

Understanding clinical material

An introduction to medical terminology and case notes

Princess Alexandra Hospital
University of Queensland



Objectives

- Provide an introduction to medical terminology
- Describe the structure of clinical information
- List the essential ingredients of a case history
- Use a case history to illustrate issues relating to medical terminology and abbreviations

Language of Health Care

- **Presentation of information**
 - Does it make sense?
 - Is it complete?
- **Medical abbreviations**
 - What do they mean?
- **Medical terminology**
 - What does it mean?

Medical Terminology – learning the language

Prefix of a word is before the main part of the word.

If you can recognize the meaning of the prefix, you will be able to guess the word's definition more accurately.

Suffix follows the end of a word and forms a new word.

A suffix provides important clues about a word's definition.

E.G. the suffix, 'pathy', means disease.

In most cases when you see a word ending in 'pathy', you know it refers to a disease, as in 'angiopathy', which means disease of the blood vessels.

(<http://ec.hku.hk/mt/>)

Understanding Terminology

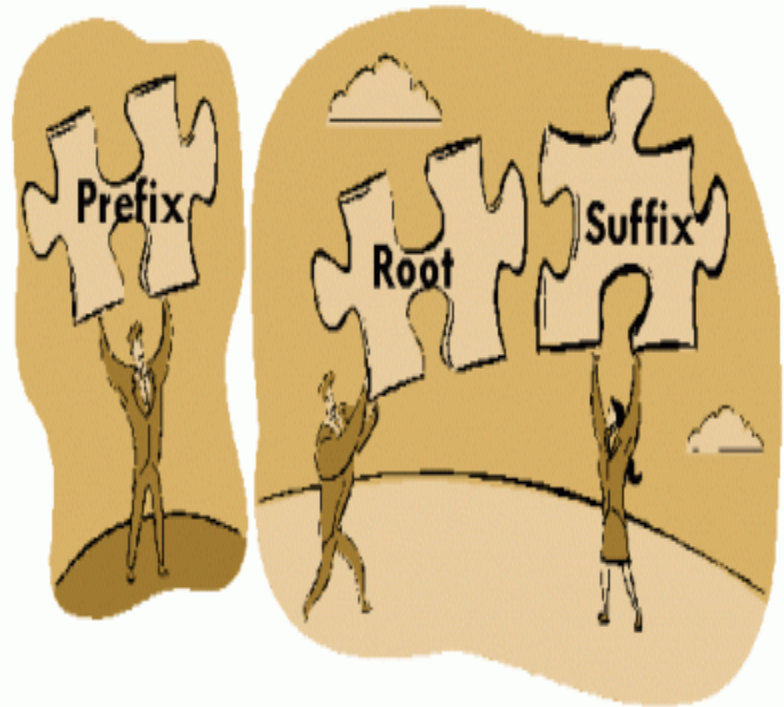
Hyperkalaemia

Prefix = *Hyper*kalaemia = high

Root = *Hyper*kalaemia = potassium

Suffix = *Hyper*kalaemia = blood

Meaning = raised potassium concentration in the blood.



The Prefix

- Describes position
- Provides a description
- Describes number and measurement



Describes Position

UPON (IN ADDITION, AFTER)

epi(o) **epicranium**

AFTER, BEHIND

post(o) **postanaesthetic**

postnasal

BACK

dors(o) **dorsocephalad**

EDFORE, IN FRONT

pro(o) **procephalic**

prochondral

ante(o) **antepartum**

antebrachium

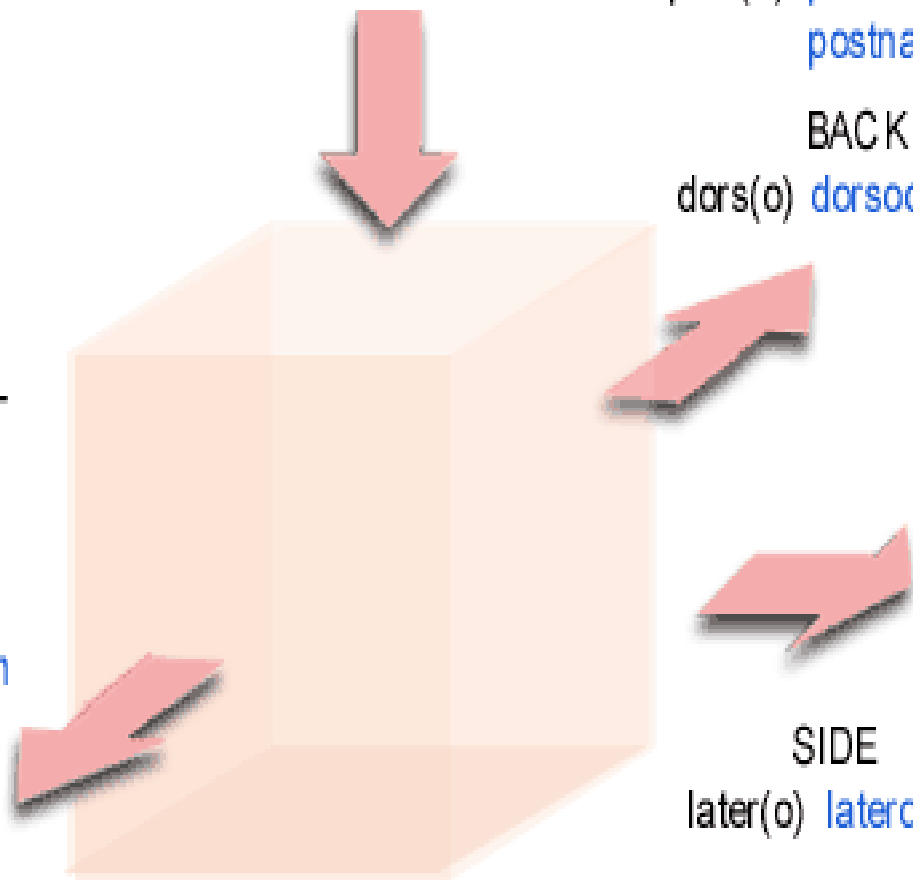
pre(o) **precapillary**

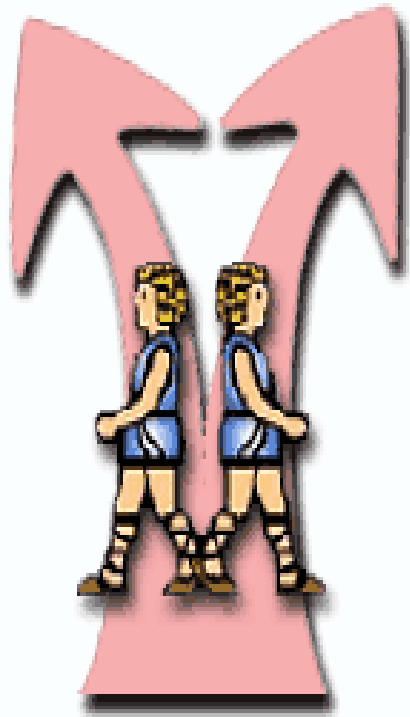
predentin

ventr(o)

SIDE

later(o) **laterotorsion**





SPLIT

schiz(o) **schizophrenia**
schizonychia



DIFFERENT

all(o) **allopathy**
alloantigen
hetero **heterocellular**
heterotypic



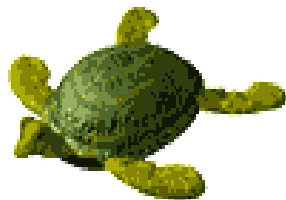
SAME

home(o) **homomorphic**
homeostasis

Provides a description



BENT, CROOKED
an~~ky~~(o) ankylosis
k~~yp~~(h)o kyphoscoliosis



SLOW
brady-
bradypnea



NARROW
sten(o)
stenothorax



SHORT
brachy(o)
brachygnathia



FAST
tachy-
tachycardia

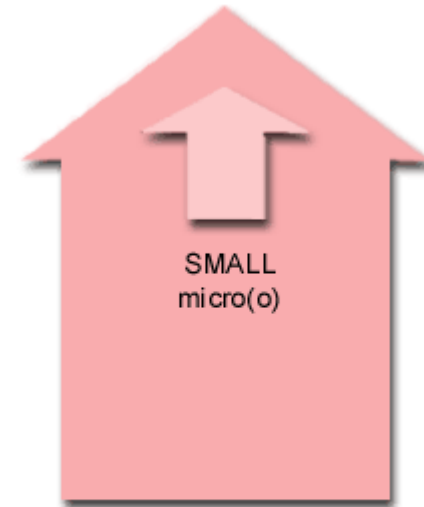
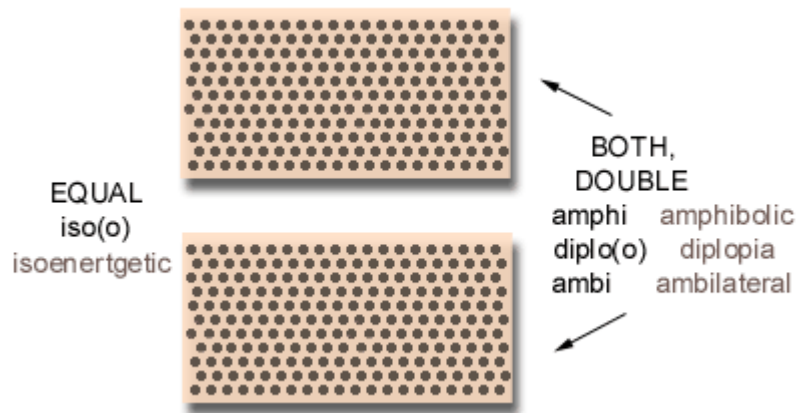


STRAIGHT (NORMAL)
orth(o)
orthodontist

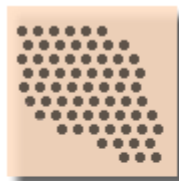
Colours

Grey glauc(o) (Glaucoma)	Red erythr(o) Erythrocyte	Black melan(o) melanin	
White leuc(o), leuk(o) leukomyelitis	Blue cyan(o) cyanopsia	Yellow cirrh(o) cirrhosis	Green chlor(o) chloroma

Describes number and measurement



LARGE
mega(o) megakaryocyte
macro(o) macrocephaly



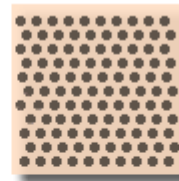
MANY
(EXCESS)

poly(o) polyplegia
hyper(o) hypertherma
multi(o) multi-infection



FEW
(UNDER)

oligo(o) oligotrophy
hypo(o) hypodemica
(o)pen(ia) remove



ALL
pan(o)
pananxiety



NONE
a(o) acardia
in inert

Suffix

- Disease or change in the body
- Surgery and incisions
- Others

Suffixes

ing	ful
ed	able
s-es	en
er	ness
est	less

Disease or changes in the body

Suffix	Meaning	Example
-algia	pain	Neuralgia (<i>nerve</i>)
-(a)emia	blood	leuk(a)emia (<i>white</i>)
-itis	inflammation	Hepatitis (<i>Liver</i>)
-malacia	softening	Osteo malacia (<i>bone</i>)
-megaly	enlargement	Spleno megaly (<i>spleen</i>)
-phagia	eating, <i>swallowing</i>	Dys phagia (<i>difficult</i>)
-plegia	paralysis, <i>stroke</i>	Hemi plegia (<i>half</i>)
-rrhea	discharge, <i>flow of watery stools</i>	diarr hea
-spasm	Involuntary <i>contraction, twitching</i>	Broncho spasm (<i>bronchus</i>)

Surgery and incisions

Suffix	Meaning	Example
-desis	binding , stabilization	Pleuro <i>desis</i> pleural membrane (lining of the lung)
-plasty	formation, plastic repair	Angio <i>plasty</i> (blood vessel)
-lysis	loosen, free form adhesions, destruction	Thrombo <i>lysis</i> (<i>blood</i>)
-tripsy	to crush	Cholelitho <i>tripsy</i> gallstone

Medical abbreviations and terminology

Acknowledgement

Professor JG Davies

Academic Director of Clinical Studies, School of Pharmacy and BMS,
University of Brighton

A case from the clinic



- Elderly lady
- Cardiac referral for AF
- Base INR 1.1
- Loading dose Warfarin 5g x3
- Counselling in clinic
- Went home

Patient notes

Found in notes

- *Appeared confused*
- *????TIA*
- *Home visit*
- *LMO visit*
- *CP visit*
- *DMo*

What does
all this
mean??????



Case Notes

- Not a logical structure
- Lacked information
- Lacked detail
- Used abbreviations & terminology

Structure of Case Notes

- Brief introduction age, gender & problem
- **C/O** - complains of
- **HPC** - history of presenting complaint
- **PMH** -past medical history
- **O/E** - on examination – may include review of systems

- **FH** family history
- **SH** social history
- **DH** drug history
- Biochemical data and other results
- Problem list /Provisional diagnosis
- Action Plan

Case History

Mr CP, 68 year-old gentleman admitted to hospital in a confused state

C/O (Complains of)

- cough
- vomiting

HPC (History of presenting complaint)

- 2/52 history of worsening confusion
- Increasing cough and mucopurulent expectoration.
- Chest pain^o palpitations^o haemoptysis^o Wt loss^o
- “O” why do we add these?

Interpretation

Mucopurulent

Containing mucus mingled with pus as in a sputum sample

Haemoptysis

Blood stained sputum

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Case History

PMH

- Chesty for over 20 years – COPD
- RA for 15 years
- PUD 2002

O/E (on examination)

- Dyspnoeic and centrally cyanotic
- JVP NE
- BP = 140/90
- PR = 98 regular
- Scattered rhonchi and bilateral basal crepitations
- Moderately confused and disorientated.

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FH (Family history)

- Both parents dead
- Mother died at 64 yrs following long history of IHD and 2x MIs

SH (Social history)

- Pensioner
- ex-baker (30 yrs)
- lives on the 12th floor of a tower block
- married (Wife is 65yrs old alive and well)
- two sons – 38 and 34 yrs – both alive and well

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Case History

DH (Drug history)

Prescribed medicines – name, dose and duration?

OTC medicines – name, dose and duration?

Complimentary medicines – name, dose and duration?

Allergies and adverse drug experiences?

Smoking habits – how long, how many?

Alcohol intake – units/week?

Recreational drugs – habits?

Compliance assessment – when and how do you use your medicines?

Case History

DH

Salbutamol Inhaler 2 puffs PRN

Ipratropium Inhaler 2 puffs qid

Prednisolone 7.5mg daily(RA)

Simple linctus 5-10 mL PRN

Methotrexate 10mg weekly

OTC^o Complimentary^o

Allergies: Nil Known



Case History

Smoking Hx

- stopped 3 yrs ago
- smoked 30 a day for 30 years

Alcohol Hx

- rarely now
- did drink 55 units/week for many years.

No recreational drugs

Compliant with medicines

- Son and wife manage this for him.

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Case History

RoS (Review of Systems)

General then

- CVS - Cardio-vascular
- RS – Respiratory
- CNS – Central Nervous
- Endocrine

RS

RR = respiratory rate = 28 bpm (tachypnoeic)

PEFR = peak expiratory flow rate = 220 L/min

Chest X-ray = areas of consolidation = infection (?)

Case History

Biochemical Results

Na ⁺	141 mmol/L	(135-145)
K ⁺	3.8 mmol/L	(3.5 -5.0)
Urea	8 mmol/L	(2.5 – 7.0)
Cr	100 μmol/L	(40 -120)
Hb	17.7 g/dL	(14-16)
Hct	0.57	(0.36 – 0.46)
WCC	18.1 x 10⁹/L	(4-11)
pH	7.16	(7.32-7.42)
PaCO₂	11.21 kPa	(4.5-6.1)
PaO₂	10.23 kPa	(12-15)

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Case History

Diagnosis

Acute exacerbation of COPD – 2^o infection

Action Plan

- Introduce nebulised bronchodilators
- Oxygen
- Start IV antibiotic therapy
- Consider increasing dose of steroids temporarily

Case Study

Key elements of pharmaceutical care plan

1. Advise medical staff on:

- Antibiotic choices and doses
 - Check renal function
 - Change to oral asap
- Dosage regimen for bronchodilators
 - Use nebuliser initially
- Oral prednisolone dose increase and consequent tapering to regular dose

Case Study

Key elements of pharmaceutical care plan

2. Advise nursing staff on:

Administration of IV antibiotics

Administration of nebulised bronchodilators

3. Advise patient on:

Check inhalers and technique

Check care of inhalers

Use of medicines – risk/benefit information

Need for regular influenza jab

Activity 1

- Explain the following terms:
- Rhinorrhoea:
- Steatorrhoea:
- Acopia
- Dysphagia
- Malaena

Activity 2

Explain the following abbreviations

- AF
- BSL
- CABG
- COPD
- CCF
- GORD
- JVP
- MRSA
- NIDDM
- RAS
- STEMI
- WBC

Activity 3

- **Explain the following symbols**
- # Fracture
- +/- May or may not be present
- + Present/found
- +++ Strongly present
- 0 Absent

Case Study

1. Mrs. D. J. is a 69 year old lady admitted to your ward with pneumonia. She suffers from COPD and Rheumatoid Arthritis.

At home, she takes:

- Ipratropium metered aerosol 2 puffs qid
- Salbutamol metered aerosol 2 puffs qid prn
- Methotrexate 10mg weekly

Do you think she is being treated appropriately for her rheumatoid arthritis and COPD?

- COPD is appropriately treated if this combination is controlling her symptoms
- Methotrexate is an appropriate treatment for rheumatoid arthritis **BUT** it is often prescribed with small doses of folic acid taken on all days except the day Methotrexate is taken.

Case Study

2. Identify reasons why a patient may not comply with medication protocols?

- Doesn't understand/can't read the instructions
- Can't open the bottles
- Experiences side effects
- Cognitive problems
- Cost issues in obtaining medication

Activity 4

List six things that should be checked when completing a medication review.

- Compliance
- Can the patient manage their medicines?
- is the medicine working?
- is the medicine necessary?
- side effects
- drug interactions
- are all co-morbidities treated using EBM

Answers to pre-tutorial tasks Wk 3

4. Patients are admitted to your ward and the doctors have ceased medicines eg Patient is dehydrated so frusemide is ceased. Comment on reasons why doctors might cease the following drugs:

Drug	Reason
Atenolol	bradycardia, hypotension, asthma
Metformin	impaired renal function, acidosis
Amiodarone	hypo/hyperthyroid, skin pigmentation, corneal deposits, pulmonary toxicity
Aspirin	gi bleeding, tinnitus
Methotrexate	myelosuppression, liver damage, photosensitivity



QUESTIONS