

Study Material

PGDHM 2nd Sem

Medical Record Science CC 205

Medical Record Science: A Vital Component of Healthcare

Medical record science is a crucial aspect of the healthcare industry that ensures the efficient management and organization of patient health information. It plays a significant role in maintaining accurate and up-to-date records of patients' medical history, treatments, and outcomes. In this article, we will delve into the definition, importance, benefits to stakeholders, types, and organization of the medical records department.

Definition of Medical Record Science:

Medical record science is a field that focuses on the systematic collection, storage, retrieval, and analysis of patient health information. It involves the use of technology and standardized processes to create and maintain comprehensive medical records for individual patients. These records contain essential details such as medical diagnoses, treatments, medications, test results, and other pertinent information related to the patient's healthcare journey.

Importance of Medical Record Science:

The importance of medical record science cannot be overstated in the healthcare industry. Accurate and updated medical records are vital for providing quality patient care, ensuring patient safety, and facilitating effective communication among healthcare providers. Medical records also play a crucial role in supporting clinical decision-making, monitoring patient progress, and assessing the overall quality of healthcare delivery.

Benefits to Stakeholders:

Medical record science offers a range of benefits to various stakeholders in the healthcare ecosystem. Patients benefit from the improved quality of care, increased safety, and better coordination of services that result from accurate and comprehensive medical records. Healthcare providers benefit from streamlined workflows, better communication, and reduced medical errors. Payers benefit from

improved data accuracy, efficient claims processing, and cost-effective care management. Regulators benefit from increased compliance with healthcare standards and regulations, leading to better accountability and transparency in the healthcare system.

Types of Medical Records:

There are several types of medical records used in healthcare settings, including:

- 1. Electronic Health Records (EHRs):** EHRs are digital versions of patients' paper charts that contain a comprehensive record of their medical history, treatments, and health information.
- 2. Personal Health Records (PHRs):** PHRs are created and maintained by patients themselves and allow them to manage their health information, track medical appointments, and communicate with healthcare providers.
- 3. Electronic Medical Records (EMRs):** EMRs are digital versions of patients' paper charts that are used within a single healthcare organization to document and manage patient information.

Organization of the Medical Records Department:

The medical records department is typically responsible for managing and maintaining all patient health information within a healthcare facility. This department is tasked with organizing medical records, ensuring their accuracy and completeness, protecting patient privacy and confidentiality, and complying with regulatory requirements related to health information management.

In conclusion, medical record science is a vital component of the healthcare industry that plays a crucial role in ensuring quality patient care, safety, and efficient healthcare delivery. By understanding the definition, importance, benefits to stakeholders, types, and organization of the medical records department, healthcare professionals can appreciate the significance of accurate and comprehensive medical records in improving patient outcomes and advancing the quality of healthcare services.

PGDHM 1st Sem

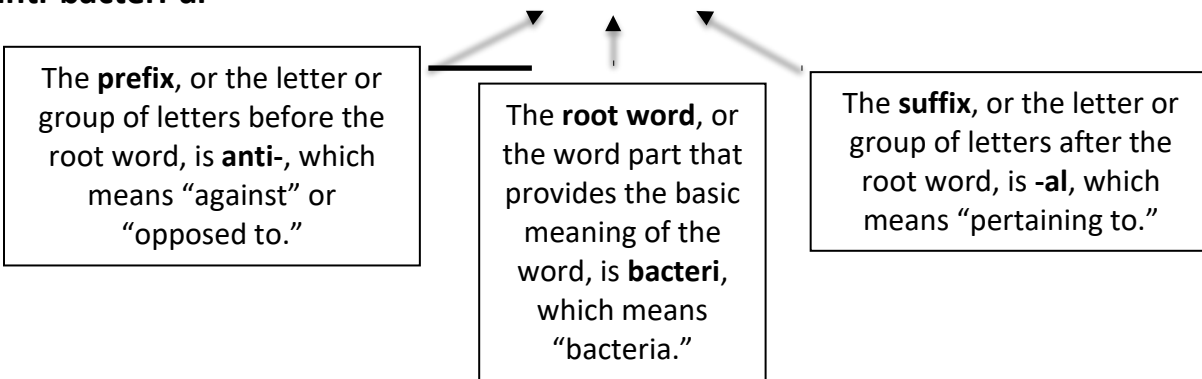
Medical Terminology CC 104

There are some helpful techniques you can use to increase your understanding of medical terminology. Most medical terms contain at least one root, and they may also contain one or more prefixes or suffixes. This handout will describe how word parts create meaning to provide a strategy for decoding medical terminology and unfamiliar words in the English language.

Word Parts

If all three word parts are present in medical terminology, they will be in the order of prefix → root word → suffix. Look at the following example to understand the function of each word part:

anti-bacteri-al



As you can see, even if you have never heard of the word "antibacterial," the word parts provide clues that it is something that protects against bacteria. Therefore, it can be helpful to take into consideration the meaning of word parts, in addition to the context of the sentence or paragraph that the word is in, to decipher an unfamiliar word's meaning. Also, keep in mind that while many medical terms contain all three word parts, others will contain varying

combinations such as root/suffix, prefix/root, prefix/suffix, etc. Some words will even contain two roots, such as *osteoarthritis* (**osteo** = bone, **arthr** = joint). Now let's look at some of the most common roots, prefixes, and suffixes used in the different body systems.

The Body's Organization

The body is organized by cells, tissues, organs, and systems.

Word Part: Root	Meaning
anter/o	front, anterior
cerv/o	neck
chondr/o	cartilage
cyt/o	cell
dors/o	back
gastr/o	stomach
inguin/o	groin
my/o	muscle
myel/o	spinal cord
neur/o	nerve, neuron
poster/o	posterior, back
proxim/o	near
sarc	flesh
super/o	superior

Word Prefix	Part:	Meaning
epi-		upon
hypo-		below or deficient
infra-		below
leio-		smooth
trans-		across

Word Suffix	Part:	Meaning
-algia		pain
-cyte		cell
-edema		watery fluid in tissues
-ic		pertaining to
-ium		structure or tissue
-oid		resemblance to
-oma		tumor

Note: There are additional roots, prefixes, and suffixes that are not included within the tables throughout this handout; however, the examples will demonstrate how the word parts can be analyzed to determine the meaning of a

word.

Example Terms:

epi (upon) + gastr (stomach) + ic (pertaining to) /
 epigastric = area just above the stomach
 hypogastric = hypo (below) + gastr (stomach) + ic(pertaining to)

The Integumentary System

This system, which protects the body from various kinds of damage, includes the skin, hair, nails, and sebaceous and sudoriferous glands.

Word Part: Root	Meaning
albin/o	white
cirrh/o, jaund/o, xanth/o	yellow
cutane/o	skin
cyan/o	blue
cyt/o	cell
derm/o/at/ato	skin
erythr/o	red
fero	to carry
ichthy/o	dry, scaly (fishlike)
kerat/o	hornlike
melan/o	black
myc/o	fungus
onych/o	nail

Word Prefix	Part: Meaning
an-	without
anti-	against
de-	removal
epi-	upon
hyper-	above normal
para-	alongside of or abnormal
sub-	below or under

Word Suffix	Part: Meaning
-cyte	cell
-derma	skin
-ia	condition
-ism	condition

pil/o	hair
scler/o	hardening
seb/o	sebum (oil; fat)
sudor/i/	sweat
xer/o	dry

-logist	practitioner
-logy	study
-malacia	softening
-oma	tumor
-osis	abnormal condition

Example

Term:

Scleroderma = sclero (hardening) + derma (skin) /
chronic hardening and thickening
of the skin

The Skeletal System

The skeleton, which includes all the bones and joints, is the basic structure of our body.

Word Root	Part:	Meaning
ankyl/o		stiff, fused, closed
arthr/o		joint
brachi/o		arm
cervic/o		neck
cheir/o		hand
chondr/o		cartilage
cost/o		rib
dactyl/o		finger, toe
lumb/o		lower back
myel/o		bone marrow
orth/o		correct, straight
os/te/o		bone
ped/o		foot, child
scoli/o		twisted
thorac/o		thorax, chest

Word Prefix	Part:	Meaning
amphi-		both sides
syn-		joined together
zygo-		joined together (yoked)

Word Suffix	Part:	Meaning
-algia		pain
-gram		written record of
-itis		inflammation
-kinesia		movement
-malacia		softening
-osis		condition
-plasty		surgical repair
-porosis		porous
-scopy		to visually examine
-sis		condition

Example Terms:

$$\text{osteoarthritis} = \frac{\text{osteo (bone) + arthr (joint) + itis (inflammation)}}{\text{degeneration of joint cartilage and the underlying bone}}$$

Scoliosis= scolio (twisted) + sis (condition) / lateral curvature of the spine

The Muscular System

This system, which is responsible for movement, posture, and control of certain circulatory functions, is made up of skeletal, smooth, and cardiac muscles.

Word Part: Root	Meaning
cardi/o	heart
fasci/o	fibrous membrane
fibr/o	fiber
kinesi/o	movement
muscul/o	muscle
my/o	muscle
orth/o	straight
oste/o	bone
pedics	child
scler/o	hard
sthen/o	strength
tend/o, tendin/o	tendon
ton/o	tone

Word Prefix	Part:	Meaning
a-		deficient
epi-		around
hemi-		half
para-		beside, beyond, near
quadri-		four

Word Suffix	Part:	Meaning
-algia		pain
-dynia		pain
-oma		tumor
-osis		abnormal condition
-paresis		partial paralysis
-plegia		paralysis

Example Terms:

fibromyalgia = fibro (fiber) + my (muscle) + algia (pain)

a disorder that causes widespread pain and
tenderness to touch

hemiplegia = hemi (half) + plegia (paralysis) / paralysis of one side of the body

The Nervous System

This system, which is made up of the central and peripheral nervous system, coordinates the body's involuntary and voluntary actions.

Word Root	Part:	Meaning
cephal/o		head
cerebell/o		the cerebellum
cerebr/o		the cerebrum; the brain
cortic/o		outer layer or covering
encephal/o		brain
esthesi/o		sensation
gli/o		glue
hydr/o		water
iatr/o		physician; to treat
meningi/o		a membrane
ment/o		referring to the mind
schiz/o		to split
psych/o		referring to the mind

Word Prefix	Part:	Meaning
an-		without
di-		two
hemi-		half
myel/o-		bone marrow; spinal cord

Word Suffix	Part:	Meaning
-ia		condition of
-itis		inflammation
-nesia		memory
-oid		like
-paresis		weakness, loss of movement
-phasia		speech
-plegia		paralysis

Example Terms:

anesthesia = $\frac{\text{an (without) + esthesi (sensation) + ia (condition of)}}{\text{of}}$ a condition of absence of sensation

encephalitis = encephal (brain) + itis (inflammation)/inflammation of the brain

glands that produce hormones, works with the nervous system to maintain the body's homeostasis.

Word Part: Root	Meaning
acr/o	extremities
aden/o	gland
adren/o, adrenal/o	adrenal glands
calc/i	calcium
crin/o	to separate or secrete
endocrin/o	endocrine
gluc/o, glyc/o/s	sugar, glucose, glycogen
hypophys/o	pituitary gland
pancreat/o	pancreas
parathyr/o, parathyroid/o	parathyroid gland
thyr/o, thyroid/o	thyroid gland

Word Prefix	Part:	Meaning
anti-		against or opposed to
epi-		upon
hypo-		below or deficient
para-		alongside of or abnormal

Word Suffix	Part:	Meaning
-itis		inflammation
-megaly		enlargement
-oma		tumor
-tropin		nourishment; stimulation
-uria		urine

Example

Terms:

glycosuria = glycos (sugar) + uria (urine) /sugar in the urine

thyroiditis = thyroid (thyroid gland) + itis (inflammation) / inflammation of the thyroid gland

The Cardiovascular System

This system, which carries oxygen and nutrients through the blood, includes the heart, blood, and blood vessels.

Word Part: Root	Meaning
angi/o	vessel
arteri/o	artery
ather/o	fatty
atri/o	atrium
cardi/o	heart
coron/o	crown; encircling
hem/o, hemat/o	blood
isch	restricted, narrowed
my/o	muscle
ox/o	oxygen
phleb/o	vein
thromb/o	clot
varic/o	dilated
vas/o	vessel
ven/o	vein

Word Part: Prefix	Meaning
bi-	two
brady-	slow
endo-	inner, inside
epi-	upon
hypo-	below or deficient
peri-	around, surrounding
tachy-	fast
tri-	three

Word Part: Suffix	Meaning
-ectasis	dilation
-emia	blood condition
-ia	condition
-pathy	disease
-stenosis	a narrowing

Example Terms:

Bradycardia = brady (slow) + cardi (heart)
+ ia (condition) / abnormally slow
heartbeat

hypoxemia = hypo (below or deficient) + ox (oxygen) + emia (blood condition) /

low level of oxygen in blood

The Lymphatic System and Immunity

The lymphatic system is responsible for protecting the body from infection, maintaining a balance of fluids, and absorbing fats. It also consists of organs, tissues, and vessels.

Word Part: Root	Meaning
aden/o	gland
hem/o	blood
immun/o	immune system
leuk/o	white
lymphaden/o	lymph nodes
lymphangi/o	lymph vessels
lymph/o, lymphat/o	lymph or lymphatic system
path/o	disease
phag/o	ingest or engulf
splen/o	spleen
thym/o	thymus
tonsill/o	lymph node, usually palatine tonsil

Word Prefix	Part:	Meaning
anti-		against or opposed to
auto-		self
mono-		single
macro-		large
micro-		small

Word Suffix	Part:	Meaning
-edema		swelling
-itis		inflammation
-megaly		enlargement
-osis		condition of
-pathy		disease

Example Terms:

lymphedema = lymph (lymph or lymphatic system) + edema (swelling)/ lymph tissue swelling

The Respiratory System

This system, which supplies oxygen to the cells and removes carbon dioxide, consists of the nose, pharynx, larynx, bronchi, bronchioles, alveoli, and lungs.

Word Part: Root	Meaning
bronch/o, bronchi/o	bronchus
laryng/o	larynx
nas/o, rhin/o	nose
or/o	mouth, opening
ox/o	oxygen
phren/o	diaphragm
pleur/o	pleura
pneum/o, pneumon/o	air, lung
pulmon/o	lung
sinus/o	sinus cavity
thorac/o, thorac/i, thoracic/o	thorax, chest
trache/o	trachea

Word Part: Prefix	Meaning
a-	without
brady-	slow
bronch/o-, bronch/i-	bronchus
dys-	difficult
hypo-	below or deficient
super-, supra-	above or excessive

Word Part: Suffix	Meaning
-ia	condition of
-oxia	oxygen
-phonia	voice
-pnea	breathing

The Digestive System

This system, which allows the body to absorb nutrients from food and fluids, consists of the tract from the oral cavity to the anus.

Word Part: Root	Meaning
bucc/o	cheek
cheil/o	lip
cholecyst/o	gallbladder
dent/i, dent/o	teeth
enter/o	intestine
gastr/o	stomach
gingiv/o	gums
gloss/o	tongue
hepat/o	liver
phag/o	eating, swallowing
proct/o	anus and rectum
sial/o	salivary glands
stomat/o	mouth

Word Prefix	Part:	Meaning
anti-		against
dys-		difficulty
hyper-		excessive

Word Suffix	Part:	Meaning
-cele		hernia
-emesis		vomit
-ia		condition of
-lith		stone
-pepsia		digestion
-phagia		eat or swallow
-scope		device for visual examination
-scopy		visual examination

Example Terms:

dysphagia = dys (difficulty) + phag (eating, swallowing) + ia (condition of)/excessive vomiting

hyperemesis = hyper (excessive) + emesis (vomit) /excessive vomiting

The Reproductive System

This system, which allows us to perpetuate life, includes the reproductive organs.

Word Part: Root	Meaning
balan/o	glans penis
cervic/o	cervix
circum/o	around
colp/o, vagin/o	vagina
gonad/o	gonads, sex glands
gynec/o	woman, female
lact/o	milk
mast/o, mamm/o	breast
men/o	menstruation
nat/o	birth
oophor/o, oo	ovary, egg
ovari/o	ovary
prostat/o	prostate gland
salping/o	tube, fallopian tube
uter/o, hyster/o, metr/o	uterus
vas/o	vessel, vas deferens

Word Prefix	Part:	Meaning
a-		without
dys-		painful, difficult
hydro-		water
neo-		new
pre-, pro-		before
re-		again

Word Suffix	Part:	Meaning
-cele		hernia
-ectomy		excision
-genesis		production
-osis		process
-pathy		disease
-plasty		surgical repair
-rrhea		flowing, discharge
-sterone		steroid hormone

Example Terms:

dysmenorrhea = dys (painful) + meno (menstruation) +
rrhea (discharge) / painful
menstruation

hysterectomy = hyster (uterus) + ectomy (excision)
/removal of the uterus

Sense of Sight and Hearing

Certain root words are associated with the organs that process sight and sound.

Sense of Sight	
Word Part: Root	Meaning
blephar/o	eyelid
dacry/o	tears, lacrima
dipl/o	two, double
ocul/o	eye
opt/o	light, eye, vision
retin/o	retina

Word Prefix	Part:	Meaning
a-		without
auri-		ear
extra-		outside
hyper-		above normal
presby-		old
sensor-		sensory

Sense of Hearing	
Word Part: Root	Meaning
acous/o, acoust/o	acus/o, hearing
audi/o	sound
aur/o	ear
auricul/o	ear
ot/o	ear
tympan/o	eardrum

Word Suffix	Part:	Meaning
-cele		hernia
-ectomy		excision or removal
-itis		inflammation
-lith		stone
-opia		eye, vision
-plegia		paralysis
-ptosis		falling or downward displacement
-rrhea		discharge