Fluidity: Keeping the thread

Good stories flow... A bad story? One that cannot be absorbed on the first time of reading.

Arthur Christiansen

We must never forget that our ultimate goal is to communicate and that the burden of communication is on the writer. Good writers work hard not only to make sure that their message is clear, but also to make it as easy as possible for readers to follow the thread of their arguments. Well-written texts can be understood on the first reading. Readers should not have to reread any part of a text to be able to understand it, nor should they have to keep referring back to earlier passages to make sense of what they are reading. This section focuses on how to facilitate the reader's task by presenting information and ideas in a logical way (known information before new information and parallel constructions), making smooth transitions, and eliminating obstacles to flow (abuse of abbreviations, inconsistencies in spelling and terminology).

Cohesion and coherence

Cohesion refers to the way the underlying ideas in a text are connected through linking surface elements. In all texts, the interpretation of some words or phrases depends on what comes before them or after them, and good writers make sure this interpretation is clear and obvious. We need to make sure that our ideas are connected so that our readers can follow them. We connect ideas by referring back to preceding text and by using words and phrases (linking devices) that show how the information being presented relates to what was presented before or to what is about to be presented. These linking devices help show the connections between ideas (see Appendix XI). However, these devices are often overused and misused, and linking badly is just as bad as not linking at all.

Other ways to ensure cohesion through a text include repeating key words and using them with determiners *(e.g., this, that, these, those, etc.),* possessive adjectives or pronouns *(e.g., his, her, hers, etc.),* or relative pronouns *(e.g., which, whose, etc.).* Do not be afraid to use identical words in both parts that you want to connect. You can also use synonyms, hyponyms, or hypernyms (e.g., microbe is a synonym of microorganism, bacteria is a hyponym of microorganism, and microorganism is the hypernym of bacteria), but be very careful (see *Consistent terminology* below). Another very useful device is to use a grammatical variant of the same word (e.g., ...the cell becomes hyperpolarized. This hyperpolarization...). Finally, cohesive nouns provide a kind of lexical reference by summarizing many words in one (e.g., problem, issue, etc.) and can be used to refer back to previous text (e.g., The artifacts discussed above...) or to indicate what is to come (e.g., The protocol delineated below...).

The sentences in the following paragraph link strongly to those that come before and after them; however, something else is wrong.

A Cesarean section is an operation to deliver a baby through an incision in the abdomen. An incision in the abdomen is called a laparotomy. The word laparotomy comes from combining the Greek roots laparo-, which means flank, and –tomy, which means incision. Many medical words come from Greek. Many medical words also come from Latin. Latin gave rise to the Romance languages. Spanish is a Romance language spoken in Spain and the Americas. Other languages are also spoken in the Americas.

What point does this paragraph make? It is impossible to say. Even though it has cohesion,

we cannot know what it is about, because it lacks coherence.

Each paragraph should focus on a specific topic. Each sentence in the paragraph should relate to that specific topic. Likewise, every text should have unifying theme, and each paragraph should be related to that unifying theme.

Just as the connections within paragraphs should help to show how the information added relates to the main point expounded in that particular paragraph, connections between paragraphs should show how the separate ideas that each expresses are related and how they work together to support the main message that unifies your entire text.

In general, the ideas in a new paragraph should fit into in the flow of thought from the preceding one, and the new paragraph should start off where the preceding one finished. In cases where this is impossible or extremely difficult to achieve, you should consider moving the paragraph to another position or eliminating it altogether. Transitions between paragraphs should show the connections between them, so it helps to refer to relevant material from the previous paragraph. Ideally, rather than using a transition that could serve to connect any two paragraphs, you should aim to make specific transitions to connect two specific paragraphs. One way to do this is to use key phrases from the previous paragraph. It is often possible to make these connections with only a few words.

Smooth transitions help your text to flow, making it easier for readers to follow the thread of your argument and to grasp your manuscript as a unified whole.

Exercise 69

Analyze the way these texts are linked.

Look at how these sentences are connected. Note how the underlined text strengthens cohesion.

The pancreas makes <u>insulin and other hormones</u>. <u>These hormones</u> enter the bloodstream and travel throughout <u>the body</u>. They <u>help the body</u> use or store energy from food. <u>For example, insulin helps</u> control blood sugar levels. The pancreas <u>also</u> makes pancreatic <u>juices</u>. <u>These juices</u> contain enzymes that help digest food. The pancreas releases <u>the juices</u> into a system of ducts leading to <u>the common bile duct</u>. <u>The common bile</u> duct empties into the duodenum, the first section of the same intestine.

A. Look at how these sentences are connected. Underline the features that help make the text cohesive.

1) The prevalence of type 1 diabetes in the UK is one of Europe's highest. In 2008, the estimated rate was 1.9 per 100,000 children under 18 years of age. Furthermore, strong evidence suggests this prevalence is increasing.
2) The UK has the one of the highest prevalences of type 1 diabetes in Europe (1.9/100,000 children <18 years of age). This rate is at least ten times higher than that of some other European countries. The reason for this large difference is unknown.
3) One of Europe's highest prevalences of type 1 diabetes occurs in the UK. Researchers at UK universities and NHS hospitals are at the forefront of research into this disease.
4) The UK has one of Europe's highest prevalences of type 1 diabetes. This disabling disease costs the country huge amounts of money.

B. Now choose the best sentence to continue each of the texts. What clues helped you decide?

a) Not only have they published the four largest series of type 1 diabetes patients to date, they have also made some of the most striking discoveries.
b) The specific roles of genetics and environmental factors remain to be elucidated.
c) Not only does the state pay for expensive treatment through the National Health Service, but the government also pays for care for children with diabetes through its Disability Living Allowance programme.
d) If the trend toward higher prevalence continues, the rate will have nearly doubled by 2020.

Exercise 70

Underline examples of how the authors use transitions to make the text cohesive.

Single-center studies have reported benefits for combination therapy in pneumococcal bacteremia [8], Gram-negative bacteremia [9], infective endocarditis [10], and community-acquired pneumonia [3-7, 11, 12, 13]. Two multicenter studies compared combination therapy with monotherapy in patients with community-acquired pneumonia; both found improved outcome in patients receiving combination therapy. In the first, a randomized clinical trial comparing beta-lactam monotherapy versus betam-lactam plus a fluoroquinolone in 14 hospitals in France, Janice et al. [14] reported shorter hospital and ICU stay and a trend toward improved survival. In the second, a case-control study of 654 patients in 22 hospitals in Spain, López et al. [15] reported that patients receiving combination therapy with a beta-lactam plus a macrolide had shorter hospital and ICU stay, fewer readmissions, and lower in-hospital, 30-day, and 90-day mortality rates than those receiving a beta-lactam alone. Interestingly, in both studies this protective effect was more pronounced in the more severe patients. Although to date no studies comparing fluoroquinolone-based combination therapy with macrolide-based combination therapy have been published, Charles et al. [16] reported a multiple treatment comparison meta-analysis indirectly comparing the two combinations. These authors showed including a macrolide in combination therapy improved survival compared to combination therapy with fluoroquinolones. Thus, combination therapy including macrolides seems recommended in patients with community-acquired pneumonia caused by bacteria.

The rationale for combining antibiotics in patients with community-acquired pneumonia is based on their different mechanisms of action, resulting in synergistic killing and a broader antimicrobial spectrum; however, macrolides are linked to an anti-inflammatory effects more than anti-infective properties [3,4,5].

Familiar-before-new principle

Place familiar information before new information. "Familiar information" refers to information that readers would be expected to know either because you have presented it relatively recently in the same text or because it is information that your target audience would be expected to have before coming to your text. The familiar information provides a framework that helps readers see how each piece of new information fits into what they already know.

This approach also helps us to create cohesion because it allows us to refer back to preceding information to connect ideas. If we reverse this order, placing new information before familiar information, we can make it difficult for readers to see what our text is really about.

Exercise 71

Analyze the order in which information is presented in these texts.

1) *Compare these two versions of a text about the importance of calcium in the nervous system. The sentences are numbered to help you compare the way the information is presented in each. Which one is easier to follow? Why?*

Text A

[1] Calcium channels are particularly interesting because this mineral does much more than simply carry a charge across the membrane.

Text B

[1] Calcium channels in neuronal cell membranes are particularly interesting because calcium does much more than simply carry

Continue

[2] Calcium's role as an intracellular messenger might be even more important than the calcium ions' essential contributions to neuronal electrical activity. [3] Calcium ions that enter the cell regulate several intracellular enzymes after they bind with proteins. [4] Moreover, the gaiting of several types of ion channel is regulated by intracellular calcium ions, which are even involved in the deactivation of some of their own channels. [5] Finally, intracellular calcium has a tremendous effect on signaling between neurons because it directly controls the release of chemical neurotransmitters at synapses. [6] Thus, calcium plays a key role in the functioning of the nervous system.

a charge across the membrane. [2] Although calcium ions' contributions are essential to neuronal electrical activity, calcium's role as an intracellular messenger might be even more important. [3] Calcium ions that enter the cell bind with proteins and then regulate several intracellular enzymes. [4] Intracellular calcium ions also regulate the gaiting of several types of ion channel and are even involved in deactivating some of their own channels. [5] Moreover, intracellular calcium directly controls the release of chemical neurotransmitters at synapses, so it has a tremendous effect on signaling between neurons. [6] Thus, calcium plays a key role in the functioning of the nervous system.

2) *Both the following texts about the development of visual acuity present the same information; however, the order the information is presented in is different. Which do you prefer? Why?*

Text A

Visual acuity improves markedly throughout the first six months of life, then more gradually until the child is nearly five years old. At birth, a baby's ability to detect detail (i.e., acuity) is about 20/600, which is thirty times poorer than normal adult acuity (20/20) acuity. This rapid improvement in acuity is due to changes in both the eye and the cerebral cortex.

Text B

Visual acuity is the ability to detect detail. At birth, a baby's acuity (20/600) is about thirty times worse than normal adult acuity (20/20) acuity. But developmental changes in both the eye and the cerebral cortex result in rapid improvement of acuity. During the first six months of life, acuity improves markedly. After that, acuity continues to improve, although more gradually, until the child is nearly five years old.

Exercise 72

Rewrite this paragraph to improve the flow of information.

Malignant tumors of the testicle usually present as a painless lump. About 1 in 250 men develop testicular cancer sometime in their lives, so it is rare. The cause of testicular cancer is unknown. However, a testicle that was not descended during fetal development (cryptorchidism) has an increased risk of developing cancer, and even if it is brought down into the scrotum by surgery early in life, this risk persists. On the other hand, if it has been descended, it is easier to find the lump than if the testicle was left inside the abdomen. It has a high cure rate. Surgery, radiation therapy, or chemotherapy can be used to treat testicular cancer. Most patients survive, even those with metastases to the abdomen.

Parallel constructions

Our minds form expectations as we read. If a page ends "...red, blue, orange, and...", we would be surprised to see "intelligent" or "matrix" at the top of the next page; indeed, anything other than a color will fail to meet our expectations and disrupt the flow of information. Writers need to present information in a structured way that meets readers' expectations. By using similar patterns for presenting words, phrases, sentences, and even paragraphs that serve similar purposes, we make it easier for readers to process the information. These parallel constructions create symmetry and make your writing more forceful. Failure to use parallel constructions can create confusion and slow readers down.

Look at these examples of parallel and nonparallel constructions in different contexts:

Context	Nonparallel	Parallel
Lists, tables, etc.		
Present information in the same form (i.e., all gerunds, all infinitives, all imperatives, etc.)	*a) smoking* *b) drinking alcohol* *c) drug abuse* *d) not exercising*	*a) smoking* *b) drinking alcohol* *c) abusing drugs* *d) not exercising*
Series of elements within a sentence		
Present elements in the same form (i.e., all nouns, all adjectives, all past participles, all gerunds, all infinitives, all relative clauses, etc.)	*The specimens were processed as follows: fixation in formaldehyde, then dehydrated, cleared, infiltrated in paraffin, and embedded in paraffin blocks.*	*The specimens were processed as follows: they were fixed in formaldehyde, dehydrated, cleared, infiltrated in paraffin, and embedded in paraffin blocks.*
Place articles either before all elements in the series or only before the first element.	*Familial Mediterranean fever mainly affects the Arabs, Armenians, the Jews, Turks, and Cypriots.*	*Familial Mediterranean fever mainly affects the Arabs, the Armenians, the Jews, the Turks, and the Cypriots.* *Familial Mediterranean fever mainly affects the Arabs, Armenians, Jews, Turks, and Cypriots.*
When the same preposition is appropriate for all the elements, place it either before all items in the series or only before the first element.	*This relation has been demonstrated in rats, cats, dogs, and in monkeys.*	*This relation has been demonstrated in rats, in cats, in dogs, and in monkeys.* *This relation has been demonstrated in rats, cats, dogs, and monkeys.*

Continue

Context	Nonparallel	Parallel
When different dependent prepositions are required, do not omit one. These constructions can seem awkward, so it is often a good idea to seek another solution.	*Participating patients must consent and comply with the diet explained above.*	*Participating patients must consent to and comply with the diet explained above.* *Participating patients must consent and adhere to the diet explained above.*
When more than one verb is used in a sentence, make sure that their objects make sense.	*We describe and illustrate the normal findings in the first session, the pathologic findings in the second, and the results of our study in the third.*	*We describe the normal findings in the first session and the pathologic findings in the second. In the third session, we discuss the results of our study.*
Use the same form for elements on both sides of correlative expressions (and; or; both...and; neither...nor; not only...but also; first, second, third...; etc.).	*Our institutional review board approved this prospective study, and informed consent was obtained from all patients.*	*Our institutional review board approved this prospective study, and all patients provided informed consent.*
Shift the connector to avoid unnecessary repetition.	*This mechanism has been demonstrated both in animal experiments and clinical trials.*	*This mechanism has been demonstrated both in animal experiments and in clinical trials.* *This mechanism has been demonstrated in both animal experiments and clinical trials.*
Use other similarities apart from form to reinforce connections.	*When the amount of neurotransmitter rises, the number of receptors decreases.* This sentence is parallel in form; nevertheless, there is a slight semantic imbalance. The sentences in the column to the right are parallel in form and semantically balanced.	*When the amount of neurotransmitter rises, the number of receptors falls.* *When the amount of neurotransmitter goes up, the number of receptors goes down.* *When the amount of neurotransmitter increases, the number of receptors decreases.*

Note: be careful when using of *respectively*. Even when used in parallel constructions, this word interrupts the flow of information by forcing readers to refer back to previous statements before moving on.

Exercise 73

Rewrite these sentences so that the elements are parallel.

1) It was both a brilliant article and very concise.

2) Ultrasonography is noninvasive, inexpensive, and in nearly all hospitals.

3) She wants to learn how to read mammograms, do sonography, and how to perform biopsies.

4) First, ensure the patient is conscious; secondly, she must be able to understand you.

5) The laboratory findings are listed in Table 2 and the relation between them in Figure 1.

6) Not only was the experiment well designed, but also perfectly executed.

7) The patient agreed to undergo hemodialysis not a clinical trial.

8) Being concise is nearly as important as it is to be clear.

9) The device saves time, decreases costs, and patients will be safer.

10) The sensitivity in our study was superior and more variable than the other studies.

11) In hemochromatosis, iron accumulates in the pancreas, the liver, and heart.

12) We told patients that they should drink plenty of water, avoid alcohol, and to sleep eight hours a night.

13) The major cause of direct lung injury is pneumonia, and sepsis is the major cause of indirect lung injury.

14) Exercising is as important as it is to diet.

15) The lab manager has promised to implement better safety measures, and the technicians have agreed to additional training.

Consistent terminology

Sometimes more than one word or phrase is valid to represent a concept; more often, closely related terms refer to closely related but distinct concepts. When more than one term exists for a concept, you need to choose one and use it consistently in all parts of the manuscript (title, abstract, body, tables, figures, etc.). When terms represent closely related concepts, be careful not to use them loosely as if they were synonyms; if necessary, define them for your readers. Being careful and consistent with terminology can help avoid confusion (some readers might not be familiar with the synonyms) and can help readers process your information more efficiently.

In the artificial exercise below, the misuse of synonyms is easy to appreciate; however, in longer texts, these mistakes might be difficult to spot.

Exercise 74

Correct the inconsistencies in terminology in the following texts.

1) Erythrocytes are the most common type of blood cell. Red blood cells (RBCs) deliver oxygen to the body tissues through the circulatory system. These red corpuscles take up oxygen in the lungs and deliver it while squeezing through the capillaries. Unlike other cells, mature red cells have no nucleus.
2) The lateral sulcus runs between the frontal lobe and the temporal and parietal lobes. It is one of the most prominent structures in the human brain. The lateral fissure is found in both hemispheres, but it is longer in the left hemisphere in most people. Also called the Sylvian fissure, because its discovery was attributed to the Greek physician Sylvius, the lateral sulcus is one of the earliest developing sulci in the human brain.
3) Adrenaline is a naturally occurring hormone produced in the suprarenal glands. The adrenal medulla secretes adrenaline in times of stress. Epinephrine increases the speed and force of the heart beat and thus cardiac output. Adrenalin has been produced synthetically since 1900. The drug epinephrine is sometimes given by injection as an emergency treatment for cardiac arrest.
4) Ultrasound scanning is a diagnostic technique in which very high frequency sound waves are passed into the body and the reflected echoes are used to construct a picture of what is inside the body. Unlike some other imaging techniques, ultrasonography uses no ionizing radiation, and it is considered totally noninvasive. For this reason, sonography is the most common imaging technique during pregnancy.
5) The hypophysis is a protrusion at the bottom of the hypothalamus. Functionally, it is connected to the hypothalamus by the pituitary stalk. The pituitary gland secretes nine hormones that regulate homeostasis. Diseases of the hypophysis can thus affect the organism in many different ways.

UK vs US English

Oscar Wilde said “The Americans are identical to the British in all respects except, of course, language”. W.B. Yeats said the United Kingdom and the United States “... are two countries separated by a common language”. Although the informal spoken English of the UK and US can sometimes seem like different languages, there are few differences between the two varieties in the formal written language used for scientific writing. However, it is usually a good idea to use British English for British journals (some admonish prospective authors in the *instructions to authors* not to use American English) and American English for American journals. Nowadays, reviewers are likely to come from all over the world, and the most important thing is not to mix the two varieties. Appendix XII lists the differences that are most likely to affect scientific writing.

Exercise 75

Decide whether these sentences are written in US or UK English. How can you tell?

1) Chronic dialysis catheters have a cuff that is tunnelled about 3 cm to 8 cm beneath the skin.
2) At least two gene pairs are thought to control human hair color.
3) The staff of the Paediatrics Department are holding a talent show to raise funds for playroom.
4) We utilised a novel manoeuvre to retrieve the stent graft.
5) Dr. Jordan has invented a new breathalyzer to detect certain volatile organic compounds.
6) The hematologist diagnosed leukemia.
7) Haemolytic anaemia is caused by the abnormal breakdown of red blood cells.
8) The urologist, Mr. Chandragupta, and the anaesthetist, Dr. Gray, never speak to one another outside the operating theatre.
9) The outpatient clinic is open from 9 a.m. to 5 p.m. Monday through Friday except on holidays. Only emergency patients are attended on weekends.
10) After gray-scale ultrasonography, we always do color Doppler imaging because the behavior of the tumor at color Doppler is often indicative of its benign or malignant nature.
11) At our centre, we use large calibre needles for core biopsy.
12) We used fluoroscopy to visualise the oesophageal course during catheter ablation of atrial fibrillation.
13) This paper reports a pilot study using a remote EEG headband that provides a real-time EEG readout unencumbered by conventional artifacts.
14) Studies on the viability of limited bowel catharsis using faecal-labelling techniques have been encouraging.
15) We aimed to determine the etiology of diarrhea in travelers to Nepal.

Exercise 76

Correct the mistakes in the use of UK or US English in the following sentences.

1) American English: To minimise artefacts due to variations in staining, all samples were processed in parallel.

2) British English: The cecum had edema of unknown etiology.

3) American English: We report a multicentre study of paediatric anaemia.

4) British English: We reviewed the relation between estrogen-binding receptors and the metastatic behavior of breast tumours.

5) American English: We use statistical modelling and analysis to characterise genes that influence susceptibility to disease.

6) British English: Her doctoral thesis was about leukopoiesis in hematopoietic organs in the fetus.

Continue

7) American English: The paediatricians in the group criticised the organisation for the lack of material about childhood diseases in the programme.

8) British English: Septicemia can cause hemolytic uremic syndrome, resulting in acute renal failure and sometimes severe hemorrhage.

9) American English: She was sceptical about travelling to be treated by a more skilful surgical team.

10) British English: Low enrollment led to the cancelation of the trial.

Abbreviations

Abbreviations can help keep your text within the word limits. However, abbreviations can also make your text more difficult to follow. Unless the meaning of the abbreviation is readily apparent to readers, the abbreviation will break the flow of information, requiring readers either to ponder its meaning or to search the text for its definition or even to skip over the term. For this reason, you must be very careful about how you use abbreviations.

In an ideal world, you could always limit your use of abbreviations to those that are better known than the terms they represent (e.g., DNA, RNA, AIDS, etc.). However, be aware that many standard abbreviations have various meanings across fields and even within the same field. For example, PCR can stand for principal components analysis, polymerase chain reaction, protein-creatinine ratio, or prophylactic cranial radiotherapy. In practice, however, it is often convenient to abbreviate.

These common-sense guidelines can help you to use abbreviations well:

- Always check to make sure that there is no standard abbreviation for a term before inventing one yourself.
- Never forget that standard abbreviations can vary across languages.
- If you do invent an abbreviation yourself, make sure it is not offensive for anybody in any way.
- Do not abbreviate single words, unless you have a compelling reason to do so. For example, if you are comparing the imaging techniques computed tomography (CT), magnetic resonance imaging (MRI), and ultrasonography (US), it can be convenient to abbreviate ultrasonography because it is a long word, because it will make your text be parallel in structure, and because US is a standard abbreviation for this technique. The same arguments might also be used for abbreviating tuberculosis as TB.
- Do not abbreviate terms that are used only a very few times. The definition of very few is proportional to the length of the text and to the distance between the definition of the abbreviation and the sentences where it is used. Most journals require you to define all abbreviated terms on first use, but this practice is not very helpful in a long article in which the abbreviation is defined in the introduction and not used again until deep into the discussion. Some journals also require you to provide a list of all abbreviations used anywhere in the text; such a list can be useful, provided readers bother to print it out and keep it handy when reading your article.
- Always be consistent—use the same abbreviations in all parts of the document, including the tables and figures.

- When defining an acronym, do not capitalize words that would otherwise be written in lower case letters: write gamete intrafallopian transfer (GIFT), not Gamete IntraFallopian Transfer (GIFT).
- Be careful not to repeat words that make up part of the abbreviation. For example, do not write MRI imaging, because the I stands for imaging. Do not refer to the Health and Education Research Trial as the HEART trial, because trial is included in the acronym.
- Remember that whether to use the indefinite article *a* or *an* depends on the pronunciation, so in abbreviations that are read letter-by-letter the pronunciation of the name of the letter dictates which to use. We write *a Master of science* but *an MSc, a magnetic resonance scanner* but *an MR scanner*.
- Avoid starting a sentence with an abbreviation that begins with a lowercase letter. For example, instead of beginning a sentence "hCG, like other gonadotropins, can be extracted from the urine of pregnant women...", write "Like other gonadotropins, hGC can be extracted from the urine of pregnant women".

Exercise 77

Correct the use of abbreviations in the following texts.

1) We measured the peak systolic velocity (PSV) in the external carotid artery (ECA) and in the internal carotid artery (ICA). PSV was normal in the ECA artery but elevated in the ICA artery.
2) Intratubal transfer (TIT) of gametes and TIT of zygotes are common assisted reproductive technology (ART) techniques.
3) All patients who survived (PWS) had severe cognitive deficits.
4) An SNP is a DNA-sequence variation in which a single nucleotide differs between members of a species.
5) Observations after 12 weeks of treatment were excluded from the ANOVA analysis.
6) Adverse Drug Reactions (ADR) were recorded at each center and uploaded to a centralized database.
7) Tartrate-resistant acid phosphatase (FART) is an enzyme expressed in bone-resorbing osteoclasts, inflammatory macrophages, and dendritic cells.
8) We did an US examination to rule out appendicitis.
9) mRNA transport differs between eukaryotes and prokaryotes.
10) Telediastolic volume (ESV) is the volume of blood in the ventricle at the end of contraction.

Exercise 78

Rewrite these sentences to make it easier to follow the thread.

1) There are several subsets of thymic lymphocytes: the helper T lymphocytes, cytolytic T lymphocytes, and the suppressor T lymphocytes.

2) The treatment of anemia depends on its aetiology.

3) I agreed I would review your paper not to rewrite it.

Continue

4) ICU patients often develop neurocognitive impairments that can be observed years after discharge. These neuropsychological and psychological deficits have an important impact on patients' quality of life.

5) Disulfide bonds in keratin fibres confer mechanical rigidity.

6) Lipocytes specialize in storing energy as fat. The number of lipocytes can increase once existing fat cells are full, but the number of adipocytes does not decrease after weight loss.

7) The animal's behavior showed the anaesthetic was ineffective.

8) Carney complex is characterized by superficial angiomyxomas, cardiac myxomas, lentigines, and endocrine hyperactivity. LAMB syndrome shows no racial predilection. Men and women are equally likely to have NAME syndrome.

9) Protocols help avoid errors in carrying out tests and reports.

10) The large bowel absorbs water from the remaining undigested matter and passes waste material from the body. Colorectal cancer develops in the large intestine, but other diseases also affect the colon.

11) Whereas standard EKGs record information from 12 leads, Holter monitors typically have only 2 or 3 ECG channels.

12) The residents found the session too detailed, too complex, and thought it could have been shorter.

13) Our team is interested and excited about the grant opportunity.

14) We studied the effects of estrogen-induced uterine oedema on foetal development.

15) Glial cells play a role in dilating arterioles and in their constriction.