doolittle's low-class father's use of parallelism.

DOOLITTLE ["most musical, most melancholy"]: I'll tell you, Governor, if you'll only let me get a word in. I'm willing to tell you. I'm wanting to tell you. I'm waiting to tell you.

HIGGINS: Pickering: this chap has a certain natural gift of rhetoric. Observe the rhythm of his native woodnotes wild. "I'm willing to tell you: I'm wanting to tell

you: I'm waiting to tell you." Sentimental rhetoric!

Elegance of sentence construction is not a major goal of professional writing. After all, content is more important than style. We cite lack of parallelism in syntax as a more minor concern, but one that separates adequate writing from the professional construction expected in a journal article or a diagnostic report.

Lack of balance in pairs and series feels like the lurch of the standard transmission car you drove in college; parallelism rides like a well-tuned Porsche.

EXAMPLES:

Unbalanced: Distractibility contributed to John's poor compliance and was a reason why his test scores were not reliable.

Parallel (balanced): Distractibility contributed to John's poor compliance and poor test score reliability.

Be especially cognizant of correlative conjunctions, such as *either . . . or*, *neither . . . nor*, *both . . . and*, and *not only* when balancing coordinate elements.

Unbalanced: Recommended follow-up is either in-person contact at the clinic or calling him at home.

Parallel: Recommended follow-up is either in-person contact at the clinic or telephone contact at home.

Driscoll (2017) indicates two easy ways to think about parallelism in sentences. Given a sentence such as, "Mary likes to screen, to score, and do audiological testing," there are two easy fixes. Using the *ing* form (the gerund form in this case, because the verb becomes a noun with *ing*), the sentence becomes, "Mary likes audiological testing, screening, and scoring." The other easy fix is to use infinitive phrases (such as we just did with "to use"), as in, "Mary likes to test, to screen, and to score in audiology." For more information

on parallelism, see Cook's chapter entitled, "Ill-Matched Partners" (Cook, 1985, pp. 54–74).

Target Skills: Definite, Specific, Concrete Language

"The Facts, Ma'am, Just the Facts"

One of the earliest police dramas on television was *Dragnet*, in which the detective, Sgt. Joe Friday, dealt with hysterical and evasive testimony by requesting "*the facts, ma'am, just the facts.*" Sgt. Friday would have had difficulty with this first sentence of an assignment to include evidence-based practice in a progress report:

EXAMPLE:

Extensive research studies have been conducted to determine the exact nature and extent of the complexity and complications involved with the impairment.

Here is another sentence that needs to go on a diet.

The first study focuses on the fact that when a word that has a stronger meaning inherent in the word or representation, the word will have a stronger impression on the memory of the patient with aphasia.

Delete the first sentence, and rephrase the second. The report now begins as follows:

Author (year) provided evidence that meaningful words improve memory in aphasia.

Answering the Question

Following is an actual trial transcription involving the lawyer (Q), the expert witness (A), and the trial judge (The Court):

Q: Looking at Exhibits H and RR, having reviewed those documents, in your opinion was PH misdiagnosed in any way?

A: Let me first refer to Exhibit H, which is the speech-language evaluation report. There are three purposes for an initial speech-language evaluation. The first purpose is to —