

Basic medical terminology

Winter period 2013

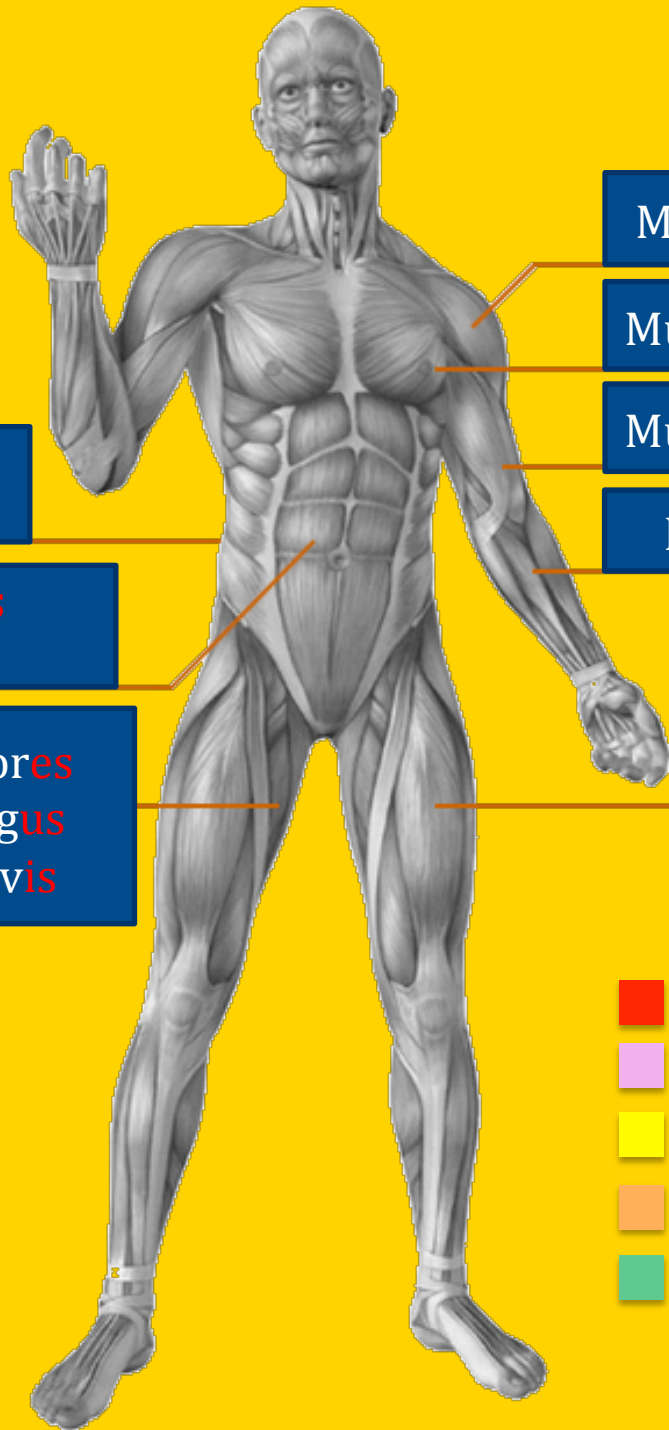
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Objectives of the course

- To familiarize with basic medical terminology
- To understand rules of creating Latin terms and to understand meaning of particular terms based on:
 - Morphological analysis
 - Syntactical analysis
- To create correct Latin terms (both from anatomical and clinical terminology)
- To understand basics of pharmacological Latin
- To master the vocabulary in a systematic way

Latin in the anatomical terminology

- Definite set of terms that name the parts and structures of the human body
- First worldwide official standard terminology appeared 1895 (*Basiliensia Nomina Anatomica*)
- Current terminology is approved by FCAT and published in 1998 as TERMINOLOGIA ANATOMICA (cf. <http://www.unifr.ch>)



Musculus deltoideus

Musculus pectoralis major

Musculus biceps brachii

Musculus flexor carpi

Musculi obliqui abdominis

Musculus rectus abdominis

Musculi adductores
m. adductor longus
m. adductor brevis

Musculus quadriceps femoris

■ Case and number endings

■ Prefixes

■ Roots of the compound words

■ Suffixes

■ Special forms

Latin in the clinical terminology

- Non-definite set of terms that names diseases, health conditions or causes of death
- First authoritative list of diseases and causes of death 1868 (*Nomenclature of diseases*), 1893 Bertillon's classification of diseases
- Current terminology ICD-10 is approved by WHO and published every 10 years (www.who.int/classifications/icd/en/)
- Widely used in medical documentation e.g. medical reports, surgical and hospital reports, pathological reports (central Europe, Russia and former republics of USSR, partly Western Europe - Germany, Austria)

Dg: T068 Polytrauma
W1731 Pád s padákem
S4220 Fractura humeri proximalis l. sin comminutiva luxans
S3250 Fr. rami sup. et inferioris ossis pubis l. dx
S3250 Fr. ramus sup. ossis pubis l. sin
S3210 Fr. sacri l. dx
S2210 Fr. corporis vertebrae thoraciceae VII et VIII.
S3200 fr. processus transversi vertebrae lumbalis II.-IV.
S3700 Contusio renis l. dx cum hematoma perirenale
S134 Distensio ligg. col. vert. partis cervicalis
S202 Contusio thoracis l. sin
S2730 Contusio pulm. l. sin
S2710 Hemothorax posttraumaticum l. sin
S4210 Fr. proc. coracoideus scapulae l. sin
I269 Embolia pulmonum susp.

ICD Fracture of upper end of humerus : S 42. 2 (<http://apps.who.int/classifications/icd10>)

Po dobu ošetřování ponechte pacientovi

Ústavní pohotovostní chir. služba NsP Rakovník

NÁLEZ ze dne 05.06.04 11:34

Zapsal: Šimek Lubor, MUDr. 05.06.04 12:01

Diagnózy:

S610 Vulnus scissum digiti II. manus l.sin.

W266 Kontakt s nožem, mečem nebo dykou-Jiné určené místa

před 8mi hod si seřizl dorzolater- stranu II. prstu L ruky nad PIP
loubem - lalok, periferie +

tetanus snad více než 5 let

dop.: vulnus scissum digiti II. man. l.sin. inveter.

ch.: V LA 14 mesokainem, revize, revitalizace okrajů, sutura jedn. a
samoadapt. stehy, krytí, obvaz

alteana 0,5ml i.m.

dop.: fyz. šetření, elevace HK, nemáčet, analgetika při bolesti,

kontrola na cHA pozitivní 7.6.04 dopol. při zhoršení kdykoliv dříve

Zpracoval(a):

Šimek Lubor, MUDr.



Transcription of the medical report

Dg.:

S610 Vulnus scissum digiti II manus l. sin

W268 Kontakt s nožem, mečem nebo dýkou

Před 8 hod. si seřízl dorsolater. stranu II prstu
L. ruky

Th.:

V LA mesokainem revisio et revitalisatio
marginum, sutura, krytí a obvaz

Latin in the pharmacologic terminology

- Definite set of terms used in European Pharmacopoea, current version is 7th ed. (www.edqm.eu/en/european-pharmacopoeia-7th-edition-1401.html) to name:
 - essential medicines (*acidum phosphoricum*)
 - classes of medicines (*antipyretica, spasmolytica*)
 - forms of medicines (*solutio, injectio, tabuletta*)
 - drugs (*calendula officinalis*)
- Prescriptions
 - main part of the prescription including name and quantity of the medicine as well as the way of its administration is usually written in Latin, using system of routine abbreviations

VZOR

INSCRIPTIO

Kód pojišťovny	RECEPT	poř. č.
Údaje platné pro celý recept (výpis, pohotovost, repetatur s počtem opakování, nutná a neodkladná péče, atd.)		

PERSONALIA AEGROTI

Příjmení a jméno

Číslo pojištěnce

f.

Bydliště (adresa)

INVOCATIO

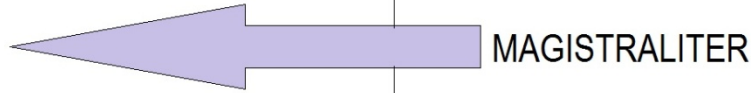
Popl.	Diagnóza ¹⁾	Sk.	Kód	Započ.dopl.	Úhrada
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ORDINATIO

Rp.

Kalij jodidi	1,0
Ephedrini hydrochloridi	0,2
Thymi sirupi comp.	20,0
Aquae purif.	ad 100,0

M. f. liquid.
D. ad lag.
D. S. 3x denně 1 lžiči



- a) PRAESCRIPTIO (COMPOSITIO)
- b) SUBSCRIPTIO
- c) SIGNATURA

Popl.	Diagnóza ¹⁾	Sk.	Kód	Započ.dopl.	Úhrada
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Rp.

Frontin 0,5 mg
Exp. orig. No. III (tres)
D. S. 1 tbl. ráno, 1 tbl. večer



DATUM

Dne:

SIGILLUM ET NOMEN MEDICI

razítko poskytovatele, jmenovka, podpis a telefon lékaře

Připravil:	Vydal:
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¹⁾ Vyplňuje se povinně v případě zvýšené úhrady.

Historical background

- Much of the medical terminology used today is attributed to *Hippocrates and Greek authors*
- Terminology arises from need to identify the anatomical structures, diagnoses, instruments, procedures, protocols and medications
- Many ancient terms are based on metaphors and similes, i.e. they are formed from words of nonmedical origin:

Animals

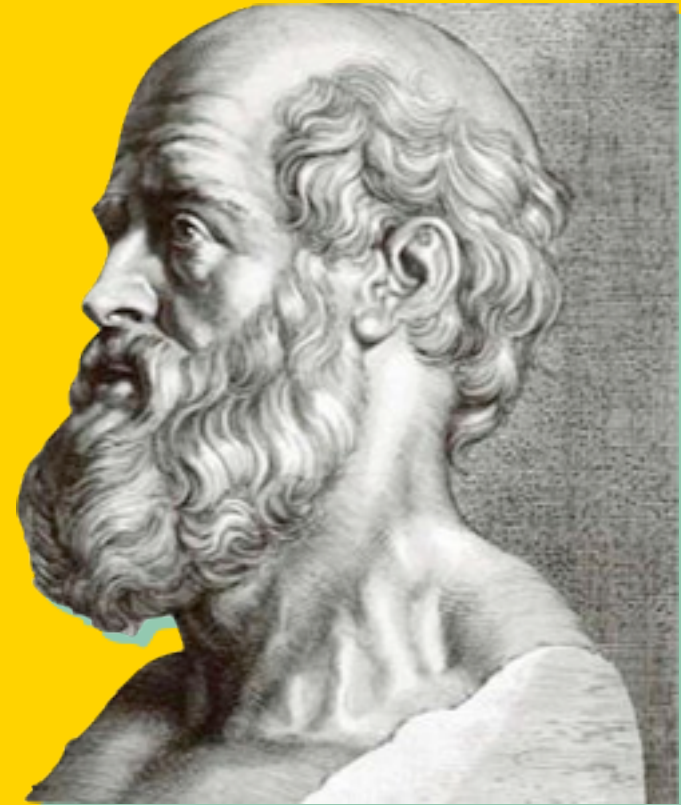
Musical instruments

Military objects

Letters of alphabet,

Household utensils,

Agricultural tools/products....



„The father of medicine“
Hippocrates 460-370 BC



v



Word parts, combining forms and rules of word-building

root

suffix

prefix

combining element

card-i-a
card-i-acus
card-i-alis
peri-**card-ium**
endo-**card-ium**
myo-**card-ium**
card-itis
peri-**card-itis**
card-i-o-logia
card-i-o-graphia
card-i-o-my-o-pathia



BASIC MEDICAL TERMINOLOGY

**ALPHABET
AND PRONUNCIATION**

Vowels

A **Ā** B C D **E** **Ē** F G H **I** **Ī** K L M N

O **Ō** P Q R S T **U** **Ū** V X **Y** **Ȳ** Z

Vowels

LONG

Ā (father) frāctūra

Ē (term) artēria

Ī (intrigue) spīna

Ō (door) sensōrius

Ū (boom) rupfūra

Y (analysis) hypophysis

SHORT

A (cut) lingua

E (met) vertebra

I (intrigue) digitus

I (iatros)

O (on) skeleton

U (put) uterus

Y (lady) tympanum

Diphthongs

AE (care) anaemia

OE (care) lagoena

EU (e-u) pneumonia

Read aloud and guess the meaning:

- hypnōsis
- ala
- olla
- eupnoe
- ileus
- mucus
- haematoma
- iliacus
- ossa
- diploe
- cubitus
- venae
- diameter
- sacralis
- ulcus
- iris
- sutura
- sigmoideus
- depressor
- area
- oesophagus
- melior
- meatus
- leucocytus

Consonants I.

A Ā **B** C **D** E Ē **F** G H I Ī K **L** **M** **N**

O Ō **P** Q **R** S **T** U Ū **V** X Y Ŷ Z

Consonant/group of consonants	Pronunciation	Example
1: c c + ae, oe, e, i, y	[k] medical [ts] tsar	c <u>a</u> mera, c <u>o</u> sta, c <u>u</u> ltivatio, c <u>r</u> anium caecus, coeliacia, centrum, circulatio, cynismus
2: ch	[x] loch	chirurgia, cholera

Consonants II.

Consonant/group of consonants	Pronunciation	Example
3: g gu + vowel	[g] ground [gv]	gramma, gastritis lingua, sanguis
4: h	[h] house	herba, haematologia
5: j + vowel	[y] yes	iniectio/injectio, maior/major
6: p p + h	[p] present [f] physiology	pneumonia, pulmo phantasia, pharmacia
7: qu+ vowel	[kv]	aqua, quadriceps
8: r r+h	[r] rupture [r]	vertebra, ruptura rheuma, rhinitis

Consonants III.

Consonant/group of consonants	Pronunciation	Example
9: s/ss <i>s between two vowels and following after l, r, n</i>	[s] some [z]	serum, fossa nasus, incisura, pulsus, tonsilla, inversus, suspensio
10: t ti + vowel s/t/x + ti + vowel t+h	[t] tongue [tsi] [ty] [t]	trauma, tactus operatio, substantia tibia, ostium, mixtio therapia, thermometrum
11: z	[z] zone	zoologia

Read aloud and guess the meaning:

- cancer, medicamentum, lingua
- thorax, pulsus, contusio
- corpus, exitus, functio
- hemispherium, angulus, fractura
- intestinum, aqua, pharmacon
- oedema, musculus, defectus
- medicus, operatio, infarctus
- homo, bronchus, duodenum
- angina, haemorrhagia, spasmus
- encephalon, bacterium, acne
- migraena, pharynx, dysenteria
- inflammatio, leucaemia, virus
- laparoscopia, typhus, organismus
- therapia, digitus, gingiva
- gangraena, diagnosis, tonsilla
- injectio, lymphata, oxygenium
- vademecum, insufficientia, chirurgia

BASIC MEDICAL TERMINOLOGY

GRAMMATICAL CATEGORIES

BASIC LINGUISTIC TERMINOLOGY

What will you find in the dictionary?

English noun is presented only in its single form (nominative singular)

Latin noun is presented in three forms

Muscle =
Bone =

MUSCULUS,
OS,

I,
OSSIS,

M.
N.

Main form
(full nominative)

Genitive ending/or
even full Genitive
form

Gender
abbreviation

CAUTION! When learning new words **ALL THREE FORMS** are **EQUALLY** important for the future ability to use the noun in the context.

Genitive ending = Declension

DECLENSION	1 st	2 nd	3 rd	4 th	5 th
GENITIVE ENDING	-ae (-es)	-i	-(?)-is	-us	-ei
EXAMPLE	coxa, ae, f.	humerus, i, m. cranium, ii, n.	coccyx, gis, f. dens, dentis, m. femur, oris, n. pelvis, is, f.	arcus, us, m. genu, us, n.	facies, ei, f.

Declensions are noun (adjective) groups that use the same set of suffixes (=endings).

Read and write down the number of declension

0. corpus, oris	3	14. sulcus, i, m.	2	31. crus, cruris, n.	3
cutis, is, f.	3	15.,28. penis, is m.	3	32. tarsus, i, m.	2
1. caput, itis, n.	3	16. femur, oris, n.	3	talus, i, m.	2
2. capilli, orum, m.	2	17. genu, us, n.	4	33. pes, pedis, m.	3
3. facies, ei, f.	5	19. frons, frontis, f.	3	34. hallux, ucis, m.	3
4. os, oris, n.	3	20. oculus, i, m.	2		
lingua, ae, f.	1	21. nasus, i, m.	2		
5. mentum, i, n.	2	22. auris, is, f.	3		
6. axilla, ae, f.	1	23. bucca, ae, f.	1		
7. brachium, ii, n.	2	24. collum, i, n.	2		
8. cubitus, i, m.	2	cervix, icis, f.	3		
9. antebrachium, ii, n.	2	25. pectus, oris, n.	3		
10. carpus, i, m.	2	26. abdomen, inis, n.	3		
11. pollex, icis, m.	3	27. hypogastrium, ii, n.	2		
12. palma, ae, f.	1	29. truncus, i, m.	2		
13.,18. digitus, i, m.	2	30. manus, us, f.	4		

Genitive ending = stem of a word

- **A stem** is a form to which affixes (endings) can be attached
- In some declensions (1st, 4th, 5th, and in majority of cases also 2nd) the nominative and genitive forms of the word have identical stem
- In some declensions (3rd, partially 2nd) word's stem can greatly differ
- **In Latin we need to remove the genitive ending in order to gain the genitive stem**

ven-a	humer-us	dol-or	arc-us	faci-es
ven-ae	humer-i	dolor-is	arc-us	faci-ei
		corp-us		
	diamet-er	corpor-is	gen-u	
	diametr-i	de-ns	gen-us	
		dent-is		

Decide what the stem of the noun is

ex: caput, capit-is

coxa, **coxae**

cervix, **cervicis**

hypogastrium,
hypogastrii

oculus, **oculi**

sulcus, **sulci**

crus, **cruris**

processus, **processus**

arcus, **arcus**

coccyx, **coccygis**

bucca, **buccae**

metatarsus, **metatarsi** os, **ossis**

ilium, **ilii**

fibula, **fibulae**

pubes, **pubis**

antebrachium,
antebrachii

axilla, **axillae**

hallux, **hallucis**

patella, **patellae**

capilli, **capillorum**

thorax, **thoracis**

nasus, **nasi**

phalanx, **phalangis**

tarsus, **tarsi**

humerus, **humeri**

collum, **colli**

symphysis, **symphysis**

facies, **faciei**

corpus, **corporis**

femur, **femoris**

clavicula, **claviculae**