



**BOX Hill Institute**

**HLT33115 Certificate III in Health Services Assistance**

**BSBMED301 Interpret and apply medical Terminology appropriately**

**Workbook Manual – 2025**

**Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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# Introduction

## Medical Terminology – A Language for all Health Professionals

**Origin of Medical Terms**

Hippocrates was a Greek Physician and is known as the “father of medicine”.

Over 75% of medical terms are based on either Greek or Latin words. However, in recent times we have added some French and German words.

Medical words that are used in the medical profession look and sound very difficult and complex at times. Some of the medical terms are derived from the person who discovered the disease/condition or test this is known as an eponym.

Correct, accurate & appropriate practice–specific medical terminology is required for carrying out routine tasks, instructions and is essential when communicating with a wide range of health care professionals, patients and their families.

Communicating in medical terminology can be either oral or written. It is therefore essential when writing/transcribing reports or receiving/relaying telephone messages that you are accurate at all times, as one letter can change the meaning of a word and result in an incorrect diagnosis/prognosis thus resulting great anxiety & stress for the patient and their family.

Always seek clarification either from your supervisor, practice manager, physician or access other resources such as a medical dictionary, drug & prescription database, office manuals or other online tools if you are unsure; **Never guess**!

It is important to remember that very few people have a complete knowledge of medical terminology. Often doctors, nurses, allied health professionals and medical office workers frequently refer to medical dictionaries for clarification in there day to day work.

It is a good idea to have a medical dictionary on hand to refer to when needed. Making a list of common or difficult words is also advisable. A space has been provided below.

|  |  |  |
| --- | --- | --- |
| **This space has been provided for you to add such words** | | |
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**Notes:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Activity 1

**List the types of health care workers/professionals that would use medical terminology in their varying fields? (Examples have been given to you)**

|  |  |  |  |
| --- | --- | --- | --- |
| *Doctor* |  |  |  |
| *Nurses* |  |  |  |
|  |  |  |  |
|  |  |  |  |

Activity 2

**List other types of workers or professions that would use medical terminology in their varying fields? (Examples have been given to you)**

|  |  |  |  |
| --- | --- | --- | --- |
| *Insurance companies medical claims - TAC* |  |  |  |
| *Medicare Claims* |  |  |  |
| *Medical supply companies* |  |  |  |
| *Police – Forensic investigations* |  |  |  |

Activity 3

**List the types of written documentation a healthcare worker/professional would use within their job role? (Examples have been given to you)**

|  |  |  |  |
| --- | --- | --- | --- |
| *Patient notes/records* |  |  |  |
| *Test results* |  |  |  |
| *OHS/WHS signs (Oxygen in Use)* |  |  |  |
|  |  |  |  |

Activity 4

**What routine tasks would health care workers/professionals carry out throughout the day using medical terminology? (Examples have been given to you)**

|  |  |
| --- | --- |
| *Preparing medical equipment* |  |
| *Word processing* |  |
| *Answering patient enquires* |  |
|  |  |

It is best to seek assistance from an experience staff member, glossary or other workplace document if you were unsure of how to spell or pronounce a medical term? These could be:

|  |
| --- |
| Organisational policies & procedures, intranet, glossary, workplace manuals, medical dictionaries. |

# Section 1 – Basic Word Parts

**Five basic word parts** are used to make up medical words. Some words include all five parts whilst others use only a few of them. These are joined together to describe the meaning of the disease or illness.

**These parts are called:**

* **WORD ROOT (or ROOT WORD)**
* **PREFIX**
* **SUFFIX**
* **COMBINING VOWEL**
* **COMBINING FORM**

The rule when reading medical terms is to read from the **suffix (end)**, then across to the **root/prefix (beginning)** of the term and then into the middle (these have been numbered for you).

**Example:**

|  |  |  |
| --- | --- | --- |
| **RHINOPLASTY** | | |
| **2** | **3** | **1**  **(start here)** |
| **RHIN** | **/O/** | **PLASTY** |
| ***Root word*** | ***Combining Vowel*** | ***Suffix*** |
| nose | and/of | Surgical repair |
| **RHIN /O/ PLASTY**  **Meaning: Surgical repair of the nose** | | |

## 1.1 Word Root

A **WORD ROOT** or sometimes called a **ROOT WORD** is the basic foundation or building block of the medical term. It is the main meaning of the word. They usually, but not always, indicate the involved body part. It may also indicate colour. A root word cannot stand alone and may appear with a prefix or suffix, or between a prefix and suffix.

**Example root words**

|  |  |  |
| --- | --- | --- |
| **Erythr (red)** | **Haemat (blood)** | **Nephr (kidney)** |
| **erythrocyte** | **haematology** | **nephrology** |
| **red cell** | **blood & blood tissues** | **Study of the kidney** |

Activity 5

Try the following word root:

|  |  |  |  |
| --- | --- | --- | --- |
| **Word root** | **Body part** | **Example** | **Meaning** |
| **Gastr** | **stomach** | **gastritis** | **Inflammation of the stomach** |
| **Cardi** |  | **cardiology** |  |
| **pharynx** |  | **pharyngeal** | **Relating to the throat or pharynx** |

## 1.2 Prefix

A **PREFIX** “pre” means to *precede or come* before and is always located at the beginning of a word. It usually, but not always, indicates: location, time, number or status.

**Example words**

|  |  |  |
| --- | --- | --- |
| **Epi(on/above/in/in addition)** | **Post (after)** | **Tachy (fast)** |
| **epidermis** | **postnatal** | **Tachycardia** |
| **Outer layer of skin** | **After baby/birth** | **Fast heart beat** |

**More Examples**

|  |  |  |  |
| --- | --- | --- | --- |
| Prefix | **meaning** | **Example word** | **Meaning of word** |
| Inter | between | intercostal | Between the ribs |
| Endo | inside | endoscope | An instrument to view internally |
| Pan | whole | panhysterectomy | Complete hysterectomy |

Activity 6

Try the following:

|  |  |  |
| --- | --- | --- |
| **Word** | **prefix** | **Prefix meaning** |
| epidural | epi |  |
| intercellular |  |  |
| endodontic |  | In/Inside |

Notes:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## 1.3 Suffix

The **SUFFIX** is the ending of the word and modifies or changes the meaning. It usually, but not always, indicates the procedure, condition, disorder, disease or specialists of that field.

**Example words**

|  |  |  |
| --- | --- | --- |
| **logist**  **(specialist)** | **algia**  **(pain)** | **itis**  **(inflammations)** |
| **cardiologist** | **pharyngalgia** | **appendicitis** |
| **Specialist of heart** | **Pain of the throat** | **Inflammation of appendix** |

**Activity 7**

Try the following:

|  |  |  |
| --- | --- | --- |
| **word** | **suffix** | **Suffix meaning** |
| bronchoscopy | scopy | Visual examination using a bronchoscope |
| thrombosis | osis |  |
| mastectomy | ectomy |  |

There are a group of suffixes that all mean relating to; or pertaining to; connected to/with.

These are*:* ***ac, al, ar, ary, ic, ive, ous***

**Activity 8**

Try the following examples:

|  |  |  |
| --- | --- | --- |
| **Relating to suffix** | **examples** | **meaning** |
| **ac** | cardiac | Relating to the heart |
| **al** | skeletal |  |
| **ar** | muscular |  |
| **ary** | urinary |  |
| **ic** | epigastric |  |
| **ive** | digestive |  |
| **ous** | nervous |  |

## 1.4 Combining Vowels

**A, E, I, O, U**

A combining vowel may be needed between the root word and suffix to make the medical term easier to pronounce.

**The letter “O” is the most commonly used combining vowel.**

**Generally “O” = and/of**

**Example:**

|  |  |  |
| --- | --- | --- |
| **Lapar** | **Muscul** | **Pyel** |
| **Lapar/o** | **Muscul/o** | **Pyel/o** |
| **Laparo/scope** | **Musculo/skeletal** | **Pyelo/nephritis** |
| **abdomen + visual examination using an instrument** | **skeletal + muscles** | **renal pelvis + kidney**  **inflammation** |

* **Vowels are A, E, I, O, U**
* **A consonant is any other letter b, c, d, f, g**

**Notes:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## 1.5 Combining Form

Combining form consists of the root word and a combining vowel. This is to make it easier to pronounce and attach another root word or suffix.

|  |  |  |
| --- | --- | --- |
| cardi | cyt | hepat |
| /o/ | /o/ | /o/ |
| logy | logy | megaly |
| cardiology | cytology | hepatomegaly |
| Study of the heart | Study of the cell | Enlargement of the liver |

*\*\*\*\* When a root word is shown with a forward slash and a combining vowel, such as CARDI/O, this format is referred to as a combining form.*

**Activity 9**

Try the following:

|  |  |  |
| --- | --- | --- |
| **erythr** | **/o/** |  |
| **enter** | **/o/** |  |
| **gastr** | **/o/** | **gastro** |
| **hepat** | **/o/** |  |
| **neur** | **/o/** |  |

Knowing the different word parts means you can put them together to create a word. Not all words have a prefix but most have at least one root word, a combining vowel and a suffix.

For example**: gastroenteritis**

**gastr /o/ enter itis**

**(Root) (Combining vowel) (Root) (Suffix)**

**Activity 10**

Let us breakdown the following words:

* Pericarditis \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Leukocyte \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Hepatitis \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Neuroplasty \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Notes:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## 1.6 Eponym

*Eponyms* are groups of words or phrases describing medical conditions, structures or procedures that have been named by the first person who discovered or described it; these cannot be broken down because they are derived from people’s names

Example: Alzheimer’s disease (1864-1915); Alois Alzheimer German Neurologist.

## 1.7 Spelling

There is no easy way to spell medical words. It takes practice and experience to become familiar with the words even seasoned personnel will be caught by spelling at one time or another throughout their career.

An effort to learn and identify the correct spelling as the accurate use of medical terminology is critically important in medical office work. Just one letter missing or out of place can change the entire meaning of the word.

For example:

* **Intermuscular** means **between** the muscle
* **Intramuscular**  means **into** the muscle

**American Spelling (Harvard) v English Spelling (Oxford)**

One of the major difficulties with spelling medical words is that there are two ways of spelling many words. In Australia, we tend to use the English version or commonly referred to as Oxford. It is a good idea to make a list or perhaps memorise the English versions as these will be the most common spellings you will come across throughout your career. Be mindful when using computer software as it is generally set in American dictionary format.

|  |  |  |  |
| --- | --- | --- | --- |
| **English** | **American** | **Pronunciation** | **Meaning** |
| Foetal | Fetal | Fee-tal | Child in the womb |
| Haematologist | Hematologist | Hema-tol-ogist | Blood specialist |
| Paediatrics | Pediatrics | Peedi-a-trics | Area of child health |
| Oedema | edema | e-dema | Swelling |
| diarrhoea | diarrhea | di-a-rear | Watery motion |
| Leucocyte | leukocyte | Lew-ko-site | White blood cell |
| caecum | cecum | Cake-e-um | Ending pouch attached to the appendix |

## 1.8 Revision of Word Parts

* **Root** – gives the essential meaning of the term
* **Suffix** is the word ending
* **Prefix** is a small part added to the beginning of a term
* **Combining vowe**l connects roots to suffixes and roots to other roots usually be adding “**O**”
* **Combining form** is the combination of the root and the combining vowel

**Activity 11**

Which body parts are the following words referring to?

|  |  |
| --- | --- |
| **Rhinitis** |  |
| **Dermatology** |  |
| **Trachea** |  |
| **Gastritis** |  |
| **Cardiology** |  |

**Activity 12**

Complete the following:

|  |  |  |
| --- | --- | --- |
| **Example** | **Word component** | **meaning** |
| **epi** | **prefix** | **On, above** |
| **algia** |  |  |
| **gastro** |  |  |
| **ic** |  |  |
| **tracheo** |  |  |
| **trans** |  |  |
| **inter** |  |  |
| **al** |  |  |

## 1.9 Important Rules

* Read the meaning of the medical words from the suffix to the beginning of the word and then across to the middle.
* Drop the combining vowel before a suffix that starts with a vowel.
* Keep the combining vowel between word roots, even if the second root begins with a vowel.

**Dropping vowels to join word parts**

* **Drop** the *combining vowel before a* ***suffix*** that starts with a vowel.

Example: **Enterectomy**

|  |  |  |
| --- | --- | --- |
| Entero  Root word | ectomy  Suffix | enterectomy |
| intestine | removal | Removal of stomach |

* **Keep** the combining vowel between **word roots**, even if the ***second root begins with a vowel***

This is to make the word easier to pronounce.

**Other example words:**

|  |  |  |
| --- | --- | --- |
| gastroectomy | enteroitis | tracheaitis |
| gastrectomy | enteritis | tracheitis |

## 1.10 Abbreviations

Abbreviations and symbols are commonly used as a form of short hand in medical terminology. These can be used by many professions such as medical receptions & administration staff, doctors, nurses, allied health professionals, insurance companies and even barristers and solicitors.

You cannot be expected to remember all abbreviations; however, over time you will become familiar with them. It is a good idea to practise them for fluency.

**Below are the most commonly used abbreviations. They have been put in alphabetical order for quick referencing.**

|  |  |  |  |
| --- | --- | --- | --- |
| **ac** | Before food/meals | **AMI** | Acute myocardial infarction |
| **bd** | Twice daily | **BS** | Blood sugar |
| **Ca** | Cancer | **CCU** | Coronary care unit |
| **COAD** | Chronic obstructive airways disease | **CPR** | Cardio pulmonary resuscitation |
| **CXR** | Chest x-ray | **c/w** | Consistent with |
| **DOA** | Dead on arrival | **DOB** | Date of birth |
| **ECG** | Electrocardiogram/graph | **ED** | Emergency department |
| **EDD** | Estimated date of delivery | **ENT** | Ear nose & throat |
| **FBC** | Full blood count | **Fx** | Fracture/family history |
| **GIT** | Gastro intestinal tract | **HNPU** | Has not passed urine |
| **Hx** | History | **ICU** | Intensive care unit |
| **IMI** | Intramuscular (injection) | **IVI** | Intravenous (injection) |
| **LE** | Left ear/eye | **LHS** | Left Hand Side |
| **LLQ** | left Lower quadrant | **LUQ** | Left upper quadrant |
| **NAD** | No abnormalities detected | **NBM** | Nil by mouth |
| **NG** | nasogastric | **NOF** | Neck of femur |
| **OD (od)** | Over dose (od) every day | **Pac** | Premature atrial contractions |
| **PLBBB** | Partial Left Bundle branch block | **po** | Per oral |
| **PR** | Per rectum | **PRBBB** | Partial Right Bundle branch block |
| **prn** | As required/when necessary | **PV** | Per vaginal |
| **RE** | Right ear/eye | **RHS** | Right Hand Side |
| **RLQ** | Right lower quadrant | **RUQ** | Right upper quadrant |
| **Rx** | treatment | **sc** | subcutaneous |
| **SOB** | Shortness of breath | **T** | T inversion |
| **THR** | Total hip replacement | **Ua** | urinalysis |
| **URTI** | Upper respiratory tract infection | **UTI** | Urinary tract infection |
| **VEB** | Ventricular ectopic beat | **WCC** | White cell count |
| **WNL** | Within normal limits | **#** | fracture |
| **↓** | decrease | **↑** | increase |
| **qid** | Four(4) times per day | **q** | every |
| **OTC** | Over the counter | **tid** | Three (3) times a day |
| **NUM** | Nurse Unit Manager | **ANUM** | Acting Nurse Unit Manager |
| **OR** | Operating Room | **NPO** | Nothing by Mouth |
| **FBE** | Full Blood Examination | **INR** | International Normalised Ratio |
| **HDL** | High Density Lipids | **LDL** | Low Density Lipids |

**Activity 13**

Complete the following:

|  |  |  |  |
| --- | --- | --- | --- |
| **DOB** |  | **ENT** |  |
| **LLQ** |  | **ICU** |  |
| **THR** |  | **PRBBB** |  |
| **OD(od)** |  | **NBM** |  |
| **RE** |  | **NAD** |  |
| **qid** |  | **c/w** |  |
| **BS** |  | **Hx** |  |
| **CPR** |  | **FBC** |  |

**Activity 14**

Translate the abbreviations throughout the paragraphs:

1. 87yo Mary Jones arrive at ED at 1300hrs after a fall down some stairs at home. She was diagnosed with #NOF. Doctor ordered NBM immediately and she was transferred to theatre where a THR was performed. Whilst in ICU, Mary was ordered IMI antibiotics and placed on pethidine PRN.

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1. Callum Murphy; DOB 21/03/2004 presented to ED with LE discomfort. Upon examination it was found that Callum had a foreign object present in his LE. An ENT specialist examined Callum and removed a small black mass, c/w an earwig.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Silvia Perkins presented to her local GP complaining of pain whilst passing urine. A Ua was performed and the results indicated a UTI. Her FBC indicated an elevated WCC and Silvia was placed on Erythromycin PO QID.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. You have delivered some blood specimens’ to pathology. When dropping off the specimens, the pathology staff indicated that there are the following specimens FBE, INR, HDL/LDL missing from the specimen bag. You advise the pathology staff to contact the ward staff.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A patient has requested a sandwich and a cup of tea. You note that there is NBM above the bed. You explain to the patient that you are not able to give them anything at this point, however, you will check with the nursing staff. The NUM has advised you that the patient will be transferred to OR at 1330, so they are unable to have NPO at this point.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## 1.11 Singular and Plural

Like common words, most medical words are made into plurals by adding ‘s’ or by replacing ‘y’ with ‘ies’. For example:

* One gastroscope becomes two gastroscopes
* One hysterectomy becomes two hysterectomies

However, because there are many Latin words involved in medical terminology, there are a few unusual plural rules you need to be aware of.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Singular ending** | **Plural ending** | **Singular example** | **Plural example** | **Meaning of word** |
| **-a** | -ae | Vertebra  Hernia | Vertebrae  Hernia | Part of the spine  Protrusion of an organ |
| **-is** | -es | Diagnosis  testis | Diagnoses  testes | Identification of a disease  Male sexual organ |
| **-um** | -a | Ovum  Bacterium | Ova  Bacteria | Female egg cell  Microscopic organism |
| **-us** | -i | Bronchus  Bacillus | Bronchi  Bacilli | Small airway  Type of bacteria |
| **-ix, -ex** | -Ces | Cervix  Appendix | Cervices  Appendices | Part of the uterus  Part of the large intestine |

**Activity 15**

Try the following plural form:

|  |  |  |  |
| --- | --- | --- | --- |
| **Singular** | **Plural** | **Singular** | **Plural** |
| us | i | embolus | **embol** |
| y | ies | biopsy | **biops** |
| ax | aces | thorax | **thor** |
| y | ies | deformity | **deformit** |

Here is a quick reference list of prefixes’, combining forms and suffixes.

**Prefixes**

|  |  |
| --- | --- |
| **Word part** | **Meaning/body part** |
| Endo | Inside |
| Epi | Upon, above, on, in addition |
| Inter | Between |
| Intra | Into |
| Pan | Whole |
| Tachy | fast |

**Combining forms**

|  |  |
| --- | --- |
| **Word part** | **Meaning** |
| Appendico | Appendix |
| Arthro | Joint |
| Cardio | Heart |
| Costo | Rib |
| Derma | Skin |
| Dermato | Skin |
| Foeto | Foetus |
| Gastro | Stomach |
| Haemato | Blood |
| Hystero | Uterus |
| Larango | Voice box |
| Leuco | White |
| Mammo | Breast |
| Masto | Breast |
| Musculo | Muscle |
| Myo | Muscle |
| Myco | Fungus |
| Onco | Cancer |
| Paedo | Child |
| Pharyngo | Throat |
| Rhino | Nose |
| Tracheo | Windpipe (trachea) |
| Erthyro | Red cell |
| Entero | intestine |
| Hepato | Liver |
| Neuro | nerves |
| Cyto | cell |
| Pyelo | Renal pelvis |
| Lapro | Abdominal/flank |
| stomy | To surgically create an opening either between two different organs or between an organ and the surface of the body |
| otomy | To make a surgical cut (incision) into an organ |

**Suffixes**

|  |  |
| --- | --- |
| **Word part** | **Meaning** |
| -ac | Referring to |
| -al | Referring to |
| -algia | Pain |
| -ar | Referring to |
| -ary | Referring to |
| -ectomy | Surgical removal of |
| -ic | Referring to |
| -itis | Inflammation |
| -ive | Referring to |
| -logy | Study of |
| -oedema | Swelling |
| -osis | Abnormal condition of |
| -pathy | Disease |
| -plasty | Surgical repair of |
| -scope | Viewing instrument |
| -tic | Referring to |

**Activity 16**

Match three combining forms with a suffix to make a word.

|  |  |  |
| --- | --- | --- |
| **Combining Form** | **Suffix** | **Word** |
|  |  |  |
|  |  |  |
|  |  |  |

## 1.12 Other Medical Abreviations - 24 Hour Clock

Abbreviations and symbols are commonly used as a form of short hand in medical terminology.

**These can be use by many professions such as:**

* Medical receptions
* Administration staff
* Doctors, nurses
* Allied health professionals
* Insurance companies
* Barristers and solicitors

**Others who use the 24 hour clock:**

* Patient who have appointments
* Airlines
* Railroads

**Military**

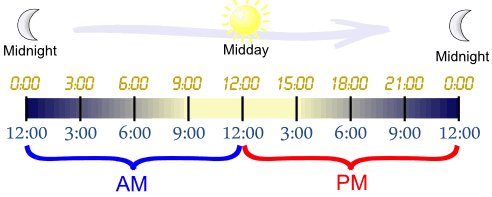
* You cannot be expected to remember all abbreviations; however, overtime you will become familiar with them
* Practice them for fluency

**Time - AM/PM vs 24 Hour Clock**

* Normally the time is shown as Hours:Minutes
* There are 24 Hours in a Day and 60 Minutes in each Hour.
* Example: 10:25 means 10 Hours and 25 Minutes
* There are two main ways to show the time: **"24 Hour Clock" or "AM/PM":**
* 24 Hour Clock: the time is shown as how many hours and minutes since midnight.
* AM/PM (or "12 Hour Clock"): the day is split into: the 12 Hours running from Midnight to Noon (the AM hours), and
* the other 12 Hours running from Noon to Midnight (the PM hours

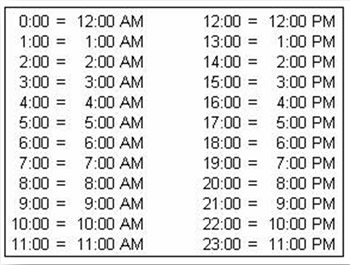
**Converting 24 Hour Clock to AM/PM**

* For the first hour of the day (0:00 to 0:59), add 12 Hours, make it "AM"
* Examples: 0:10 = 12:10 AM, 0:40 = 12:40 AM
* From 1:00 to 11:59, just make it "AM"
* Examples: 1:15 = 1:15 AM, 11:25 = 11:25 AM
* From 12:00 to 12:59, just make it "PM"
* Examples: 12:10 = 12:10 PM, 12:55 = 12:55 PM
* From 13:00 to 23:59, subtract 12 Hours, make it "PM"

**Examples: 14:55 = 2:55 PM, 23:30 = 11:30 PM**

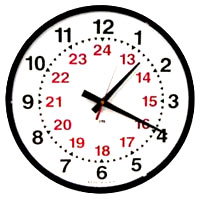
|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **AM** | **PM** | | **Ante Meridiem**  **Latin for “before midday"** | **Post Meridiem**  **Latin for “after midday”** | | **Midnight to Noon** | **Noon to Midnight** | | **0:00 to 11.59** | **12:00 to 23.59** | |

**Comparison Chart**



Sourced:<http://french1byrd.wikispaces.com/file/view/24%20hour%20clock,%202012.PNG/386731566/448x340/24%20hour%20clock,%202012.PNG>. (Accessed 04/081/19)

**24 Hour clock**



Sourced: <http://chicagolighthouse.org/sites/default/files/u13/12-24_Hour_Clocks.jpg(accessed> 04/01/19)

**What Day is Midnight?**

Midnight has another problem - there is nothing to tell us "is this the beginning or ending of the day".

Imagine you are told your friends are leaving for holiday at "midnight" on 12th March, what day should you arrive to say goodbye?

Do you get there on the 11th (assuming they leave at the very start of the 12th), or the 12th (assuming they leave at the end of the 12th)?

It is better to use:

* 11:59 PM or 12:01 AM, or
* 23:59 or 0:01 (24-Hour Clock)

Sourced & referenced: <http://www.mathsisfun.com/time.html> (Accessed 017/01/19)

**Activity 17**

Convert the following times using the AM/PM conversion table and 24 hour clock:

22:00 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

09:00 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12:30 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19:00 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.30 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6.30 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_