Federal state budgetary educational institution of the higher education «North - Ossetian state medical academy» Healthcare ministry of the Russian Federation

Department of Foreign Languages

## TRAINING MATERIALS FOR STUDENTS FOR THE DISCIPLINE "LATIN FOR FOREIGN STUDENTS"

The main professional educational programme of higher education - specialty programme in the specialty 31.05.01 General Medicine, approved in 24.05.2023

Methodical recommendations are for the teachers of the Department of Latin and foreign languages of FSBEI HE «North - Ossetian state medical academy» Healthcare ministry of the Russian Federation on the discipline «Latin for foreign students»

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# Anatomical Terminology 

Topic 1

The Latin alphabet. Phonetics. Reading rules. Stress.

## ANATOMICAL TERMINOLOGY

## THE LATIN ALPHABET

There are $\mathbf{2 5}$ letters in the Latin alphabet:

| Letter | Name | Pronunciation | Examples - Latin (English) |
| :---: | :---: | :---: | :---: |
| Aa | a | a | as in "under": cáput (head) |
| Bb | be | b | as in "bath": bráchium (shoulder) |
| Cc | tse | ts k | as in "plants": cérvix (neck) as in "coner": cósta (rib), crísta (crest) |
| Dd | de | d | as in "danger": déxter (right) |
| Ee | e | e | as in "met": vértebra |
| Ff | ef | f | as in "fast": fácies (surface, face) |
| Gg | ge | g | as in "get": gáster (stomach) |
| Hh | ha | h (english like) | as in "hand": hómo (man) |
| Ii | I | 1 | as in "sit": vagína (vagina) |
| Jj | yot | (j) | as in "yes": májor (large) |
| Kk | ka | k | as in "key": skéleton |
| Ll | el | 1 | as in "life": lábium (lip) |
| Mm | em | m | as in "medical": meátus (passage) |
| Nn | en | n | as in "night": násus (nose) |
| Oo | o | 0 | as in "spot": córpus (body) |
| Pp | pe | p | as in "palmer": pálpebra (eyelid) |


| Qq | ku | k | as in "quite": quádriceps (four-headed) |
| :--- | :--- | :--- | :--- |
| Rr | er | r | as in "rend": ren (kidney) |
| Ss | es | s z | as in "solve": solútio (solution) as in"nose": <br> incisúra (slit or notch) |
| Tt | te | t | as in "ten": tráctus (tract) |
| Uu | u | u | as in "put": púlmo (lung) |
| Vv | ve | vs | as in "van": válva (valve) |
| Xx | iks | i | as in "next": rádix (root) |
| Yy | ypsilon <br> (igrek) | as in "crystal": týmpanum (drum) |  |
| Zz | zeta | z | as in "zero": zygóma (check-bone) |

## The Classification of the Sounds

The letters $\mathbf{a}, \mathbf{e}, \mathbf{o}, \mathbf{u}, \mathbf{i}, \mathbf{y}$ are vowels;
The letters $\mathbf{b}, \mathbf{c}, \mathbf{d}, \mathbf{f}, \mathbf{g}, \mathbf{h}, \mathbf{j}, \mathbf{k}, \mathbf{l}, \mathbf{m}, \mathbf{n}, \mathbf{p}, \mathbf{q}, \mathbf{r}, \mathbf{s}, \mathbf{t}, \mathbf{v}, \mathbf{x}, \mathbf{z}$ are consonants. The vowels are subdivided into monophthongs and diphthon

## Diphthongs

A diphthong is a combination of two vowels pronounced like one sound or one
syllable. There are four diphthongs in the Latin language:
$\mathbf{a e}, \mathbf{o e}, \mathbf{a u}, \mathbf{e u}$, the first two of which are pronounced like one sound.
The diphthong ae is pronounced like [e]
e. g. peritonaéum [peritonéum]
vértebrae [vértebre]
The diphthong oe is pronounced like the English [e:]
e. g. oedéma [edé́ma]
oesóphagus [ ezófagus]

For separate reading of vowels of the mentioned above diphthongs, in case they belong to different syllables, the demarcation mark («) is used:
e. g. díploë [díploe] (spongious substance of flat bones)
áër [áer] ( air)
The diphthong au is pronounced like the English [ 'au]
e. g. áuris [auris] (ear)

The diphthong eu is pronounced like the English [eu]
e. g. pneumonía [pneumonia]

The pronunciation of the consonants
$\mathbf{C c}-[\mathbf{t s}]$ - before the sounds [e], [i], expressed through $\mathbf{e}, \mathbf{a e}, \mathbf{o e}, \mathbf{i}, \mathbf{y}$.

- [k] - before consonants,
- before vowels $\mathbf{a , 0 , u}$


## Exercise

Read the words. Explain the pronunciation of the letter c :

Medicína, cérebrum, cylíndricus, coélia, caécus, coróna, cáncer, acútus, dúctus, sic, cránium, sácer, vértebra coccygéa, córnu coccygéum, fáscia cervicális, dúctus hepáticus commúnis, fascículus cuneátus, crísta seu pécten.

Hh is pronounced like a sound intermediate between the English

$$
[\mathrm{h}] \text { and }[\mathrm{g}]
$$

e. g. hómo [(g)homo ] (a human being)
hiátus [(g)hiatus] (an aperture, opening or foramen)

## L is pronounced very softly,

## e. g. lábium [l'abium]

(lip) pelvínus [pel'vinus]
Ss - [s] - in most cases, i. e. at the beginning and at the end of words, before consonants and vowels;

- [z] - between two vowels; between a vowel and consonants $m, n, r, I$


## Exercise:

Read the words paying attention to the pronunciation of the letter " $s$ ":
Búrsa, cápsula, os, músculus, discus, adipósus, fibrósus, compósitus, pulpósus, exténsio,transitórius, os sácrum, básis óssis sácri, procéssus supérior, transvérsus, ánser, tuberósitas, cápsula fibrósa, fossa incisíva.

$$
\mathbf{Z z}-[\mathbf{z}] \text { - in the words of Greek origin }
$$

-[ts] - in the words borrowed from modern languages for
example: Zíncum [tsinkum] (German)
influénza [influentsa ] (Spanish)
Qq - is always used in the combination with letter u and is pronounced like [kw] e. g. squáma [skwama]
quadrátus [kwadrat ngu
ngu - [ngu] - before consonants

- [ngv] - before vowels
e. g. língua [lingva], sánguis [sangvis],
but língula [lingula], ángulus [angulus]
ti- + vowel - [tsi]
+ consonant - [ ti], but after $\mathrm{s}, \mathrm{x}$ before vowels - [ti]
e. g. articulátio [artikulatsio]
eminéntia [eminentsia ]
but: óstium [ostium]
míxtio [mikstio]
Greek combinations of consonants - digraphs ch
- is pronounced like [kh], e. g. núcha [nukha ]
$\mathbf{p h}$ - is pronounced like [f], e. g. xiphoídeus [ksifoideus]
rh - is pronounced like [r], e. g. rháphe [rafe]
th - is pronounced like [t], e. g. thorax [toraks]
The combination of consonants sch is pronounced like [skh]
e. g. íschium [ishium]


## Exercise:

## Read the terms paying attention to the pronunciation:

Embryológia, histológia, ócciput, viscera, zygóma, Zincum, máximus, fléxio, sacrum, basis óssis sácri, coccyx, colúmna, tubérculum, cartilágo, músculus, grácilis, óssa, tuberósitas, subscapuláris, transversárius, cáudam, aër, dysphnóë, oedéma, líneae transvérsae, oblíquus, unguis, articulátio, inaequális, linguláris, aërátio, schema, phárynx, ánthropos, thyreoídeus, circumdúctio, rháphe.

## TASKS FOR CONTROL

I. Answer the questions:

1. What is a term?
2. What is the function of a definition?
3. What is "terminology"?
4. What pecularities does the modern language of physicians have?
5. What systems of terms are included into the medical terminology?
6. What scientists made contribution into the development of the international medical terminology?

## II. Fill in the blanks:

1. In Latin the sound $[\mathrm{e}]$ is expressed through the vowel "e" and the diphtongs.
2. At the beginning of a word before a vowel or between two vowels the letter " ..." or the letter " j " is used to denote the sound $[\mathrm{j}]$.
3. The sound $[\mathrm{k}]$ is mostly expressed through the letter ...
4. "C" is pronounced like [ts] only before the two vowel-sounds:...
5. In the term "caput costae" the letter " c " is read like .
6. In the word "spatium" the combination of letters "ti" is read like ...
7. The combination of sounds [kw] is expressed through the letters ...
8. The sound [ f$]$ is expressed either through the letter ... or the digraph ...
9. "S" between vowels is read like ...
10. The combination of letters "ngu" before vowels is pronounced like ...

## EXERCISES

## I. Read the terms, explain the pronunciation of vowels and consonants:

Anatómia, embryológia, histológia, cytológia, hómo sápiens, cáput, vértex, ócciput, cóllum, trúncus, dórsum, abdómen, víscera, pes,crus,fémur, mánus, pálma, córpus, cóstae, vértebrae;
forámen vertebrále, incisúrae verbtebráles, procéssus spinósus, sácer, sacra, sacrum, basis ossis sacri, tubérculum antérius, arcus postérior, coccygéus, vértebrae coccygéae, pediculus arcus vértebrae.

## 2. Read the terms:

Línea dorsális fixus
Massa médius húmidus
Dens hiátus trapézius
Fóvea tuberósitas interspinális
Apex intervertebrális conjúngere
Pars hepar jácere
Spinósus cervix juxta
Forámen transvérsus Zoológia
Supérior radix tubérculum május
Déntes próminens círculus májor
3. Read and explain the pronunciation of diphthongs:

Cóstae vérae caécus, caeca, caecum
Cóstae spúriae aurícula
Aegrótus aponeurósis
Aegrótae oedéma
Incisúrae costáles aéger
Fóveae costáles inaequális
líneae transvérsae junctúrae cartilagíneae
álae sácri coelíacae
cellúlae mastoídeae dýspnoë
semicanális túbae auditívae
aërátio
4. Write out the words in which the combinations of letters "qu" and "ngu" are pronounced correspondingly like [kw] and [ngv]:

## 1. Aquaedúctus 2. língua 3. ángulus mandíbulae 4. squáma 5. quadrátus

6. fóvea sublinguális 7. pars squamósa 8. únguis 9. trianguláris 10. inaequális 11. línea oblíqua 12. sánguis 13. fréquens 14. Linguláris 15. inguinális 16. úngula

## ACCENTUATION (STRESS)

In the Latin language the stress is dynamic, that is, the syllable under stress is pronounced with a greater force of voice. The last syllable is never stressed. The second or third from the end syllable is under stress which depends on whether the second from the end syllable is short or long.

If it is long, then it is under stress, if not - the stress shifts to the previous syllable. So, one must know, which syllable is short and which is long to correctly put stress on it.

The syllable is considered long if:

1. it contains a diphthong:
e. g. glu-taé-us (glutaeus) - pertaining to buttock
o-zaén-a (ozaena) - bad cold in the head
2. the vowel of the second from the end syllable is followed by two consonants, by " $\mathbf{x}$ " or " $\mathbf{z}$ " :
e. g. pro-céss-us (processus) - process
re-fléx-us (reflexus) -reflex
The syllable is short if:
3. the vowel of the second from the end syllable is followed by another vowel :
e. g. lí-ne-a (linea) - line
an-té-ri-or (anterior)
4. the vowel of the second from the end syllable is followed by the combination of
letters ' $\mathbf{b}, \mathbf{p}, \mathbf{t}, \mathbf{r}, \mathbf{d}, \mathbf{c}$ ", plus ' $\mathbf{r}$ ' or ' ' $\mathbf{l}$ ':
e. g. vér-tebr-a
pál-pebr-a
The sign of length is "-" over the stressed syllable; the sign of brevity is " - " over the unstressed syllable:
e. g. tým-pǎn-um, but mem-brān-a

But if one remembers some suffixes with a short vowel, he will be better orientated in correct reading.
N. B! = Nota bene = Pay attention!

Suffix is a morpheme, which takes position after the root of the word and before its ending, i. e. it takes second from the end of the word position and thus may be either stressed or unstressed.

## Long suffixes:

- ūura (noun) - - Engl. -ure; -tion incisura, fissura, natura, fractura, aperture;
-āt- (adjective. ) - Engl. - ate; -ated oblongatus digitatus, medicatus;
-ōs ( us,a,um) - Engl. -ous
tuberosus, squamosus, fibrosus, petrosus,
spinosus ;
̄v(us,a,um) - Engl. - ive
incisivus, conjunctivus, progressivus, auditivus;
-īn(us,a,um) - Engl. - ine; -ic caninus, pelvinus, anserinus, equinus; āl(is,e) -
Engl. - al
costalis, temporalis, lacrimalis, lateralis;
ār(is, e) - Engl. - ar; -ary; -al
angularis, articularis, clavicularis, maxillaris.
Short suffixes:
-icc(us,a,um) (adj. ) - Engl. - ic
e. g. caroticus, tympanicus, lymphaticus, acusticus;
-ŭl- (noun) - Engl. - ule; -cle
-cŭl- e. g. angulus, musculus, pediculus, clavicula, capsula;
-ŏl- e. g. alveolus, foveola.


## EXERCISES:

## I. Put stresses and explain:

Incisura lineae columna, angulus processus xiphoideus, costale facies mandibularis, clavicularis petrosus appendix, tuberculum dorsalis depressor, fovea cerebrum connexus, crista apertura ligamentum laterale, jugularis eminentia tuberculum costae,posterior spatium spatia intercostalia,articularis palpebra costae spuriae
3. Read the terms, minding the stress; memorize the terms:

1. caput - head
2. cranium - skull
3. clavicula - clavicle
4. maxilla - upper jaw
5. mandibula - lower jaw
6. articulatio - joint
7. costa - rib
8. musculus - muscle
9. facies - face, surface
10. tuberculum - tubercle
11. dexter, dextra, dextrum - right
12. sinister, sinistra, sinistrum - left
13. major, majus - major, greater
14. minor, minus - minor, lesser
15. medianus(a)um - in the middle of
16. profundus(a)um - deep, profound

## Topic 2

Grammar. Morphological elements of noun Grammatical catigories. Declension. Gender. Dictionary form of a noun. Structure of anatomical term. Uncoordinated attribute.

## Tasks for Control:

Answer the questions:

1. What syllable is usually stressed in a Latin word?
2. Say, when the vowel is long. Give examples.
3. Say, when the vowel is short. Give examples.

## Put stress in the following words. Give the necessary explanation:

1. transversus 2. externus 3. xiphoideus 4. pterygoideus 5. vertebra thoracica 6. glandula ciliaris 7. incisura angularis 8. canalis opticus 9 . facies superior 10. fovea trochlearis

## Give Latin equivalents to the following words:

1. mandible
2. tubercle
3. head
4. rib
5. articulation
6. muscle
7. right
8. left
9. face
10. clavicle

## THE STRUCTURE OF AN ANATOMICAL TERM

We are going to study basics of the Latin Grammar on the basis of the Anatomical Terminology.

The aim is to be able to analyze the terms from the point of view of their structure, to construct Latin terms in accordance with the rules of the Latin Grammar.

The anatomical term is a word used to name a definite unit or structure of a human body. Anatomical terms may consist of one, two, three, four and more words (up to 8).

## One-Word Terms

They consist of one noun in singular or plural:
Costa (rib), costae (ribs)

## Two-Word Terms

They may consist of:
a. two nouns in singular or plural: corpus vertěbrae (body of vertebra), corpŏra vertebrārum (bodies of vertebrae)
b. a noun with an adjective: vertěbra thoracǐca (thoracic vertebra)

## Three-Word Terms

They may consist of:
a. three nouns: ligamentum tubercŭli costae (ligament of tubercle of rib)
b. a noun and two adjectives: processus articulāris superǐor (superior articular process)
c. two nouns and an adjective: sulcus nervi spinālis (furrow of the spinal nerve)

## Multiword Terms

They may consist of several nouns and adjectives in singular and plural:
Facǐes temporālis alae minōris ossis sphenoidālis (temporal surface of the smaller wing of the sphenoid bone).

## NOUN

A noun is characterized by the following grammar categories:

The grammatical categories of a noun are as follows:

1. Gender
2. Number
3. Case

## 4. Declension

There are three genders in Latin: masculine (masculīnum), feminine (feminīnum) and neuter (neutrum). In contrast to Latin English nouns have only a natural gender, i.e. according to their sex: nouns designating males are masculine (man, boy), nouns designating females are feminine (woman, girl), and nouns designating inanimates are in the neuter gender.

Latin nouns have grammatical gender. Their gender is determined by the ending of Nominative singular.

Thus, nouns ending in -a are feminine: scapŭla (shoulder blade), nouns ending in us are masculine: muscŭlus (muscle), nouns ending in -um are neuter etc.

The genders of a noun are indicated in the dictionaries with the letters:

$$
\cdot \mathrm{m} \text { - masculine }
$$

- f-feminine
n - neuter


## NUMBER

In common with English there are two numbers in Latin - singular(singulāris) and plural(plurālis). Number is the grammatical category showing whether we speak of one thing ore more than one. In English the plural is formed by the endings -s or es. In Latin the ending of the plural varies according to the gender and declension:

Vertěbrae (vertebrae), nervi (nerves), corpŏra (bodies), fach̆es (surfaces) etc.

## CASE

Case is defined as the change of the noun form according to its relation to other words. In modern English we can speak about "common case" and "possessive case". In contrast to English there are six cases in Latin, but only two cases are used in the anatomical terminology:

| English | Latin and abbreviation |
| :--- | :--- |
| Nominative | Nominatīvus (Nom.) |
| Genitive | Genetīvus (Gen.) |

Nominative indicates the subject and answers the questions who, what.
Genitive indicates the possession and answers the questions whose, of what.

## Dictionary Form:

You should learn Latin nouns in their "Dictionary Form". The dictionary form of a noun consists of three components:

## The full form of Nominative singular;

## The Genitive singular ending;

The designation of gender (with the letters $\mathbf{m}, \mathbf{f}, \mathbf{n}$ ).
E.g.: ala, ae f-wing;
sternum, i n-breast bone;
ductus, us m-duct.

## V. DECLENSION

There are five declensions in Latin; that is, five categories of nouns, each with its own endings. The declension is determined by the Genitive singular endings.

## First declension

The nouns of feminine which end in -a are ascribed to the first declension. The Genitive form of the first declension nouns ends in -ae.
E.g.: costa, ae f -rib
vertěbra, ae f-vertebra

## Second declension

To the second declension are referred masculines which end in -us and er, and neuters which end in -um, -on. The Genitive form of the second declension nouns ends in -i.
E.g.: nasus, i m -nose;
collum, in -neck;
olecrănon, in -tip of the elbow;
cancer, cri m -cancer.
Attention!!! - In the anatomical terminology there are no nouns which end in er. The ending -on have the following anatomical terms:

- acromĭon, in - acromial process
- colon, in - large intestine
- encephălon, in - brain
- ganglǐon, in - ganglion
- olecrănon, in tip of the elbow


## Third declension

The third declension includes nouns of all the three genders which have different endingsin Nominative singular and -is in Genitive singular.
E.g.: canālis, is m -canal;
regĭo, ōnis f-region;
os, ossis $\mathbf{n}$-bone.

## Fourth declension

The fourth declension includes masculines which end in -us, and the neuters which end with -u. The Genitive singular form of these nouns ends in -us.
E.g.: arcus, us $\mathbf{m}$-arch;
cornu, us $\mathbf{n}$-horn.
Attention!!! - In the anatomical terminology there are only two neuters of the $4^{\text {th }}$ declension which end in -u: cornu, us $\mathbf{n}$ (horn), genu, us n (knee).

Attention!!! -In the anatomical terminology there is only a limited number of masculines of the fourth declension. You should remember some of them as follow

| . aqu(a)eductus, us m | aqueduct |
| :--- | :--- |
| . arcus, us m | arch |
| . ductus, us m | duct |
| . meātus, us m | tract, passage |
| • processus, us m | process |
| • sinus, us m | sinus; hollow |
| • textus, us m | tissue |

## Fifth declension

The fifth declension includes nouns of feminine which end in -es in Nominative singular and in -ei in Genitive singular.

## E.g.: facǐes, ēi $\mathbf{f}$-surface, face(this is the only noun of the fifth declension you meet in the exercises).

## VI. STEM OF NOUNS

To make a Genitive form from the Nominative form you should determine the stem of the noun. To determine the stem you should detach the ending from the noun:

## E.g.:

| Dictionary form | Genitive | Stem |
| :--- | :--- | :--- |
| crista, ae f | crist - ae | crist - |
| collum, i n | coll - i | coll - |
| facǐes, ēi f | faci - ēi | faci - |
| pars, partis f | part - is | part - |
| vomer, ěris m | voměr - is | voměr - |
| caput, ǐtis n | cap̌̌t - is | capĭt - |

## VII. Exercises

## 1. Make up the dictionary form of nouns:

arcus (arch), bulbus (bulb; any rounded mass), concha (concha), incisūra (slit or notch), sulcus (furrow or groove), cornu (horn), nasus (nose), amnion (amnion), tubercŭlum (tubercle; small rounded swelling), scapŭla (shoulder blade), adìtus (enter), septum (dividing wall), ganglion (nerve node), collum (neck), porus (opening, pore), fossa (shallow depression or cavity), encephălon (brain), colon (part of large intestine), olecrănon (elbow appendix), muscŭlus (muscle), ramus (branch), genu (knee), nodus (node), pleura (membrane lining chest and covering lungs), lingua (tongue; language), sinus (cavity, sinus), orgănon (organ).

## 2. Determine the declension of the nouns:

facies, ēi f(surface); pars, partis f(part); ala, ae f(wing); magister, trim (teacher); nervus, im (nerve); ramus, im (branch); sphincter, éris $m$ (sphincter); colon, in (part of large intestine); plexus, us m (network, chiefly of veins or nerves); forāmen, inis $n$ (opening); ligamentum, in (ligament); dens, dentis $m$ (tooth); tuber, éris $n$ (thickend portion of underground stem; rounded swelling); tempus, ŏris n (temple, time); genu, us n (knee); articulatio, ōnis f (joint); cartilāgo, йis f (cartilage); meniscus, im (meniscus); diaphragma, ătis n (septum between thorax and abdomen, diaphragm); canālis, is $m$ (canal); cervix, īcis $f$ (neck).

## 3. Pay attention to the word order:

spina scapŭlae (spine of shoulder bone); raphe palāti (suture of palate); skelěton membri (skeleton of a limb); ossa cranii (bones of skull); fossa glandŭlae (cavity of gland); vena portae (portal vein); septum nasi (dividing wall of nose); crista tubercŭli (crest of tubercle); processus radii (appendix of radial bone); caput fibŭlae (head of fibular bone); corpus tibiae (body of shin bone); facies acromii (surface of acromion); linea nuchae (line of neck nape); sulcus sinus (furrow of sinus); basis cranii (base of skull); angŭlus mandibŭlae (angle of lower jaw).

## 4. Determine the gender of the nouns:

septum (dividing wall); substantia (substance, material); encephălon (brain); ocŭlus, i (eye); nasus, i (nose); scapŭla (shoulder blade); arcus, us (arch); acromion (acromion); lingua (tongue, language); mandibüla (lower jaw); processus, us (appendix); cranium (skull); dorsum (back); incisūra (slit or notch); clavicŭla (collar-bone); skelĕton (skeleton); cornu (horn); meātus, us (passage); palātum (palate); huměrus, i (humeral bone); lympha (lymph); cerebrum (brain); concha (concha); maxilla (upper jaw); ductus, us (duct); olecrănon (elbow appendix); tubercŭlum (tubercle); lamina (plate); ramus, i (branch); ganglion (nerve node); vertebra (vertebra; each segment of vertebral column); sinus, us (sinus).

## 5. Pay attention to the word order:

collum costae (scapŭlae) (neck of rib (shoulder blade)); corpus fibŭlae (huměri, maxillae, tibiae) (head of fibular bone (humeral bone, upper jaw, shin bone)); incisūra mandibŭlae (scapŭlae) (notch of lower jaw (shoulder blade)); radix dentis (linguae) (root of tooth (tongue)); angŭlus costae (mandibŭlae) (angle of rib (lower jaw)).

## 6. Translate terms into Latin:

muscle of neck; capsule of nerve node; back of saddle; tuber of upper jaw; body of vertebra, head of rib; arch of aorta; notch of lower jaw; base of skull; cavity of nose; passage of nose; neck of shoulder blade; sheath of process; aperture of cohlear canaliculus; crest of the costal head; canaliculus (small canal) of chorda tympani; ligament of the costal tubercle; plate of arch (of vertebra); wing of cock's crest; aperture of aqueduct of vestibule; vestibule of nose; dividing wall of nose; base of cochlea; small pit of process; small foot of arch of vertebra; surface of the costal tubercle.

## MEMORIZE THE TERMS

## 1st Declension

1. ala, ae $\mathrm{f}-$ wing
2. aorta, ae f - aorta
3. arteria, ae f - artery
4. costa, ae f - rib
5. concha, ae $f$ - shell
6. lamina, ae f-plate
7. crista, ae f - crest, ridge
8. lingua, ae f - tongue, language
9. mandibula, ae f-mandible, lower jaw
10. maxilla, ae f - maxilla, upper jaw
11. scapula, ae f - scapula
12. spina, ae f - spine, a thorn, backbone
13. patella, ae f - patella, knee cup
14. sutura, ae f - suture
15. tibia, ae $\mathrm{f}-$ tibia
16. fibula, ae f - fibula
17. incisura, ae f-

## 2nd Declension

1. angulus, i $\mathrm{m}-$ angle
2. digitus, i m - finger
3. cavum, in - cavity, channel
4. humerus, im - humerus
5. cranium, in - skull
6. radius, i m - radius
7. ligamentum, in- ligament
8. membrum, in - extremity,limb
9. musculus, i m-muscle
10. nasus, i m - nose
11. septum, in - septum, partition
12. collum, in - neck, neck like
13. sulcus, i $m$ - sulcus, groove; portion of an organ
14. tuberculum, in - tubercle

## 3rd Declension

1. corpus, oris n - body
2. foramen, inis n - foramen; an aperture or perforation; opening
3. os, ossis n - bone
4. tuber, eris n - tuber; protuberance, eminence
5. caput, itis $n-$ head
6. basis, is $\mathrm{f}-$ base
7. canalis, is $m$ - canal; some tubular structure
8. dens, dentis m - tooth

## 4th Declension

1. arcus, us $m$ - arc - part of the circumference of a circle or a structure resembling it;
2.cornu, us n - horn
2. genu, us $\mathrm{n}-$ knee
4.ductus, us m - duct; canal, a tubular structure,
5.meatus, us m - a passage (as for air) or channel
3. processus, us m - process, a projection or outgrowth
4. sinus, us $m$ - sinus; cavity, channel

## 5th Declension

facies, ei f - face, surface

## MEMORIZE LATIN PROVERBS AND PROFESSIONAL SAYINGS:

1. Non est medicina sine lingua Latina - There is no medicine without the Latin language.
2. Habitus aegroti - The physical characteristics of a patient
3. Lapsus linguae - The slip of the tongue
4. Lapsus memoriae - Absent-mindedness; (error of memory)
5. Modus vivendi - The mode of life

## Topic 3

Adjective. Grammatical<br>categories.Declination.Dictionary form. Two groups of adjectives. Coordination - the kind of subordinate connection.

# TEMA: «Adjective. Grammatical categories. Declination. Dictionary form. 

Two groups of adjectives. Syntax of the noun phrase: coordination - the kind of subordinate connection. "

## The aim of the lesson:

To form new theoretical knowledge in the subject
To form practical abilities on finding the information on the given subject.
To form practical abilities on work with scientific and popular scientific literature.

## Concrete tasks:

A student should know:

1. Grammatical categories of Noun.
2. Grammatical categories of Adjectives.
3. The dictionary form of Noun and Adjectives.
4. Grammatical agreement of adjectives with nouns.

A student should be able:

1. To form dictionary form of adjectives with endings -us and -is.
2. Coordinate adjectives with nouns in Nom. sing and Gen. Sing.
3. To translate the terms from Latin into Russian and from Russian into Latin with coordinated attributes.

## Questions for defining the initial level:

1. What grammatical categories does the Latin noun have?
2. How to define the stem of a noun?
3. How many declinations are in Latin?
4. How to define the declinations of a noun?
5. Name the signs of the declination of a noun
6. What kind of attribute is called coordinated?
7. How is an adjective coordinated with a noun?

## The content

## Adjective. Grammatical categories. Declination. Dictionary form. Two groups of adjectives.

Adjective is a word expressing a quality of a thing: major (large), longus (long), frontalis (frontal).

In all Latin terms the position of adjectives is after the noun with which it has grammatical agreement.

According to their endings all Latin adjectives can be divided into two groups: the first and the second group.

## II.THE 1st GROUP OF ADJECTIVES

The adjectives of the $1_{\text {st }}$ group have different forms for every gender:

|  | Masculine | Feminine | Neuter |
| :---: | :---: | :---: | :---: |
| Nominative | longus | longa | longum |
| Genitive | lonǵ | longae | longí |

These adjectives are declined on the pattern of the $1_{\mathrm{st}}$ and $2_{\text {nd }}$ declensions. They have identical Nominative and Genitive forms with nouns: masculine= us $(-\mathrm{i})$, feminine $-\mathrm{a}(-\mathrm{ae})$, neuter - um ( -i ).

Their dictionary form consists of three components:

## 1. Adjective in the masculine form;

## 2. The feminine ending;

## 3. The neuter ending.

E.g.: transversus, a, um (transverse); internus, a, um (internal); profundus, a, um (profound).

The stem of the $1_{\text {st }}$ group adjectives is obtained from the Nominative form by removing the gender ending:

- longus
- transversum
- externa
stem: long-
stem: transvers-
stem: extern-

The adjectives ending in -er fall also into this adjective group. In the anatomical terminology only some of them are used:

| Masculine | Feminine | Neuter | DictionaryForm | English |
| :---: | :---: | :--- | :---: | :---: |
| dexter | dextra | dextrum | dexter, tra, trum | right |
| sinister | sinistra | sinistrum | sinister, tra, trum | left |
| liber | liběra | liběrum | liber, ěra, ěrum | free |
| ruber | rubra | rubrum | ruber, bra, brum | red |

As for the stem of adjectives with theending - er in masculine it is obtained from the Nominative form by removing the feminine ending.

| DictionaryForm | Feminine | Stem |
| :--- | :---: | :---: |
| dexter, tra, trum | dextra | dextr- |
| sinister, tra, trum | sinistra | sinistr- |


| ruber, bra, brum | rubra | rubr- |
| :--- | :---: | :---: |
| liber, ĕra, ĕrum | liběra | liber- |

## III. THE 2nd GROUP OF ADJECTIVES

The adjectives of the $3_{\text {rd }}$ declension fall into this group. The adjectives of the $2_{\text {nd }}$ group are the adjectives of the frontalis type:

|  | Masculine | Feminine | Neuter |
| :---: | :---: | :--- | :--- |
| Nominative | frontāl모 | frontālis | frontāle |
| Genitive |  |  |  |

As indicated in the table the adjectives of this group have identical Nominative masculine and feminine forms ending in -is and the neuter ending-e. The Genitive form is identical for all genders.

Their dictionary form consists of two components:

1. The common masculine and feminine Nominative form;
2. The neuter ending -e .
E.g: frontālis, e (frontal); cervicālis, e (cervical).

The stem of the $2_{\text {nd }}$ group adjectives is obtained from the Nominative form by removing the gender ending:

- vertebrālis
- temporālis
stem:
vertebrāl-
stem:
temporāl-


## IV. THE 2nd GROUP ADJECTIVES OF ONE FORM FOR ALL GENDERS

In the anatomical terminology some adjectives of one form for all genders are used. In the dictionary form of such adjectives the Nominative form (common for all genders) is first indicated, and then the Genitive ending with the stem part.

Reme mber these adjectives:

- simplex, ǐcis
- multĭplex, ǐcis
- teres, ětis
simple
multiple
round

The stem of such adjectives is obtained from the Genitive form singular by removing the ending.

| Dictionaryform | Gen. Singular | Stem |
| :---: | :---: | :---: |
| simplex, ̌̌cis | simplǐcis | simplĭc- |
| multĭplex, ǐcis | multiplǐcis | multiplǐc- |
| teres, ětis | terětis | terět- |

## V. AGREEMENT OF ADJECTIVES AND NOUNS

To agree a noun and an adjective means to use them in the same Gender, Number and Case.

To agree a noun and an adjective you should:

1. Determine gender, number and case of the noun;
2. Determine group of the adjective by its dictionary form;
3. Agree the adjective and the noun by gender, number and case.

For example, you translate from English into Latin the following anatomical terms: mastoid process, vertebral foramen.
-Process - processus: gender - masculine, singular, Nominative. Mastoid mastoiděus, $a$, um: adjective of the 1 st group. We agree the adjective mastoiděus in the masculine gender, singular number, Nominative case:processus mastoiděus.
-Foramen - forāmen: neuter, singular, Nominative. Vertebral - vertebrālis, e: adjective of the 2 nd group. We agree the adjective vertebrālisin the neuter gender, singular number, Nominative case: foramen vertebrāle.

## VI. EXERCISES

1. Translate the following terms into Latin according to grammatical agreement:
pharyngeal network; deep cervical lymphatic node; oval opening; thoracic fascia; transverse palatine raphe; stony branch; internal capsule; middle temporal artery; spinous opening; parietal lobe; superficial vein.
2. Translate the following terms into Latin according to grammatical agreement:
articular process of vertebra; bony septum of nose; palatine process of upper jaw; valve of coronary sinus; middle fossa of skull; left lumbar trunk.
3. Translate the following terms into Latin according to grammatical agreement:
ligament of vertebral column; fibrous capsule of thyroid gland; furrow (groove) of occipital artery; aperture of frontal sinus.
4. Translate the following terms into Latin according to grammatical agreement:
pulmonary surface; lateral ligament; right plate; palatine process; vertebral ganglion (nerve node); costal arch; frontal crest; occipital angle; medial head;
sacral canal; superficial vein; simple joint; medial root; costal surface; arched (arch-shaped)crest.
5. Make up grammatical agreement of the following adjectives with the given nouns:

1 sulcus, i m transversus, a, um
ligamentum, in
linea, ae f

2 sulcus, i m os, ossis n processus, us $m$

3 sutūra, ae f frontālis, e angŭlus, i m tuber, ěris n

4 valvŭla, ae f venōsus, a, um plexus, us m sinus, us m

5 processus, us $m \quad$ articulāris, e facies, èi f tubercŭlum, in

6 muscǔlus, i m
fossa, ae f
7 arcus, us $m \quad z y g o m a t i ̆ c u s, ~ a, ~ u m ~$ os, ossis n

8 facies, ēi f internus, a, um ganglion, in
palatīnus, a, um
pterygoiděus, a um

## 6. Make up Genitive forms of the following adjectives:

1. cervicālis, e 7. thoracĭcus, a, um
2. internus, a, um 8. medius, a, um
3. sinister, tra, trum 9. lumbālis, e
4. simplex, ǐcis 10. laterālis, e
5. osseus, a, um 11.temporālis, e
6. lymphatĭcus, a, um 12. vertebrālis, e

## VII. VOCABULARY

1st groupofadjectives

1. coronarĭus, a,um coronary
2. fibrōsus, a, um fibrous
3. internus, a, um internal


| 30. ovālis, e | oval |
| :--- | :--- |
| 31. parietālis, e | parietal |
| 32. pulmonālis, e | pulmonary |
| 33. sagittālis, e | sagital |
| 34. sphenoidālis, e | wedge-shaped,sphenoid |
| 35. superficiālis, e | superficial |
| 36. temporālis, e | temporal |
| 37. vertebrālis, e | vertebral |

## Control questions

1. What are the grammatical categories of an adjective?
2. In what groups are they divided?
3. What kind of adjectives do belong the first group and how are they declined?
4. What kind of adjectives do belong the second group and how are the adjective declined?
5. What is the dictionary form of adjectives with one gender ending ,two endings and three endings ?

## Sample Test №4

1. Translate the following terms into Latin according to grammatical agreement:
```
deep cervical lymphatic node; oval
    opening;
    thoracic fascia; transverse
    palatine raphe;
```

2. Translate the following terms into Latin according to grammatical agreement:
palatine process of upper jaw; valve of coronary sinus; middle fossa of skull; left lumbar trunk
3. Translate the following terms into Latin according to grammatical agreement:
pulmonary surface; lateral ligament; right plate; palatine process; vertebral ganglion (nerve node); costal arch; frontal crest; occipital angle; medial head;

## Topic 4

## Comparative degree of adjectives

## DEGREES OF COMPARISON OF ADJECTIVES. Comparative degree: forming and declination.

The aim of the lesson:

1. To form new theoretical knowledge on the topic
2. To form practical abilities on an independent information retrieval on the set topic
3. To form practical abilities in forming and declination of adjectives in comparative degree with nouns.

## Concrete tasks:

A student should know:

1. The rule of adjective formation in comparative degree.
2. Dictionary form of adjectives in comparative degree
3. Declination of adjectives in comparative degree.
4. The most frequently used adjectives in comparative degree in anatomical terminology.
5. Coordination principle of adjectives with nouns
6. The peculiarities of formation and usage of adjectives big and small in anatomical terminology.

## A student should be able to:

1. Form comparative degree of adjectives
2. Decline adjectives in comparative degree
3. Translate anatomical terms from Latin into English and from English into Latin.

## Questions for defining of initial level

1. What is adjective?
2. What are the grammatical categories of an adjective?
3. What groups are the adjectives in positive degree divided into?
4. What adjectives belong to the I st group and how are they declined?
5. What adjectives belong to the II group and how are they declined?
6. What is included in the dictionary form of adjectives with three gender endings?
7. What is included in the dictionary form with two gender endings?
8. What is the peculiarity of the adjective dictionary form with one genderending?
9. What are the degrees of comparison in Latin?

## The content

The adjectives are gradable. This means that the person or thing referred to can possess more or less of the quality mentioned. The usual way to indicate the amount of a quality in Latin is by adding specific suffixes to the word's stem.

There are three degrees of comparison of adjectives in Latin:

- Positive degree: The positive degree expresses a quality of thing or person for itself, without comparing to a similar quality of other things or persons. It is the basic form of adjective, by which it is presented in the dictionaries: longus, a, um; frontālis, e.
-Comparative degree.
- Superlative degree.


## II. THE COMPARATIVE DEGREE

The comparative degree expresses a higher quality of thing or person as compared with the same quality of other things or persons. It is formed by adding the suffixes -ior for masculine $\boldsymbol{\&}$ feminine and-ius for neuter to the stem of adjectives (obtained from the genitive form without its ending).

The dictionary form of the adjectives has two components:

1. Nominative singular masculine \& feminine form with the suffix -ior;
2. Suffix -ĭus of the Nominative singular neuter form.
E.g.: anterĭor, ǐus

You should remember the adjectives in comparitive degree used in the anatomical terminology:

| Masculine\& | Neuter | Genitiveform | English | Dictionary |
| :--- | :--- | :--- | :--- | :--- |
| feminine | anterius | anteriōris | anterior | anterior, ius |
| anterior | posterius | posteriōris | posterior | posterior, ius |
| posterior | superius | superiōris | upper, <br> superior | superior, ius |
| superior | inferius | inferiōris | lower, inferior | inferior, ius |
| majus | majōris | great, greater, | major, jus |  |
| major | major | minas | minōris | minor |


| 1)Lat. Tubercŭlummajus (humĕri) - | Eng. Greater tubercle of humeri |
| :--- | :--- |
| 2)Lat. Forāmenoccipitālemagnum - | Eng. Great occipitalforamen |
| 3)Lat. Nervuspetrōsusmajor - | Eng. Greater petrosalnerve |
| 4)Lat. Nervusoccipitālismajor - | Eng. Greater occipitalnerve |
| 5)Lat. Nervusauriculārismagnus - | Eng. Great auricularnerve |

The stem of the adjectives in the comparative degree coincides with the Nominative masculine $\&$ feminine form terminated by-ior.The comparative degree is declined on the pattern of the 3rd declension. The Genitive singular form in the comparative degree is formed by adding the ending-is to the stem.

## E.g.: stem - superior + Genitive ending of the 3rd declension-is= superiōris

 for masculine $\boldsymbol{\&}$ feminine $\boldsymbol{\&}$ neuter.The adjectives in the comparative degree are placed on the last position:

## E.g.: nervus cutaněus brachĭi laterālis inferĭor - inferior lateral cutaneous nerve of the arm

## Declination of adjectives in comparative degree.

Adjectives in comparative degree are declined according to the 3d declention.

The most frequently used adjectives in anatomical terminology in the form of the Comparative degree.

In anatomical terminology only 6 adjectives are used in the form of the comparative degree. They should be remembered in their dictionary form.

```
Latin dictionary form Genitive form Stem
    anterior, ius
    posterior, ius
    superior, ius
    inferior, ius
    major, jus
```


## Peculiarities of formation and usage of adjectives big and small.

a) The positive and the comparative degree of adjectives big and small are formed from different stems:

| Positive degree | Comparative degree |
| :---: | :---: |
| magnus, a, um - big | major, jus - big |
| parvus, a, um - small | minor, us - small |

б)Forms magnus / parvus are used, if a solitary anatomical structure is indicated: forāmen (occipitāle) magnum- foramen (occipital) magnum
arteriapancreatǐca magna - greater pancreatic artery vena magna
cerěbri - great cerebral vein nervusaureculārismagnus - great
auricular nerve muscŭlus adductor magnus - adductor magnus muscle
nucleusmagnus - large nucleus
2. Forms major / minor are used, if dimensions of two similar and placed next to each other anatomical structures are compared:
ala major / ala minor - greater wing / lesser wing
pelvis major / pelvis minor - greater pelvis / lesser pelvis nervuspetrōsus major / nervuspetrosus minor - greater petrosal nerve /

## Control questions

1. Give the indications of comparative degree of adjectives of masculine, feminine and the neuter gender.
2. What endings in Gen.sing have adjectives of all genders in comparative degree?
3. How can you form Gen.sing of adjectives of all genders in the comparative degree? Give examples.
4. How do adjectives in the comparative degree agree with nouns?

## Exercises

1. Give orally the dictionary form of the following adjectives:
articulāris, composǐtum, dextrum, frontālis, impar, interna, liběrum, nasāle, palatīna, sapiens, simplex, teres, thoracǐcum, minor, anterius, minus, superior

## 2. Correspond the following adjectives with the nouns:

atriculatio, ōnis f(composǐtus, a, um; sinister, tra, trum; simplex, ǐcis); caput, îtis n (minor, us; longus, a, um; brevis, e)
cornu, us $\mathbf{n}$ (occipitālis, e; hyoideus, a, um; superior, ius) facies, ēi f
(costālis, e; posterior, ius; dexter, tra, trum) ganglion, in (impar, ăris;
sublinguālis, e; superior, ius); ligamentum, i n (teres, ětis; brevis, e; minor, us);
margo, ǐnis m (dexter, tra, trum; liber, ěra, ěrum; nasālis, e); musculus, i m (teres, ětis; major, jus; latissǐmus, a, um); nervus, i m (hypoglossus, a, um; occipitālis, e); processus, us m (articularis, e; palatīnus, a, um; brevis, e)

## 3. Make up grammatical agreement of the adjectives with the nouns in Latin: <br> arch (dental, venous, left); artery (deep, lingual, right); bone (short, palatine, hyoid); canal (long, short, sacral); crest (lacrimal, external); duct (hepatic, sublingual); head (upper, lower); joint (complex, simple); process (palatine, costal); region (cervical, mastoid); tubercle (carotid, lateral); vein (deep, sacral); vertebra (prominent, thoracic); vessel (left, lymphatic)

## 4. Give the dictionary form of each word and translate the following terms into Latin in Nominative and Genitive cases:

articular surface; costal arch; deep lymphatic vessel; frontal crest; lateral vein; anterior ethmoidal opening; left hepatic duct; long ligament; medial root; labial artery; occipital angle; oval opening; palatine process; superficial vein; vertebral column; lesser wing; lower lip; greater petrosal nerve; teres minor muscle

## 5. Write down the dictionary form and translate into English: <br> arcus anterior atlantis; concha nasālissuprēma; crista tuberculimajoris; facies anterior partispetrōsae; fossa cranii anterior; labium faciēiinferius; <br> muscǔluslongissǐmuscapǐtis; musculuspalpebraesuperiōris; pars liběramembri superiōris; sulcus sinus petrōsiinferiōris;

Vocabulary
I. Latin-English vocabulary

## 1st declension

```
arteria, ae f-artery concha, ae f-
    concha, shel
fossa, ae f-fossa, little hole palpebra,
    ae f-cyelid
```


## 2nd declension

labium, in-lip ligamentum, in-
ligament membrum, in-limb muscǔlus, i m-muscle

## 3rd declension

articulatio, ōnis f— joint
atlas, antis m-atlas (the first cervical vertebra) margo, ǐnis mmargin, border
pars, partis f-part

## 4th declension

arcus, us m-arch

## 1st group of adjectives including forms of the superlative degree

composǐtus, a, um- complex dexter, tra, trum-right
hyoideus, a .um- hyoid, sublingual (bone) hypoglossus, a, um-
hypoglossal, sublingual (nerve) latissĭmus, a, um- latissimus (muscle), the broadest liber, ěra, ĕrum- free
longus, a, um- long
magnus, a, um- large (vein), magnus (m. adductor), great (nerve) mastoideus, a, um- mastoid palatīnus, a, um- palatine petrōsus, a, um- petrosal sacer, cra, crum- sacral (bone) sinister, tra, trum- left suprēmus,
a, um-supreme

## Adjectives in the form of comparative degree

anterior, ius - anterior inferior, ius inferior, lawer major, ius - major, greater minor, minus - minor, lesser posterior, ius - posterior superior, ius - superior, upper

## 2nd group of adjectives

alāris, e - alar articulāris, e -
articular brevis, e - short
communǐcans, ntis - communicating costālis, $e$ - costal
frontālis, e - frontal
impar, ăris - impar, unpaired nasālis, e-nasal
occipitālis, e - occipital sacrālis,
e-sacral simplex, ǐcis - simple
sublinguālis, $e$ - sublingual (excepting nerve and bone) teres, ětis - round (excepting foramen)

## II. English- English-Latin glossary

arch-arcus, us $m$ arteryarteria, ae $f$ articular -
articulāris, e back - dorsum, in
carotid - carotǐcus, a, um
cervical- cervicālis, e column -
columna, ae f
complex- compositus, a, um costalcostālis, e
crest - crista, ae f
deep - profundus, a, um dental- dentālis, e
dorsi (= of the back) - dorsum, i n externalexternus, a, um
hepatic - hepatǐcus, a, um hyoid -
hyoideus, a, um (os) joint - articulatio,
ōnis f lacrimal- lacrimālis, e laterallaterālis, e
lawer - inferior, ius left -
sinister, tra, trum lesser -
minor, us lingual- linguālis, e long - longus, a, um
lymphatic - lymphatǐcus, a, um mastoid
— mastoideus, a, um medial- mediālis, e
occipital- occipitālis, e oval-
ovālis, e

```
    palatine - palatīnus, a, um petrosal-
petrōsus, a, um prominent - promĭnens,
    entis pterygoid - pterygoideus, a, um
        right - dexter, tra, trum sacrālis, e
        (exeptos) - sacral short - brevis, e
                            simple - simplex, ǐcis
sublingual - sublingualis, e (except for os and nervus)
superficial- superficiālis e superior
- superior, ius upper - superior,
            ius vein- vena, ae f
    venous - venōsus, a, um
    vertebral- vertebrālis, e
vessel- vas, vasis n wing - ala,
    aef
```


## Sample Test 5

## 1. Correspond the following adjectives with the nouns:

atriculatio, ōnis f(composǐtus, a, um; sinister, tra, trum; simplex, ǐcis); caput, ǐtis n (minor, us; longus, a, um; brevis, e)
cornu, us $\mathbf{n}$ (occipitālis, e; hyoideus, a, um; superior, ius) facies, ēi f (costālis, e; posterior, ius; dexter, tra, trum) ganglion, in (impar, ăris; sublinguālis, e; superior, ius); ligamentum, i n (teres, ĕtis; brevis, e; minor, us);

## 2. Make up grammatical agreement of the adjectives with the nouns in Latin:

arch (dental, venous, left) artery (deep, lingual, right) bone (short, palatine, hyoid) canal (long, short, sacral) crest (lacrimal, external) duct (hepatic, sublingual) head (upper, lower)

## 3. Write down the dictionary form and translate into English:

arcus anterior atlantis concha nasālissuprēma crista
tuberculimajoris facies anterior
partispetrōsae fossa cranii anterior

## Topic 5

The Superlative Degree of adjectives. Degrees of comparison derived from different stems. General information about adjectives. Substantivisation.

Prefixes. Complex adjectives.

## The Superlative Degree. Degrees of comparison derived from different stems. Substantivation. Prefixes. Complex adjectives.

## The aim of the lesson

1. To form new theoretical knowledge on the topic
2. To form practical abilities on an independent information retrieval on the set topic
3. To form practical abilities in forming and declination of adjectives in the superlative degree .Matching adjectives to a superlative degree with nouns.
4. To form practical skills in word formation (affixation, combining stems)
5. To revise the grammar about adjectives

## Concrete tasks

## A student should know:

1. The rule of forming the superlative degree of an adjective.
2. The dictionary form of an adjective in the superlative degree
3. Declination of adjectives in the superlative degree.
4. Degrees of comparison, formed from different stems.
5. The most frequently used prefixes in anatomical terminology
6. Suffixes of adjectives

A student should be able:

1. To form the superlative degree of an adjective.
2. To decline adjectives in the superlative degree.
3. To translate multiword anatomy-histological terms

## Questions for defining initial level:

1. What grammatical categories does the adjective have?
2. What groups are the adjectives divided into in the positive degree?
3. What adjectives belong to the first group and how are they declined?
4. What adjectives belong to the second group and how are they declined?
5. How is the comparative degree of an adjective formed?
6. How are the adjectives in comparative degree declined?
7. How the comparative degree of adjectives big and small is formed?
8. How are the adjectives with the meaning upper, lower, front, rear translated into English?

## The content of the lesson

## III. THE SUPERLATIVE DEGREE

The superlative degree expresses a highest quality of thing or person as compared with the same quality of other things or persons.

You should remember the adjectives in superlative degree used in the anatomical terminology:

- Latissǐmus, a, um
- Longissímus, a, um
- Maxĭmus, a, um
- Minǐmus, a, um
- Suprēmus, a, um
broadest
longest
greatest
least
supreme

The dictionary form of the adjectives in the superlative degree coincides with the dictionary form of the $1_{\text {st }}$ group adjectives and consists of three components:

1. Adjective in the masculine form;
2. The feminine ending;

3 . The neuter ending.
The superlative degree is declined according to the pattern of the 1 st and 2 nd declensions, i.e. the adjectives have the masculine \& neuter genitive ending-i, and the feminine genitive ending-ae.

## EXERCISES

## 1. Make up the dictionary form of the adjectives:

brevior (shorter); longior (longer); minor (small, minor); major (great, greater, major); anterior (anterior); posterior (posterior); superior (upper, superior); inferior (lower, inferior); simplicior (simpler).
2. Translate into Latin and make up grammatical agreement of the following nouns: lower (sinus, part, spine); small (tubercle, opening, fossa); anterior (sulcus, tubercle, crest, opening, ligament); posterior (arch, surface, ligament); higher (process, opening, slit); great (sulcus, wing, head); small and great (horn).
3. Make up Genitive singular forms, find the stem: major, jus (great, major); albior, ius (white); minor, us (small, minor); latior, ius (wider); inferior, ius (lower); simplicior, ius (simpler); superior, ius (upper, superior); longior, ius (longer); brevior, ius (shorter); posterior, ius (posterior); anterior, ius (anterior).
4. Make up Genitive singular forms: tubercŭlum obturatorium posterius (posterior obturative tubercle); processus superior (superior process); incisūra ischiadǐca major (greater ischiadic slit); forāmen superius (superior opening); ramus superior (superior branch); arcus posterior (posterior arch); incisūra superior (superior slit); labium inferius (lower lip); facies posterior (posterior surface); cornu majus et minus (small and great horn);
caput majus (greater head); ligamentum posterius (posterior ligament); sulcus major (greater sulcus), ala major (greater wing).
5. Make up grammatical agreement of following adjectives with nouns: tubercǔlum thyr(e)oidě... superi... (superior thyroid tubercle); fissūra orbitāl... inferi... (lower orbital fissure); linea glutē... anteri... (anterior gluteal line); forāmen ethmoidāl... anter... (anterior ethmoidal opening); spīna tympanicc... min... (small tympanic spine); processus articulār... inferi... (lower articular process); plexus hypogastrǐc.. superi... (superior hypogastric network); ligamentum longitudināl. anteri... (anterior longitudinal ligament).
6. Translate into Latin: a) small tubercle; small horn; small pelvis b) anterior arch; anterior plate; anterior leg c) superior angle; superior surface; superior lip
7. Make up Genitive singular forms: facies anterior (anterior surface); angŭlus inferior (lower angle); cornu majus (greater horn); ganglion superius (superior ganglion (nerve node)); pelvis minor (small pelvis); tubercŭlum majus (greater tubercle); arcus posterior (posterior arch); radix anterior (anterior root).

## 8. Determine the case of each word and the part of speech:

ramus dexter venae portae; muscŭlus palpebrae superiōris; crista tubercŭli majōris; sulcus nervi petrōsi majōris; caput superius muscǔli pterygoiděi laterālis; tubercŭlum mediāle processus posteriōris tali; pars laterālis ossis occipitālis; hiātus canālis nervi petrōsi minōris; nervus cutaněus brachii laterālis inferior; processus maxillāris conchae nasālis inferiōris; ligamentum longitudināle anterius columnae vertebrālis.
9. Translate into Latin using superlative degree: gluteus maximus muscle; the longest muscle of neck; superior nuchal line; longissimus chest muscle; supreme nasal concha; the widest back muscle bursa ;gluteus minimus muscle; the widest back muscle; scalenus minimus muscle; little (the fifth) finger.

## VOCABULARY

1. brevis, e short
2. bulbus, i m bulb
3. bursa, ae f pouch, sac
4. cavus, a, um caval, hollow
5. cervix, īcis f neck
6. cingŭlum, i n girdle
7. cutaněus, $a$, um cutaneous
8. dexter, tra, trum right
9. digĭtus, i m finger; toe
10. glutaeus, a, um pertaining to buttocks
11. hyoiděus, a, um sublingual, hypoglossal
12. jugulāris, e jugular
13. longitudinālis, e longitudinal, lengthwise
14. mediālis, e medial
15. nasālis , e nasal
16. nervus, i m nerve
17. ostĭum, in mouth, aperture, opening
18. palpěbra, ae f eyelid
19. scalēnus, a, um stairs-shaped
20. talus, i m ankle bone, talus
21. tendo, ĭnis $m$ tendon
22. thorax, ācis m ..... chest
23. tibiālis, e ..... tibial
Positive degree of comparison
24. magnus, a, um large, great
25. parvus, a, um little, small
Comparative degree
26. anterĭor, ǐus anterior, front
27. inferǐor, ȟus lower
28. major, us large
29. minor, us small
30. posterǐor, ĭus ..... back
31. superǐor, ǐus higher, upper
Superlative degree
32. latissĭmus, a, um widest
33. longissǐmus, a, um ..... longest
34. maxĭmus, a, um largest
35. minĭmus, a, um smallest
36. suprēmus, a, um highest
a) ;

## Topic 6

Final lesson. Preparation for the test No. 1 "Multiword anatomic histological term with the coordinated and uncoordinated attribute"

## Final lesson. Preparation for the test No. 1 "Multiword anatomic histological term with the coordinated and uncoordinated attribute"

## The aim of the lesson:

- To revise grammar material: adjective, types of attribute, structural types of anatomic histological terms.
- to revise vocabulary
- to train practical skills in translation of anatomic histological terms from English into Latin and from Latin into English


## Concrete task:

## A student should know

- a dictionary form and features of the I,II,III,IV,V declinations of nouns
- a dictionary form and declinations of adjectives of the first group
- a dictionary form and declinations of adjectives of the second group
- a dictionary form and declinations of adjectives in the comparative degree and if adjectives of one endings
- structural types of anatomic histological terms
- consequence of actions while translating multiword anatomic histological actions from English into Latin and from Latin into English
- vocabulary notes


## Студент должен уметь:

## A student should be able to :

- define the gender and declination of a noun
- define the gender and declination of adjectives of the first and the second groups and adjectives in the comparative degree.
- to coordinate nouns of the five declinations with the adjectives of all groups.
- to translate multiword anatomic histological terms from English into into Latin and from Latin into English


## Content:

To revise the following theoretical and practical material:

- The vocabulary
- Noun: a dictionary form, signs of a gender and declination
- Adjective: a dictionary form, gender endings and declination of adjectives of the first and the second groups and adjectives in the superlative degree.
- Checking of the homework
- Test


## Revision

## Dictionary form - the order of writing words in the vocabulary notes

## Noun (NOMEN SUBSTANTIVUM)

## Dictionary form - 3components: 1) full form in Nom. sg. 2) ending in Gen.sg.,3) gender

NB! All the components of a dictionary form are pronounced
Signs of declinations and gender of a noun

| decl. | gender | Nom. sg. | Gen. sg. | Examples |
| :--- | :--- | :---: | :---: | :--- |
| I | f | -a | -ae | costa, ae f |
| II | $\mathbf{m}$ | -us/-er |  | musculus, i m <br> cancer, cri m |


|  | n | -um/-on | -i | ligamentum, in ecephalon, in |
| :---: | :---: | :---: | :---: | :---: |
| III | m <br> f <br> n | разные | -is | pulmo, onis m articulatio, onis f coma, atis n |
| IV | m <br> n | $\begin{gathered} -\mathbf{u s} \\ -\mathbf{u} \end{gathered}$ | -us | processus, us $m$ cornu, us n |
| V | f | -es | -ei | facies, eif |

## Adjectives (NOMEN ADJECTIVUM)

NB! A dictionary form of an adjective consists of male form, endings of female and neuter in Nom. sg.: m, f, $\mathbf{n}$ (Nom. sg.)

| group | dictionary form | Gender endings <br> Nom. sg. | declinatio n | Endings in Gen. sg. |
| :---: | :---: | :---: | :---: | :---: |
| I | longus, a,um dexter,tra,trum asper,era,erum | m - -us/-er <br> longus, dexter, asper $\mathbf{f}-\mathbf{- a}$ <br> longa, dextra, aspera | m- II $\mathbf{f}-\mathbf{I}$ n - II | longi, dextri, asperi <br> -ae <br> longae,dextrae,asperae <br> -i |


|  |  | n--um longum, dextrum, asperum |  | longi,dextri,asperi |
| :---: | :---: | :---: | :---: | :---: |
| II | alaris, e cervicalis, e | $\begin{aligned} & m, f-\text {-is } \\ & n-\quad-e \end{aligned}$ | m,f,n -III | $\begin{gathered} \text {-is }(\mathrm{m}, \mathrm{f}, \mathrm{n}) \\ \text { alaris }(\mathrm{m}, \mathrm{f}, \mathrm{n}) \\ \text { cervicalis }(\mathrm{m}, \mathrm{f}, \mathrm{n}) \end{gathered}$ |
| Сравн ит. <br> Степе <br> нь | anterior, ius major, jus minor, us | $\begin{aligned} & \mathbf{m}, \mathbf{f}-\mathrm{ior} \\ & \mathrm{n}-\quad-\mathrm{us} \end{aligned}$ | m,f,n - III | NB! основа для m,f,n это форма мужского рода! <br> -ioris (m,f,n,) <br> anterioris ( $\mathrm{m}, \mathrm{f}, \mathrm{n}$ ) <br> mqjoris ( $\mathrm{m}, \mathrm{f}, \mathrm{n}$ ) <br> minoris ( $\mathrm{m}, \mathrm{f}, \mathrm{n}$ ) |

For training and activation of knowledge, it is useful to work independently in doing the exercises similar to the test exercises. Some exercises are done on the blackboard at the same time.

## Sample Test

## 1. Make up grammatical agreement of the following adjectives with the given nouns:

1. sulcus, i m
transversus, a, um
ligamentum, in
2. sulcus, i m
linea, ae $f$
palatīnus, a, um
os, ossis n
3. sutūra, ae f
processus, us $\mathbf{m}$
angŭlus, i m
4. valvǔla, ae f
tuber, ěris $\mathbf{n}$
plexus, us $m$
5. processus, us $m$
sinus, us m
facies, èi f
articulāris, e
tubercŭlum, in
6. muscŭlus, i m
pterygoiděus, a um
fossa, ae f
7. arcus, us m zygomatĭcus, a, um os, ossis n
8. facies, èi f internus, a, um
ganglion, in
9. Make up Genitive forms of the following adjectives:
10. cervicālis, e
11. thoracǐcus, a, um
12. internus, a, um
13. medius, a, um
14. sinister, tra, trum
15. lumbālis, e
16. simplex, ǐcis
17. laterālis, e
18. osseus, a, um
19. temporālis, e

## 3. Translate into Latin and make up grammatical agreement of the following nouns:

lower (sinus, part, spine);

small (tubercle, opening, fossa);
anterior (sulcus, tubercle, crest, opening, ligament); posterior (arch, surface, ligament);
higher (process, opening, slit); great (sulcus, wing, head); small and great
(horn).

## Topic 7

## Latin III Declension nouns and their main pecularities. Masculine gender

# LATIN THIRD DECLENSION NOUNS. MASCULINE GENDER 

## This lesson is divided into the following sections:

## The aim of the lesson:

1. To form new theoretical knowledge on the grammar
2. To form practical skills in independent search of information in the given field
3. To form practical skills in the defining the masculine third declension nouns according to the endings in Nom. Sing.
4. To find the stem of the third declension nouns.
5. To become familiar with the structure of muscles names.

## Concrete tasks:

## A student should know:

1. The peculiarities of the nouns of the III declination.
2. The endings of the masculine third declension nouns according to the endings in Nom. Sing.
3. The peculiarities of grammar structure of terms of muscles names.
4. Vocabulary notes
5. Exceptions to the rules of the gender

## A student should be able to:

1. Compose the dictionary form of a noun of the masculine third declension
2. To translate multiword anatomic histological terms from English into Latin and from Latin into English.

## Questions for defining the initial level

1. What is the main characteristic of the nouns of the III declination?
2. What distinguishes parisyllaba nouns from imparasyllaba ones?
3. What is the peculiarity of the dictionary form of imparisyllaba nouns?
4. What are the names of the muscles according to their functions

## The Content

## I. PARTICULARITIES OF THE THIRD DECLENSION

The third declension includes nouns of all the three genders which have different endings in Nominative singular and-is in Genitive singular.

## Parisyllaba and imparisyllaba third declension nouns

The Latin nouns of the $3_{\text {rd }}$ declension can be divided intoparisyllaba and imparisyllaba.

The first group includes a few feminine nouns that have equal number of syllables in Nominative singular and Genitive singular, such as:
auris, is $\mathbf{f}-$ ear
cutis, is $\mathbf{f}-$ skin

The nouns that have one more syllable in Genitive singular than inNominative singular are called imparisyllaba, $c f$. the following examples:
corpus, ŏris n - body caput, ǐtis n-head

## II. STEM OF LATIN THIRD DECLENSION NOUNS

The stem determination of Latin third declension nouns is of great practical significance because the stem gives the clue to the formation of most of the other forms, for example of plural forms.

The stem of nouns of the 3 rd declension is determined by the Genitive singular form.

The stem of nouns of the $3_{\text {rd }}$ declension is obtained from the Genitive singular form by dropping the ending-is.

## E.g.:

| forāmen, ĭnis $\mathbf{n} \rightarrow$ | foramĭn-is | opening |
| :--- | :--- | :--- |
| caput, ǐtis $\mathbf{n} \rightarrow$ | capĭt-is | head |
| parĭes, ētis $\mathbf{m} \rightarrow$ | pariēt-is | wall |

## III. ENDINGS OF LATIN THIRD DECLENSION NOUNS

Most nouns ending by -os, -or, -o, -er, -ex, -es (imparisyllaba) are masculine,cf.:

| Endings |  | Examples |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Nominative | Genitive (with a <br> part of the stem) |  |  |  |
| 1.- os | - ōris | flos, floris m-flower |  |  |
| 2.- or | - $\overline{\mathbf{o}} \mathrm{r}$ (s | constrictor, constrictor | constrictōris | m |


| 3.- 0 | - ōnis <br> - ǐnis | pulmo, pulmōnis m-lung homo, homĭnis $\mathbf{m}$ - man |
| :---: | :---: | :---: |
| 4.- er | - ris <br> - èris | venter, ventris $\mathbf{m}$ - belly <br> of a muscle <br> trochanter, trochantēris |


|  |  |  | $\mathbf{m}-$ trochanter |
| :---: | :--- | :--- | :--- |
| 5.- ex | - ĭcis | cortex, cortĭcis $\mathbf{m}$ - cortex |  |
| 6.- es | - ědis | pes, pedis $\mathbf{m}$ - foot |  |
| parīes, pariētis $\mathbf{m}-$ wall |  |  |  |

## IV. EXCEPTIONS TO THE RULE OF THE MASCULINE THIRD DECLENSION NOUNS ENDINGS

The following nouns having masculine endings are feminine:
a. arbor, ōris f - tree (arbor vitae cerebelli -medullary body of vermis)
b. gaster, tris f (Greek) - stomach;
c. mater, tris $\mathrm{f}-$ cerebral coat
d. pia mater - pia mater of brain
e. dura mater - dura mater of brain

Attention!!! - In these terms the noun «mater» follows an adjective.

The following nouns having masculine endings are neuter:
a. cor, cordis n - heart;
b. os, ossis n-bone;
c. os, oris n-mouth;
d. tuber, ěris n-tuber.

## V.LATIN MUSCLE NAMES

The Latin muscle names are composed of two elements: 1) the first element is the noun «muscle» - «muscŭlus»;
2) the second element is a masculine noun ending in -or (-ōris) or-er (ēris).

## E.g.: muscŭlus flexor - flexor muscle

In the Latin Anatomical Nomenclature all the muscle names are masculine third declension nouns ending in:
-or, ōris m (e.g.: rotātor, ōris m);
-er, ēris m (e.g.: massēter, ēris m).

The Latin muscle names are usually translated into English without a word "muscle", cf.:
-muscŭlus massēter - chewer;
-muscŭlus levātor - elevator etc.
Most of the muscle names are not translated but transliterated, i.e. reproduced with the Latin letters:
E.g.: muscŭlus pronātor - pronator.

## Word order in the Latin muscle names:

1) word muscŭlus in Nominative;
2) name of the muscle - a masculine noun in Nominative ending in -or($\overline{\text { öris) }}$ or-er (-ēris).
3) any other noun is in Genitive;
4) adjectives are placed at the end of the term.
E.g.:

|  | 1 | 2 | 3Final position |
| :---: | :---: | :---: | :---: |
| Muscŭlus | constrictor | pharyngis | medius |
| Muscŭlus | tensor | fasciae | latae |

## VI. EXERCISES

1. Make up grammatical agreement of the adjectives with the given nouns:
1) tuber (frontālis, e; parietālis, e; major, jus; minor, us)
2) pulmo (dexter, tra, trum; sinister, tra, trum)
3) mater (pius, a, um; durus, a, um)
4) venter (posterior, ius; frontālis, e)
5) os (nasālis, e; hyoiděus, a, um; frontālis, e; parietālis, e)
6) paries (laterālis, e; jugulāris, e; anterior, ius; tympanĭcus, a, um)
2. Translate into Latin:
1) tensor muscle of tympanic membrane
2) inferior constrictor muscle of pharynx
3) elevator muscle of scapula
4) rotator muscle of neck
5) elevator muscle of thyroid gland
6) depressor muscle of lower lip

## 3. Translate into Latin:

cortex of cerebellum, cortex of brain, cortex of lymphatic node, small (great) trochanter, heart apex, left (right) lung, sublingual bone, first chamber of the heart (atrium), dura mater of brain, frontal tuber, sulcus of vomer, medial surface of lung, floor of tympanic cavity, wedge-shapedbone, membranous wall of trachea, frontal wall of stomach, small horn of sublingual bone, zygomatic process of temporal bone, ethmoidal sulcus of nasal bone, notch of heart apex.

## Vocabulary

apex, ǐcis m
atrĭum, in
cardiăcus, a, um
apex, top, tip
first chamber of the heart (atrium) cardiac

| cerebellum, i n | cerebellum |
| :--- | :--- |
| cerěbrum, i n | brain |
| cochleāris, e | cochlear |
| cor, cordis n | heart |
| cortex, ̆̌cis m | cortex |

## EXCEPTIONS TO THE RULE OF THE MASCULINE THIRD DECLENSION

The following nouns having masculine endings are feminine:
a. arbor, ōris f - tree (arbor vitae cerebelli medullary body of vermis)
b. gaster, tris (Greek) - stomach;
c. mater, tris f - cerebral coat

- pia mater - pia mater of brain
- dura mater - dura mater of brain

Attention!!! - In these terms the noun «mater» follows an adjective.
The following nouns having masculine endings are neuter:
a. cor, cordis n - heart;
b. os, ossis n - bone;
c. os, oris n-mouth;
d. tuber, ěris $n-t u b e r$.

## Control questions.

1. Name the grammatical signs of nouns of the third declenation.
2. Name the exceptions to the rule of masculine third declination.
3. Give the exception word combinations.
4. What is the peculiarity of word formation of muscles names according to their function?
5. How is the stem of masculine III declination noun defined ?
6. Name masculine III declination noun in their dictionary form.

## Sample Test

Make up grammatical agreement of the adjectives with the given nouns:

1) tuber (frontālis, e; parietālis, e; major, jus; minor, us)
2) mater (pius, a, um; durus, a, um)
3) venter (posterior, ius; frontālis, e)
4) os (nasālis, e; hyoiděus, a, um; frontālis, e; parietālis, e)
5) paries (laterālis, e; jugulāris, e; anterior, ius; tympanǐcus, a, um)

## 2. Translate into Latin:

1) tensor muscle of tympanic membrane
2) inferior constrictor muscle of pharynx
3) elevator muscle of scapula
4) rotator muscle of neck
5) elevator muscle of thyroid gland
6) depressor muscle of lower lip

## 3. Translate into Latin:

1. cortex of cerebellum,
2. cortex of brain
3. small (great) trochanter
4. heart apex
5. left (right) lung,
6. sublingual bone
7. first chamber of the heart (atrium),
8. dura mater of brain,
9. frontal tuber,
10. sulcus of vomer

## Topic 8

## Latin third declension nouns. Feminine gender

## LATIN THIRD DECLENSION NOUNS. FEMININE GENDER

## The aim of the lesson:

- to form new theoretical knowledge on the theme ;
- to form practical skills in independent search of information ;
- to form practical skills in the given field:defining feminine the third declination nouns by their endings in Nom. Sing.
- to form practical skills in defining the gender of nouns of III declination ( fem.)


## Concrete tasks:

## A student must know:

1. The main peculiarities of the third declination.
2. The endings of the feminine third declension nouns in Nom.Sing.
3. Exceptions to the rule of the feminine third declination nouns

## A student should be able to:

1. To make dictionary form of the feminine third declension nouns
2. To translate multiword anatomic histological terms from English into Latin and from Latin into English.
3. What nouns belong to the third declination?
4. How to define the gender of a noun?
5. How to define the stem of a noun?
6. What kind of nouns is called parisyllaba?
7. What kind of nouns is called imparisyllaba?
8. What are the endings of masculine third declension nouns in Nom.sing?
9. How is the dictionary form of monosyllabic nouns formed?
10. Give the exceptions to the rules masculine third declination nouns

## The content

## LATIN THIRD DECLENSION NOUNS. FEMININE GENDER

## I. ENDINGS OF FEMININE THIRD DECLENSION NOUNS

Most nouns ending by -io, -as, -is, $-\mathbf{s},-\boldsymbol{x}$ (imparisyllaba),-is (parisyllaba) are feminine, cf.:


Exceptions to the rule:
The following nouns having feminine endings are masculine (according to 6 endings in the foregoing table):

1. atlas, ntis $m$ atlas
2. pulvis, ěris $m$ powder
3. sanguis, ĭnis m blood
4. axis, is m axis canālis, is m canal unguis, is m nail
5. dens, dentis $m$ tooth
6. fornix, ǐcis m arch
7. larynx, ngis m larynx
8. pharynx, ngis m pharynx
9. coccyx, ýgis m tailbone
10. thorax, ācis m chest
11. tendo, ĭnis $m$ sinew
12. margo, ĭnis $m$ edge

The following nouns having feminine endings are neuter:

1. pancrěas, ătis $n-$ pancreas
2. vas, vasis n - vessel

NB! Special attention should be paid to the nouns with endings -io (-tio, -sio, xio). The majority of them have meaning of:
a) action, function , process действия, функции, процесса), for example : names of functions performed by muscles ( do not confuse with the names of muscles ): pronatio, ionis f; flexio, ionis f, extensio, ionis f etc.;
b) the names of surgical operations e.g: amputatio, ionis $f$ - amputation (part of a body ); resectio, ionis $f$ - resection (of an organ or a part of an organ
c) names of some procedures, e.g. transfusio, ionis $f$

## Control questions

1. What are the gender endings of feminine III declenation nouns?
2. What are the gender endings of feminine III declenation nouns with -o ?
3. What are the gender endings of feminine III declenation nouns with - s?
4. What are the gender endings of feminine III declenation nouns with -x ?
5. What are the exeptions to the rule?

## EXERCISES

## 1. Translate into English:

cavǐtas medullāris, basis cranii externa, cartilāgo thyroiděa, cartilāgo alāris major, margo inferior pulmōnis sinistri, auris externa, bifurcatio trachēae, basis pyramǐdis renālis, margo utěri dexter, axis bulbi externus, pancreas accessorium, pars liběra gingīvae, cartilāgo septi nasi, cavitas oris propria, labyrinthus ossěus auris internae, terminatio nervi cutis, vas lymphaticcum
superficiāle, canālis palatīnus major, caput pancreătis, regio thorācis posterior, sanguis venōsus et arteriōsus.

## 2. Make up grammatical agreement of adjectives with the given nouns:

1) cavǐtas (pleurālis, e; articulāris, e; medullāris, e)
2) margo (anterior, ius; frontālis, e; dexter, tra, trum)
3) auris (internus, a, um ; externus, a, um ; medius, a, um)
4) cartilāgo (costālis, e; alāris, e; articulāris, e; major, jus)
5) pars (ossěus, a, um; laterālis, e; anterior, ius; dexter, tra, trum)
6) vas (lymphatĭcus, a, um; sanguiněus, a, um; capillāris, e)

## 3. Translate into Latin:

dura mater of brain, pyloric canal, fornix of stomach, canal of great stony nerve, angle of stomach, fornix of pharynx, ring-shaped part of fibrous vagina, sholder joint, capsule of pancreas, tympanic cavity of middle ear, greater palatine canal, cartilage of nasal septum, inferior constrictor of pharynx.

## Vocabulary notes

1. alāris, e alar
2. anulāris, e ring-shaped
3. abor, ōris f abor
4. arteriōsus, a, um arterial
5. articulatĭo, ōnis f joint
6. auris, is f ear
7. bifurcatīo, ōnis f bifurcation
8. capillāris, e capillary
9. carotĭcus, a, um carotid
10.cartilāgo, ĭnis f cartilage
11.cavǐtas, ātis f cavity
12.coccyx, ýgis m coccyx, coccygeal bone 13.compositus, a, um complex 14.costālis, e costal 15.cutis, is $f$ skin 16.dens, dentis m tooth

- dens canīnus canine, cuspid tooth
- dens incisīvus incisor tooth
- dens molāris molar tooth
- dens premolāris premolar tooth
- dens decidŭus milk tooth
- dens sapientĭae (dens serotĭnus) wisdom tooth
17.fornix, ǐcis $m$ fornix, arc

18. iliăcus, a, um iliac
19. incisīvus, a, um incisive, cutting, sharp
20.labyrinthus, i m labyrinth
21.mandibulāris, e mandibular
22.masseterǐcus, a, um masticatory, chewing

> 23.molāris, e molar 24.optĭcus, a, um optic, visual 25.pancrěas, ătis n pancreas 26.pelvis, is $f$ pelvis
> 27.pleurālis, e pleural 28.pylorícus, a, um pyloric 29.regio, ōnis f region 30.sanguiněus, a, um blood, sanguiferous 31.sanguis, ĭnis m blood
> 32.simplex, ĭcis simple 33.sternālis, e sternal 34.tuberosittas, ātis f tuberosity
> 35.vas, vasis n vessel
> 36.vita, ae f life

## Exceptions to the rule:

1. atlas, ntis $m$ atlas
2. pulvis, ěris $m$ powder
3. sanguis, ĭnis m blood
4. axis, is m axis canālis, is m canal unguis, is m nail
5. dens, dentis $m$ tooth
6. fornix, ĭcis m arch
7. larynx, ngis $m$ larynx
8. pharynx, ngis m pharynx
9. coccyx, ýgis $m$ tailbone
10. thorax, ācis m chest
11. tendo, ĭnis $m$ sinew
12. margo, ĭnis m edge

The following nouns having feminine endings are neuter:

1. pancrěas, ătis $n-$ pancreas
2. vas, vasis n - vessel

## Test

## 1. Give several answeres:

## 1) Ending of feminine III declenation:

a) -go
b) -do
c) -or
d) -0
e) -as
2) Feminine III declenation nouns :
a) pancreas, atis
b) pons, pontis
c) lens, lentis
d) phalanx, ngis
e) cervix, icis
3) exceptions of a rule:
a) margo, ĭnis
b) cartilago, inis
c) pelvis, is
d) canalis, is
e) sanguis, ǐnis

## 2. CHECK THE CONFORMITY:

1) cavitas, atis $f$
a) joint
2) cutis, is $f$
b) area
3) pars, partis $f$
c) bile
4) radix, $1 \mathrm{c} c i s \mathrm{f}$
d) ligament
5) frons, frontis $f$
e) dent
6) articulatio, ōnis f
f) cavity
7) regio, ōnis f
g) skin
8) bilis, is $f$
h) part
9) tendo, ĭnis m
i) root
10)dens, dentis m
g) forehead

## 3. CHECK THE CONFORMITY:

| 1) larynx | a) meninx |
| :--- | :--- |
| 2) pharynx | b) extremĭtas |
| 3) ear | c) impressio |
| 4) cartilage | d) iris |
| 5) cerebral casing | e) pyrămis |
| 6) end | f) vas |
| 7) impression | g) larynx |
| 8) iris | h) pharynx |
| 9) pyramid | i) auris |
| 10) vessel | j) cartilago |

## 4. CHECK THE CONFORMITY:

## Terms

1) articulatio
2) cartilago
3) radix
4) axis
5) pyramis
6) menix
7) tendo
8) symphysis
9) pancreas
10) thorax
a ) -acis

## Endings in GEN.SING.

b) -atis
c) -is
d) -inis
e) -ngis
f) -idis
g) -icis
h) -onis

## Topic 9

## Latin third declension nouns and its main peculiarities.Neuter gender

## LATIN THIRD DECLENSION NOUNS. NEUTER GENDER

## The aim of the lesson:

- to form new theoretical knowledge on the theme .
- to form practical skills in independent search of information ;
- to form practical skills in the given field:defining neuter the third declination nouns by their endings in Nom.Sing.
- to form practical skills in defining the gender of nouns of III declination (neut.)


## Concrete tasks:

## A student must know:

1. The main peculiarities of the third declination.
2. The endings of the neuter third declension nouns in Nom.Sing.
3. Exceptions to the rule of the neuter third declination nouns

## A student should be able to:

1. To make dictionary form of the neuter third declension nouns
2. To translate multiword anatomic histological terms from English into Latin and from Latin into English.

## Questions for defining of the initial level

1. What nouns belong to the third declination?
2. How to define the gender of a noun?
3. How to define the stem of a noun?
4. What kind of noun is called parisyllaba?
5. What kind of noun is called imparisyllaba?
6. What are the endings of neuter third declension nouns in Nom.sing?
7. How is the dictionary form of monosyllabic nouns formed?
8. Give the exceptions to the rules neuter third declination nouns

## Concrete tasks:

## A student must know:

1. The main peculariies of the III declenation of nouns.
2. The endings of neuter III declenation nouns in Nom.Sing.
3. Vocabulary notes
4. Exceptions to the rule.

## A student should be able to:

1. Compose the dictionary form of neuter III declination nouns
2. To translate multiword anatomic histological terms from Latin into English and from English into Latin.

## Questions for defining the initial level:

1. What nouns do belong to the III declination?
2. In what cases the stem of a noun is defined $y$ the Genetive case?
3. What kind of adjectives is called parisyllaba?
4. What kind of adjectives is called imparasyllaba?
5. What are the endings of masculine III declination in Nom.Sing and what their Gen.sing is.
6. What are the endings of feminine III declination in Nom.Sing and what is their Gen.sing?
7. What are the exceptions to the rule?

## The content

## I. ENDINGS OF NEUTER THIRD DECLENSION NOUNS

Most nouns ending by $\boldsymbol{a r},-\boldsymbol{e},-\boldsymbol{e n},-\boldsymbol{m a},-\boldsymbol{u r},-\boldsymbol{u s}$ are neuter,cf.:

| Endings |  |  | Examples |
| :---: | :---: | :---: | :---: |
|  | Nominative | Genitive (with a part of the stem) |  |
| 1. | - ar | - ătis | hepar, hepătis n - liver |
| 2. | - | - tis | rete, retis n - network |
| 3. | - en | - ĭnis | abdōmen, abdomínis $\mathbf{n}$ - abdomen |
| 4. | - ma | - ătis | zygōma, zygomătis $\mathbf{n}$ - cheek-bone |
| 5. | - ur | - ŏris | femur, femŏris $\mathbf{n}$ - thigh |
| 6. | - US | - ěris <br> - ŏris <br> - uris | glomus, gloměris n-glome pectus, pectŏris $\mathbf{n}$ - chest crus, cruris n-shank |
| 7. | - ut | - ǐtis | caput, capitis $\mathbf{n}$ - head |

## II. EXCEPTIONS TO THE RULE OF THE NEUTER THIRD DECLENSION NOUNS ENDINGS

The following nouns having neuter endings are masculine:
1.lien, liēnis m-spleen
2.ren, renis m - kidney

The neuter third declension nouns ending in -ma should be distinguished from feminine first declension nouns ending in-a:
E.g.: diaphragma, ătis $\mathbf{n}$ - diaphragm; chiasma, ătis $\mathbf{n}$-chiasm; stroma, ătis $\mathbf{n}$ stroma; systēma, ătis n-system; zygōma, ătis $\mathbf{n}$-cheek-bone. but
squama, ae f-scales; struma, ae f-crop.

## III. EXERCISES

## 1. Make up grammatical agreement of the adjectives with the given nouns:

1) forāmen (occipitālis,e; mentālis, e; incisīvus, $a$, um; mastoiděus, $a$, um; major, jus)
2) systēma (centrālis, e; nervōsus, a, um; lymphatǐcus, a, um)
3) caput (longus, a, um; transversus, a, um; laterālis, e; brevis, e)
4) ren (dexter, tra, trum; mobĭlis, e; sinister, tra, trum; lobātus, a, um)
5) crus (sinister, tra, trum; laterālis, e; brevis, e; simplex, ĭcis; anterior, ius)
6) hepar (mobǐlis, e; lobātus, a, um; major, jus)

## 2. Translate into Latin:

superficial lymphatic vessel, posterior nucleus of trapezoid body, internal carotid artery, base of heart, apex of heart, root of lung, cavity of uterus, renal pelvis, thyroid cartilage, pylorus part, left lobe of lung, ventricle of larynx, superior constrictor of larynx, capsule of pancreas, external oblique muscle of stomach, mucous membrane of mouth, cardiac impression of lung, body of mammary gland, spinal muscle of neck, the longest muscle of head, canal of neck of uterus, frontal region of face, external base of skull, wing of vomer, membranous wall of trachea.

## VOCABULARY

1. abdōmen, ĭnis n
2. accessorǐus, a, um
3. aortǐcus, a, um
4. appendix, īcis $f$
5. cavernōsus, a, um
6. centrālis, e
7. coccygēus, a, um
abdomen
additional
aortic, aortal
process, appendix
cavernous
central
coccygeal

| 8. crus, cruris n | leg, crus |
| :---: | :---: |
| 9. glomus, ěris $n$ | glome, glomus |
| 10.hepar, ătis n | liver |
| 11.impressio, ōnis f | impression |
| 12.lien, ēnis m | spleen |
|  | lobulose, lobulous, |
| 13.lobātus, a, um | lobulated |
| 14.longus, a, um | long |
| 15.mamma, ae f | mammary gland |
| 16.mentālis, e | mental |
| 17.mobillis, e | mobile |
| 18.nervōsus, a, um | nervous |
| 19.oblīquus, a, um | oblique |
| 20.radix, īcis f | root, radix |
| 21.ren, renis m | kidney |
| 22.renālis, e | renal |
| 23.rotundus, a, um | round |
| 24.stroma, ătis n | stroma |
| 25.synchondrōsis, is f | synchondrosis |
| 26.systēma, ătis n | system |
| 27.tegmen, ĭnis n | roof |
| 28.thymus, i m | thymus |

## Exceptions to the rule:

ren, renis $m$ - kidney
lien, enis $m$ - spleen
splen, splenis $m$ - spleen
pecten, inis $m$ - crest
hymen, ěnis m (гр.) - hymen
lichen, ěnis $m(г р$.$) - lichen$

## Control questions:

1. What are the endings of neuter III declination nouns in Nom. sing.?
2. How to differ nouns with similar endings -us of neuter and feminine gender?
3. What are the exceptions to the rule of the neuter III declination?

## Test №10

## 1. Multiple choice:

1) Flexions of neuter III declension nouns:
a) $-u x$
b) -ur
c) -e
d) -as
e) -ma
2) Neuter III declension nouns:
a) humor, oris
b) homo, inis
c) hepar, atis
d) systema, atis
e) pectus, oris
3) exceptions to the rule:
a) ren, renis
b) crus, cruris
c) tempus, ŏris
d) lien, ēnis
e) tegmen, inis
2. CHECK THE CONFORMITY:
1) abdōmen, innis n $\quad$ a) back of the head
2) corpus
b) temple
3) femur
c) clew
4) occĭput
d) intestines
5) tempus
e) hole
6) glomus
f) head
7) viscus
g) name
8) foramen
h) abdomen
9) caput
i) body
10)nomen
j) hip
3. Check the conformity:

## Terms

1) ren sinist...
2) glomus pulmonal...
3) systema muscular...
4) pancreas accessori...
5) rete venos...
6) crus anteri...
7) capur superi...
8) foramen occipital...
9) diaphragma urogenital...
10) vas capillar...

## 4. Check the conformity:

6) tegmen
7) occiput
8) hepar
9) caput
10)abdomen

## Flexions

a) -er
b) -e
c) -um
d) -um
e) -us

Terms

1) corpus
2) nomen
3) zygoma
4) viscus
5) diaphragma

Flexions in GEN.SING.
a) -inis
b) -itis
c) -atis
d) -eris
e) -oris

## Topic 10

Preparation for the test number 2. Active Grammar Nouns of the III declension of masculine, feminine and neuter gender.

Preparation for the test number 2. Active Grammar Nouns of the III declention of masculine, feminine and neuter gender.

## The aim of the practical lesson:

- to revise theoretical knowledge on the subject;
- to revise and reinforce practical skills for self -determination the gender of the III declention according to their endings in Nom.Sing and changes of the stems of imparasyllaba nouns
- To revise vocabulary notes
- To reinforce practical skills in translation of multiword anatomic terms from English into Latin and from Latin into English


## 1. Concrete tasks :

## A student should know

- The main peculiarities of the III declention.
- The endings of masculine, feminine, and neuter gender of nouns in Nom.Sing. and changes of stems of imparasyllaba III declention nouns
- Vocabulary notes (§73,76, § 83, §88)
- Exceptions to the rule


## A student should be able to:

- Define the gender of a noun according to its ending in Nom. sg.
- Decline III declention nouns, taking into consideration the change of stems
- To coordinate III declention nouns with adjectives
- To translate multiword anatomic terms from English into Latin and from Latin into English.


## The content:

To revise the following theoretical and practical material:

- To revise vocabulary notes
- To check hometask
- To revise main peculiarities of III declention nouns


## III Declention nouns and their peculiarities

1. The main sign of the III d declention noun is ending -is in Gen. sg.
2. Nouns of all three genders belong to the III declention : pulmo, onis m , paries, etis f , caput, itis n
3. Each gender in Nom.sing. has much more endings than nouns of the I, II, IV, V declentions .
4. The stem of III d declention nouns is defined by dropping of the ending -is in Gen. sg.
5. NB! The Latin nouns of the 3rd declension can be divided into parisyllaba and imparisyllaba.

The first group includes a few feminine nouns that have equal number of syllables in
Nominative singular and Genitive singular, such as: auris, is $f$ - ear cutis, is $f$ - skin
The nouns that have one more syllable in Genitive singular than in Nominative singular are called imparisyllaba.
e.g.: corpus, ŏris $\mathbf{n}$ - body caput, ítis $\mathbf{n}$-head
6. If a noun in Nom.sg. has only one syllable, it means that in Gen. sg.it's written in the full form,e.g.:dens, dentis m; os, oris n; pars, partis f.
7. N.B. III declention has exceptions to the rule!
8. All III declention nouns are divided into three types: consonant, vowel and mixed:

| Consonant type | Vowel type | Mixed type |
| :---: | :---: | :---: |
| Imparasyllaba nouns, which stems ends in one consonant | Nouns of Neuter gender with endings <br> -e, -al, -ar in <br> Nom.sing | a) parasyllaba nouns with ending -es, -is in Nom.sing <br> b) imparasyllaba nouns which stem has double consonant ending |
| caput, it is n - capit- | rete, is $\mathbf{n}$ animal, alis $\mathbf{n}$ calcar, aris $\mathbf{n}$ | a) pubes, is $f$ <br> б) pars, partis f |

The endings of III declention nouns are given in the table

| m | f | n |
| :---: | :---: | :---: |
| -os, oris-or,oris | -io,onis | -us/eris,oris,uris |
|  | -do,dinis | -en, inis |
| / onis |  |  |
| -0 | -go,ginis | -ar,aris |
| $\backslash$ inis |  |  |
|  | $\underline{\text {-s (кроме -os): }}$ | -ma, atis |
| -er,eris/tris | -as, atis |  |
|  | -is,/is, idis | -ut, itis |
|  | -us/udis,utis |  |
| -es(неравносложные) | -es, is (равносл.) | -ur/oris, uris |
|  | -ns, ntis |  |
| / edis | -rs,rtis | -al/alis, llis |
| -es |  |  |
| $\backslash$ etis | - $\underline{\text { (кроме -ex) }}$ | -e,is (равносл.) |
|  | -ax,acis |  |
|  | -ix,icis | -c, ctis |
| -ex,icis | -ux,ucis |  |
|  | -nx,ngis <br> -lx,lcis |  |
|  |  |  |
| Exceptions to the rule : | Исключения: | Исключения: |
| os, oris $\mathrm{n}-$ mouth | 1. atlas, ntis m atlas | ren,renis m - kidney |



The Latin muscle names are composed of two elements: 1) the first element is the noun «muscle» - «muscŭlus»;
2) the second element is a masculine noun ending in -or (-ōris) or-er (- ēris). E.g.: muscŭlus flexor - flexor muscle

In the Latin Anatomical Nomenclature all the muscle names are masculine third declension nouns ending in:

$$
\begin{aligned}
& \text {-or, ōris m (e.g.: rotātor, ōris m); } \\
& \text {-er, ēris m (e.g.: massēter, ēris m). }
\end{aligned}
$$

The Latin muscle names are usually translated into English without a word "muscle", cf.:

$$
\begin{aligned}
& \text { •muscŭlus massēter - chewer; } \\
& \text { •muscŭlus levātor - elevator etc. }
\end{aligned}
$$

Most of the muscle names are not translated but transliterated, i.e. reproduced with the Latin letters:
E.g.: muscŭlus pronātor - pronator. Word order in
the Latin muscle names:

1) word muscŭlus in Nominative;
2) name of the muscle - a masculine noun in Nominative ending in -or(-orris) or-er (-ēris).
3) any other noun is in Genitive;
4) adjectives are placed at the end of the term.

## Tasks for inderpendent work

## Translate into Latin:

superficial lymphatic vessel, posterior nucleus of trapezoid body, internal carotid artery, base of heart, apex of heart, root of lung, cavity of uterus, renal pelvis, thyroid cartilage, pylorus part, body of mammary gland, spinal muscle of neck, the longest muscle of head, canal of neck of uterus, frontal region of face, external base of skull, wing of vomer, membranous wall of trachea, cavĭtas medullāris, basis cranii externa, cartilāgo thyroiděa, cartilāgo alāris major, margo inferior pulmōnis sinistri, auris externa, bifurcatio trachēae, basis pyramĭdis renālis,

## 1. Make up grammatical agreement of the adjectives with the given nouns:

1) forāmen (occipitālis,e; mentālis, e; incisīvus, a, um; mastoiděus, a, um; major, jus)
2) systēma (centrālis, e; nervōsus, a, um; lymphatĭcus, a, um)
3) caput (longus, a, um; transversus, a, um; laterālis, e; brevis, e)
4) ren (dexter, tra, trum; mobĭlis, e; sinister, tra, trum; lobātus, a, um)
5) cavǐtas (pleurālis, e; articulāris, e; medullāris, e)
6) margo (anterior, ius; frontālis, e ; dexter, tra, trum)
7) auris (internus, a, um ; externus, a, um ; medius, a, um)

## 5. Difine the stem in the following imparasyllaba nouns and put the following nouns into Nom. pluralis:

humor, oris m; pulmo, onis $m$; venter, ntris $m$; vomer, eris $m$; hallux, ucis $m$; liquor, oris m; index, icis m; stapes, edis $m$

## 6. Divide the following nouns into two groups, translate them and give the prural form.

Nomen, inis $n$, canalis, is $m$, incus, udis $f$, pectus, oris $n$, tegmen, inis $n$, auris, is $f$, cutis, is $f$, pulmo, onis $\mathbf{m}$, cortex, icis $\mathbf{m}$, vertex, icis $\mathbf{m}$, synchondrosis, is $f$, axis, is $\mathbf{m}$

## Topic 11

Nominativus pluralis of nouns and adjectives of I, II, III, IV, V declensions.

# Nominativus pluralis of nouns and adjectives of I, II, III, IV, V declensions. 

## The aim of the lesson:

- To form new theoretical knowledge on the subject
- To form practical skills in formation of Nom. Pl. of nouns and adjectives of I, II, III, IY, Y declensions.
- To form practical skills in translation of multiword anatomichistological terms from English into Latin and from Latin into English in Nom. And Gen. Sing. And in Nom. Pl.


## Concrete tasks:

## A student should know

- Sequencing in formation of Nom. pl.
- Flexions of nouns and adjectives in Nom. pl.
- The most used conditional abbrevatios in anatomic histological nomenclature.
- Active vocabulary.


## A student should be able to :

- Decline nouns of the I, II, III, IY, Y declensions in Nom. pl.
- Decline adjectives in Nom. Pl.
- Translate multiword anatomic histological terms from Latin into English and from English into Latin.


## o Questions for difining the initial level

1. What are the characteristics of parasyllaba and imparasyllaba nouns of the III declension?
2. How is the practical stem of a noun defined?
3. How is the practical stem of an adjective defined?
4. What is the peculiarity of imparasyllaba nouns' dictionary form?

## I. NOUNS AND ADJECTIVES ENDINGS IN NOMINATIVE PLURAL

The Latin nouns have Nominative plural endings as follows:

| Declension |  | 2 |  | 3 |  |  |  | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gender | f | m | n | m, f | n | m | n | f |
| Endings | -ae | -i | -a | -es | $\underset{(-\mathrm{ia})}{\mathbf{- a}}$ | -us | -ŭa | -es |

Attention!!! - Remember one neuter noun of the 3rd declension which has the Nominative plural ending-ia: rete - retia (network - networks). Other neuter nouns of the $3_{\text {rd }}$ declension, which have the Nominative plural ending-ia, are not used in the anatomical terminology.

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The Latin adjectives have Nominative plural endings as follows:

| Adjectives of the $1_{\text {st }}$ group + adjectives in the superlative degree |  |  | Adjectives of the $\mathbf{2 n d}^{n}$ group |  | Adjectives in the comparative degree |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| m | f | n | m, f | n | m, f | n |
| -i | -ae | -a | -es | -1̆a | -es | -a |

Attention!!! - All neuter nouns irrespective of their declension as well asall adjectives in the neuter form in Nominative plural end in-a (adjectives of the 2 nd group in-ía).

## II.FORMATION OF NOMINATIVE PLURAL FORMS

In order to form the Nominative plural forms you should:

1) determine:
-declension and gender of a noun or
-group and gender of an adjective;
2) find the stem and form the plural form by adding to the stem the appropriate Nominative plural ending of this declension and gender.
E.g.:

|  | Declension, gender, group and degree of comparison | Stem | Nominative plural |
| :---: | :---: | :---: | :---: |
| Nouns |  |  |  |
| vena, ae f | 1 declension, feminine | ven - | ven - ae |
| nervus, im | 2 declension, masculine | nerv - | nerv - i |
| spatium, in | 2 declension, neuter | spati - | spati-a |
| sinus, us m | 4 declension, masculine | sin - | $\sin$ - us |
| cornu, us n | 4 declension, neuter | corn - | corn - ŭa |
| facies, èi f | 5 declension, feminine | faci - | faci-es |
| Adjectives |  |  |  |
| cavernōsus | I group, masculine | cavernōs - | cavernōs - i |


| cavernōsa | 1 group, feminine | cavernōs - | cavernōs - ae |
| :--- | :--- | :--- | :--- |
| cavernōsum | 1 group, neuter | cavernōs - | cavernōs - a |
| frontālis | 2 group, masculine or <br> feminine | frontāl - | frontāl - es |
| frontāle | 2 group, neuter | frontāl - | frontāl - ia |
| minor | Comparative degree, <br> masculine or feminine | minor - | minōr - es |
| minus | Comparative degree, neuter | minor - | minōr - a |

## Attention!!! - <br> In order to form the Nominative plural form of the nouns

of the $3_{\text {rd }}$ declension you should:

1. Form the Genitive singular form;
2. Determine the stem (obtained from the Genitive form without its ending -is);
3. Add the appropriate Nominative plural gender ending.
E.g.:

Dens $\quad \rightarrow$ dent-is $\quad \rightarrow$ dent- $\quad+$-es $\quad \rightarrow$ dentes

$$
\text { Forāmen } \quad \rightarrow \text { foramĭn-is } \rightarrow \text { foramĭn- }+-\mathrm{a} \quad \text { foramĭna }
$$

## III. ABBREVIATIONS USED IN THE ANATOMICAL TERMINOLOGY

| Singular form | Plural form |
| :--- | :--- |
| A. - arteria | Aa. - arteriae |
| B. - bursa | Bb. - bursae |
| Gl. - glandŭla | Gll. - glandŭlae |
| For. - forāmen | Forr. - foramĭna |
| Lig. - ligamentum | Ligg. - ligamenta |
| M. - muscŭlus | Mm. - muscŭli |
| N. - nervus | Nn. - nervi |
| R. - ramus | Rr. - rami |
| Vag. - vagīna | Vagg. - vagīnae |
| V. - vena | Vv. - venae |

## IV. EXERCISES

## 1. Determine the dictionary form of each word:

alveŏli dentāles (dental alveoli), spatia interglobularia (interglobular spaces), valvŭlae venōsae (venous valvulae), nomĭna anatomǐca (anatomical names), juga alveolaria (alveolar eminences), venae intercostāles anteriōres (anterior intercostal venae), labia oris (lips of mouth), canalicŭli dentāles (dental small canales), facies articulāres (articular surfaces), ductus sublinguāles minōres (minor sublingual ducts), vasa sinusoiděa liēnis (sinusoid vessels of spleen), crura ossea (bony crura), arteriae ciliāres posteriōres longae (long posterior ciliary arteries).
2. Translate into Latin. Make up Nominative plural forms:
carotic (tuber, sulcus, canal), lymphatic (vessel, node, valve), incisive (canal, opening, fossa), articular (cavity, process, cartilage), nasal (concha, bone, opening), anterior (margin, surface, septum), palatine (tonsil, process), jugular (tubercle, incisure (slit), process), wing-shaped(canal, process, fossa), ethmoidal (crest, bone, foramen), occipital (region, lobe, opening), mammiform (process, incisure, opening), lower (wall, fissure, arch), transverse (process, lobe, ligament, artery), posterior (horn, nucleus, surface).

## 3. Determine the case, number and part of speech of each word in the terms:

1) venae rectāles inferiōres
2) incisūrae cartilağ̌nis
3) meātus acustīci
4) rami cardiăci cervicāles inferiōres
5) regiōnes membri inferiōris
6) sutūrae cranii
7) radīces spināles
8) canāles palatīni minōres
9) ductus sublinguāles minōres
10) partes orbitāles ossis frontālis
11) vasa sanguinea retīnae
12) nomĭna anatomǐca
13) plexus venōsi vertebāles interni
14) arteriae ciliāres posteriōres
15) spatium intercostāle

## 4. Make up Nominative plural of following nouns:

ala, ae f arteria, ae f digǐtus, i m septum, in alveŏlus, i m ligamentum, in
paries, ētis
margo, ǐnis m
forāmen, ĭnis n
os, ossis n
ductus, us $m$
cornu, us $n$
sinus, us $m$
facies, ēi f
5. Form Nominative plural of the following terms:

1) processus ciliāris
2) arteria gastrǐca brevis
3) nodus lymphatĭcus lumbālis
4) glandŭla linguālis
5) ganglion thoracǐcum
6) vena nasālis externa

## V. VOCABULARY

1. alveolāris, e
2. alveŏlus, i m
3. anatomĭcus, a, um
4. dentālis, e
5. dorsālis, e
6. foveŏla, ae f
7. gastrĭcus, a, um
8. intercostālis, e
9. interglobulāris, e
10. interlobulāris, e
11.interspinōsus, a, um
12.jugum, in
13.nomen, ĭnis n
14.pectorālis, e
15.retīna, ae f
16.serrātus, a, um
17.sinusoiděus, $a$, um
18.spatĭum, in
19.spinālis, e
20.sublinguālis, e
21.synoviālis, e
22.carotĭcus, a, um
alveolar
alveole
anatomical
dental
dorsal
foveola
gastric
intercostal
interglobular
interlobular
interspinal
eminence
name
pectoral
retina
serrate
sinusoid
space
spinal
sublingual
synovial
carotic

| 23. vas, vasis n | vessel |
| :--- | :--- |
| 24. cartilāgo, ĭnis f | cartilage |
| 25. rectālis, e | rectal |
| 26. crus, cruris n | crus |
| 27. lien, ēnis m | spleen |
| 28. cardiăcus, a, um | cardiac |

## Sample Test

## 1. Determine the dictionary form of each word:

 alveŏli dentāles (dental alveoli),spatia interglobularia (interglobular spaces), valvǔlae venōsae (venous valvulae), nomĭna anatomĭca (anatomical names), juga alveolaria (alveolar eminences), venae intercostāles anteriōres (anterior intercostal venae), labia oris (lips of mouth)
canalicŭli dentāles (dental small canales) facies
articulāres (articular surfaces)

## 2. Translate into Latin. Make up Nominative plural forms:

carotic (tuber, sulcus, canal) lymphatic (vessel, node, valve) incisive (canal, opening, fossa) articular (cavity, process, cartilage) nasal (concha, bone, opening) anterior (margin, surface, septum) palatine (tonsil, process)

## 3.Form Nominative plural of the following terms:

1) processus ciliāris
2) arteria gastrĭca brevis
3) nodus lymphatĭcus lumbālis
4) glandŭla linguālis
5) ganglion thoracǐcum
6) vena nasālis externa

Topic 12

Genetivus pluralis of nouns and adjectives of the I,II,III,IV,V declensions

## Genetivus pluralis of nouns ad adjectives of the I,II,III,IV,V declensions .

## The aim of the practical class:

- To form new theoretical knowledge on the theme.
- To form practical skills in formation of Gen. pl.of nouns and adjectives of the I, II, III, IV, V declentions.
- To form practical skills in translation of anatomic histological terms from Latin into English and from Eglih into Latin in Nom. and Gen. sg. And in Nom. And Gen. pl.


## 2. Concrete tasks:

## A student should know

- Consequene of actions in formation of Gen. pl.
- The endings of nouns and adjectives in Gen. pl.
- Active vocabulary.


## A student should be able to :

- Decline nouns of I,II,III,IV,Vdeclentions in Gen. pl.
- Decline adjectives in Gen. pl.
- Translate multiword anatomic histological terms from English into Latin and from Latin into English.


## o Questions for defining the initial level

1. What are the characteristics of parasyllaba and imparasyllaba III declention nouns?
2. How is defined the practical stem of nouns?
3. How is defined the practical stem of adjectives?
4. What is the peculiarity of a dictionary form of imparasyllaba nouns?

## The content:

b) defining practical stem of nouns
c) adjectives: dictionary form , declension, difining of stems

## Consequence of actions in formation Gen. pl.:

1. Write the word in its dictionary form
2. Give the declination
3. Find the stem
4. Add the necessary ending to the stem

## The endings of GENETIVUS PLURALIS

| Declinasion | Endings |
| :---: | :---: |
| I | f-arum |
| II | m-orum n-orum |
| III | 1. imparasyllabic nouns of $m, f, n$ with the stem which is terminated by one consonant - pulmonum, articulationum, corporum <br> 2. adjectives in the comparative degree ( $m, f, n$ ) - superiorum, majorum -ium <br> 1.the other nouns have the stem terminated in -id:the other noun have the stem which is terminated by two consonants - ossium, partium, dentium <br> 2. parasyllabic nouns with ending -es, -is ( $\mathbf{B}$ Nom.sg,) - retium, aurium <br> 3. adjectives of the second group ( $\mathrm{m}, \mathrm{f}, \mathrm{n}$ ) - alarium ( $\mathrm{m}, \mathrm{f}, \mathrm{n}$ ) |
| IV | $\begin{gathered} \mathrm{m} \text { - uum } \\ \mathrm{n}-\mathbf{u u m} \end{gathered}$ |
| V | f - ium |

NB! The noun vas, vasis $\mathbf{n}$ в Gen. pl. is declined according to the II declinasion vasorum (Gen. pl.)

## Control questions

1. What is the consequence of actions of declining nouns and adjectives in Nom. pl. и Gen. pl?
2. Give the endings of Nom. pl., Gen. pl.
3. What are the endings of neuter III declension nouns in Nom.pl.
4. What are the endings of III declension nouns and adjectives in Gen. pl. Exercises:

## LGive Gen. pl. Of the following nouns:

$$
\text { caput,itis } \mathbf{n}
$$

> pulmo, onis m;

> linea, ae f;
genu, us n;
facies, ei f;
ductus, us m;
ligamentum, in;
rete, is $\mathbf{n}$;
auris, is $f$;
canalis,is m;
vas, vasis n;
systema,atis n;

## II. Give Gen. pl.of the following adjectives:

## albus,a,um;

longus,a,um;
squamosus,a,um;
rectus,a,um; costalis, e;
thoracalis,e; parietalis,e;
spinalis,e; major,jus;
anterior,ius; minor.us;
superior,ius

1. Determine the declension of each word, give the dictionary form:

| capsulārum | faciērum |
| :--- | :--- |
| angulōrum | digitōrum |
| arteriārum | plexuum |
| foramĭnum | cavōrum |
| ligamentōrum | gingivārum |
| arcuum | processuum |
| canalium | palpebrārum |
| tendĭnum | cingulōrum |

## 2. Translate into Latin. Give the dictionary form of each noun, make up

 Genitive plural:| incisura | trunk |
| :--- | :--- |
| valve | node <br> shoulder <br> blade |
| duct | tubercle |
| back | eye |
| canal | layer |
| horn | muscle |
| neck |  |
| palate |  |

## 3. Make up the Genitive plural forms of the following adjectives:

1) dexter, tra, trum
2) articulāris, e
3) inferior, ius
4) mucōsus, a, um
5) laterālis, e
6) thoracǐcus, a, um
7) internus, a, um
8) temporālis, e
9) commūnis, e
10) superior, ius
11) longissǐmus, a,
12) latus, a, um um

## 4. Make up the Genitive plural forms:

vas lymphatǐcum superficiāle; nervus craniālis;
vena pulmonālis; cornu minus; processus transversus; concha nasālis; valvǔla semilunāris.

## IV. VOCABULARY

1. articulatǐo, ōnis $f$ joint
2. auriculāris, e auricular
3. chiasma, ătis n chiasm
4. craniālis, e cranial
5. extensor, ōris $m$
6. fibulāris, e
7. flavus, a, um
8. flexor, ōris $m$
9. interalveolāris, e
10. interradiculāris, e
extensor
fibular
yellow
flexor
interalveolar
interradicular

| 11.linguālis, e | lingual |
| :--- | :--- |
| 12.massa, ae f | mass |
| 13.medulla, ae f | medulla |
| 14.medulla ossĭum | (bone) marrow |
| 15.nodŭlus, i m | nodulus |
| 16.papilla, ae f | papila |
| 17.peron(a)eus, a, um | fibular |
| 18.plica, ae f | fold |
| 19.retinacŭlum, i n | retinaculum |
| 20.ruber, bra, brum | red |
| 21.semilunāris, e | semilunar |
| 22.trigeminālis, e | trigeminal |
| 23.trochleāris, e | trochlear |
| 24.regĭo, ōnis f | region |
| 25.incisīvus, a, um | incisive |
| 26.radix, īcis f | root |
| 27.sanguiněus, a, um | blood |
| 28.ciliāris, e | ciliary |
| 29.tonsilla, ae f | tonsil |
| 30.parĭes, ētis m | wall |

Final lesson. Preparation for the test work № 3 on the theme «Multiword anatomic histological term with coordinated and uncoordinated attribute

Final lesson. Preparation for the test work № 3 on the theme «Multiword anatomic histological term with coordinated and uncoordinated attribute

## The aim:

- To revise studied gramma; noun, adjective, types of adjectives, structurial types of anatomic histologic terms.
- To revise vocabulary
- To train practical skills in translation of multiword anatomic histological terms from English into Latin and from Latin into English.


## 2. Concrete tasks :

## A student must know

- Dictionary form and signs of I,II,III,IV,Vdeclensions of nouns .
- Dictionary form and declinasions of adjectives of the I group
- Dictionary form and declinasions of adjectives of the II group
- Dictionary form and declination of adjectives in the comparative degree and adjectives of one ending
- Structurial types of anatomic terms
- Concequence of actions in translation of multiword terms from English into Latin and from Latin into English.
- Vocabulary notes


## A student should be able to :

- To define gender and declention of nouns
- To define gender and declention of adjectives of the I and II group, and adjectives in comparative degree and adjectives of one ending.
- To coordinate nouns of five declentions with adjectives of all groups
- To translate multiword anatomic terms from English into Latin and from Latin into English.


## The content:

- Revision of vocabulary notes
- Noun: dictionary form, the signs of declention and gender.
- Adjective:dictionary form, gender endings and declention of adjectives of the I and II group and adjectives in comparative degree
- Consequence of actions in forming Nom. et Gen. pl.
- Checking hometask
- Individual work under the supervision of a tutor
- Test


## Revision

> Dictionary form - order of writing words in the dictionary

## Noun (NOMEN SUBSTANTIVUM)

Dictionary form - 3 components: 1) full form in Nom.sg., 2) ending in Gen.sg.,3) Gender
NB! All the components of a dictionary form are pronounced

## Adjectives (NOMEN ADJECTIVUM)

Dictionary form of an adjective consists of the masculine form, ending of feminine and neuter forms in Nom.sing.: $\mathbf{m , f , n ( N o m . s g . )}$

NB! Adjectives don't have their own declention, they are declined according to the I,II,III declenetions of nouns!

| Declention | Gender | Nom. sg. | Gen. sg. | Nom. pl | Gen. pl. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I | f | -a | -ae | -ae | -arum |
| II | m | -us/-er | -i | -i | -orum |
|  | n | -um/-on | -i | -a | -orum |
| III | m |  | m | m,f -es | $1 .-\mathrm{um}$ |


|  | f n | different | f 1 <br> -is <br> n / | $\mathbf{n}-\mathbf{a}$ <br> n- ia <br> (если <br> BNom. <br> sg. <br> e, -al, - <br> ar) | a) imparasyllaba nouns with the stem ending in consonant: pulmo,onis m - pulmonum <br> b) adjectives in comparat degree: <br> anterior, ius - anteriorum (m,f,n) <br> 1. -ium <br> The rest |
| :---: | :---: | :---: | :---: | :---: | :---: |
| IV | m $\mathbf{n}$ | -us <br> -u | -US <br> -US | $\begin{aligned} & \text { m--us } \\ & \text { n--ua } \end{aligned}$ | $\begin{array}{ll} \mathbf{m}^{-} \\ \mathbf{n}^{- \text {-uum }} \end{array}$ |
| V | f | -es | -ei | -es | -erum |

## Samples of individual work

## 1.Translate into Latin with writing out the words:

1) muscle of neck
2) base of skull
3) dividing wall of nose
4) small foot of arch of vertebra
5) zygomatic process of temporal bone
6) ethmoidal sulcus of nasal bone
7) dura mater of brain
8) the longest muscle of head
9) superficial lymphatic vessels
10) major and minor horns
11) nerve nodes of sympatic networks
12) anterior intercostal veins
13) widest muscle of back
14) minor palatine canals
15) external occipital protuberance

## 2.Translate the following terms into English:

1) venae digitales dorsales pedis
2) hiatus canalis nervi petrosi minoris
3) ganglia plexuum visceralium
4) vaginae tendinum musculorum extensorum carpi radialium
5) lobi glandulae mammariae
6) facies anterior et posterior dentium premolarium et molarium
7) lagamenta tendinum
8) vasa vasorum
9) flexura sacralis recti
10) ramus cutaneus lateralis nervi iliohypogastrici
3. Form adjectives with the help of suffixes in their dictionary form from the noun stems:
facies, ei f gaster, tris
f oesophagus, im
musculus, $\mathbf{i m}$ os,
ossis $n$

## Literature:

| $\begin{aligned} & \text { II/ } \\ & \text { № } \end{aligned}$ | Name | Author | Year, place of edition | number |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | In the library | At the chair |
| 1 | 2 | 3 | 4 | 5 | 6 |
| The main literature |  |  |  |  |  |
| 1 | Latin and medical terminology | Chernjavskii M.N. | M.: Shiko 2015 | 100 | 5 |
| 2 | Latin and pharmaceutical | Chernjavskii M. N . | M.: <br> ГЭОТАР <br> -Медиа, | 27 |  |


|  | terminology |  | 2014 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | Латинский язык и фармацевтическая терминология: учебное пособие | Зуева Н.И., Зуева И.В., Семенченко В.Ф. | M: <br> ГЭОТАР <br> -Медиа, $2012$ |  |  |
| 4 | Латинский язык для педиатрических факультетов: учебное пособие | Нечай М.Н. | M.: <br> Кнорус, 2013 | 100 | 5 |
| Additional literature |  |  |  |  |  |
| 1. |  |  |  |  |  |
| 1 | Латинский язык и фармацевтическая терминология: учебное пособие | Зуева И.В., Зуева Н.И., Семенченко В.Ф. | M.: <br> ГЭОТАР <br> -Медиа, 2008 | 10 | 4 |
| 2. | Толковый латинско - русский словарь кардиологических терминов. | КочкареваА. Г., НоводрановаВ. $\Phi$. | $\begin{aligned} & \hline \text { М.: } \\ & \text { ГЭОТАР } \\ & \text {-Медиа, } \\ & 2008 \end{aligned}$ | 7 | 4 |
| 3. | Латинский язык: учебное пособие | Бухарина Т. Л. | M.: <br> ГЭОТАР <br> -Медиа, 2015 | 50 |  |

Federal state budgetary educational institution of the higher education «North - Ossetian state medical academy» Healthcare ministry of the Russian Federation

## Department of Foreign Languages

TRAINING MATERIALS FOR THE TEACHERS FOR THE DISCIPLINE "LATIN FOR FOREIGN STUDENTS"<br>( Clinical Terminology )

the main professional educational programme of higher education - specialty programme in the specialty 31.05.03 Dentistry, approved in
30.03.2022

## Clinical Terminology

## Topic 1

«Some general notions of word formation: structure of a word, morphim: word composition structure - formative (motivating) and derivative stems. Term element (TE).Types of word formation».

General information about word formation:word parts,morpheme:word formation structure.Medical terms.Component elements.Clinical terms. Word formation.

## I.The aim of the lesson:

## Educational

- To form new theoretical knowledge on the theme;
- To form practical skills;


## Concrete tasks:

## Astudentshouldknow:

1. ClinicalterminologyasalanguageofMedicine.
2. Ways of word formation.
3. Defining the basic parts.
4. Greek and Latin suffixes

A student should be able to:

1. To analyze medical terms.
2. Todefine thestemofaword.
3. To define suffixes in the structure of terms and give their meaning.

## Thecontent

Although medical terms have been drawn from many languages, a large majority are from Greek and Latin.

The long and formidable sounding medical terms are a combination of words, which describe parts of the body, a function, or a condition. The basic terms occur repeatedly in various combinations. A knowledge of the meaning of the roots, prefixes, and suffixes enables the student to analyze the medical terms into component parts. This is of the greatest aid in learning to understand the vocabulary of medicine. Some names of diseases given by the ancients and still used todayare, in many instances, simply descriptions of the outstanding symptoms;for example, hydro-phobia-fear of water-for rabies.

1. It is estimated that about three-fourthsof the English medical terminology is ofGreek origin. The main reason for this is that the Greeks were the founders of rational medicine in the golden age of Greek civilization in the 5 th Century B.C. The Hippocratic School and, later on, Galen (the Greek from Asia Minor who lived in Rome in the 2nd century A.D.) formulated the theories, which dominated medicine up to the beginning of the 18th Century. The Hippocratic's were the first to describe diseases based on observation, and the names given by them to many conditions are still used today.for example, arthritis, nephritis, pleuritis (pleurisy).
2. The second reason for the large number of Greek medical terms is that the Greek language lends itself easily to the building of compounds. When new terms were needed, with the rapid expansion of medical science during the last century, Greek words or Latin words with Greek endings were used to express the new ideas, conditions, or instruments. The new words follow the older models so closely that it is impossible to distinguish the two by their forms. Such recent words as appendicitis, creatinine, cystoscope, epinephrine, streptococcus, and many others do not appear different from the classical terms. The fact is that about onehalf of our medical terminology is less than a century old.
3. The third reason for using the classical roots is that they form an international language, easily understood by anyone familiar with the subject matter.

The terminology of the modern medicine is the most complicated terminological system of the modern science. The total amount of medical terms remains unknown, but its estimated amount exceeds one million terms. You realize thatit is impossible to learn one million words, even for an intelligent person, because we use in our native language only several thousands words. Our course will help you to understand and use about fifty thousand main medical terms. This course teaches you how medical terms are 'built' or 'put together' instead of just memorizing lots of medical words and their meanings. You will learn to recognize the meaning of a medical term by dividing the word into its three basic component parts: the prefix, root and suffix. By knowing the meanings of the prefixes, suffixes, and root words, you can easily figure out the meaning of a medical term.

For example, if you see a medical term containing the root word 'cardi' and the suffix 'itis', you know that the term has to do with an 'inflamed' (itis) 'heart' (cardi).This technique of word building is a simple and straightforward way to learn medical terminology without long hours of memorizing the medical vocabulary. $\cdot$ You will learn Latin and Greek terminological elements.

- You will be able to figure out unfamiliar words by recognizing their building blocks from which they are constructed.
- You will be able to construct many words correctly by learning to put these building blocks together in the proper way.
- You will be able to determine the meanings of thousands of words that you have never seen before and which are used in medicine.

Greek and Latin medical terms can be broken down into one or more word parts. For simplicity in explanation, let's say that there are four possible word parts, and any given medical term may contain one, some, or all of these parts:

1. Root terminological elements (a shorthand notation "root")
2. Final terminological elements (a shorthand notation "suffixes")

## 3. Prefixes

## 4. Combining vowels

An example of a word with three of the above parts is the medical term pericarditis, which means inflammation of the outer layer of the heart. Pericarditis can be divided into three parts:

- peri - card - itis

Once divided into its essential parts, pericarditis can be translated:
the prefix peri- translates tosurrounding,
the root -card- translates toheart, and
the suffix -itis translates toinflammation.
Hence, pericarditis is an inflammation of the area surrounding the heart, or an inflammation of the outer layer of the heart, anatomically known as the pericardium.Medical terms always consist of at least one root, although they may contain more. The root of a word is that part which contains the essential meaning of the word. An example of this was seen above in the term pericarditis. The root of the word -card - refers to the heart, so any prefix or suffix added to the root (card) will only function to add to the specificity of that word. An example of this would be the prefixbrady, which meansslow. If "brady" is added to the root "card", the term bradycard - which roughly means slow heart - is created. Then, if the suffix ia - which means abnormal state - is added to "bradycard", the medical term bradycardia is formed. The translation of bradycardia (brady-card-ia)is slow - heart - abnormal state, or the abnormal state of a slow heart rate.

Linking or Combining Vowels: As was discussed above, a medical term must have at least one root, but may not have a prefix and/or a suffix. An example of this is the term sternocleidomastoid, which is a muscle that has attachments at
the sternum, the clavicle, and the mastoid. The term sternocleidomastoid can be divided into three parts (three roots, in this case):stern - o - cleid - o mastoid. Notice that there are vowels between the three roots. These are linking or combining vowels, which serve to make a term easier to pronounce. The vowel used most of the time iso, but other vowels such as $\mathbf{i}$ and are also used. Combining vowels are often used between roots and suffixes or roots and other roots, but they are NOT used between prefixes and roots.

## 4. LEARNING TO READ A MEDICAL TERM

When you look at a medical term and attempt to decipher its meaning you begin with the suffix, move to the prefix (if present) and then the root word.

For example: When trying to understand the word pericarditis you would identifyitis (meaning inflammation), thenperi (meaning around) and thencard (meaning heart). Therefore, this word means inflammation around the heart.

Let's try another one: for example:leukocytopenia -penia (meaningdecrease), thenleuk/o (meaning white) and finallycyt/o (meaning cell). Therefore, this word means adecrease in white cells.

| Remember the following suffixes |
| :--- | :--- |
| Suffixes of nouns |
| I. dimunitive |
| -ul $\quad$ globulus $\quad$ ball |
| -cul $\quad$ tuberculumtubercule |
| -ol $\quad$ foveolafovea |
| -ell $\quad$ lamella |
| -ill $\quad$ mamellanipple |
| II. action |
| -io $\quad$ transplantatio transfer |


| III. subject(organ, instrument) producing effect |
| :--- |
| -or sphinctersqueezer |
| -er |
| IV. the result of the action |
| -ura incisuraincisure |
| V. Suffixes of adjectives |
| a) characterizedandrichinsome qualitysigned by stem,: |
| -os mucosusmucous |
| b) Belonging or relating to what is called the basis |
| -al $\quad$ vertebralis |
| -ar $\quad$ clavicularisclavicular |
| -ic |
| -e $\quad$ pharacicusthoracic |
| -in $\quad$ palatinuspalatine |
| c) Similar to what is called the basis |
| -die (гр.) mastoideusmastoid |
| -form (лат.) fungiformismushroom like |
| d) Carrying what is called the basis |
| -fer $\quad$ seminiferseminal |
| -phor (гр.) oophorusoviparous |
| e) -Generating, causing what is called the basis |
| - generated, due to what is called the basis |
| -gen |

## VI.TASK FOR INDERPENDENT WORK.

## 1. Define suffixes and give their meaning:

tubula, ossiculum, fractura, depressor, amputatio, cardiogenus, apicalis, urinarius, tendinosus, palatinus, laryngeus, deltoideus, gluteus, cruciformis

## 2. Match the following:

uterinusdrum
pterygoideusbridle
resectiomushroomlike
fossulauterine
frenulumfovea
tympanicusdeleting
fungiformisalaris

## Form the terms with the meaning:

1) Inflammation of stomach - gaster,tris $f$

Joints arthr-
liverhepar, atis $n$
2) New formations

Fibrous connective tissue
fibr-
musclemy-
glandaden-
muscle tissue my-
3) Noninflamatory diseases

Joints arthr-
skindermat-
paradontaparodont-

## Vocabulary

| abscessus, us m | abscess |
| :--- | :--- |
| acutus, a, um | acute |
| benignus, a, um | benignus |
| cancer, cri m | cancer |
| cancerosus, a, um | cancerous |
| caries, ei f | caries |
| chronicus, a, um | chronical |
| colica, ae f | (Greek.) colic |
| coma, atis n | (Greek.) coma |
| comatosus, a, um | comatosus |
| cysta, ae f | (греч.)cysta |
| cystosus, a um | cystic |
| diabetes, ae m | (Greek.) diabetis |
| diabeticus, a, um | diabetic |
| diffusus, a, um | diffuse (paзлитой, распространенный) |
| eczema, atis n | (Greek.) eczema |
| fractura, ae f | fractures |
| gangraena, ae f | (Greek.) gangrene |
| gangraenosus, a, um | gangrenous |
| glaucoma, atis n | glaucoma |
| hernia, ae f | hernia |
| hernialis, ae f | herniac |


| icterus, i m | (Greek.) jaundice |
| :--- | :--- |
| ileus, i m | (Greek.)intestinal obstruction |
| infantilis, e | infantile |
| infectio, onis f | infection |
| infectiosus, a, um | infectionous |
| inflammatio, onis f | inflammation |
| juvenilis, e | jouvenile |
| malignus, a, um | malignant |
| morbus, i m | desease |
| oedema, atis n | aedema |
| paralysis, i f | (Greek)paralasis |
| paralyticus, a, um | paralitic |
| paresis, is f | (Greek) paresis |
| pneumonia, ae f | (Greek.) pneumonia |
| senilis, e | senilis |
| spasmus, i m | (Greek.) spasm |
| spasticus, a, um | (Greek.) spasmic |
| trauma, atis n | (Greek) trauma |
| traumaticus, a, um | traumatic |
| ulcus, eris n | ulcer |
| ulcerosus, a, um | ulceric |
| varix, icis m/f | Venous node |
| varicosus, a, um | varicousis |
| volvulus, i m | volvulus |
|  |  |

## Topic 2

> Clinical terminology.Combining roots.Free and dependent, premier and final medical terms.Greek and Latin component elements.Types of clinical terms. Component elements in the in the structure of a term.

Clinical terminology.Combining roots.Free and dependent, premier and final medical terms.Greek and Latin component elements.Types of clinical terms.Component elements in the in the structure of a term.

## I.The aim of a lesson:

- Toformnewtheoreticalknowledge;
- Toformpracticalskills;


## Concrete tasks:

## Astudentshouldknow:

1. Definition of clinicalterminologyasalanguageofmedicine.
2. Thefinalaimofstudying the theme.
3. The main ways of word formation.
4. Defining the component element.
5. Defining Greek and Latin compounds.
6. Typesofmedicalterms.
7. Greek and Latin compounds denoting parts of body and organs.
8. Greek compound elements denoting science, methods of diagnostic examination, disease, treatment, illness and sufferings.

A student should be able to:

1. Toanalyzeterms
2. To define stems.
3. TodefineGreekandLatindoubletsandcombining clinical elements and give their meaning.

The content:

## II. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

## ROOTS

| Greek and Latin <br> roots | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| angi-;vas- | angi- | blood vessel | angiogramma |
| bio-;vit- | bio- | life | biologia |
| cardi-; <br> (-cardia) | cardi- | heart | cardiologia |
| cyt-; | cyt-; | cell | adenocytus |
| (-cytus) | -cyte | urinary bladder; sac |  |
| of fluid |  |  |  | cystectomia | cyst- |
| :--- |
| cyst- |

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| cholecyst- | cholecyst- | gallbladder | cholecystotomia |
| :--- | :--- | :--- | :--- |
| kerat- | kerat- | cornea; horny | keratotomia |
| mast-; <br> (-mastia); <br> mamm- | mast-; <br> -masty | breast | mastographia |
| encephal- | encephal- | brain | encephalogramma |
| gastr-; <br> (-gastria) | gastr- | stomach | gastrotomia |
| colp- | colp- | vagina | colpectomia |
| enter- | enter- | small intestine | gastroenterologia |
| physi- | physi- | nature | physiotherapia |

## SUFFIXES

| Greek and Latin <br> suffixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| -graphia | -graphy | recording; X-ray <br> examination | angiographia |
| -gramma | -gram | record; X-rayfilm | angiogramma |
| -ectomia | -ectomy | removal; resection; <br> to cut out | cystectomia |


| -logia | -logy | science; study | biologia |
| :--- | :--- | :--- | :--- |
| -pathia | -pathy | any disease; disease <br> process | enteropathia |
| -tomia | -tomy | cutting; incision; <br> section | gastrotomia |
| -therapia | -therapy | treatment | physiotherapia |

## III.EXERCISES

1.Build up clinical terms with the given roots and suffixes, explain their meaning:
E.g.: When you join the rootgastr(o)- with the suffix-pathia you get the termgastropathia which means "disease process of the stomach".

- cardi(o)-(-graphia;-gramma;-pathia;-logia);

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-angi(o)- (-pathia;-graphia;-logia;-gramma);
-cholecyst(o)- (-pathia;-tomia;-ectomia;-graphia;-gramma);
-mast(o)-;mamm(o)-(-graphia;-ectomia;-gramma);
-cyst(o)- (-graphia;-tomia;-ectomia;-gramma);
-encephal(o)- (-pathia;-gramma;-graphia).

## 2.Explain the meaning of the following terms:

| 1)gastrectomia | 2) angiogramma <br> gastrotomia |
| :---: | :--- |
| angiologia <br> angiopathia <br> angiographia <br> angiocardiographia |  |
| 3)keratectomia | 4) cystectomia |
| keratotomia | cystogramma <br> cystographia |
|  | cystotomia <br> 5)cytologia |
| cytogramma | 6) colpotomia |
|  | enteropathia |

3. Give the Greek \& Latin variants and explain the meaning of the following terms:
angiogram; cholecystotomy; gastrectomy; colpotomy; encephalogram; enteropathy; cytology; cardiogram; mastopathy; angiology; keratectomy; biology; gastrotomy; cholecystectomy; cytogram; mastectomy

## 4. Give the Latin spelling of the terms; explain their meaning:

biology; cystography; angiopathy; keratectomy; gastrotomy; colpotomy; enteropathy; mammogram; encephalography; cytogram; cystectomy; cardiology; cholecystogram; keratectomy

## 5.Form the Greek \& Latin clinical terms according to the meaning:

-disease of vessels;
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-science of cells;
-removal of stomach;
-science of natural vital processes in the human body;
-disease of small intestine;
-X-rayexamination of heart;
-X-rayfilm of brain;
-X-rayexamination of urinary bladder;
-removal of cornea;
-cutting of vagina;
-X-rayfilm of gallbladder;
-X-rayfilm of heart;
-science of life;
-disease of breast;
-science of blood vessels.

## Topic 3

Clinical terminology.Wordformation.Suffixes -osis, -iasis, -itis, -oma, -ismus in clinical terminology. Greek and Latin dublets and single termelements

Clinical terminology. Word formation.Suffixes -osis, -iasis, -itis, -oma, -ismus in clinical terminology.

## I. Duration of the lesson 2 hours

## II. The aim of the lesson:

- Toformnewtheoretical knowledge;
- To form practical skills in independent search of information;


## Concretetasks:

## Студент должен знать:

1. To define clinical terminology
2. The final aim.
3. The main ways of word formation.
4. Defining of a clinical term and Greek and Latin dublets.
5. The meaning of clinical suffixes -osis, -iasis, -itis, -oma,-ismus.
6. Greek and Latin names of organs and tissues.
7. Greekclinicalterms of therapeuticaland surgical methods of treatment ,pathological changes in organs and tissues.

## A student should be able to:

1. Tomakemorphologicalanalysisofterms.
2. To determine clinical suffixes and give their meaning.

## I. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

## ROOTS

| Greek and Latin <br> roots | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| cheil-; <br> (-cheilia) | cheil- <br> (-cheilia) | lip | cheilōsis |
| derm-; <br> dermat-; | derm-; <br> dermat-; | skin | dermatologia |


| $($-dermia) | -dermia |  |  |
| :--- | :--- | :--- | :--- |
| hyster-; <br> metr- | hyster- | uterus | hysterotomia <br> netrotomia |
| nephr- | nephr- | kidney | nephropexia |
| oste- | oste- | bone | osteologia |
| proct- | proct- | anus and rectum | proctectomia |
| pyel- | pyel- | renal pelvis | pyelographia |
| rhin- | rhin- | nose | rhinopathia |
| spondyl- | spondyl- | vertebrae; backbone | spondylōsis |
| stomat- | stomat- | mouth | stomatītis |

## SUFFIXES

| Greek and Latin <br> suffixes | English word <br> elements | Meaning | Examples of <br> medical terms |
| :--- | :--- | :--- | :--- |
| -genēsis | -genesis | origin; cause | pathogenēsis |
| -gēnus,a, um | -genic; <br> -genous | developing from <br> inner state; to be the <br> result of | gastrogēnus |$|$| -itis | -itis | inflammation |
| :--- | :--- | :--- |
| -ōma | -oma | tumour; swelling |
| -ōnatītis |  |  |
| ansiōma |  |  |
| -pexia | -osis | abnormal condition; <br> disease |
| -scopatōsia | -pexy | fixation |

## PREFIXES

| Greek and Latin <br> prefixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| endo- | endo- | within; in | endometrītis |
| para- | para- | beside; near | parametrītis |
| peri- | peri- | surrounding (outer) | perinephrītis |

## II.EXERCISES

1.Build up clinical terms with the given roots and suffixes, explain their meaning:
--(o)scopia(gastr-;cholecyst-;colp-;cyst-;stomat-;rhin-;cyt-;proct-);
--(o)pexia(hyster-;nephr-;proct-;enter-);
-(o)pathia(rhin-;spondyl-;nephr-;oste-;cholecyst-;encephal-;angi-;mast-;cardi-);
--itis(colp-;nephr-;proct-;cholecyst-;kerat-;pyel-;dermat-;cheil-;stomat-;;hin-;encephal-;mast-;spondyl-);
-para- (-metritis;-nephritis;-proctitis);
-endo- (-genus;-scopia;-metritis;-cardium;-carditis).
2. Explain the meaning of the following terms:

| 1) angiocholecystitis <br> angioma | 2) nephritis |  |
| :--- | :--- | :--- |
| angiomatosis |  | nephrectomia |
| angiopathia |  | nephropathia |
| angitis |  | nephroma |
| angiologia |  | nephropexia |
|  |  | nephropyelitis |
|  |  | nephrosis |
|  |  | nephrotomia |
| 3) pyelographia |  |  |
| pyelocystitis | 4) | dermatitis |
| pyelitis |  | dermatologia |
| pyelonephritis |  | dermatoma |
| pyelotomia |  | dermatosis |
| 5) pathologia |  |  |
| biologia |  | osteogenesis |
| osteologia |  | osteologia |
| proctologia |  | osteoectomia |
| nephrologia |  | osteoma |
| stomatologia |  | osteopathia |
| cardiologia |  | osteotomia |
| cytologia |  | ostitis |
| angiologia |  | endosteum |

3. Give the Greek \& Latin variants and explain the meaning of the following terms:
endoscopy; osteotomy; endometritis; endocardium; endocarditis; metritis; metropathy; dermatology; spondylotomy; nephrogenic; nephropathy; osteocytoma; nephropexy; pyelography; proctoscopy; gastroscopy; enteropexy; spondylopathy; encephalopathy; proctectomy; keratosis; osteology; keratoma; nephroma; osteopathology; spondilitis.

## 4. Give the Latin spelling of the terms; explain their meaning:

nephrology; endogenous; nephropyelography; colposcopy; metrography; angiitis; angiocardiogram; spondylosis; osteopathy; stomatology; stomatoscopy;
cholecystopexy; osteoma; osteogenesis; gastrogenic; dermatology; rhinopathy; perinephritis; endometritis; gastrectomy; nephrogram; mastectomy; osteocytes; spondylogram; dermatoscopy.

## 5.Form the Greek \& Latin clinical terms according to the meaning:

-inflammation of the tissue surrounding the heart
-internal examination of nose
-fixation of kidney
-removal of bone
-inflammation of uterus mucous
-science of skin
-cutting of uterus
-removal of anus and rectum
-inflammation of renal pelvis and urinary bladder
-disease of bones
-abnormal condition of skin
-inflammation of lips
-fixation of anus and rectum
-removal of kidney
-disease of uterus
-inflammation of vertebrae
-internal examination of oral cavity

- inflammation of nose
-tumour of kidney


## Sample Test

Explain the meaning of the following terms:

1) angiocholecystitis
angioma
angiomatosis
angiopathia
angiitis
angiologia
2) nephritis
nephropathia
nephrectomia
nephrosis
nephrotomia
nephropexia
nephropyelitis
3) pyelographia
pyelocystitis
pyelitis
pyelonephritis
pyelotomia
4) pathologia
biologia
proctologia
nephrologia
stomatologia
angiologia
5) osteogenesis
osteologia
osteologia
osteoma
osteoectomia
osteotomia
osteopathia

## 2. Form the Greek \& Latin clinical terms according to the meaning:

-inflammation of the tissue surrounding the heart
-internal examination of nose
-fixation of kidney
-removal of bone
-science of skin
-cutting of uterus
-removal of anus and rectum
-inflammation of renal pelvis and urinary bladder
-abnormal condition of skin

## 3. Explain their meaning:

nephrology; nephropyelography; colposcopy; metrography; angiitis; spondylosis; stomatology; cholecystopexy; osteoma; osteogenesis; dermatology; rhinopathy; perinephritis; endometritis; gastrectomy, mastectomy; osteocytes; spondylogram; dermatoscopy.

## Topic 4

Clinical Terminology.Word formation. Prefixation. Prefix and suffix derivatives. Frequently used Greek and Latin prefixes

## Clinical terminology.Word formation.Prefixes.Derivatives

I. The duration of the lesson 2 hours

## II.The aim:

## Educational

- Toformnewtheoretical knowledge;
- To form practical skills in independent search of information;


## Concretetasks:

A student should know:

1. To define clinical terminology
2. The final aim.
3. The main ways of word formation.
4. Defining of a clinical term and Greek and Latin dublets.
5. The meaning of clinical suffixes prefixes

A student should be able to:

1. To make morphological analysis of terms.
2. Too define clinical prefixes

## The content

Greek and Latin medical terms can be broken down into one or more word parts. For simplicity in explanation, let us say that there are four possible word parts, and any given medical term may contain one, some, or all of these parts:
1.Root terminological elements (a shorthand notation "root")
2.Final terminological elements (a shorthand notation "suffixes")

## 3.Prefixes

## 4. Combining vowels

An example of a word with three of the above parts is the medical term pericarditis, which meansinflammation of the outer layer of the heart. Pericarditis can be divided into three parts:

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- peri - card - itis
```

Once divided into its essential parts, pericarditis can be translated: -the prefix peri- translates tosurrounding, the root - card- translates toheart, and -the suffix -itis translates toinflammation.

Hence, pericarditis is an inflammation of the area surrounding the heart, or an inflammation of the outer layer of the heart, anatomically known as the pericardium.Medical terms always consist of at least one root, although they may contain more. The root of a word is that part which contains the essential meaning of the word. An example of this was seen above in the term pericarditis. The root of the word -card - refers to the heart, so any prefix or suffix added to the root (card) will only function to add to the specificity of that word. An example of this would be the prefixbrady, which meansslow. If "brady" is added to the root "card", the termbradycard - which roughly meansslow heart - is created. Then, if the suffixia - which meansabnormal state - is added to "bradycard", the medical termbradycardia is formed. The translation of bradycardia (brady-card-ia)isslow - heart - abnormal state, or the abnormal state of a slow heart rate.

Linking or Combining Vowels: As was discussed above, a medical term must have at least one root, but may not have a prefix and/or a suffix. An example of this is the termsternocleidomastoid, which is a muscle that has attachments at he sternum, the clavicle, and the mastoid. The term sternocleidomastoid can be divided into three parts (three roots, in this case):stern - o-cleid - o-mastoid. Notice that there are vowels between the three roots. These arelinking or combining vowels, which serve to make a term easier to pronounce. The vowel used most of the time iso, but other vowels such as $\mathbf{i}$ and are also used. Combining vowels are often used between roots and suffixes or roots and other roots, but they are NOT used between prefixes and roots.

## LEARNING TO READ A MEDICAL TERM

When you look at a medical term and attempt to decipher its meaning you begin with the suffix, move to the prefix (if present) and then the root word. For example: When trying to understand the word pericarditis you would identifyitis (meaning inflammation), thenperi (meaning around) and thencard (meaning heart). Therefore, this word means inflammation around the heart.

Let's try another one: for example:leukocytopenia -penia (meaningdecrease), thenleuk/o (meaning white) and finallycyt/o (meaning cell). Therefore, this word means adecrease in white cells.

| Remember the following suffixes |  |
| :--- | :--- |
| Suffixes of nouns |  |
| I. dimunitive |  |
| -ul | globulus |
| -cul | tuberculumtubercule |
| -ol | foveolafovea |
| -ell | lamella |
| -ill | mamellanipple |


| II. action |
| :--- |
| -io transplantatio transfer |
| III. subject(organ,instrument) producing effect |
| -or sphinctersqueezer |
| -er |
| IV. the result of the action |
| -ura incisuraincisure |
| V. Suffixes of adjectives |
| a) characterizedandrichinsome qualitysigned by stem,: |
| -os mucosusmucous |
| b) Belonging or relating to what is called the basis |
| -al $\quad$ vertebralis |
| -ar $\quad$ clavicularisclavicular |
| -ic $\quad$ thoracicusthoracic |
| -e |
| -in $\quad$ pharyngeuspharyngeal |
| c) Similar to what is called the basis |
| -die (гр.) mastoideusmastoid |
| -form (лат.) fungiformismushroom like |
| d) Carrying what is called the basis |
| -fer seminiferseminal |
| -phor (гр.) oophorusoviparous |
| e) -Generating, causing what is called the basis |
| - generated, due to what is called the basis <br> -gen $\quad$ cancerogenusCancer-causing |

## TASK FOR INDERPENDENT WORK.

## 1. Define suffixes and give their meaning:

tubula, ossiculum, fractura, depressor, amputatio, cardiogenus, apicalis, urinarius, tendinosus, palatinus, laryngeus, deltoideus, gluteus, cruciformis

## 2.Match the following :

uterinusdrum
pterygoideusbridle
resectiomushroomlike
fossulauterine
frenulumfovea
tympanicusdeleting
fungiformisalaris

## Make up terms with the following meaning:

4) Inflammation of stomach
gaster,tris $f$
Joints arthr-

Liverhepar, atis n
5) New formations

Fibrous connective tissue
fibr-
Musclemy-
Glandaden-
Muscle tissue my-
6) Non inflamatory diseases

Joints arthr-
Skindermat-
paradontaparodont-

## Topic 5

Clinical terminology.Word formation.Greek and Latin dublet names of Tissues, organs, secrets, gender and age.Single term elements denoting functional pathological conditions and processes

Clinical terminology.Wordformation.Greek and Latin designations of tissue, organs, secrets, gender and age.Singleclinical terms defining functional pathological processes and conditions.
I. Durationof the lesson 2 hours.
II. The aim of the lesson:

## Educational

- Toformnewtheoreticalknowledge;
- To form practical skills in the search of information;
- Tomakemorphemicandwordforminganalyses; select basic Greek and Latin prefixes and give their meanings.

Concrete tasks:

## A student should know:

1. Definition of clinical terminology as medical sublanguage.
2. Final aim of studying the theme.
3. Main ways of word formation.
4. Defining clinical basic elements.
5. Greek and Latin designations of tissues, organs, secrets, gender and age
6.Single clinicalelements defining pathological conditions and processes

СтудентдолженуметьA student should be able to:

1. Make analysisofaword
2.To define Latin and Greek prefixes.
2. To give the meaning of a term

The Content:

## I. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

## ROOTS

| Greek and Latin <br> roots | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| odont-; <br> (-odontia); <br> (-dentia) | odont-; <br> -odontia; <br> -dentia | tooth | odontalgia |
| ophthalm-; <br> -ophthalmia | ophthalm-; <br> -ophthalmy | eye | ophthalmopathia |
| ot- | ot- | ear | otoscopia |
| paed-; |  |  |  |
| (-paedia) | ped- | child; children | paediatria |
| phleb- | phleb- | vein | phlebotomia |
| phthisi- | phthisi- | tuberculosis | phthisiatria |
| psych- | psych- | mind | psychologia |
| trich-; | trich- | hair | trichopathia |
| (-trichia) |  |  |  |

## SUFFIXES

| Greek and Latin <br> suffixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |


| -alg; -algia | -algia | pain | trichalgia |
| :---: | :---: | :---: | :---: |
| -iāter; -iatria | -iatrist; <br> -iatrician <br> -iatry; <br> -iatria | physician; <br> science about treatment | paediater; paediatria |
| -plasia | -plasia | formation; development | hyperplasia |
| -rrhagia | -rrhagia | bleeding | rhinorrhagia |
| -rrhaphia | -rrhaphy | suturing | metrorrhaphia |
| -rrhoea | -rrhea | discharge; elimination | rhinorrhoea |
| -trophia | -trophy | nourishment; development | dystrophia |

## PREFIXES

| Greek and Latin <br> prefixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| a-;an- | a-;an- | no; not; <br> without | aplasia |
| dys- | dys- | malfunction; <br> difficulty | dysplasia |
| hyper- | hyper- | above; <br> excessive | hyperplasia |
| hypo- | hypo- | below; deficient | hypoplasia |

## ROOTS

| Greek and Latin <br> roots | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| aesthesi-; <br> -aesthesia | esthesi-; <br> -esthesia | feeling; <br> nervous sensation | anaesthesiologia |
| brady- | brady- | slow | bradycardia |
| gynaec- | gynec- | woman; <br> female | gynaecologia |
| hist- | hist- | tissue | histologia |
| hydr- | hydr- | water | hydrophobia |
| lip- | lip- | fat; lipid | lipōma |
| lith-; | -lith | stone; | phlebolithus |


| -lithus |  | calculus |  |
| :--- | :--- | :--- | :--- |
| melan- | melan- | black | melanuria |
| onc- | onc- | tumour | oncologia |
| pyr- | pyr- | fever; heat | pyrotherapia |
| tachy- | tachy- | fast | tachycardia |

## SUFFIXES

| Greek and Latin <br> suffixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| -penia | -penia | decreased number <br> (in blood) | leucocytopenia |
| -pexia | -pexy | fixation | nephropexia |
| -phobia | -phobia | fear | hydrophobia |
| -plegia | -plegia | paralysis; palsy | diplegia |

## PREFIXES

| Greek and Latin <br> refefixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| bi-;di-; | bi-;di-; | two | didactylia |
| mono- | mono- | one; single | monophobia |

## II.EXERCISES

1.Build up clinical terms with the given roots and suffixes, explain their meaning:
-hyper- (-keratosis;-mastia;-nephroma;-plasia;-trichosis;-trophia);
-hypo- (-plasia;-trophia;-gastrium;-thyreosis);
-dys- (-enteria;-trophia;-plasia;-keratosis;);
-a-;an-(-trophia;-plasia;-ophthalmia;-trichia;-dentia;-cheilia);
--(o)rrhagia(ot-;metr-;proct-;gastr-;enter-;stomat-;ophthalm-;odont-;hyster-;cheil-;rhin-);
-trich(o)- (-pathia;-rrhoea;-osis;-algia);
-ot(o)- (-genus;-rrhagia;-scopia;-itis);
-phleb(o)- (-gramma;-graphia;-itis;-tomia;-ectomia;-rrhaphia);
-rhin(o)- (-scopia;-rrhagia;-rrhoea;-pathia;-itis;-algia).

## 2.Explain the meaning of the following terms:

\(\left.$$
\begin{array}{lll}\text { 1) psychologia } & \text { 2) phlebotomia } \\
\text { psychiatria } & & \begin{array}{l}\text { phlebographia } \\
\text { psychiater } \\
\text { psychogenus } \\
\text { psychopathia } \\
\text { psychotherapia }\end{array}
$$ <br>
phlebogramma <br>

phlebitis\end{array}\right]\)| 3) trichopathia |  | ophthalmologia <br> trichalgia |
| :--- | :--- | :--- |
| trichorrhoea | 4) | ophthalmorrhagia <br> endophthalmitis <br> trichosis |
| atrichia |  | ophthalmoscopia <br> anophthalmia |
| 5) proctalgia |  | otorrhoea <br> odontalgia <br> trichalgia |
| gastralgia |  | otorrhagia <br> otoscopia <br> otogenus <br> otitis |
|  |  | otalgia |

3. Give the Greek \& Latin variants and explain the meaning of the following terms:
trichopathy; phlebotomy; pediatrician; otogenic; ophthalmology; hypoplasia; otoscopy; dystrophy; hyperkeratosis; phlebography; adentia; enteropexia; proctalgia; aplasia; psychogenic; atrophy; cheilorrhagia; rhinoscopy; phlebitis; trichalgia; psychiatry; otitis; enterorrhaphy; otorrhea; endophthalmitis; odontalgia; dysplasia; hysterorrhaphy; otorrhagia; rhinorrhea; phlebogram; stomatitis; psychopathy; metrography; proctorrhagia; hypotrophy; gastrorrhagia; acheilia; atrichia; gastritis; enterorrhagia.

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4. Give the Latin spelling of the terms; explain their meaning:
phlebogram; psychotherapy; phlebotomy; odontoma; dystrophy; psychiatry; otogenic; hypertrophy; enterorrhaphy; phlebography; metrography; rhinorrhea; psychogenic; psychopathy; trichorrhea; otoscopy; angiocardiography; enteropathy; hypotrophy; ophthalmoscopy; encephalogram; cholecystotomy; mastopathy; trichopathy; nephropathy; phthisiatrist; stomatoscopy; dysentery.

## 5.Form the Greek \& Latin clinical terms according to the meaning:

-study of tuberculosis
-incomplete development of an organ or tissue
-bleeding from ear
-toothache (pain)
-lack of hair
-inflammation of vein
-physician who treats children
-abnormal development
-science about treatment of mental disorders
-study of eye disorders
-bleeding from tooth
-decrease in size or wasting away of a cell, tissue, organ or part
6.Build up clinical terms with the given roots and suffixes, explain their meaning:
-tachy- (-cardia;-kinesia;-arrhythmia);
-hydr(o)-(-therapia;-phobia;-thorax;-rrhoea;-nephrosis;-cephalia;-metra;-myelia); -pyr(o)- (-mania;-therapia;-phobia;-genus);
--(o)phobia(hydr-;gynaec-;toxic-;mono-);
-di- (-dactylia;-plegia;-cheilia);
--(o)pexia(nephr-;metr-;proct-;cyst-;col-);
--(o)plegia(cyst-;ophthalm-;di-;mono-;cardiomyo-;gloss-);
-(o)lithus(enter-;phleb-;ur-;rhin-;hepat-;nephr-).

## 7. Explain the meaning of the following terms:

| 1)melanuria <br> melanodermia <br> melanoma | 2) | histotherapia <br> histologia |
| :--- | :--- | :--- |
| 3)bradyglossia |  |  |
| bradyarrhythmia |  |  |
| bradycardia |  |  |
| bradyaesthesia |  |  |
| bradykinesia |  |  |
| bradyphagia |  |  |$\quad$ 4) | pyrotherapia |
| :--- |
| pyrophobia |
| pyrogenus |

## 8. Give the Greek \& Latin variants and explain the meaning of the following terms:

histology; anesthesia; gynecophobia; erythropenia; melanosis; bradycardia; hypogastrium; hypertrophy; hydrology; pyrogenic; pyuria; erythema; monodactyly; bilateral; esthesiology; oncotomy; gynecopathy; lipemia; diplegia; erythrocyturia; enterolith; nephrolithiasis; histoma; oncosis; chondrodystrophy; lipatrophy; gastroduodenostomy; otorrhagia; enteropexy; bradykinesia; monophobia; pyelotomy; lipopenia; toxicophobia; myorrhaphy; myogenic; myelogram; lipofibroma; periodontium; periostitis; oncocytoma; cystopyelogram.
9. Give the Latin spelling of the terms; explain their meaning:
hydrophthalmos; mammography; cancerophobia; glossoplegia; rhinolith; glycemia; hydrometra; cytopenia; anesthesiology; hydrocholecystis;angiography; glossorrhagia; colpopexy; phlebolith; melanodermia; monocytopenia; monomyoplegia; nephromegaly; mononeuritis; gastropexy; dicheilia; dysenteria; lipodystrophy; colostomy; cholelithiasis; cardiotomy; chondrotomy; tachyphagia; cardiomegaly; bradyphagia; hydrotherapy; urolith; cardiophobia; ophthalmoplegia; metropexy; parodontosis; rhinopathy; gynecology.

## 10.Form the Greek \& Latin clinical terms according to the meaning:

- excess of lipids in the blood
-paralysis (palsy) of the tongue
-fixation of the vagina
-particular type of white blood cell that has one nucleus
- producing (caused) by fever
-renal stone
-abnormally fast heart rate
-slowing of swallowing
-collection of fluid in the pericardial cavity
-fear of water
-branch of medicine that treats diseases of the genital tract in women
-benign tumour composed of fatty tissues
-dark pigment excreted in the urine
-study of tumours
-decreased number of erythrocytes
-palsy (paralysis) of the bladder
-fixation of the rectum
- one finger on the hand
-urinary stone
-abnormally slow heart action (slow pulse)
-use of water in the treatment of disease or injury
- producing fat
-microscopic study of tissues
-dark pigment in the skin
-palsy (paralysis) of one extremity•disease of hair
-abnormal increase of breast in size
-cutting of vein
-developing from tooth


## Sample Test

## 1. Give the Greek \& Latin variants and explain the meaning of the following terms:

trichopathy; pediatrician; ophthalmology; hypoplasia; dystrophy; hyperkeratosis; phlebography; adentia; enteropexia; aplasia; psychogenic; atrophy; cheilorrhagia; rhinoscopy; phlebitis; trichalgia; psychiatry; otitis; enterorrhaphy; otorrhea; odontalgia; dysplasia; hysterorrhaphy; otorrhagia; rhinorrhea; stomatitis; psychopathy; metrography; proctorrhagia; hypotrophy; gastrorrhagia; acheilia; gastritis; enterorrhagia.

## 2. Explain the meaning:

hydrophthalmos; mammography; cancerophobia; glossoplegia; rhinolith; glycemia; hydrometra; cytopenia; anesthesiology; hydrocholecystis; angiography; glossorrhagia; colpopexy; phlebolith; melanodermia; monocytopenia; monomyoplegia; nephromegaly; mononeuritis

## 3.Form the Greek \& Latin clinical terms according to the meaning:

- excess of lipids in the blood
-paralysis (palsy) of the tongue
-fixation of the vagina
-particular type of white blood cell that has one nucleus
-producing (caused) by fever
-renal stone
-abnormally fast heart rate
-slowing of swallowing
-collection of fluid in the pericardial cavity
-fear of water
-branch of medicine that treats diseases of the genital tract in women
-benign tumour composed of fatty tissues
-dark pigment excreted in the urine
-studyoftumours


## Topic 6

«Clinical Terminology.Word formation. Single term elements, denoting different physiological properties, qualities, relations and other signes».Final lesson in Clinical terminology

## Clinical terminology.Word formation.Single clinical terms, difining different physiological properties and other futures.

## The aim of the lesson:

## Educational

- Toformnewtheoreticalknowledge;
- To form practical skills in the search of information;


## Concrete tasks:

## A student should know:

1. Definition of clinical terminology as medical sublanguage.
2. Final aim of studying the theme.
3. Main ways of word formation.
4. Defining clinical basic elements.
5. Greek and Latin designations of tissues, organs, secrets, gender and age
6. Singleclinicalelementsdefiningpathological conditions and processes

## A student should be able to:

1. Make analysisofaword
2. To define Latin and Greek prefixes.
3. To give the meaning of a term

## The content

## I. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

## ROOTS

$\left.$| Greek and Latin <br> roots | English word <br> elements | Meaning |
| :--- | :--- | :--- | | Examples of medical |
| :--- |
| terms | \right\rvert\, |  |
| :--- |


| dactyl-; <br> -dactylia | dactyl-; <br> -dactyly | fingers or toes | dactylalgia |
| :--- | :--- | :--- | :--- |
| gloss-; <br> -glossia | gloss-; <br> -glossia | tongue | glossalgia |
| gluc-; <br> (glucos-); <br> glyk-; | gluc-; <br> (glucos-); <br> glyc- | sugar | glykaemia |
| haem-; <br> haemat-; <br> -aemia | hem-; <br> hemat-; <br> -(a)emia | blood | haematologia |
| heter- | heter- | other; (opposite of <br> homo) <br> different |  |
| kind, typerogenus |  |  |  |


| olig- | olig- | of small quantity | oliguria |
| :--- | :--- | :--- | :--- |
| phag-; <br> -phagia | phag-; <br> -phagia | swallowing | aphagia |
| phon-; <br> -phonia | phon-; <br> -phonia | voice; <br> sound | dysphonia |
| pneum-; <br> pneumon- | pulmon-; <br> pneumon- | lung; air | pneumotomia |
| poly- | poly- | many (according to <br> quantity) | polyuria |
| splen-; <br> -splenia | splen-; <br> -splenia | spleen | splenectomia |
| ur-; <br> -uria | ur-; <br> -uria | urine; |  |
| urinary tract |  |  |  |$\quad$ anuria $\quad$.

## SUFFIXES

| Greek and Latin <br> suffixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| -megalia | -megaly | enlargement | splenomegalia |
| -opia; | -opia; | vision; | dysopia |


| -opsia | -opsia | view |
| :--- | :--- | :--- |
|  |  |  |
| -thermia | -thermia | heat |

## ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

## ROOTS

| Greek and Latin <br> roots | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| aden- | aden- | gland | adenōma |
| arthr- | arthr- | joint | arthropathia |
| cephal-; <br> -cephalia | cephal-; <br> -cephaly | head | cephalalgia; <br> hydrocephalia |
| chondr- | chondr- | cartilage | chondrogenēsis |
| cyan- | cyan- | blue | cyanuria |
| dacryocyst- | dacryocyst- | tear sac; <br> lacrimal sac | dacryocystītis |
| erythr- | erythr- | red | erythrocytus |
| leuc- | leuc-; <br> leuk- | white | leucocytus |
| my-;  <br> myos- my-; <br> myos-  | muscle | myalgia |  |
| myel- | myel- | spinal cord; |  |
| bone marrow |  |  |  |$\quad$ myelītis | straight |
| :--- |


| py- | py- | pus | pyuria |
| :--- | :--- | :--- | :--- |
| tox-; <br> toxic- | toxic- | poison | toxicōsis |

## SUFFIXES

| Greek and Latin <br> suffixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| -kinesia | -kinesia | movement | oligokinesia |


| -stōma; <br> -stomia | -stoma; <br> -stomia | fistula; <br> creation of an <br> artificial opening | gastrostōma; |
| :--- | :--- | :--- | :--- |
| enterostomia |  |  |  |

## PREFIXES

| Greek and Latin <br> prefixes | English word <br> elements | Meaning | Examples of medical <br> terms |
| :--- | :--- | :--- | :--- |
| pan- | pan- | all; total | panalgia |

## II.EXERCISES

1. Build up clinical terms with the given roots and suffixes, explain their meaning:
--(o)megalia(cardi-;dactyl-;splen-;mast-);
-micr (o)- (-scopia;-glossia;-mastia;-gastria;-splenia;-cephalia;-ophthalmia);
-poly- (-uria;-vitaminosis;-neuritis);
--thermia(hyper-;hypo-);
-neur(o)-(-logia;-rrhaphia;-pathia;-osis;-tomia;-oma;-genus;-pathologia;-itis;-algia;-ectomia);
-haem (o)-;haemat(o)-(-uria;-logia;-angioma;-oma;-rrhagia;-gramma;- thorax;genus).

## 2. Explain the meaning of the following terms:

1) haematogenus
haematoma
haematologia
haemothorax
haemogramma
haemopericardium
haemotherapia
haemophthalmus
haemangioma
2) splenectomia splenitis
3) neuralgia
neurectomia
neurologia
neuropathia
neurorrhaphia
neuropathologia
neurosis
neuroma
pneumothorax pneumohaemothorax

| splenotomia | pneumonectomia |
| :--- | :--- |
| splenorrhagia | pneumohydrothorax |
| splenopexia | pneumonia |
| microsplenia | pneumotomia |
|  | pneumatosis |
| 5) polytrichia | glossalgia |
| polyuria | glossitis |
| polydactylia | glossopathia |
| polycytaemia | glossorrhaphia |
| polyneuritis | glossorrhagia |
| polycystosis | glossoplastica |

## 3. Give the Greek \& Latin variants and explain the meaning of the following terms:

oliguria; megalosplenia; glycemia; glossalgia; dystrophy; nephropathy; oligodentia; microsplenia; neurotomy; dysphonia; pneumatosis; dactylomegaly; hypothermia; pneumonia; dysopia; polyuria; hematoma; uremia; pneumonectomy; neuropathy; microglossia; hematogenous; gastrogenous; endogenous; gastrectomy; aphonia; dermatology; spondylopathy.

## 4. Give the Latin spelling of the terms; explain their meaning:

hypothermia; hypovitaminosis; uremia; microsplenia; oligocytaemia; glucosuria; hyperthermia; hemangioma; dysopia; hematogenic; glycemia; dactylalgia; hypoglossus; biopsia; osteodystrophy; polytrichia; phagocytosis; dysphagia;
dactylomegaly; aphagia; urogenous; pneumopericardium; pneumothorax; polydactylia.

## 5. Form the Greek \& Latin clinical terms according to the meaning:

-disturbance of period discharge (menses)
-small spleen
-excessive discharge of urine

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-mass of coagulated blood
-removal of nerve
-incomplete development of an organ or tissue
-disease of mind
-abnormal presence of glucose (sugar) in the urine
-disturbance of voice formation
-bleeding from ear
-cutting of lung
-retention of urine substances in the blood
-elevation of temperature
-tumour of spleen
-deficiency of blood in quality or quantity
-medical speciality related to the brain and nervous system
-small stomach
- lack of fingers or toes
-bleeding from eye
-abnormal thickening of cornea
-inflammation of the lung with consolidation and drainage
-examination by microscope
-excessive enlargement of lips
-difficult or painful urination
-fixation of small intestine
-nasal bleeding
-hairy tongue
-difficulty in swallowing
```

-congenitally small skull and small amount of brain tissue
-uterinebleeding

## 6. Build up clinical terms with the given roots and suffixes, explain their

 meaning:-py(o)-(-dermia;-genus;-metra;-nephrosis;-ophthalmia;-rrhoea;-thorax;-pneumothorax;-pericardium);
-myel(o)- (-cytus;-itis;-genus;-gramma;-graphia;-oma;-osis);
-oste(o)-(-arthropathia;-arthrotomia;-oma;-itis;-arthritis;-chondritis;-genus;-
dystrophia;-logia;-myelitis;-pathia;-tomia;-ectomia);
-tox-; toxic(o)-(-aemia;-genus;-logia;-osis;-dermia;-mania);
-leuc(o)- (-cytus;-cytosis;-derma;-oma;-gramma);
-my(o)-;myos-(-itis;-logia;-oma;-algia;-cardium;-cardiodystrophia;-cardiopathia;-genus;-opia;-tomia);
-ot(o)- (-genus;-rrhagia;-scopia;-itis);
-phleb(o)- (-gramma;-graphia;-itis;-tomia;-ectomia;-rrhaphia);
-rhin(o)- (-scopia;-rrhagia;-rrhoea;-pathia;--itis;-algia).

## 7. Explain the meaning of the following terms:

1)cyanosis
cyanuria cyanodermia acrocyanosis cyanopsia
3)panalgia
panarthritis
pancarditis
panophthalmitis
panotitis
panhysterectomia
2)
4)

arthritis
arthralgia
arthrosis
arthropathia
arthrotomia
polyarthritis
arthroplastica
5)oligokinesia
dyskinesia
kinesitherapia
kinetosis
6)

cephalalgia cephalhaematoma cephalotomia hydrocephalia

## 8. Give the Greek \& Latin variants and explain the meaning of the following terms:

microglossia; cheilorrhagia; arthropathy; cyanuria; dacryocystectomy; leucocyte; pyodermia; panarthritis; otopyorrhea; polyarthritis; toxicology; panhysterectomy; myopia; orthopedics; oligokinesia; erythrodermia; dysphagia; myalgia; psychiatrist; encephalogram; myelemia; leucogram; pyonephrosis; pulmonectomy; chondrotomy; dacryocystogram; orthodontist; erythrocyturia; chondrogenic; adenotomy; osteomyelitis; otoneurology; arthralgia; oligodactylia; parodontopathy; periostitis; rhinoscopy; proctalgia; microphonia.

## 9. Give the Latin spelling of the terms; explain their meaning:

myelopathy; myometritis; periosteoma; periphlebitis; polyadenitis; pyogenic; pyonephrosis; oligotrophy; chondropathy; chondrotomy; cheilorrhaphy; cephalomegaly; cephalothoracic; polydactyly; pyuria; microgastria;
encephalography; gastroenterostomy; gastrocolostomy; arthrochondritis; arthroophthalmopathy; pyodermia; toxicogenic; erythrokeratodermia; nephropyelostomy; stomatoscopy; dacryopyorrhea; myelography; dysphagia; proctostoma; esophagostomy; rhinorrhea.

## 10. Form the Greek \& Latin clinical terms according to the meaning:

-creation of an artificial opening of the stomach
-disease of cartilages
-inflammation of brain and spinal cord
-purulent inflammation of the kidney
-accumulation of harmful substances in the blood
-pain in the muscles
-developing from bone marrow
-any disease of joints
-increased count of white blood cells in the blood
-red blood cell
-blue coloration of the skin caused by the deficiency of oxygen and the excess of carbon dioxide in the blood
-benign tumour from cartilaginous tissue
-accumulation of fluid in the skull (water in the brain)
-head pain (headache)
-inflammation of lymph nodes
-removal of tear sac
-widespread, general inflammation of the heart
-disturbance of movement
-accumulation of pus in the pleural cavity
-study of the correction of the musculoskeletal system deformities -producing toxin
-the middle and thickest layer of the heart wall
-accumulation of blood in the joint cavity
-appearance of white spots on the skin
-skin inflammation with reddening, itching and desquamation
-blue coloration of the distal parts
-disturbance of cartilage nutrition
-glandular cell

## Greek \& Latin-EnglishClinical Dictionary

## Greek \& Latin English Meaning

|  | -A- |  |
| :---: | :---: | :---: |
| acheilia | acheilia | lack of lips |
| acrocyanōsis | acrocyanosis | blue coloration of the distal parts |
| adenītis | adenitis | inflammation of a gland |
| adenocytus | adenocyte | glandular cell |
| adenōma | adenoma | benign epithelial tumour |
| adenomyōma | adenomyoma | benign tumour from smooth muscles with glandular elements |
| adenopathia | adenopathy | tumour or enlargement of lymph glands |
| adenotomia | adenotomy | removal of adenoids |
| adentia | adentia | lack of teeth |
| anaemia | anemia | deficiency of the blood in quality or quantity |
| anaesthesia | anesthesia | absence of feelings |
| angiītis | angiitis | inflammation of blood vessels |
| angiocardiogramma | angiocardiogram | results of X-rayexamination of heart blood vessels |
| angiocardiographia | angiocardiography | X-rayrecording of the heart and vessels |
| angiocholecystītis | angiocholecystitis | inflammation of gallbladder vessels |
| angiogramma | angiogram | results of blood vessel X-ray examination |
| angiographia | angiography | X-rayrecording of vessels |
| angiologia | angiology | study of blood vessels |
| angiōma | angioma | benign tumour composed of blood vessels |
| angiomatōsis | angiomatosis | multiple vessel tumours |


| angiopathia | angiopathy | disease of blood vessels |
| :---: | :---: | :---: |
| anophthalmia | anophthalmia | lack of eye balls |
| anuria | anuria | complete suppression of urine secretion in the kidney |
| aphagia | aphagia | inability to swallow |
| aphonia | aphonia | loss of voice |
| aplasia | aplasia | abnormal formation or development |
| arthralgia | arthralgia | feeling of pain in the joint |
| arthrītis | arthritis | inflammation of the joint |
| arthrochondrītis | arthrochondritis | inflammation of the joint and cartilage |
| arthropathia | arthropathy | disease of joints |
| arthrophthalmopathia | arthrophthalmopathy | disease of joints and eyes |
| arthroplastica | arthroplasty | plastic surgery of the joint |
| arthrōsis | arthrosis | any disease of joints |
| arthrotomia | arthrotomy | cutting (incision) of the joint |
| atrichia | atrichia | lack of hair |
| atrophia | atrophy | away <br> of a cell, tissue, organ or part |
|  | -B- |  |
| bilaterālis | bilateral | on both sides |
| biologia | biology | study of life |
| biopsia | biopsy | removal of a segment of living tissue for pathological examination pathologica |
| bradyaesthesia | bradyesthesia | slowing of transmittence of sensoric feelings |
| bradyarrhythmia | bradyarrhythmia | disturbance of the heart activity (slowing) |
| bradycardia | bradycardia | abnormally slow heart action (slow pulse) |
| bradyglossia | bradyglossia | slowing of tongue movements |
| bradykinesia | bradykinesia | slowing of movements |

bradyphagia bradyphagia slowing of swallowing

## -C-

| cancerophobia | cancerophobia | fear of cancer |
| :---: | :---: | :---: |
| cardiologia | cardiology | study of the heart and heart function |
| cardiomegalia | cardiomegaly | enlargement of the heart |
| cardiomyoplegia | cardiomyoplegia | palsy (paralysis) of the heart |
| cardiopathia | cardiopathy | disease of the heart |
| cardiophobia | cardiophobia | fear of heart diseases |
| cardiotomia | cardiotomy | cutting (incision) of the heart |
| cephalgia (cephalalgia) | cephalgia | head pain (headache) |
|  | (cephalalgia) |  |
| cephalhaematōma | cephalhematoma | blood clot in the brain of newborn |
| cephalomegalia | cephalomegaly | increased size of the head |
| cephalopathia | cephalopathy | disease of the brain |
| cephalotomia | cephalotomy | cutting (incision) of the brain |
| cheilitis | cheilitis | inflammation of lips |
| cheilorrhagia | cheilorrhagia | bleeding from the lip |
| cheilōsis | cheilosis | any disease of lips |
| cholecystectomia | cholecystectomy | removal of the gallbladder |
| cholecystītis | cholecystitis | inflammation of the gallbladder results of gallbladder X- |
| cholecystogramma | cholecystogram | ray |
| cholecystographia | cholecystography | examination <br> X-rayrecording of the gallbladder |
| cholecystopathia | cholecystopathy | disease of the gallbladder |
| cholecystopexia | cholecystopexy | fixation of the gallbladder |
| cholecystoscopia | cholecystoscopy | internal examination of |

the

| cholecystostōma | cholecystostoma |
| :--- | :--- |
| cholecystostomia | cholecystostomy |


| cholecystotomia | cholecystotomy | cutting of the gallbladder |
| :---: | :---: | :---: |
|  |  | disease with the presence of stones in the gallbladder and its ducts |
| chondrītis | chondritis | inflammation of cartilages |
| chondrodystrophia | chondrodystrophy | disturbance of cartilage nutrition |
| chondrogēnus | chondrogenous, chondrogenic | developing from the cartilaginous tissue |
| chondrōma | chondroma | benign tumour from cartilaginous tissue |
| chondropathia | chondropathy | disease of cartilages |
| chondrosteodystrophia | chondrosteodystrophy | disturbance of cartilaginous and bone tissues nourishment |
| chondrotomia | chondrotomy | cutting (incision) of the cartilage |
| colostomia | colostomy | creation of an artificial opening of the colon inflammation of the |
| colpītis | colpitis | vagina |
| colpopexia | colpopexy | fixation of the vagina |
| colposcopia | colposcopy | the vagina |
| colpotomia | colpotomy | cutting of the vagina |
| cyanodermia | cyanodermia | blue coloration of the skin |
| cyanopsia | cyanopsia | disturbance of vision: vision only in blue colour |
| cyanōsis | cyanosis | blueness of the skin caused by the deficiency |


|  |  | of |
| :---: | :---: | :---: |
| cyanuria | cyanuria | oxygen and the excess of carbon dioxide in the blood violet coloration of the urine |
| cystectomia | cystectomy | removal of the urinary bladder |
| cystītis | cystitis | inflammation of the urinary <br> bladder |
| cystogramma | cystogram | results of urinary bladder X-rayexamination |
| cystographia | cystography | X-rayrecording of the |
|  |  | urinary bladder |
| cystopexia | cystopexy | fixation of the bladder |
| cystoplegia | cystoplegia | palsy (paralysis) of the bladder |
| cystopyelogramma | cystopyelogram | results of urinary bladder and renal pelvis X-ray examination |
| cystopyelographia | cystopyelography | X-rayrecording of urinary bladder and renal pelvis |
| cystoscopia | cystoscopy | internal examination of the urinary bladder |
| cystostomia | cystostomy | creation of an artificial opening of the urinary bladder |
| cystotomia | cystotomy | cutting (incision) of the urinary bladder |
| cytogramma | cytogram | results of cell microscopic examination |
| cytologia | cytology | study of a cell |
| cytopenia | cytopenia | decrease in the number of cells in the blood |
| cytoscopia | cytoscopy | microscopic examination of the cell |
|  | -D- |  |
| dacryoadenalgia dacryoadenītis | dacryoadenalgia dacryoadenitis | feeling of pain in the tear gland inflammation of the tear gland |


| dacryocystectomia dacryocystītis | dacryocystectomy dacryocystitis | removal of the tear sac inflammation of the tear sac |
| :---: | :---: | :---: |
| dacryocystogramma | dacryocystogram | results of tear sac X-ray examination |
| dacryopyorrhoea | dacryopyorrhea | purulent discharge from the tear gland |
| dactylalgia | dactylalgia | feeling of pain in the fingers or toes |
| dactylomegalia | dactylomegaly | enlargement of fingers or toes |
| (megalodactylia) | (megalodactyly) |  |
| dermatītis | dermatitis | inflammation of the skin |
| dermatologia | dermatology | study of skin diseases |
| dermatōma | dermatoma | tumour of the skin |
| dermatoscopia | dermatoscopy | internal examination of the skin |
| dermatōsis | dermatosis | any disease of the skin |
| dicheilia | dicheilia | double lip |
| didactylia | didactyly | double finger (toe) |
| diplegia | diplegia | bilateral palsy (paralysis) |
| diplopia | diplopia | double vision |
| dysenteria | dysentery | painful intestines |
| dyskeratōsis | dyskeratosis | malfunction of the cornea |
| dyskinesia | dyskinesia | disturbance of movements |
| dysopia | dysopia | disturbance of vision |
| dysphagia | dysphagia | difficulty in swallowing |
| dysphonia | dysphonia | disturbance of voice formation |
| dysplasia | dysplasia | abnormal development |
| dystrophia | dystrophy | abnormal nourishment; disturbance of nourishment |
| dysuria | dysuria | difficult or painful urination |
|  | -E- |  |
| electrocardiogramma | electrocardiogram | recording of electrical activity of heartbeats |


| encephalītis | encephalitis | location of the heart inflammation of the brain and meninges |
| :---: | :---: | :---: |
| encephalogramma | encephalogram | recording of electrical activity of the brain |
| encephalographia | encephalography | recording of the brain |
| encephalomyelītis | encephalomyelitis | inflammation of the brain and spinal cord |
| encephalopathia | encephalopathy | disease of the brain |
| endocardītis | endocarditis | inflammation of heart inner coat |
| endocardium | endocardium | endothelial (inner) lining of the heart |
| endogēnus | endogenous | normally occurring or existing within the body |
| endometrītis | endometritis | inflammation of uterine mucous coat |
| endophthalmītis | endophthalmitis | inflammation of internal eye coat internal examination of |
| endoscopia | endoscopy | mucous |
| endosteum | endosteum | medullary membrane of the bone |
| enterītis | enteritis | inflammation of the intestines |
| enterolithus | enterolith | intestinal stone |
| enteropathia | enteropathy | disease of the small intestine |
| enteropexia | enteropexy | fixation of the small intestine |
| enterorrhagia | enterorrhagia | small intestine bleeding |
| enterorrhaphia | enterorrhaphy | suturing of the small intestine creation of an artificial |
| enterostomia | enterostomy | opening of the small intestine redness of the skin produced |
| erythēma | erythema |  |
| erythroaemia | erythroemia | congestion of the capillaries disease with increasing of red blood cell count |


| erythrocytōsis | erythrocytosis | increased count of red blood |
| :---: | :---: | :---: |
| erythrocyturia | erythrocyturia | discharge of erythrocytes by urine |
| erythrocytus | erythrocyte | red blood cell |
| erythrodermia | erythrodermia | skin inflammation with reddening, itching and desquamation |
| erythrokeratodermia | erythrokeratoderma | disease accompanied by redness of horny skin layer |
| erythropenia | erythropenia | decreased number of erythrocytes |
|  | -G- |  |
| gastralgia | gastralgia | feeling of pain in the stomach (stomachache) |
| gastrectomia | gastrectomy | removal of the stomach |
| gastrītis | gastritis | inflammation of stomach |
| gastrocolostomia | gastrocolostomy | creation of an artificial opening between stomach |
| gastroduodenostomia | gastroduodenostomy | and colon creation of an artificial opening between stomach and duodenum inflammation of stomach |
| gastroenterītis | gastroenteritis | and small intestine |
| gastroenterologia | gastroenterology | study of stomach and small intestine |
| gastroenterostomia | gastroenterostomy | creation of an artificial opening between stomach and small intestine |
| gastroesophagostomia | gastroesophagostomy | creation of an artificial opening between stomach and esophagus developing from the |
| gastrogēnus | gastrogenous, <br> gastrogenic |  |
| gastropexia | gastropexy | fixation of the stomach |


| gastrorrhagia | gastrorrhagia | stomach bleeding |
| :---: | :---: | :---: |
| gastroscopia | gastroscopy | internal examination of the stomach |
| gastrostōma | gastrostoma | artificial stomach opening |
| gastrostomia | gastrostomy | creation of an artificial stomach opening |
| gastrotomia | gastrotomy | cutting of the stomach feeling of pain in the |
| glossalgia | glossalgia | tongue |
| glossītis | glossitis | inflammation of the tongue |
| glossopathia | glossopathy | disease of the tongue plastic surgery of the |
| glossoplastica | glossoplasty | tongue |
| glossoplegia | glossoplegia | palsy (paralysis) of the tongue |
| glossorrhagia | glossorrhagia | bleeding from the tongue |
| glossorrhaphia | glossorrhaphy | suturing of the tongue |
| glossotomia | glossotomy | cutting of the tongue |
| glossotrichia | glossotrichia | hairy tongue |
| glucosuria | glucosuria | abnormal presence of |
| glykaemia | glycemia | presence of glucose (sugar) in the blood |
| gynaecologia | gynecology | the branch of medicine that treats diseases of the genital tract in women |
| gynaecopathia | gynecopathy | disease of the genital tract in |
|  |  | women |
| gynaecophobia | gynecophobia | aversion to women |
|  | -H- |  |
| haemangiōma | hemangioma | benign tumour from blood vessels |
| haemarthrōsis | hemarthrosis | accumulation of blood in the joint cavity |
| haematogēnus | hematogenic | developing from blood |


| haematologia | hematology | study of blood and bloodforming tissue |
| :---: | :---: | :---: |
| haematōma | hematoma | mass of coagulated blood (internal or under the skin) |
| haematometra | hematometra | accumulation of blood in the uterine cavity |
| haematuria | hematuria | blood in the urine |
| haemogramma | hemogram | results of blood examination |
| haemopericardium | hemopericardium | accumulation of blood in the pericardium |
| haemophthalmus | hemophthalmus | accumulation of blood in the eye |
| haemorrhagia | hemorrhagia | bleeding |
| haemotherapia | hemotherapy | treatment by using the blood |
| haemothorax | hemothorax | accumulation of blood in the thoracic cavity |
| hepatolithus | hepatolith | hepatic stone |
| heterogēnus | heterogenic | of different kind or type |
| histologia | histology | microscopic study of tissues |
| histōma | histoma | benign tumour from the tissue |
| histopathologia | histopathology | microscopic study of tissues injured by the disease treatment by the introduction |
| histotherapia | histotherapy | of tissue |
| homogēnus | homogenic | of the same kind or type |
| hydraemia | hydremia | increased blood volume due to increased plasma volume |
| hydrarthrōsis | hydrarthrosis | accumulation of fluid in the joint |
| hydrocephalia | hydrocephaly | accumulation of fluid in the skull (water in the brain) |
| hydrocholecystus | hydrocholecystis | accumulation of fluid in the gallbladder |
| hydrologia | hydrology | study of water |
| hydrometra | hydrometra | accumulation of fluid in the uterine cavity |



\(\left.$$
\begin{array}{lll}\text { leukaemia } & \text { leukemia } & \begin{array}{l}\text { malignant disease of blood- } \\
\text { forming organs }\end{array} \\
\text { (leucaemia) } \\
\text { leucocytōsis } & \text { leucocytosis } & \begin{array}{l}\text { increased count of white blood } \\
\text { cells in the blood }\end{array} \\
\text { leucocytus } & \text { leucocyte } & \begin{array}{l}\text { white blood cell } \\
\text { appearing of white spots on } \\
\text { the }\end{array} \\
\text { leucoderma } & \text { leucoderma } & \begin{array}{l}\text { skin }\end{array}
$$ <br>

results of leucocytes studying\end{array}\right\}\)| leucogram |
| :--- |
| leucōma |
| leucopenia |


| macromastia | macromastia | large breast |
| :--- | :--- | :--- |
| mammogramma | mammogram | results of breast X-ray <br> examination |
| mammographia | mammography | X-rayrecording of the breast <br> mastectomia |
| mastectomy | removal of the breast |  |
| mastītis | mastitis | inflammation of the breast |
| mastomegalia | mastomegaly | enlargement of the breast |
| mastopathia | mastopathy | disease of the breast |
| melanodermia | melanoderma | dark pigment in the skin |
| melanōma | melanoma | dark pigment in a tumour <br> excessive tissues (or organs) <br> melanōsis |
| migmentation caused by |  |  |


| microscopia microsplenia | microscopy microsplenia | auscultation) <br> microscopic examination <br> small spleen |
| :---: | :---: | :---: |
| monocytopenia | monocytopenia | decreased number of monocytes |
| monocytus | monocyte | particular type of white blood cell that has one nucleus |
| monodactylia | monodactyly | one finger on the hand |
| monomyoplegia | monomyoplegia | paralysis of one muscle (palsy) |
| mononeuritis | mononeuritis | inflammation of one nerve |
| monopathia | monopathy | uncomplicated disease |
| monophobia | monophobia | fear of loneliness (solitude) |
| monoplegia | monoplegia | palsy (paralysis) of one extremity |
| myalgia | myalgia | pain in the muscles abnormally increased amount |
| myelaemia | myelemia | of myelocytes in the blood or tissues |
| myelītis | myelitis | cord nerve cell of the grey |
| myelocytus | myelocyte | substance of the brain or spinal cord |
| myelogēnus | myelogenous | developing from the bone marrow |
| myelogramma | myelogram | X-rayrecording of the spinal cord |
| myelographia | myelography | results of spinal cord X-ray examination |
| myelōma | myeloma | malignant tumour of cells resembling those found in bone marrow |
| myelopathia | myelopathy | disease of the spinal cord |
| myelōsis | myelosis | any disease of the spinal cord distrophic lesion of |
| myocardiodystroph | myocardiodystro | myocardium |


| myocardiopathia | myocardiopathy | disease of myocardium |
| :---: | :---: | :---: |
| myocardium | myocardium | middle and thickest layer of the heart wall |
| myogēnus | myogenous | developing from muscles |
| myogramma | myogram | X-rayrecordig of the electrical activity of muscles |
| myologia | myology | study of muscles |
| myōma | myoma | benign tumour of muscular tissue |
| myometrītis | myometritis | inflammation of uterine muscular membrane |
| myopathia | myopathy | any disease of the muscle tissue |
| myopia | myopia | light rays focus in front of the retina |
| myorrhaphia | myorrhaphy | suturing of the muscle |
| myosītis | myositis | inflammation of a voluntary muscle |
| myotomia | myotomy | cutting of a muscle |
|  | -N. |  |
| nephrectomia | nephrectomy | removal of the kidney |
| nephrītis | nephritis | inflammation of the kidney |
| nephrogēnus | nephrogenous, | developing from the renal tissue |
|  | nephrogenic |  |
| nephrogramma | nephrogram | results of kidney X-ray examination |
| nephrolithiāsis | nephrolithiasis | disease with the stones formation (calculi) in the kidney |
| nephrolithus | nephrolith | renal stone |
| nephrologia | nephrology | study of kidneys |
| nephrōma | nephroma | tumour of the kidney |
| nephromegalia | nephromegaly | enlargement of the kidney |
| nephropathia | nephropathy | disease of kidneys |


| nephropexia | nephropexy | fixation of the kidney |
| :---: | :---: | :---: |
| nephropyelītis | nephropyelitis | inflammation of the kidney and renal pelvis |
| nephropyelographia | nephropyelography | X-rayrecording of the kidney and renal pelvis |
| nephropyelostomia | nephropyelostomy | creation of an artificial opening between kidney and renal pelvis |
| nephrōsis | nephrosis | any kidney disease |
| nephrotomia | nephrotomy | cutting of the kidney |
| neuralgia | neuralgia | pain that extends along one or more nerves |
| neurectomia | neurectomy | removal of the nerve |
| neurītis | neuritis | inflammation of the nerve developing from nervous |
| neurogenus | neurogenic | system |
| neurologia | neurology | or tissue medical speciality related to the brain and nervous system |
| neurōma | neuroma | tumour from nervous cells |
| neuropathia | neuropathy | nervous disease the branch of medicine that |
| neuropathologia | neuropathology | treats <br> disease of the nervous system |
| neurorrhaphia | neurorrhaphy | suturing of the nerve |
| neurōsis | neurosis | mental or psychiatric disorder characterized by fears, anxieties and compulsions |
| neurotomia | neurotomy | cutting of the nerve |
|  | -0- |  |
| odontalgia | odontalgia | feeling of pain in the tooth (toothache) |
| odontogēnus | odontogenic | developing from the tooth |
| odontōma | odontoma | tumour of tooth tissue |
| odontorrhagia | odontorrhagia | bleeding from the tooth creation of an artificial |
| oesophagostomia | oesophagostomy | opening |


| oligaemia | oligemia | of the esophagus deficiency of the blood |
| :---: | :---: | :---: |
| oligocytaemia | oligocytemia | insufficiency of blood cells |
| oligodactylia | oligodactylia | lack of fingers or toes |
| oligodentia | oligodentia | lack of teeth |
| oligokinesia | oligokinesia | small quantity of movements |
| oligomenorrhoea | oligomenorrhea | disturbance of menses |
| oligotrophia | oligotrophy | insufficient nutrition of the tissue or organ |
| oliguria | oliguria | deficient urinary secretion or infrequent urination |
| oncocytōma | oncocytoma | formation of tumour cells |
| oncologia | oncology | study of tumours |
| oncōsis | oncosis | formation of one or more |
| oncotomia | oncotomy | tumours <br> cutting (incision) of the tumour |
| ophthalmologia | ophthalmology | study of eye disorders |
| ophthalmoplegia | ophthalmoplegia | palsy (paralysis) of the eye |
| ophthalmorrhagia | ophthalmorrhagia | bleeding from the eye |
| ophthalmoscopia | ophthalmoscopy | internal examination of the eye |
| orthodontus | orthodontist | physician who treats abnormalities of teeth |
| orthopaedia | orthopedics | study of the correction of the musculoskeletal system deformities inflammation of bones and |
| osteoarthrītis | osteoarthritis | joints |
| osteoarthropathia | osteoarthropathy | disease of bones and joints |
| osteoarthrotomia | osteoarthrotomy | cutting (incision) of the bone and joint |
| osteochondrītis | osteochondritis | inflammation of bones and cartilages |
| osteocytōma | osteocytoma | solitary bone cyst |
| osteocytus | osteocyte | bone cell |


| osteodystrophia | osteodystrophy | disturbance of bone tissue nourishment |
| :---: | :---: | :---: |
| osteoectomia | osteoectomy | removal of the bone |
| osteogenēsis | osteogenesis | formation of bone tissue |
| osteogēnus | osteogenous, | developing from the bone |
|  | osteogenic |  |
| osteologia | osteology | study of bones |
| osteōma | osteoma | tumour made up of bone tissue |
| osteomyelītis | osteomyelitis | inflammation of the bone and bone marrow |
| osteopathia | osteopathy | disease of bones |
| osteopathologia | osteopathology | disease of bones pathologic changes |
| osteotomia | osteotomy | cutting (section) of the bone |
| ostītis | ostitis | inflammation of bones |
| otalgia | otalgia | feeling of pain in the ear (earache) |
| otītis | otitis | inflammation of the ear |
| otogēnus | otogenic | developing from the ear the branch of medicine |
| otoneurologia | otoneurology | studying ear nerves |
| otopyorrhoea | otopyorrhea | purulent discharge from the ear |
| otorrhagia | otorrhagia | bleeding from the ear |
| otorrhoea | otorrhea | discharge from the ear |
| otoscopia | otoscopy | internal examination of the ear |
|  | -P- |  |
| paediater | pediatrician | physician who treats children disorders |
| paediatria | pediatrics | study of children treatment widespread pain of the |
| panalgia | panalgia | organism |
| panaortītis | panaortitis | widespread, general inflammation of the aorta |


| panarterītis | panarteritis | widespread, general |
| :---: | :---: | :---: |
| pancardītis | pancarditis | inflammation of the artery widespread, general |
|  |  | inflammation of the heart |
| panhysterectomia | panhysterectomy | removal of the uterus and uterine appendages |
| panophthalmītis | panophthalmitis | widespread, general |
|  |  | inflammation of the eye ball |
| panotītis | panotitis | widespread, general |
|  |  | inflammation of the ear |
|  |  | tissue inflammation near |
| paracystītis | paracystitis | urinary |
|  |  | bladder |
| parametrītis | parametritis | tissue inflammation near uterus |
|  |  | tissue inflammation near |
| paranephrītis | paranephritis | kidney |
| paraproctītis | paraproctitis | tissue inflammation near anus and rectum |
| parodontopathia | parodontopathy | disease of parodontium |
| parodontōsis | parodontosis | any disease of parodontium |
|  |  | study of changes in body |
| pathologia | pathology | tissues |
|  |  | or organs as a result of disease tissue inflammation surrounding |
| pericardītis | pericarditis | heart |
| perimetrītis | perimetritis | tissue inflammation surrounding uterus |
|  |  | tissue inflammation |
| perinephrītis | perinephritis | surrounding |
|  |  | kidney |
| periodontium | periodontium | tissue surrounding and |
|  |  | supporting the tooth |
| periosteōma | periosteoma | tumour of periosteum |
| periostītis | periostitis | inflammation of periosteum |
|  |  | inflammation of venous |
| periphlebītis | periphlebitis | internal |
|  |  | membrane |
| phagocytōsis | phagocytosis | the process when a cell ingests |


|  |  | or engulfs other cells, microorganisms or foreign particles |
| :---: | :---: | :---: |
| phlebectomia | phlebectomy | removal of the vein |
| phlebītis | phlebitis | inflammation of the vein |
| phlebogramma | phlebogram | results of vein X-ray examination |
| phlebographia | phlebography | X-rayrecording of the vein |
| phlebolithus | phlebolith | venous stone |
| phleborrhaphia | phleborrhaphy | suturing of the vein |
| phlebotomia | phlebotomy | cutting of the vein |
| phthisiater | phthisiotherapist | physician who treats tuberculosis |
| phthisiologia | phthisiology | study of tuberculosis |
| physiologia | physiology | science of natural vital processes in the human body |
| physiotherapia pneumatōsis | physiotherapy pneumatosis | natural treatment pathological accumulation of air |
| pneumohaemothora | pneumohemothorax | or gases in any part of the organism accumulation of gas and fluid in |
| X |  | the pleural cavity |
| pneumonectomia | pneumonectomy | removal of the lung |
|  | (pulmonectomy) |  |
| pneumonia | pneumonia | inflammation of the lung with consolidation and drainage |
| pneumopericardium | pneumopericardium | accumulation of air in the pericardiac cavity |
| pneumothorax | pneumothorax | the pleural cavity |
| pneumotomia | pneumotomy | cutting (section) of the lung |
| polyadenītis | polyadenitis | inflammation of many glands |
| polyarthrītis | polyarthritis | inflammation of many joints |


| polycystōsis | polycystosis | abnormal condition accompanied with the formation of multiple cysts increase in the total cell mass |
| :---: | :---: | :---: |
| polycytaemia | polycytemia | of the blood |
| polydactylia | polydactylia | having more than normal number of fingers or toes |
| polyneurītis | polyneuritis | inflammation of many nerves |
| polytrichia | polytrichia | excessive hair growth on different parts of the body excessive discharge of the |
| polyuria | polyuria | urine |
| polyvitaminōsis | polyvitaminosis | increased amount of vitamins in the organism |
| proctalgia | proctalgia | rectum pain |
| proctectomia | proctectomy | removal of the anus and the rectum |
| proctītis | proctitis | inflammation of the anus and the rectum study of the anus and the |
| proctologia | proctology | rectum |
| proctopexia | proctopexy | fixation of the anus and the rectum |
| proctorrhagia | proctorrhagia | bleeding from the anus and the rectum |
| proctoscopia | proctoscopy | internal examination of the rectum |
| proctostōma | proctostoma | artificial opening of the rectum creation of an artificial |
| proctostomia | proctostomy | opening of the rectum physician who specializes in |
| psychiater | psychiatrist |  |
| psychiatria | psychiatry | treatment of mental disorders science about treatment of mental disorders |
| psychogēnus | psychogenic | psychological in origin, not having a physical basis |


| psychologia | psychology | study of the mind |
| :---: | :---: | :---: |
| psychopathia | psychopathy | disease of mind |
| psychōsis | psychosis | mental disturbance in which there is a personality disintergration and an escape into unreality |
| psychotherapia | psychotherapy | treatment by means of mental interference |
| pyaemia | pyemia | the presence of pus-forming organisms in the blood inflammation of the renal |
| pyelītis | pyelitis | pelvis |
| pyelocystītis | pyelocystitis | inflammation of the renal pelvis |
|  |  | and urinary bladder |
| pyelographia | pyelography | X-rayrecording of the renal pelvis |
| pyelonephrītis | pyelonephritis | inflammation of the renal pelvis and kidney |
| pyelotomia | pyelotomy | cutting of the renal pelvis |
| pyodermia | pyodermia | purulent infection of the skin |
| pyogēnus | pyogenic | producing pus |
| pyometra | pyometra | pus in the uterus |
| pyonephrōsis | pyonephrosis | purulent inflammation of the kidney |
| pyopericardium | pyopericardium | accumulation of pus in the pericardiac space |
| pyophthalmia | pyophthalmia | purulent inflammation of the eye ball |
| pyophthalmītis | pyophthalmitis | purulent inflammation of the eye |
| pyopneumothorax | pyopneumothorax | accumulation of gas and pus in the pleural cavity |
| pyorrhoea | pyorrhea | discharge of pus |
| pyothorax | pyothorax | accumulation of pus in the pleural cavity |
| pyrogēnus | pyrogenic | producing (caused by) fever |


| pyromania | pyromania | striving for setting fire |
| :---: | :---: | :---: |
| pyrophobia | pyrophobia | fear of heat |
| pyrotherapia | pyrotherapy | treatment by heat |
| pyuria | pyuria | pus in the urine |
|  | -R- |  |
| rhinalgia | rhinalgia | feeling of pain in the nose |
| rhinītis | rhinitis | inflammation of the nose |
| rhinolithus | rhinolith | nasal stone |
| rhinopathia | rhinopathy | disease of the nose |
| rhinorrhagia | rhinorrhagia | nasal bleeding |
| rhinorrhoea | rhinorrhea | discharge from the nose |
| rhinoscopia | rhinoscopy | internal examinations of the |
|  |  | nose |
|  | -S- |  |
| splenectomia | splenectomy | removal of the spleen |
| splenītis | splenitis | inflammation of the spleen |
| splenōma | splenoma | tumour of the spleen |
| splenomegalia | splenomegaly | enlargement of the spleen |
| (megalosplenia) |  |  |
| splenopathia | splenopathy | disease of the spleen |
| splenopexia | splenopexy | fixation of the spleen |
| splenorrhagia | splenorrhagia | splenic bleeding |
| splenotomia | splenotomy | cutting (incision) of the spleen |
| spondylītis | spondylitis | inflammation of vertebrae |
| spondyloarthrītis | spondyloarthritis | inflammation of intervertebral joints |
| spondylogramma | spondylogram | results of vertebrae X-ray examination |
| spondylopathia | spondylopathy | disease of the backbone |
| spondylōsis | spondylosis | any disease of vertebrae |


urolithus urolith urinary stone

## № СТОМ-21-ИН

Federal state budgetary educational institution of the higher education
«North - Ossetian state medical academy»
Healthcare ministry of the Russian Federation

## Department of Foreign Languages

## TRAINING MATERIALS FOR THE TEACHERS FOR THE DISCIPLINE "LATIN FOR FOREIGN STUDENTS"

 (Pharmaceutical terminology)the main professional educational programme of higher education - specialty programme in the specialty 31.05.03 Dentistry, approved on 30.03.2022

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## Pharmaceutical Terminology

## Topic 1

General notion of pharmaceutical terminology. Nomenclature of medicines: name of drugs and their trademarks. International nonpatent names of drugs. General principles of composition of International nonpatent names of drugs.

Trade names of medicine.

General information about pharmaceutical terminology.Pharmaceutical forms. Component elements of drug names.

The aim of the lesson:

- To providenew theoretical knowledge;
- To provide practical skillsin the given field;
- To provide practical skills in the work with scientific and scientific popular literature.

Concrete tasks:
A student should know:
I. Definition of the pharmaceutical terminology
II.Pharmaceutical forms
III. Latin and Greek component elements of drug names
IV. Word-formativeand grammar structure of pharmaceutical terms

A student should be able to:
1.To Give definition to pharmaceutical terminology.
2.To define the word-formativeand grammar structure of pharmaceutical terms
3. To translateword combinations in trade names of drugs from Latin
into Russian

The content:

## INTRODUCTION TO THE PHARMACEUTICAL TERMINOLOGY

The pharmaceutical terminology is the terminology used in Pharmacology (derived from the Greek "pharmacon" - "drug"). Pharmacology is the study of medicinal substances calledpharmaceuticals. The International Drug Nomenclature amounts now to 400,000 drugs.

Learning objectives of this course of studies: At the end of the course of studies, you should:

1. Know how a prescription is written in Latin;
2. Write correctly in Latin one-wordand multiword pharmaceutical terms;
3. Know Latin and Greek component elements of drug names;
4. Learn a certain amount of Latin drug names.

Main pharmaceutical terms
-Pharmaceutical form (drug form) - form of the drug suitable for a definite method of administration. These forms are divided into:
liquids (solutions, infusions, decoctions, tinctures, extracts, mucilages, emulsions, suspensions, mixtures and liniments),
semisolids (ointments, pastes, suppositories, plasters) and
solids (tablets, dragee, powders).
-Drug is any material or substance, whether natural or synthetic, that can be used to treat an illness, relieve a symptom or modify a chemical process in the body for a specific purpose. The names of drugs can beofficinal or magistral:

Officinal (from Latin. officina - drugstore)drugs are drugs which are manufactured by the pharmaceutical industry and which have a standard contents indicated in pharmacopeias. For example:tabulettaeCefalexini,unguentum "Lorindenum". Such drugs can haveinternational nonpatent names and trade names:
o International nonpatent namesare given by the WHO (World Health Organisation). These are mostly the chemical names of drugs. Under these names the drugs can be used in any country.
oTrade name (proprietary or brand name) is the copyrighted name assigned by the drug company making the drug and is followed by the symbol ${ }^{\circledR}$

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Magistral drugs (from Latinmagister -teacher) are called the drugs which are made at the direction of a physician.

- Medicinal substance is a chemical compound used as a drug. Medicinal substances are produced by chemical means.
-Drug preparation is a drug prepared in a definite pharmaceutical form.


## II.MAIN PHARMACEUTICAL FORMS

You should learn the main pharmaceutical forms as follows (in a dictionary form!):

| Liquids |  |  |
| :---: | :---: | :---: |
| 1. | Solutio, ōnis f | solution |
| 2. | Mucilāgo, ǐnis f | mucilage |
| 3. | Emulsum, in | emulsion |
| 4. | Suspensio, ōnis f | suspension |
| 5. | Infūsum, in | infusion |
| 6. | Decoctum, in | decoction |
| 7. | Tinctūra, ae f | tincture |
| 8. | Extractum, in (fluĭdum) | extract |
| 9. | Mixtūra, ae f | mixture |
| 10. | Linimentum, in | liniment |
| 11. | Gutta, ae f | drop |
| 12. | Sirŭpus, i m | syrup |



| 19. | Dragée | dragée |
| :--- | :--- | :--- |
| 20. | Pulvis, ěris m | powder |
| 21. | Granŭlum, i n | granule |
| 22. | Pilŭla, ae f | pill |
| 23. | Specĭes, ērum (plural) f | species |

Other drug forms

| 24. | Capsǔla, ae f | capsule |
| :--- | :--- | :--- |

Capsule is a drug in powdered or pellet form that has been enclosed in a soluble gelatin-likecapsule.
25. Aërosōlum, in aerosol
26. Membranŭla (ae f) ophthalmic film
ophthalmǐca (us, a, um)
(Lamella ophthalmíca)
Ophthalmic films are absorbable gelatin films containing drug substances

## III. LATIN AND GREEK COMPONENT ELEMENTS OF DRUG NAMES

Many pharmaceutical terms include in their names Greek and Latin component elements of frequent occurrence similar to the clinical terminology. With knowledge of these elements you will be able to write complicated drug names with a correct spelling and to understand their meaning.

GREEK AND LATIN ELEMENTS CARRYING INFORMATION ABOUT PHARMACEUTICAL CHARACTERISTICS OF A DRUG

| \#\# | Latin | Meaning | Examples |
| :--- | :--- | :--- | :--- |
| 1. | -aesthes-, |  |  |
|  | -cain- | local anesthetic | Anaesthesinum <br> Novocainum |
| 2. | -alg-,-dol- | analgetic | Pentalginum |
| Panadolum |  |  |  |, | Androfortum |
| :--- |
| 3. |
| -andr-,-ster-, |
| -test- |
| 4. |
| -as- |
| 5. |


| 6. | -barb- | soforific, hypnotic | Barbitalum |
| :---: | :---: | :---: | :---: |
| 7. | -cid- | antimicrobic | Streptocidum |
| 8. | -cillin- | antibiotics-penicillins | Bicillinum |
| 9. | -cort- | adrenal cortex hormone | Corticotrophinum |
| 10. | -cycl- | antibiotics-tetracylcines | Vitacyclinum |
| 11. | -menth- | containing mint | Boromentholum |
| 12. | -morph- | narcotics | Apomorphinum |
| 13. | -myc- | against fungi, antimycotic | Amycazolum |
| 14. | -oestr- | Female sex hormone | Oestronum |
| 15. | -phyll- | (from Greek phyllon - leaf) | Theophyllinum |
| 16. |  | hypotensives | Apressinum <br> Angiotensinamidum |
| 17. | -pyr- | antipyretic drugs | Pyramidonum |
| 18. | -sed- | sedatives | Valosedanum |
| 19. | -sept- | antiseptics | Pharyngosept |
| 20. | -sulfa- | sulfamides | Sulfadiazinum |


IV. WORD-FORMATIVEAND GRAMMAR STRUCTURE OF PHARMACEUTICAL TERMS

The drug names can be prescribed by international nonpatent names andtrade names.
International nonpatent names in prescriptions after "Recipe:" are in Genitive singular without inverted commas:

Tetracyclīni

Vaselīni

Trade drug names are prescribed as follows: the drug name is placed after the pharmaceutical form in Nominative and is in inverted commas:

Suppositorĭa «Anaesthesōlum» - suppositories of anaesthesol

One-wordterms
1.All Latin drug names are neuter nouns of the 2 nd declension ending by - um. They are written with the first capital letter as the names of chemical elements, medicinal plants:

Tetracyclīnum, in
-A few exceptions to this rule are drug names by -a:No-spa,Do-pa(1 stdeclension).
Multiword terms
1)If the drug preparation name includes a pharmaceutical form it is on the first place: solutǐo, unguentum, tinctūra etc.
2)The drug name is placed after the pharmaceutical form and begins with the capital letter:

| solutǐo Streptocīdi | - solution of streptocid |
| :--- | :--- |
| unguentum Tetracyclīni | - ointment of tetracycline |
| tinctūra Menthae | - tincture of mint |

3) Adjectives

- are written at the end of the prescription line:

Solutĭo Synoestrōli oleōsa - oil solution of synoestrol

- or are placed after a noun:

Mentha piperīta - peppermint
Tabulettae Acǐdi glutaminǐci obductae - coated glutaminic acid tablets

## V. VOCABULARY

Learn components of medicinal plants

| 1. cortex, ǐcis $m$ | cortex |
| :--- | :--- |
| 2. flos, floris $m$ | flower |
| 3. foľum, in | leaf |
| 4. herba, ae f | herb |
| 5. radix, īcis f | root |
| 6. rhizōma, ătis n | rhizome |

Learn names of medicinal plants
7. Calendŭla, ae f calendula
8. Chamomilla, ae f matricary
9. Crataegus, if hawthorn
10. Digitālis, is foxglove
11. Farfăra, ae f coltsfoot
12. Frangŭla, ae f buckthorn
13. Leonūrus, im motherwort
14. Mentha, ae f mint
15. Quercus, us f oak
16. Valeriāna, ae f valerian

## VI. EXCERCISES

Exercise 1. Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

| Polyoestradiolum, | Hydrolysinum, | Boromentholum, | Diprophyllinum, |
| :--- | :--- | :--- | :--- |
| Laevomycetinum, | Decamevitum, | Cerebrolysinum, | Brulamycinum, |
| Olivomycinum, | Bruneomycinum, | Theophyllinum, | Cocarboxylasum, |

Antiasthmocrinum, Synoestrolum, Pentavitum, Urosulfanum, Gentamycinum, Novocainamidum, Octoestronum.

Exercise 2. Translate from Latin into English:
Folium Farfărae, tabulettae olei Menthae, solutio Strophanthini, tabulettae
Prednisoloni, granŭla Orasi, tabulettae Octoestroli, tabulettae Pantocrini, suspensio «Cindolum», unguentum «Psoriasinum», species antiasthmatǐcae, emplastrum Epilini, tabulettae «Baralginum», suppositoria vaginalia «Osarbonum», tabulettae Mycoheptini, unguentum Tetracyclini ophthalmǐcum, linimentum «Sanĭtas», tabulettae «Praegoestrolum», flores Calendŭlae, solutio Glucosi, tabulettae «Panhexavitum», dragée «Aëvitum», cortex Frangŭlae, tabulettae Barbamyli, extractum Leonūri fluĭdum, suppositoria «Anaesthesolum», tabulettae «Bellaesthesinum», infüsum Digitālis.

## Exercise 3. Translate from English into Latin:

Ointment of tetracycline, solution of novocain, tablets of octoestrol, solution of glucose, ointment of heparin, tablets of myelosan, tincture of valerian, tincture of motherwort, herb of valerian, extract of motherwort, tablets of theophyllin, flowers of matricary, tablets of baralgin, liniment of streptocid, ophthalmic ointment of dibiomycin, antiasthmatic species, tincture of valerian root, extract of buckthorn, tincture of oak root.

## Test

I. Give the right answer:

Drug „Angiotropinum" belongs to drugs which affect:
a) affecting vessels,
b)antipyretic drug,
c) cholagogic,
d) local anesthetic

Cardiovalenum
a) antibiotics - tetracyclines,
b) soforific, hypnotic,
c) cardiac,
d) antiinflammatory

Fungicidin
a)sedative,
b) containing mint,
c)hypnotic,
d) antimycotic

Vasocor
a) antimycotic,
b)hypnotic,
c) antimycrobic,
d)vasodilating

## Thyreoidinum

a) drugs influencing functions of the thyroid gland,
б) from tea-leaf,
B) vitamines,
г) antipyratic
II. Match the following:

Anapyrinum 1) drugs influencing hemopoesis
Apressinum 2) helmenthic
Ipravacainum 3) diuretic
Troxevasinum 4) antipyretic
Sedalginum 5) hypotensive
Antiallersin6) analgetic
Cholossasum 7) antispasmotic
Urotrastum8) sedative
Helminthin 9) antiallergic

Haematogenum10) cholagogic
III.Give the right answer:

Antibiotic -penicillin
Epicillinum
Biseptolum
Laevomycetinum
Univerm
vitamin
Streptocidum
Undevitum
Nitrofunginum
Cholecinum
cholagogic
Seduxen
Phenobarbitalum
Cholagonum
Bilocid
hypotensive
Tetracyclinum
Pentalginum
Menovasinum
Depressinum
antibiotic
Novalginum

Lidocainum
Erythromycinum
Anaesthesinum
IV. Match the following:

Component elementspharmaceutical characteristics
1.

| -press | a) for treating skin diseases |
| :--- | :--- |
| -dol- | б) antiallergic |
| -barb- | в) antihypetensive |
| -allerg- | г) analgetic |
| -derm- д) hypnotic |  |

2. 

| 1) nas- | a) for treatment eye diseases |
| :--- | :--- |
| 2) -sed- | б) laxative |
| 3) -cut(i) | в) for treatment nose diseases |
| 4) -lax- | г) sedatives |
| 5) $\operatorname{opht}(\mathrm{h})$ alm- | д) for treatment skin deseases |

3. 

| 1)-card(i)- | а) referring to vessels |
| :--- | :--- |
| 2)-ang(i)- | б) vascular |
| 3)-hypn- | в)for treatment ear diseases |
| 4)gyn- | г) hypnotic |
| 5)ot- | д) for treatment gynecological diseases |

V.Match the following:

| 1.unguentum, i n | 1) herbs |
| :--- | :--- |
| 2.suppositorium, i n | 2) |
| 3.tinctura, ae f | 3) plaster |
| 4.decoctum, i n | 4) decoction |
| 5.pulvis, eris n | 5) ointment |
| 6.gutta, ae f | 6) suppository |
| 7.infusum, i n | 7) tincture |
| 8.emplastrum, i n | 8) infusion |
| 9.folium, i n | 9) powder |

VI. Give the right answer:
1)rhrisome
rhizoma, atis $n$
cortex, icis m
solutio, onis f
emulsum, in
pilula, ae f
2)leaf
gutta, ae f
folium, in
flos, floris m
pulvis, eris m
tabuletta, ae f
3)bud
a)decoctum, in
bsirupus, i m
c)fructus, us m
d)gemma, ae f
e)species, ei f
4)root
extractum, in
tinctura, ae f
herba, ae f
solutio, onis f
radix, icis f
5)seed
tinctura, ae f
semen, inis n
infusum, i n
folium, in
emplastrum, in

Topic 2

Verb (Verbum).Grammatical categories.Imperative mood (Imperativus).Conjunctive mood (Conjunctivus)

## STANDARD PRESCRIPTION PHRASES INDICATING ORDERS AND INSTRUCTIONS

In this lesson, you will:
-Learn basic standard phrases used in prescriptions
-Learn clinic Latin and Greek component elements used in drug names
-Learn Latin and Greek component elements carrying information on chemical composition of a drug
This lesson is divided into the following sections:
I. Standard prescription phrases indicating orders and instructions II. Clinic Latin and Greek component elements used in drug names III. Latin and Greek component elements carrying information on chemical composition of a drug .

## PHRASES INDICATING ORDERS AND INSTRUCTIONS

In the Latin, part of a prescription some verb forms are used which indicate orders and instructions. They are required in order to give to pharmacist instructions how to make up and dispense drugs. You should learn these verb forms as standard prescription phrases. The meaning"order, instruction, direction" is expressed in the Latin part of a prescription by
"Imperative moode" and "conjunctive moode"of a Latin verb.
a) Imperative mode

From all imperative mode forms only the 2nd person singular form is used in prescriptions. You will have to memorize standard prescription phrases in the imperative mode as follows:

| - Recĭpe | Take, receive |
| :--- | :--- |
| - Da | Give |
| Signa | Write on a label |
| Misce | Mix |
| - Sterilisa! (with the exclamation mark) | Sterilize! |
| Adde | Add |
| Da tales doses | Give of such doses |

b) Conjunctive mode

The Latin conjunctive mode has many meanings. Only one meaning, "order, instruction, direction" is used in prescriptions. These forms are translated from Latin into English with the word-combination"let it be". You will have to memorize standard prescription phrases in the conjunctive mode as follows:

| - | Detur |
| :--- | :--- |
| - | Signētur |
| - | Misceātur |
| - | Sterilisētur! (with the exclamation |
| mark) | Let it be labeled |
| - Repetātur | Let it be be mixed |
| - |  |

-Attention!!! - Prescription phrases in imperative and conjunctive modes have the same meaning:order, instruction, direction, therefore they are completely equal and interchangeable. You may use each of them.
в) Verb fiěri in prescriptions

The prescription phrase with the verb fieri is often used in prescriptions. Model:
Misce, (ut) fiat + pharmaceutical form in Nominative singular
Note: Conjunctionut is usually omitted
Examples:
-Misce, fiat pulvis.
-Misce, fiat unguentum.
-Misce, fiat linimentum.
BUT!

- Misce, fiant species. (Species - plural)

Mix to make a powder
Mix to make an ointment
Mix to make a liniment
Mix to make species

## II.CLINIC LATIN AND GREEK COMPONENT ELEMENTS USED IN DRUG NAMES

In drug, names some clinical Latin and Greek component elements are used which you already know. You will have to pay attention to their spelling and meaning in the pharmaceutical terminology:

| \#\# | Latin | Meaing | Examples |
| :--- | :--- | :--- | :--- |
| 1. | -angi-,-vas-, | spasmolytics, referring to <br> vessels | Angiotensinamidum <br> Vasographinum |
| 2. | -cardi-,-cor-, |  |  |
| -cord- |  |  |  |$\quad$ cardiovascular drugs $\quad$| Cardiovalenum |
| :--- |
| Corazolum |$|$| 3. | -chol- | cholagogic, bile-expelling |
| :--- | :--- | :--- |
| 4. | -cyt- | (from Greek «cell») |
| antianemic drugs |  |  |


|  |  | diseases |  |
| :--- | :--- | :--- | :--- |
| 6. | -erythr- | (from Greek «red») | Erythromycinum |
| 7. | glyc- | (from Greek «sweet») | Glycerophosphatum |
| 8. | -haem-,-aem- | drugs influencing <br> hemopoesis | Haematogenum <br> Liquaeminum |
| 9. | -hepat-, | extracts from liver | Vitohepatum |
| 10. | -lys(in)- | drugs for destruction and | Sarcolysinum |
| 11. | excretion | (from Greek «muscle») | Myostatinum |


| 12. | -myel(o)- | referring to brain | Myelosanum |
| :--- | :--- | :--- | :--- |
| 13. | -neo-,-nov- | (from Greek «new») | Neocidum |
| Novandrolum |  |  |  |

III.GREEK AND LATIN ELEMENTS CARRYING INFORMATION ON CHEMICAL COMPOSITION OF A DRUG

| \#\# | Latin | Meaing | Examples |
| :---: | :---: | :---: | :---: |
| 1. | -aeth- | containing ethyl | Aethinalum |
| 2. | $\begin{aligned} & \text {-(a)zin-,-zol-, } \\ & \text {-(a)zid- } \end{aligned}$ | containing nitrogen | Aminazinum, <br> Corazolum <br> Saluzidum |
| 3. | -benz- | containing benzol | Benzonalum |
| 4. | -chlor- | containing chlorine | Chloraminum |
| 5. | -cyan- | (from Greek «cyanus» - <br> blue) | Cyanidum |
| 6. | -hydr- | water, hydrogen | Hydrocortisonum |
| 7. | -meth- | containing methyl | Methacinum |
| 8. | -oxy- | containing oxygen | Oxylidinum |
| 9. | -phen- | containing phenyl | Phenolum |
| 10. | -phosph- | containing phosphorus | Phosphacolum |
| 11. | -phthor- | containing fluorine | Phthoracizinum |
| 12. | -thi- | containing sulfur | Thiophosphamidum |
| 13. | -yl- | containing hydrocarbon | Methyluracilum |


|  | radical |  |
| :--- | :--- | :--- |

IV. VOCABULARY

Learn drug names:

1. Amy̆lum, in Tritǐci (um, in)
wheat starch
2. Chloxylum, in
chloxyl
3. Dibazōlum, in
dibazol
4. Eucatōlum, in
eucatol
5. Hydrochlorothiazīdum, in
hydrochlorothiazid
6. Ichthyōlum, in
ichthyol
7. Mycosolōnum, in
8. Olěum (i, n) Rič̌ni (us, i m)
castor oil
9. Phthoruracīlum, in
phthoruracil
10. Polyphepānum, in
polyphepan
11.Solutǐo Ammonǐi (um, in) liquid ammonia (solution of
caustīci (us, a, um)
11. Sulfadimezīnum, in
12. Synthomycīnum, in
13. Vaselīnum, in
14. Xeroformĭum, in

Medical plants
16. Convallaria, ae f
17. Eucalyptus, if
18. Linum, in
19. Plantāgo, ĭnis $f$
20. Salvia, ae f

Other words:
21 antiasthmaticcus, a, um.
22. diuretīcus, a, um
ammonia)
sulfadimezin
synthomycin
vaseline
xeroform
lily of the valley
eucalyptus
flax
common (greated) plantain
sage
antiasthmatic
diuretic, urinative
23. piperītus, a, um pepper

| 24. | semen, innis $n$ | seed |
| :--- | :--- | :--- |
| 25. | siccus, a, um | dry |

## V. EXCERCISES

Exercise 1. Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

Benzonalum, Dipheninum, Normotensum, Pyrimethaninum, Acetylcysteinum, Sulfalenum, Penicillaminum, Erythromycinum, Sulfathiazolum, Sulfamethoxazolum, Vancomycinum, Diphenhydraminum, Cyclosporinum, Methyluracilum, Hydrolysinum, Nitroglycerinum, Benzobarbitalum, Methindionum, Mycoseptinum, Chlorochininum, Cyclophosphamidum, Cyanocobalaminum, Cerebrolysinum.

Exercise 2. Translate from English into Latin:
Solution of papaverin, tincture of mint, granules of amidopyrin, ointment of xeroform, tablets of sulfadimezin, oil of eucalyptus, motherwort herb tincture, foxglove leaves powder, tablets of dibazol, fluid extract of hawthorn, oitment of ichthyol, solution of procainamid, tablets of phenobarbital, sage leaves tincture, decoction of oak cortex, mint leaves tincture, emulsion of castor oil, tablet of novocainamid, liquid ammonia, oil of peppermint, eucalyptus leaves tincture, tincture of calendula, leaf of common plantain, solution of salvin, matricary leaves, granule of plantaglucid, drops of eucatol, solution of aminophyllin, coltsfoot leaf granules.

Exercise 3. Translate from English into Latin, using the given vocabulary:
1.Give 10 ml of epinephrin solution.
2. Take 200 ml of valerian root tincture.
3. Add 5 ml of castor oil.
4. Give 10 ml of menthol oil.
5. Take 30,0 of xeroform ointment.
6. Mix 5 ml of mint tincture and 10 ml of motherwort tincture.
7. Add 3 ml of peppermint oil.
8. Sterilize 20 ml of castor oil.
9. Take 5,0 of boromenthol ointment.
10. Give 25,0 of synthomycin liniment.
11. Mix 10 ml of lily of the valley tincture and 15 ml of valerian tincture.
12. Give 25 ml of motherwort extract.
13. Take 20,0 of castor oil emulsion.
14. Sterilize 200 ml of Novocain solution.

Test

1. Match the following:

| addo, ěre III | 1) to sterilise |
| :--- | :--- |
| curo, are I | 2) to give, |
| do, dare I | 3) to be healthy |
| finio, ire IY4) to repite |  |
| misceo, ère II | 5) to finish |
| repěto, ěre III6) be healthy |  |
| salveo, ēre II | 7) to sign |
| signo, are I | 8) to add |
| valeo, ēre II | 9) to cure |
| steriliso, are I | 10) to mix |

2. Match the following:

| Calendula, ae f | a) peppermint |
| :--- | :--- |
| Convallaria, ae f | b) calendula |
| Mentha piperita | c) lily of the valley |
| Salvia, ae f | d) valearianавалериана |
| Valeriana, ae f | д) sage |

3.Match the following:

| misceat | a) Let them be mixed |
| :--- | :--- |
| misceant | б) Let him mix |
| misceatur | в) Let them mix |
| misceantur | г)Let it be mixed |

## 4. Match the following:

1.repĕtata) Let them be repeated
2. repětantб) Let him repeat
3. repetāturb) Let them repeat
4. repetanturr) Let it be repeated

Write the name of drug forms in Nom.sing:

1) misce, fiat ... (powder)
2) misce, fiat ... (ointment)
3) misce, fiat ... (liniment)
4) misce, fiat ... (suppository)
5) misce, fiant ... (species)

Matchthe following:

Give!

1) Da .

Let it be signed!
2) Signet.

Let it be given such doses!
3) Repĕte.

Give such doses!
4) Repetātur.

Mix to make species! 5) Misce, fiat pulvis.
Mix to make powder! 6) Misce, fiant species.
Repite!
7) Da tales doses.

Pepite!
8) Dentur tales doses.

Let him sign!
Give!
9) Detur.
10) Signetur

## ЭТАЛОНЫ ОТВЕТОВ.

1. 1-8); 2-9); 3-2); 4-5); 5-10); 6-4); 7-6); 8-7); 9-3); 10-1)
2. 1-b; 2-b; 3-a; 4-d; 5-g
3. 1-b; 2-c; 3-d; 4-a
4. 1-b; 2-c; 3-г; 4-a
5. 1-б; 2-в; 3-г; 4-а
6. 7) pulvis, 2) unguentum, 3) linimentum, 4) suppositorium, 5) species
1. 1-e; 2-a; 3-a; 4-i; 5-e
2. 1-9); 2-10); 3-8); 4-7); 5-6); 6-5); 7-3); 8-4); 9-2); 10-1)

## Topic 3

Medical Prescription. Structure of a prescription .General rules of Latin part of a prescription

## MEDICAL PRESCRIPTION

## LIQUIDS AND SEMISOLIDS IN PRESCRIPTIONS

The aim of the lesson:
-To learn the rules of the structure of recipe.
-to form new theoretical knowledge;
-to form practical skills;
-to form practical skills in working with scientific and scientific popular literature.

Concrete tasks:
A student should know:
-The structure of medical prescription and its components;
-The requierements to the Latin part of the prescription;
-Learn to prescribe liquid and semisolid pharmaceutical forms
The content

## MEDICAL PRESCRIPTION

## LIQUIDS AND SEMISOLIDS IN PRESCRIPTIONS

## I.GENERAL INFORMATION ON A MEDICAL PRESCRIPTION

The word "prescription" can be decomposed into "pre" and "script" and literally, means "to write before" a drug can be prepared. The concept of prescriptions date back to the beginning of history. So long as there were medications and a writing system to capture directions for preparation and usage, there were prescriptions. Latin served a good purpose on prescriptions when they were first written in the 1400s. Spread widely by Roman soldiers and traders, Latin was the main language of Western Europe for hundreds of years. It was unlikely to change, because it was a "dead" language, and it was unlikely to be misinterpreted, because it was exact in its meaning. Of course, the patients who didn't know Latin probably didn't have the vaguest idea what they were taking.

Who can issue prescriptions are governed by local legislation. In the United States, all states, physicians, veterinarians, dentists, and pediatrists have full prescription power. Many countries allowmidlevelpractitioners different prescription privileges. Nurse practitioners, physician assistants, optometrists, homeopathic physicians, registered pharmacists, naturopathic physicians, and doctors of oriental medicine
currently represent the spectrum ofmid-levelpractitioners. Each country regulates what (if any) prescription powers members of the above group are allowed.

Prescriptions are typically written on preprinted prescription forms that are assembled into pads. Preprinted on the form is text that identifies the document as a prescription, the name and address of the hospital or the prescribing doctor.

Predating modern legal definitions of a prescription, a prescription traditionally is composed of four parts: a "superscription", "inscription", "subscription" and "signature".

1. The "superscription" section contains the date of the prescription and patient information (name, address, age, etc).
2. The word "Recipe:" (in English prescriptions "Rx") addressed to the pharmacist separates the superscription from the "inscriptions" section. This is literally an abbreviation for an exhortation to the patient to "take to" what is described in the inscription section. The inscription section defines what is the medication.
3. The "subscription" section contains dispensing directions to the pharmacist. This may be compounding instructions or quantities.
4. The "signature" section contains directions to the patient.

Latin in Prescriptions in Some English-speakingCountries:The only part of a prescription where Latin appears today, however, is in the directions for taking the drug. This use has become a kind of medical shorthand. Some of these

Abbreviated terms have the potential to cause medication errors because they look so similar in handwriting, so their use is on the decline.
E.g.:

| ante cibum | ac | before meals |
| :--- | :--- | :--- |
| pro re nata | prn | as needed |
| quaque 3 <br> hora | q3 h | every 3 hours |
| ter in die | tid | 3 times a day |
|  |  |  |

## II.REQUIREMENTS TO THE LATIN PART OF A PRESCRIPTION

The Latin part of a prescription begins with the word "Recipe" and ends with "Signa". You will have to learn the general requirements to the Latin part of prescriptions as follows (abbreviations in prescriptions are impermissible):

1. The Latin part of a prescription begins with "Recipe", this is a form of address of a physician to a pharmacist:

Recipe: Take:
-Every prescription line, as well as all drug namesbegin with the capital letter
-Every drug name is written in a separate prescription line. In doing so a blank space is left after "Recipe" (the pharmacist indicates a price of a drug here). If there is not enough space for a drug name in one line it is carried over to the next line with the left indent:

Recipe: Phenylĭi salicylātis 3,0 Spirǐtus aethylĭci quantum satis
ad solutiōnem

Vaselīni ad 30,0 Misce, fiat unguentum
2.The drug names after "Recipe" are in Genitive
3.After the drug name its quantity is indicated. The doses of drugs are indicated in the decimal numeration system:
-Gram amounts - the abbreviation «gr» is not indicated, the quantity is indicated with decimal points 10.0 (10 gr.); 0.25 ( 0,25 gr) etc.
-Milliliter amounts - $10 \mathrm{ml}, 0.2 \mathrm{ml}$;
-Units of activity - ED: 100000 ED (100000 units of activity).
E.g: Recipe: Kalĭi chlorīdi 3,0

Insulīni 25 ED

Solutiōnis Glucōsi 10\%-1000 ml

Misceātur. Sterilisētur!

Detur. Signētur: For intravenous infusions.
-Drops amounts (are used seldom) - the number of drops is indicated with Roman figures singularguttam (one drop -guttam I), pluralguttas (five drops -guttas V );
-Sometimes a physician does not indicate the dosage but affords to a pharmacist an opportunity to determine the quantity of a drug on his own; in that case quantum satis is written in the prescription.

If several drugs are prescribed in the same amount, so the dose is indicated only after the latter one and the abbreviation ana (of each) is written:
E.g: Recipe: Cupri citrātis

Lanolīni
Vaselīni ana 5,0

Take: Coper citrate

Lanoline

$$
\text { Vaseline } \quad \text { of each } 5,0
$$

Writing good prescriptions

- Careful use of decimal points to avoid ambiguity:

Avoid unneccessary decimal points: 5 mL instead of 5.0 mL to avoid possible misinterpretation of $5.0=50$
Alway zero prefix decimals: e.g. 0.5 instead of .5 to avoid misinterpretation with $.5=5$
Never have trailing zeros on decimals: e.g. use 0.5 instead of .50 to avoid misinterpretation with $.50=50$
Avoid decimals altogether by changing the units: $0.5 \mathrm{~g}=500 \mathrm{mg}$

## III.LIQUID PHARMACEUTICAL FORMS IN PRESCRIPTIONS

## Solutions - Solutiōnes

-The Genitive form after "Recipe" - Solutiōnis.
-Solutions can be alcoholic, oil and glyceric, respectively the Latin Genitive forms after "Recipe" areSolutiōnis spirituōsae, Solutiōnis oleōsae, Solutiōnis glycerinōsae (solutio - feminine!), the adjective to be placed at the end of the prescription line before the dosage.
-The solution concentration is indicated in the following way: Recipe:
Solutiōnis Camphŏrae oleōsae $10 \%-100 \mathrm{ml}$.

Mucilages - Mucilagĭnes
-The Genitive form after "Recipe"- Mucilagĭnis.
-The most frequently used mucilage is the starch mucilage: Recipe:
Mucilaginnis Amy̆li
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Suspensions - Suspensiōnes
-The Genitive form after "Recipe"- Suspensiōnis.
-E.g: Recipe: Suspensiōnis Hydrocortisōni

Emulsions - Emulsa
-The Genitive form after "Recipe" - Emulsi.
-E.g.: Recipe: Emulsi olěi Ricĭni.
Infusions and decoctions - Infūsa et Decocta
-The Genitive form after "Recipe" - Infūsi, Decocti.
-After the pharmaceutical form, parts of medicinal plants are indicated:
Cortex - cortex (Genitive - corticisis)
Root - radix (Genitive - radīcis)
Rhizome - rhizōma (Genitive - rhizomătis)
Leaf - folǐum (Genitive singular - foľ̌i, Genitive plural - foliōrum)
Herb - herba (Genitive - herbae)
Flower- flos (Genitive singular - flores, Genitive plural - florum)
-E.g.: Recipe: Decocti corticicis Quercus
Tinctures - Tinctūrae
-The Genitive form after "Recipe" - Tinctūrae.
-E.g: Recipe: Tinctūrae Valeriānae.
Extracts - Extracta

- The Genitive form after "Recipe" -Extracti.
-Three general types of extracts are distinguished: fluid extracts (Extractum fluĭdum - extracti fluĭdi), thick extracts (Extractum spissum - extracti spissi) and dry extracts (Extractum siccum - extracti sicci).
-E.g.: Recipe: Extracti Frangŭlae fluĭdi
Liniments - Linimenta
- The Genitive form after "Recipe" - Linimenti.
-E.g.: Recipe: Linimenti Synthomycīni.
IV. SEMISOLID PHARMACEUTICAL FORMS IN PRESCRIPTIONS

Ointments - Unguenta
-The Genitive form after "Recipe" - Unguenti.
-Eye ointment - Unguentum ophthalmǐcum (Unguenti opthalmǐci).
-E.g: Recipe: Unguenti Zinci.
Pastes - Pastae
-The Genitive form after "Recipe" - Pastae.
-E.g: Recipe: Pastae Zinci.
Plasters - Emplastra
-The Genitive form after "Recipe" - Emplastri.
-Simple plaster - Emplastrum simplex (Emplastri simplĭcis).
-E.g.: Recipe: Emplastri Plumbi simplĭcis.
V. THE MOST-USEDPRESCRIPTION PHRASES I

| ad 10,0 | up to 10 gr. |
| :---: | :---: |
| - ad usum externum | for external use |
| - ad usum internum | for internal use |
| - ana | of each |
| - bis (tres) repetātur | Let it be repeated twice (three times) |
| - cito! | urgent! |
| - contra tussim | against cough |
| - in ampullis | in ampoules |
| - in capsŭlis | in capsules |
| - in vitro nigro | in a dark phial |
| - non repetātur | do not repeat |
| - numěro | number |



## VOCABULARY

Learn names of drugs:

| 1. Aether, ěris m | ether |
| :--- | :--- |
| 2. Aethinyloestradiōlum, in | aethinyloestradiol |
| 3. Amidopyrīnum, i n | amidopyrin |
| 4. Aminophyll̄̄num, in | aminophyllin |
| 5. Ampicillīnum, in | ampicillin |
| 6. Anaesthesīnum, i n | anaesthesin |
| 7. Cerebrolysīnum, in | cerebrolysin |


| 8. Corvalōlum, in | corvalol |
| :---: | :---: |
| 9. Cortisōnum, in | cortison |
| 10. Dimedrōlum, in | dimedrol |
| 11. Furazolidōnum, in | furazolidon |
| 12. Furacilīnum, in | furacilin |
| 13. Glucōsum, in | glucose |
| 14. Hepavītum, i n | hepavit |
| 15. Nitroglycerīnum, in | nitroglycerin |
| 16. Novocaīnum, in | novocain |
| 17. Oxaphenamīdum, in | oxaphenamid |
| 18. Phenacetīnum, in | phenacetin |
| 19. Pyrazidōlum, in | pyrazidol |
| 20. Sacchărum, i n | saccharum/sugar |
| 21. Strophanthīnum, in | strophanthin |
| 22. Sulfazīnum, in | sulfazin |
| 23. Validōlum, in | validol |
| Learn names of medicinal plants: |  |
| 24. Belladonna, ae f | belladonna |
| 25. Rheum, in | rhubarb |
| 26. Urtīca, ae f | nettle |
| Other words: |  |
| 27. aethylĭcus, a, um | ethyl |
| 28. aqua, ae f | water |
| 29. destillātus, a, um | distilled |
| 30. glycerinōsus, a, um | glyceric |
| 31. oleōsus, a, um | oily, oil |
| 32. pectorālis, e | pectoral |


| 33. rectificātus, a, um | rectificat |
| :--- | :--- |
| 34. spirituōsus, a, um | spirituous, alcoholic |
| 35. spirǐtus, us m | alcohol |

## VI. EXCERCISES

Exercise 1. Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

Phenolum, Ampicillinum, Hepavitum, Phenacetinum, Cortisonum, Mycosolonum, Pyrazolidonum, Dibazolum, Sulfazinum, Furazolidonum, Chloxylum, Oxaphenamidum, Corvalolum, Aethinyloestradiolum, Benzonalum, Pantocidum, Polyphepanum, Euphyllinum, Phenobarbitalum, Methacinum, Pyocidum, Barbamylum, Chlorophthalmum, Sulfadimezinum, Oxacillinum, Aminophyllinum, Aether, Nitroglycerinum, Sarcolysinum, Novocainum, Corazolum, Anaesthesinum, Chloraminum.

Exercise 2. Translate from English into Latin:

Decoction of buckthorn cortex for injections, apomorphin in ampoules, leaf of common plantain, solution of furacilin for external use, castor oil in capsules, emulsion of castor oil, aevit in capsules, tablets of amidopyrin and phenacetin of each 0,25 , powder of ampicillin for suspensions, liniment of synthomycin, solution of strophantin in ampoules, tincture of matricary flowers, oily solution of nitroglycerin, spirituous solution of furacilin, decoction of hawthorn cortex, species pectoral, rhubarb syrup, fluid extract of backthorn, powder of foxglove leaves, decoction of oak cortex, dry extract of belladonna, species diuretic, aether for narcosis, mint pepper leaves.

Exercise 3. Translate the following prescriptions from English into Latin:

1) Take: Tincture of lily of the valley

Tincture of valerian of each 10 ml
Solution of nitroglycerin $1 \%-1 \mathrm{ml}$
Validol 2 ml
Let it be mixed.

Let it be given.
Let it be labeled:
2) Take: Liquid hawthorn extract 25 ml

Let it be given.
Let it be labeled:
3) Take: Solution of glucose $5 \%-500 \mathrm{ml}$

Let it be sterilized!
Give.
Write on a label:
4)Take: Powder of rhubarb root 0,06

Give of such doses number 50

Write on a label:
5) Take: Emulsion of castor oil 30,0-200 ml

Give.

Write on a label:
6) Take: Phenobarbital 0,05 Sacchar 0,2

Mix to make a powder

Give of such doses number 10 Write on a label:
7) Take: Cerebrolysin 1 ml

Give of such doses number 10 in ampoules

Write on a label:
8) Take: Anaesthesin 2,5

Talc 15,0
Vaseline up to 50,0
Mix to make a liniment

Give.

Write on a label:
9) Take: $\quad$ Solution of aminophyllin $24 \%-1 \mathrm{ml}$

Give of such doses number 6 in ampoules
Write on a label:
10) Take: Fluid extract of buckthorn 4,0

Powder of rhubarb root 3,0
Dry extract of belladonna 0,7
Mix. Give.

Write on a label:

## Test

I . Match the following:

| Belladonna, ae f | 1) sugar |
| :--- | :--- |
| Crataegus, i f | 2) ether |

Helichrysum arenarium, in3) sea buckthorn
Hippophaë, ës f 4) immortelle sandy
Hypericum, in5) motherwort
Leonurus, im 6) Sn’t Johns wort
Rheum, in7) netle
Urtica, ae f8) rhubarb
Aether, eris m9) belladona
Saccharum, in 10) hothorn
II. Match the following:
venenum, in 1) ethyl
quantum satis 2 ) chologogue
oleosus, a, um 3) dystilled
obductus, a, um 4) liquid
fluidus, a, um5) abducted
destillatus, a, um 6) oily
cholagogus, a, um 7) of such doses
aethylicus, a, um8) poison
III. Fill in the missing letter:

Diproph...llinum
Nitrogl...cerinum
...enacetinum
Men...olum
Sac...arum
Tetrac...clinum
Euph...llinum
Furac...linum
Cord...gitum
D...medrol
IV. Give the right answer:

Holagogus, a,um
obductus, a, um
destillatus, a, um
fluidus, a, um
cholagogus, a, um
oleosus, a, um

Immortelle sandy

Hypericum, in
Helichrysum arenarium, in
Leonurus, im
Rheum, in
Urtica, ae f

## Hothorn

Convallaria, ae f
Salvia, ae f
Belladonna, ae f
Crataegus, if
Hippophaë, ës f

## Topic4

## PRESCRIPTION REGULATIONS FOR TABLETS, SUPPOSITORIES AND OPHTHALMIC FILMS

SOLIDS AND OTHER PHARMACEUTICAL FORMS IN PRESCRIPTIONS

## PRESCRIPTION REGULATIONS FOR TABLETS SUPPOSITORIES AND OPHTHALMIC FILMS

## SOLIDS AND OTHER PHARMACEUTICAL FORMS IN PRESCRIPTIONS

The aim of the lesson:
-To form new theoretical knowledge in the theme;
-To form practical skills in independent search of information on the given subject;
-To form practical skills in the work with scientific and scientific popular literature.
A student should kow:
-Prescription regulations for tablets, suppositories and ophthalmic films;

A student should be able to:
-Become familiar with prescription regulations for tablets, suppositories and ophthalmic films.
-Learn to prescribe solid and other pharmaceutical forms.
-Learn the most used prescription phrases.
This lesson is divided into the following sections:
I. Prescription regulations for tablets, suppositories and ophthalmic films.
II.Preposition "cum" in prescriptions.
III. Solid pharmaceutical forms in prescriptions IV. Other pharmaceutical forms in prescriptions
V. The most-usedprescription phrases II

The content

## I.PRESCRIPTION REGULATIONS FOR TABLETS, SUPPOSITORIES AND OPHTHALMIC FILMS

The prescription regulations for tablets, suppositories and ophthalmic filmsare different from other pharmaceutical forms. The names of these pharmaceutical forms in prescriptions after "Recipe" are not in Genitive but in Accusative. You will have to remember the endings of these pharmaceutical forms as follows:

|  |  |
| :--- | :--- |
|  |  |
| - Tabulettas (obductas) |  |
| Suppositorǐum (vagināle, rectāle) (coated) |  |
| Suppositorǐa (vaginaľ̆a, rectaľa) | suppository (rectal, vaginal) |
| Lamellas (membranŭlas) ophthalmǐcas | suppositories (rectal, vaginal) |

E.g.:

Recipe: Tabulettam Digoxīni 0, 0001
Da tales doses numěro 12

Signa:
Recipe:Tabulettas extracti Valeriānae 0,02obductas numěro 50
Da. Signa:
Recipe: Suppositorĭa rectalĭa Apilāci 0,005 numěro 12 Da . Signa:
Recipe: Membranŭlas ophthalmĭcascum Kanamycīni sulfāte 0, 00003 numěro 100
Da.Signa:

## II. PREPOSITION "CUM" IN PRESCRIPTIONS

The names of suppositories and ophthalmic films drugs are often used with the preposition "cum" - with. You will have to remember the nouns endings after the preposition "cum" as follows:

| - Singular | Nouns of the 2nd declension - ending-o (cum <br> Ichthyōlo, cum Oxytetracyclīno) |
| :--- | :--- |
| Plural | Nouns of the 3rd declension - ending-ibus (with <br> valerian roots - cum radicībus Valeriānae) |
|  |  |

The drug names with the nouns of other declensions with the preposition "cum" are not in use.

## Tablets - Tabulettae

-The prescription regulations for tablets see above.
-There are two prescription forms of tablets:

1. Initially, a drug name with the dose is indicated followed by the phrase "Da tales doses numero ... in tabulettis" (Give of such doses number ... in a tablet form).
2. The second prescription form begins with the word "Tabulettam", followed by the drug name and the dose, and ends with the phrase "Da tales doses numěro ..." (Give of such doses number ...).

Compare:
1st prescription form:
Recipe: Paracetamōli 0,3
Da tales doses numěro 6 in tabulettis
Signa: 1 tablet in case of headache
2nd prescription form:
Recipe: Tabulettam Paracetamōli 0,3
Da tales doses numěro 6
Signa: 1 tablet in case of headache
-Tablets known as trade drug names are prescribed as follows: initially the word "Tabulettas" is indicated, the drug name is placed after the pharmaceutical form in Nominative and is in inverted commas, followed by the word "numěro":

Recipe: Tabulettas "Nicoverīnum" numěro 20
Da. Signa: 1 tablet twice a day
Dragée - Dragée
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-The word "dragée" has no declension endings.
-There is only one prescription form for dragée: the word "Dragée", then a drug name and the phrase "Da tales doses numěro..." (Give of such doses number ...).

Recipe: Dragée Diazolīni 0, 05
Da tales doses numěro 20
Signa: 1 dragee twice a day
Powders - Pulvĕres
-The Genitive form after "Recipe" - Pulvěris.
-E.g.: Recipe: Pulvěris radīcis Rhei
-Volatile and hygroscopic powders are given out packed in waxed and paraffined paper as indicated in prescriptions: E.g. - Da tales doses numěro... in charta cerāta (Give of such doses number ... in waxed paper).

Granules - Granŭla
""Granŭlum" is neutrum.
-The Genitive form after "Recipe" - Granŭli (in plural often Granulōrum).
-E.g.: Recipe: Granulōrum Natrïi aminocylātis

## a. OTHER PHARMACEUTICAL FORMS IN

## PRESCRIPTIONS Capsules - Capsŭlae

-Capsule is a drug in powdered, fluid or pellet form that has been enclosed in a soluble gelatinlikecapsule.
-Soft gelatine capsules and Elastic gelatine capsules are distinguished - Capsŭlae gelatinōsae molles et durae.
-In prescriptions the phrase "in capsǔlis gelatinōsis" (in gelatine capsules) is indicated.
Ophthalmic films - Membranŭlae (Lamellae) ophthalmǐcae

- Ophthalmic films are absorbable gelatin films containing drug substances.
-Membranǔla and Lamella are synonyms.
-The prescription regulations for ophthalmic films see above.
-The ophthalmic films are often prescribed with the preposition "cum".
-E.g.: Recipe: Membranŭlas ophthalmǐcas cum Florenālo.
Aerosols - Aërosōla
-The aerosols are prescribed in the following way: "Recipe" is followed by the word "Aërosōlum" (Accusative singular) and by the trade drug name in Nominative and in inverted commas, then the quantity after "numěro" is indicated.
-E.g.: Recipe: Aërosōlum "Ephatīnum" numěro 1.


## V. THEMOST-USEDPRESCRIPTION PHRASES II

| in charta cerāta | in waxed paper |
| :--- | :--- |
| in charta paraffināta | in paraffined paper |


| in capsŭlis gelatinōsis | in gelatine capsules |
| :---: | :---: |
| - in capsǔlis gelatinōsis elastǐcis | in elastic gelatine capsules |
| - in tabulettis (obductis) | in tablets (coated) |
| - cum radicíbus ... | with ... roots |
| - Misce, fiat suppositorǐum rectāle (vagināle) | Mix to make a rectal (vaginal) suppository |
| - Misce, fiant suppositorĭa | Mix to make rectal (vaginal) suppositories |
| - Misce, fiat pulvis | Mix to make the finest powder |
| subtilissimus |  |

VI. VOCABULARY

Learn names of drugs:
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.Phenoxymethylpenicillīnum, in
analgin
corglycon
diprophyllin
euphyllin
florenal
methyloestradiol
nystatin
phenobarbital
phenobolin
phenoxymethylpenicillin

| 11.Phthivazīdum, i n | phthivazid |
| :--- | :--- |
| 12.Pyracetāmum, i n | pyracetam |
| 13.Saluzīdum, i n | saluzid |
| 14.Streptocīdum, i n | streptocid |
| 15.Tetracyclīnum, i n | tetracycline |
| 16.Iodum, i n | iodine |
|  | Learn names of medicinal plants: |
| 17.Alŏë, es f | aloe |
| 18.Althaea, ae f | althea |
| 19.Cacao | milfoil |

Other words:

| 21. composĭtus, a, um | complex |
| :--- | :--- |
| 22. flư̆dus, a, um | liquid |
| 23. in tabulettis (obductis) | in (coated) tablets |
| 24. obductus, a, um | coated |
| 25. ophthalmĭcus, a, um | ophthalmic |
| 26. simplex, ǐcis | simple |
| 27. solubǐlis, e | soluble |

## VII. EXERCISES

Exercise 1. Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

Phenoxymethylpenicillinum, Vitoxycyclinum, Hexathidum, Glycerinum, Glycerophosphenum, Isapheninum, Intercainum, Kanacidinum, Erythromycinum, Methacyclinum, Oxacillinum, Metronidazolum, Mechloralum, Neocidum, Novosedum, Oxamycinum, Pentamethonum, Sedalginum, Synthacortum, Sulfurenum, Sulfathiazolum, Theophedrinum, Thiobutalum, Urosulfanum, Urozinum, Phenaconum, Phosphothiaminum, Chlormethinum, Cholosasum, Oestrogynonum, Aethylium, Aethimizolum, Haemoferum, Benzocainum, Abapressinum, Ancortonum, Anaesthocainum, Antistenocardinum, Aseptilexum, Aethylbarbitalum.

Exercise 2. Translate from English into Latin:
Solution of glucose, tablets of analgin, liquid extract of aloe, coated tablets of tetracyclin, tincture of matricary flowers, decoction of oak cortex, liniment of synthomycin, ointment of oxolin, syrup of althea,
spirituous solution of iodine, granules of furazolidon, dragee of phenoxymethylpenicillin, solution of furacilin for external use, oily solution of phenobolin, tablets of pyrocetam, powder of ampicillin for suspensions, coated tablets of valerian extract, rhizomes with valerian roots, mucilages of flax seeds, tincture of eucalyptus, infusion of pepper mint leaves, leaf of aloe, leaves of sage, simple syrup, complex plaster, solution of corglycon, oily solution of nitroglycerin, soluble saluzid, powder and tablets of phthivazid, tablets for cough.

Exercise 3. Translate the following prescriptions from English into Latin:

1) Take: Powder of foxglove leaves 0,05

Sacchar 0,3
Mix to make a powder
Let it be given of such doses number 12

Let it be labeled:
2) Take: Cortex of hawthorn 30,0

Leaves of nettle

Herb of milfoil 10,0
Mix to make species
Let it be given
Let it be labeled:
3) Take: Powder of ampicillin for suspensions 60,0

Give in a dark phial

Write on a label:
4) Take: Suppositories with diprophyllin 0,5 number 10

Give
Write on a label:
5) Take: Tablets of microiodine with phenobarbital number 40

Give in a dark phial

## Write on a label:

6) Take | Ointment of tetracycline ophthalmic 10,0 |  |
| :--- | :--- |
|  | Give |
|  | Write on a label: |

## 7)Take: Sulfadimezin Streptocid

Synthomycin of each 1,0 Mix to make a powder Give
Write on a label:
8)Take: Tetracycline 100000 ED

Give of such doses number 24 in a tablet form
Write on a label:
9) Take: Tablets of tetracycline with nystatin coated 100000 ED number 25

Give
Write on a label:
10) Take: Euphyllin 0,2

Cocoa oil 2,0
Mix to make a suppository
Give of such doses number 6
Write on a label:
11) Take: Ichthyol 3,0

Vaseline up to 30,0
Mix to make an ointment
Give
Write on a label:
12) Take: Ointment of furacilin $0,2 \%-30,0$

## Give

Write on a label:
13)Take: Ointment of xeroform $10 \%$ - 30,0 Give

Write on a label:
14) Take: Methyloestradiol 0,00002

Give of such doses number 20 in a tablet form
Write on a label:
15) Take: Liquid extract of aloe 1 ml

Give of such doses number 10 in ampoules Write on a label:
16)Take: Synthomycin 0,2 Castor oil 20 ml

Mix to make a liniment Give
Write on a label:
17) Take: Tablets of valerian extract coated 0,02 number 50 Give

Write on a label:
18) Take: Tablet of furacilin 0,02

Give of such doses number 10
Write on a label:
19) Take: Ophthalmic films with florenal number 30

Give
Write on a label:
20) Take: Tablets of sulfadimezin 0,5 number 12 Give

Writeonalabel:

## Topic 5

Latin names of Chemical elements, Acid names Oxides, Perioxcides, Hydroxides

Latin names of Chemical elements, Acid names Oxides, Perioxcides, Hydroxides

The aim of the lesson:
Educational:

- To check the assimilation of the material.
- To form new theoretical knowledge on the subject;
- To form practical skillsin independent search of the information on the given
topic;
- To form practical skills in the work.

Concrete tasks:
A student should know:

1. Latin names of Chemical elements.
2. The rules of formation of names of acids:
3.The rules of formation of names of Oxides,Perioxides and Hydroxides

A student shoud be able to :
To translate the names of chemical elements.
To form Latin names of oxides, perioxides, hydroxides.
To write the Latin part of the recipe.
To translate multiword farmaceutical forms.
2)Developing aim:
-to perfect cognition skills;
-to develop cognitive interest to the questions of farmaceutical terminology

The Content:
All Latin names of chemical elements are neuter nouns of the 2nddeclension:
E.g.: Bromum, in; Iodum, in; Bismŭthum, in

There are two exceptions to this rule:

- sulfur $\quad-$ Sulfur, ŭris $n$ (3rd declension)
- phosphorus - Phosphŏrus, im (masculine)

Special attention must be given to the spelling of the following chemical elements:

| Chemical <br> element | Latin | English |
| :---: | :---: | :---: |
| Bi | Bismŭthum, i n | bismuth |
| Ca | Calčum, in | calcium |
| F | Fluorrum, in or Phthorum, in | fluorine |
| Fe | Ferrum, in | iron |
| H | Hydrogeň̌um, i n | hydrogen |
| Hg | Hydrargy̆rum, i n | mercury |
| K | Kalĭum, in | potassium |
| Mg | Magnesium, in or Magnium, in | magnesium |
| Na | Natrǐm, in | sodium |
| O | Oxygenium, in | oxygen |
| Pb | Plumbum, in | lead |
| S | Sulfur, ǔris n | sulfur |
| Zn | Zincum, in | zinc |

## II. LATIN NAMES OF ACIDS

The Latin names of acids consist of the noun "acǐdum" (acǐdum, in-acid) and the concordant adjective of the 1 st group:
acǐdum + stem of the chemical element name + -ic/ōs-+-um
a) Latin adjectives with the suffix -ǐc- and the ending -um correspond to English adjectives ending by-ic.
E.g.:
arsenic acid - Acǐdum arsenicǐcum (Arsenǐcum, in $n \rightarrow$ arsenic + icc $+u m$ );
-sulphuric acid - Acǐdum sulfurǐcum (Sulfur, ŭris $\mathrm{n} \rightarrow$ sulfur $+\mathrm{i} \mathrm{c}+\mathrm{um}$ );
silicic acid - Acĭdum silicǐcum (Silich̆um, in silic + ĭc + um);
b)Latin adjectives with the suffix -ōs and the ending -um correspond to English adjectives ending by-ous.
E.g.:
nitrous acid - Acǐdum nitrōsum (Nitrogenı̆um, in $n \rightarrow$ nitr $+\bar{o} s+u m$ );
sulphurous acid - Acǐdum sulfurōsum (Sulfur, ŭris $n \rightarrow$ sulfur $+\bar{o} s+u m$ );
arsenicous acid - Acǐdum arsenicōsum (Arsenǐcum, i $n \rightarrow$ arsenic $+\bar{o} s+u m$ ).
c)Latin acid names with the prefix hydro- ending by-ǐcum correspond to English acid names with the prefixhydro- ending by-ic (Acǐdum hydrochlorǐcum - hydrochloric acid).

Attention!!! - Acid names used as drugs after pharmaceutical forms are written with the first capital letter:
E.g.:

| - Tabulettae Acǐdi folĭci | - tablets of folic acid |
| :--- | :--- |
| - Dragée Acǐdi ascorbinĭci | - dragée of ascorbic acid |

## III. LATIN NAMES OF OXIDES, PEROXIDES, HYDROXIDES

Latin names of oxides, peroxides and hydroxides consist of two words:
First one: name of a chemical element in Genitive

Second one: word "oxy̆dum" (oxide), "peroxy̆dum" (peroxide) or "hydroxy̆dum" (hydroxide) in Nominative.
E.g.:

- Zinci oxy̆dum - zinc oxide
- Ferri oxy̆dum - ferric oxide
- Hydrogenĭi peroxy̆dum - hydrogen peroxide
- Calcĭi hydroxy̆dum - calcium hydroxide

Attention!!! - Names of oxides, peroxides and hydroxides are written after pharmaceutical forms with the first capital letter:
E.g.:

Solutǐo Hydrogenĭi peroxy̆di dilūta - diluted solution of hydrogen peroxide

## IV. VOCABULARY

Learn names of acids:

| 1. acǐdum acetǐcum | acetic acid |
| :---: | :---: |
| 2. acidum acetylsalicylǐcum | acetylsalicylic acid |
| 3. acǐdum ascorbinǐcum | ascorbic acid |
| 4. acǐdum benzoĭcum | benzoic acid |
| 5. acǐdum borǐcum | boric acid |
| 6. acǐdum folǐcum | folic acid |
| 7. acǐdum glutaminǐcum | glutaminic acid |
| 8. acĭdum hydrochlorǐcum | hydrochloric acid |
| 9. acǐdum hydrosulfurǐcum | hydrosulfuric acid |
| 10.ačdum lactǐcum | lactic acid |
| 11.acidum lipoǐcum | lipoic acid |
| 12.ač̌dum nicotinǐcum | nicotinic acid |
| 13.acidum nitrǐcum | nitric acid |
| 14.acǐdum nitrōsum | nitrous acid |
| 15.acidum phosphorǐcum | phosphoric acid |
| 16.acǐdum salicylĭcum | salicylic acid |
| 17.acĭdum sulfurǐcum | sulfuric acid |
| 18.acidum sulfurōsum | sulfurous acid |
| Learn names of drugs: |  |
| 19.Camphŏra, ae f | camphora |
| 20.Chinosōlum, in | chinosol |
| 21.Chloroformĭum, in | chloroform |
| 22.Coffeīnum, in | caffeine |
| 23.Hydrocortisōnum, in | hydrocortison |
|  |  |
| 24.Menthōlum, in |  |
| 25.Naphthalānum, in |  |
| 26.Phthalazōlum, in |  |
| 27.Prednisolōnum, in |  |


| 28.Synoestrōlum, in | synoestrol |
| :--- | :--- |
| 29.Talcum, i n | talc |
| 30.Tannīnum, i n | tannin |
| Other words: | white |
| 31.albus, a, um | clear |
| 32.depurātus, a, um | diluted |
| 33.dilūtus, a, um | yellow |

## V. EXERCISES

## Exercise 1. Translate from English into Latin:

Oily solution of camphora for external use; chloroform for narcosis; liniment of synthomycin with novocain; solution of prednisolon for injections; glyceric solution of ichthyol; spirituous solution of iodine for internal use; solution of novocain in ampoules, solution of nicotinic acid; mucilages of althea root, diluted hydrochloric acid; boric acid; tablets of lipoic acid; dragée of ascorbinic acid, zinc ointment; clear sulfur, yellow mercury oxide, acetylsalicylic acid in tablets, tablets of amidopyrin and phenacetin of each 0,25 ; phenoxymethylpenicillin for suspension; oily solution of synoestrol in ampoules, powder for suspensions; suppositories with dimedrol for children; diluted solution of hydrogen peroxide; hydrosulfuric acid; nicotinic acid in tablets; acetic acid; phosphoric acid; magnesium peroxide; zinc oxide; calcium hydroxide, hydrogen peroxide; benzoic acid.

Exercise 2. Translate the following prescriptions from English into Latin:
1)Take: Folic acid 0,0008 Ascorbic acid 0,1

Give of such doses number 30 in tablet form
Write on a label:
2)Take: White mercurial ointment 5\%-25,0

Let it be given
Let it be labeled:

$$
\text { 3)Take: } \quad \begin{aligned}
& \text { Spirituous solution of salicylic acid } 1 \%-40 \mathrm{ml} \\
& \\
& \text { Give }
\end{aligned}
$$

Write on a label:
4)Take: Acetylsalicylic acid

Phenacetin of each 0,25
Caffeine 0,05
Give of such doses number 12 in a tablet form
Write on a label:

| 5)Take: | Ointment of hydrocortison 1\%-10,0 |
| :---: | :---: |
|  | Give |
|  | Write on a label: |
| 6)Take | Dragée of ascorbic acid 0,05 number 50 |
|  | Give |
|  | Write on a label: |
| 7)Take: | Tablets of phthalazol 0,05 number 20 |
|  | 163 |
|  | Give |
|  | Write on a label: |
| 8) Take: | Tincture of plantain leaves $10,0-20 \mathrm{ml}$ |
|  | Give |
|  | Write on a label: |
| 9) Take: | Salicylic acid 5,0 |
|  | Zinc oxide 0,5 |
|  | Talc 50,0 |
|  | Mix to make a powder |
|  | Let it be given |
|  | Let it be labeled: |

10) Take: Yellow mercury oxide 0,6

Ichthyol 0,80
Ointment of zinc 20,0
Mix to make an ointment
Let it be given
Let it be labeled:

## Sample Test

Translate from English into Latin:
Oily solution of camphora for external use
chloroform for narcosis
liniment of synthomycin with novocain
solution of prednisolon for injections
glyceric solution of ichthyol
spirituous solution of iodine for internal use
solution of novocain in ampoules
solution of nicotinic acid
mucilages of althea root
diluted hydrochloric acid
boric acid
tablets of lipoic acid

Translate the following prescriptions from English into Latin:

1) Take: Chloroform

Ethyl alcohol 95\%-20 ml
Ethyl ether 10 ml
Liquid ammonia 5 drops
Mix
Give

Write on a label:
2) Take: Clear sulfur

Magnesium oxide Sacchar of each 10,0
Mix to make a powder
Give

Write on a label:
3) Take: Anaesthesin Xeroform

Talc of each 10,0
Mix to make a powder Give
Write on a label:
4) Take: Coated tablets of glutaminic acid 0,25 number 100

Give
Write on a label:
5) Take: Ichthyol 1,25

Zinc oxide
Wheat starch of each 12,5
Vaseline up to 50,0
Mix to make a paste
Give
Writeonalabel:

Topic 6

Latin names of Salts in prescriptions

Latin names of Salts in prescriptions

The aim of the lesson:

1) Educational:

- To check the assimilation of the material.
- To form new theoretical knowledge on the subject;
- To form practical skillsin independent search of the information on the given topic;
- To form practical skills in the work.

Concrete tasks:

A student should know:

1. Latin names of Salts.
2. Latin names of anions
3. Two-component names of potassium and sodium salts

A student shoud be able to:
To translate the names of salts.
To form Latin names of salts .
To write the Latin part of the recipe.
To translate multiword farmaceutical forms.
2) Developing aim:
-to perfect cognition skills;
-to develop cognitive interest to the questions of farmaceutical terminology

The Content:
LATIN NAMES OF SALTS

The salts names in Latin consist of two nouns:
-the name of cation comes first inGenitive,
-the name of anion occupies the second place and is inNominative
E.g:

- Aluminǐi nitras
- Adrenalīni hydrochlorīdum
- Natřii nitris
- aluminium nitrate
- adrenalin hydrochloride
- sodium nitrite

It is important to keep in mind that cation names in Latin are always written with the first capital letter and anion names are always written with the first small letter (e.g: SolutioNatrǐi tetraborātis glycerinōsa).

## II. LATIN NAMES OF ANIONS

All Latin suffixes and endings of anion names in Nominative and Genitive are listed in the table:

| Latin - Nominative | Latin - Genitive |  | English |  |
| :--- | :--- | :--- | :--- | :--- |
| -as | Aluminĭi nitras | -ātis | Aluminii nitrātis | aluminium nitrate |
| -is | Aluminĭi nitris | -ītis | Aluminii nitrītis | aluminium nitrite |
| -īdum | Natř̌i chlorīdum | -̄̄di | Natrii chlorīdi | sodium chloride |

Explanatory notes to the table:
-Anion names with the suffixes -as, -is are Latin nouns of the 3rd declension. The letter-s- in Latin names accords with the letter-t- in English names:
E.g:

- citras - citrate
- phosphas - phosphate
- nitris - nitrite
-Genitive forms of anion names with suffixes -as-, -is- are formed by analogy with the nouns of the 3rd declension:

Compare:

- citras, ātis m-tuberosǐtas, ātis f
-Anion names with the suffixe -id- are Latin nouns of the 2 nd declension:
E.g:
-chlorīdum, i n - chloride
-bromīdum, i n - bromide


## III. TWO-COMPONENTNAMES OF POTASSIUM AND SODIUM SALTS

Two-componentnames of potassium and sodium are written with a hyphen and the both parts have the same grammatical case:
E.g: sulphacyl sodium

- Nominative: Sulfacylum-natrǐum
- Genitive: Sulfacyli-natrı̈i


## IV. VOCABULARY

Learn names of drugs:

1. Adrenalīnum, in
2. Aethylmorphīnum, in
3. Apomorphīnum, in
4. Barbitālum-natrŭum, in
5. Benzylpenicillīnum-natrǐum,i $n$
6. Codeīnum, in
7. Coffeīnum-natrĭibenzŏas, Coffeīni-natrǐibenzoātis
8. Dicaīnum, i n
9. Ephedrīnum, in
10.Methylēnum (i, n) (us, a, um)
11.Methylĭi salicylas, ātis m
12.Morphīnum, in
13.Norsulfazōlum, i n
14.Oleandomycīnum, i n
adrenalin
aethylmorphine
apomorphine
barbital-sodium
benzylpenicillin-sodium
codeine
coffeine-sodiumbenzoate
dicain
ephedrin
blue methylen
methyl salicylate
morphine
norsulfazol
oleandomycin

| 15.Olĕum Helianthi (us, i m) | sunflower-seedsoil |
| :--- | :--- |
| 16.Olěum Persicōrum (um, i n) | peach oil |
| 17.Oxytetracyclīnum, i n | oxytetracycline |
| 18.Phenylı̆i salicylas, ātis m | phenyl salicylate |
| 19.Riboflavīnum, i n | riboflavin |
| 20.Salicylas, ātis m | salicylate |
| 21.Sulfacylum-natrīum, i n | sulfacyl-sodium |
| 22.Testosterōnum, i n | testosteron |
| 23.Thiamīnum, i n | thiamin |

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Learn names of medicinal plants:
24.Adōnis (ĭdis m, f) vernālis spring adonis
(is, e)

Other words:
25.isotonĭcus, a, um isotonic

## V. EXERCISES

## Exercise 1. Translate from English into Latin:

Complex liniment of salicylate, isotonic solution of sodium chloride, tablets of calcium gluconate, coated tablets of tetracyclin hydrochloride, diluted solution of hydrogen peroxide, basic acetate of lead, powder of oxytetracyclin, matricary flowers for internal use, sodium hydrocitrate for injections, basic bismuth nitrate with belladonna extract, phenoxymethylpenicillin for injections, oily solution of synoestrol in ampoules, tincture of plantain leaves, milfoil herb, solution of mercury cyanide, tincture of matricary flowers, solution of sulfacyl-sodiumin ampoules, solution of thiamin bromide, aloe syrup with iron, chloroform for narcosis; powder of foxglove leaves, granules of furazolidon, powder and tablets of phthivazid, oily solution of anaesthesin.

Exercise 2. Translate the following prescriptions from English into Latin:

1) Take: Blue methylen 0,5

Solution of glucose 25\%-50 ml
Give of such doses number 3 in ampoules
Write on a label:
2) Take: Tincture of spring adonis herb 180 ml
Amidopyrin 2,0
Sodium bromide 4,0
Codeine phosphate 0,2
Mix. Give.
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Write on a label:
3) Take: Tincture of althea root 180 ml
Sodium hydrocarbonate
Sodium benzoate of each 5,0
Simple syrup 20,0
Mix. Give.
Write on a label:
4) Take: Tablets of tetracycline hydrochloride 0,1 number 30
Give
Write on a label:
5) Take: Suspension of hydrocortisone acetate $2,5 \%-2 \mathrm{ml}$ Give of such doses number 5
Write on a label:
6) Take Dimedrol 0,01
Ephedrin hydrochloride 0,1
Peach oil 10 ml
Mint oil I drop
Mix
Give
7) Take: Tablets of phthalazol 0,05 number 20

Give

Write on a label:
8) Take: Iodine 0,03

Iodide potassium 1,3
Glycerin 30,0
Peppermint oil III drops
Mix. Give.

Write on a label:
9) Take: Ascorbic acid

Nicotinic acid of each 0,05

Riboflavin

Thiamine bromide of each 0,01 Sacchar 0,3

Mix to make a powder
Give of such doses number 30 Write on a label:
10.Take: Analgin

Amidopyrin
Phenacetin of each 0,2

Coffeine sodium benzoate 0,02

Codeine phosphate 0,015
Give of such doses number 10 in a tablet form Write on a label:
11) Take: Methol 0,1

Phenyl salicylate 0,3
Vaseline oil up to 10 ml
Mix. Give. Write on a label:
12) Take: Extract of belladonna 0,01 Basic bismuth nitrate

Phenyl salicylate of each 0,25 Mix to make a powder

Give of such doses number 10 : Write on a label:
13) Take: Chloroform

Sunflower-seedoil
Methyl salicylate of each 15 ml
Mix to make a liniment
Give
Write on a label:
14)Take: Magnesium carbonate 4,0

Potassium carbonate 5,0
Sodium hydrocarbonate 1,0
Glycerin in sufficient amount
Mix to make a paste
Give
Write on a label:
15) Take: Streptocid

Norsulfazol of each 3,0
Benzylpenicillin sodium 50000 ED
Ephedrin hydrochloride
Acetylsalicylic acid of each 0,15

Mix to make a powder Give
Write on a label:
16) Take: Solution of dicain $0,5 \%-5 \mathrm{ml}$

Solution of adrenalin hydrochloride $0,1 \%$ - III drops Mix
Give
Write on a label:
17) Take: Oily solution of testosteron propionate $1 \%-1 \mathrm{ml}$ Give of such doses number 6 in ampoules Write on a label.
18) Take: Menthol

Ethylmorphin hydrochloride of each 0,01

Sacchar 0,03

Mix to make a powder
Give of such doses number 10

Write on a label:
19) Take: Tincture of valerian root 200 ml Sodium bromide 5,0

Sodium barbital 2,0 Ethylmorphin hydrochloride 0,15 Mix. Give.
Write on a label:

Sample Test

Translate from English into Latin:
Complex liniment of salicylate
isotonic solution of sodium chloride
tablets of calcium gluconate
coated tablets of tetracyclin hydrochloride
diluted solution of hydrogen peroxide
basic acetate of lead
powder of oxytetracyclin

Translate the following prescriptions from English into Latin:

1) Take: Methol 0,1

Phenyl salicylate 0,3
Vaseline oil up to 10 ml
Mix. Give. Write on a label:
2) Take: Extract of belladonna 0,01 Basic bismuth nitrate Phenyl salicylate of each 0,25 Mix to make a powder Give of such doses number 10: Write on a label:
3) Take: Chloroform

Sunflower-seedoil
Methyl salicylate of each 15 ml Mix to make a liniment
Give
Write on a label:
4) Take: Magnesium carbonate 4,0

Potassium carbonate 5,0
Sodium hydrocarbonate 1,0

Glycerin in sufficient amount
Mix to make a paste
Give
Write on a label:
5) Take: Oily solution of testosteron propionate $1 \%-1 \mathrm{ml}$ Give of such doses number 6 in ampoules Writeonalabel.

Topic 7

# PRESCRIPTION REGULATIONS FOR TABLETS SUPPOSITORIES AND OPHTHALMIC FILMS <br> SOLIDS AND OTHER PHARMACEUTICAL FORMS IN PRESCRIPTIONS 

## PRESCRIPTION REGULATIONS FOR TABLETS SUPPOSITORIES AND OPHTHALMIC FILMS

 SOLIDS AND OTHER PHARMACEUTICAL FORMS IN PRESCRIPTIONSThe aim of the lesson:

- To form new theoretical knowledge;
- To form practical skills in independent skills;
- To form practical skills in the work with scientific and scientific popular literature.

Concrete tasks:
A student should know:
To become familiar with prescription regulations for tablets, suppositories and ophthalmic films.
To learn to prescribe solid and other pharmaceutical forms.
To learn the most used prescription phrases.

## I.PRESCRIPTION REGULATIONS FOR TABLETS, SUPPOSITORIES AND OPHTHALMIC FILMS

The prescription regulations for tablets, suppositories and ophthalmic filmsare different from other pharmaceutical forms. The names of these pharmaceutical forms in prescriptions after "Recipe" are not in Genitive but in Accusative. You will have to remember the endings of these pharmaceutical forms as follows:

- Tabulettam (obductam) tablet (coated)
- Tabulettas (obductas) tablets (coated)
- Suppositořum (vagināle, rectāle)
suppository (rectal, vaginal)
- Suppositorǐa (vaginalĭa, rectalĭa) suppositories (rectal, vaginal)
- Lamellas (membranŭlas) ophthalmǐcas ophthalmic films


## E.g.:

Recipe:Tabulettam Digoxīni 0,0001
Da tales doses numěro 12
Signa :
Recipe:Tabulettas extracti Valeriānae 0,02obductas numĕro 50
Da. Signa:
Recipe:Suppositorǐa rectalĭa Apilāci 0,005 numĕro 12
Da. Signa:
Recipe: Recipe: Membranŭlas ophthalmĭcascum Kanamycīni sulfāte 0, 00003 numěro 100
Da.Signa:
II. PREPOSITION "CUM" IN PRESCRIPTIONS

The names of suppositories and ophthalmic films drugs are often used with the preposition "cum" - with. You will have to remember the nouns endings after the preposition "cum" as follows:

- Singular $\quad$ Nouns of the 2nd declension - ending-o (cum

Ichthyōlo, cum Oxytetracyclīno)

- Plural - Nouns of the 3rd declension - ending-ibus (with valerian roots - cum radicǐbus Valeriānae)

The drug names with the nouns of other declensions with the preposition "cum" are not in use.

## III. SOLID PHARMACEUTICAL FORMS IN PRESCRIPTIONS

Tablets - Tabulettae
-The prescription regulations for tablets see above.
-There are two prescription forms of tablets:

1. Initially, a drug name with the dose is indicated followed by the phrase " Da tales doses numěro ... in tabulettis" (Give of such doses number ... in a tablet form).
2. The second prescription form begins with the word "Tabulettam", followed by the drug name and the dose, and ends with the phrase "Da tales doses numěro ..." (Give of such doses number ...).

Compare:
1st prescription form:
Recipe: Paracetamōli 0,3
Da tales doses numěro 6 in tabulettis
Signa: 1 tablet in case of headache
2nd prescription form:
Recipe: Tabulettam Paracetamōli 0,3
Da tales doses numěro 6
Signa: 1 tablet in case of headache
-Tablets known as trade drug names are prescribed as follows: initially the word "Tabulettas" is indicated, the drug name is placed after the pharmaceutical form in Nominative and is in inverted commas, followed by the word "numěro":
Recipe: Tabulettas "Nicoverīnum" numěro 20
Da. Signa: 1 tablet twice a day
Dragée - Dragée
-The word "dragée" has no declension endings.
-There is only one prescription form for dragée: the word "Dragée", then a drug name and the phrase "Da tales doses numěro..." (Give of such doses number ...).

## Recipe: Dragée Diazolīni 0,05

Da tales doses numěro 20
Signa: 1 dragee twice a day
Powders - Pulvĕres
-The Genitive form after "Recipe" - Pulvěris.
-E.g.: Recipe: Pulvěris radīcis Rhei

- Volatile and hygroscopic powders are given out packed in waxed and paraffined paper as indicated in prescriptions:E.g. - Da tales doses numěro... in charta cerāta (Give of such doses number ... in waxed paper).

Granules - Granŭla
""Granŭlum" is neutrum.
-The Genitive form after "Recipe" - Granŭli (in plural often Granulōrum).
-E.g.: Recipe: Granulōrum Natrï aminocylātis

## a. OTHER PHARMACEUTICAL FORMS IN

PRESCRIPTIONS Capsules - Capsŭlae
-Capsule is a drug in powdered, fluid or pellet form that has been enclosed in a soluble gelatinlikecapsule.
-Soft gelatine capsules and Elastic gelatine capsules are distinguished - Capsŭlae gelatinōsae molles et durae.

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-In prescriptions the phrase "in capsǔlis gelatinōsis" (in gelatine capsules) is indicated.
Ophthalmic films - Membranŭlae (Lamellae) ophthalmǐcae

- Ophthalmic films are absorbable gelatin films containing drug substances.
-Membranŭla and Lamella are synonyms.
-The prescription regulations for ophthalmic films see above.
-The ophthalmic films are often prescribed with the preposition "cum".
-E.g.: Recipe: Membranŭlas ophthalmǐcas cum Florenālo.
Aerosols - Aërosōla
-The aerosols are prescribed in the following way: "Recipe" is followed by the word "Aërosōlum" (Accusative singular) and by the trade drug name in Nominative and in inverted commas, then the quantity after "numěro" is indicated.
-E.g.: Recipe: Aërosōlum "Ephatīnum" numěro 1.
V. THE MOST-USED PRESCRIPTION PHRASES II
- in charta cerāta in waxed paper
- in charta paraffināta in paraffined paper
- in capsŭlis gelatinōsis in gelatine capsules
- in capsǔlis gelatinōsis in elastic gelatine capsules elasticcis
- in tabulettis (obductis) in tablets (coated)
- cum radicǐbus ...
with ... roots
- Misce, fiat suppositorǐum
rectāle (vagināle)
Mix to make a rectal (vaginal)
suppository
- Misce, fiant suppositorǐa

Mix to make rectal (vaginal) rectalĭa (vaginalĭa)
suppositories

- Misce, fiat pulvi

Mix to make the finest powder subtilissǐmus

## VI. VOCABULARY

Learn names of drugs:

1. Analgīnum, in analgin
2. Corglycōnum, in corglycon
3. Diprophyllīnum, in diprophyllin
4. Euphyllīnum, in euphyllin
5. Florenālum, in florenal
6. Methyloestradiōlum, i nmethyloestradiol
7. Nystatīnum, in nystatin
8. Phenobarbitālum, in phenobarbital
9. Phenobolīnum, in phenobolin
10.Phenoxymethylpenicillīnum, in phenoxymethylpenicillin
11.Phthivazīdum, in phthivazid
12.Pyracetāmum, in pyracetam
13.Saluzīdum, in saluzid
14.Streptocīdum, in streptocid
15.Tetracyclīnum, in tetracycline
16.Iodum, in iodine

Learn names of medicinal plants:
17.Alŏë, es f aloe
18.Althaea, ae falthea
19.Cacao cocoa
20.Millefolĭum, in milfoil

Other words:
21. compositus, a, um complex
22. fluǐdus, a, um liquid
23. in tabulettis (obductis) in (coated) tablets
24. obductus, a, um coated
25. ophthalmǐcus, a, umophthalmic
26. simplex, ǐcis simple
27. solubǐlis, e soluble

Exercise 1.Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

Phenoxymethylpenicillinum, Vitoxycyclinum, Hexathidum, Glycerinum, Glycerophosphenum, Isapheninum, Intercainum, Kanacidinum, Erythromycinum, Methacyclinum, Oxacillinum, Metronidazolum, Mechloralum, Neocidum, Novosedum, Oxamycinum, Pentamethonum, Sedalginum, Synthacortum, Sulfurenum, Sulfathiazolum, Theophedrinum, Thiobutalum, Urosulfanum, Urozinum, Phenaconum, Phosphothiaminum, Chlormethinum, Cholosasum, Oestrogynonum, Aethylium, Aethimizolum, Haemoferum, Benzocainum, Abapressinum, Ancortonum, Anaesthocainum, Antistenocardinum, Aseptilexum, Aethylbarbitalum.

Exercise 2. Translate from English into Latin:
Solution of glucose, tablets of analgin, liquid extract of aloe, coated tablets of tetracyclin, tincture of matricary flowers, decoction of oak cortex, liniment of synthomycin, ointment of oxolin, syrup of althea, spirituous solution of iodine, granules of furazolidon, dragee of phenoxymethylpenicillin, solution of furacilin for external use, oily solution of phenobolin, tablets of pyrocetam, powder of ampicillin for suspensions, coated tablets of valerian extract, rhizomes with valerian roots, mucilages of flax seeds, tincture of eucalyptus, infusion of pepper mint leaves, leaf of aloe, leaves of sage, simple syrup, complex plaster, solution of corglycon, oily solution of nitroglycerin, soluble saluzid, powder and tablets of phthivazid, tablets for cough.

Exercise 3. Translate the following prescriptions from English into Latin:

1) Take: Powder of foxglove leaves 0,05

Sacchar 0,3
Mix to make a powder
Let it be given of such doses number 12

Let it be labeled:
2) Take: Cortex of hawthorn 30,0

Leaves of nettle

Herb of milfoil 10,0

Mix to make species
Let it be given
Let it be labeled:
3) Take: Powder of ampicillin for suspensions 60,0

Give in a dark phial

Write on a label:
4) Take: Suppositories with diprophyllin 0,5 number 10

## Give

Write on a label:
5) Take: Tablets of microiodine with phenobarbital number 40

Give in a dark phial
Write on a label:
6) Take Ointment of tetracycline ophthalmic 10,0

Give
Write on a label:
7)Take: Sulfadimezin

Synthomycin
Streptocid of each 1,0
Mix to make a powder Give
Write on a label:
8) Take: Tetracycline 100000 ED

Give of such doses number 24 in a tablet form
Write on a label:
9) Take: Euphyllin 0,2

Cocoa oil 2,0
Mix to make a suppository
Give of such doses number 6
Write on a label:
10) Take: Ichthyol 3,0

Vaseline up to 30,0
Mix to make an ointment
Give
Write on a label:
11) Take: Ointment of furacilin $0,2 \%-30,0$

Give
Write on a label:

Write on a label:
13)Take: Methyloestradiol 0,00002

Give of such doses number 20 in a tablet form

Write on a label:
14) Take: Liquid extract of aloe 1 ml

Give of such doses number 10 in ampoules Write on a label:
15)Take: Synthomycin 0,2 Castor oil 20 ml

Mix to make a liniment Give
Write on a label:
17)Take: Tablets of valerian extract coated 0,02 number 50 Give

Write on a label:
18)Take: Tablet of furacilin 0,02

Give of such doses number 10

Write on a label:
19) Take: Ophthalmic films with florenal number 30

Give
Write on a label:
20) Take: Tablets of sulfadimezin 0,5 number 12 Give

Write on a label:

Sample Test
1.Translate from English into Latin:
oily solution of phenobolin
tablets of pyrocetam, powder of ampicillin for suspensions, coated tablets of valerian extract,
rhizomes with valerian roots
mucilages of flax seeds
tincture of eucalyptus
infusion of pepper mint leaves
leaf of aloe, leaves of sage
2.Find component elements carrying information about pharmaceutical characteristics, give their meaning:

Phenoxymethylpenicillinum,

Vitoxycyclinum,
Hexathidum,
Glycerinum,

Glycerophosphenum,
Isapheninum,
Intercainum,

Kanacidinum,

Erythromycinum,
Methacyclinum,
Translate the following prescriptions from English into Latin:

1) Take: Ointment of furacilin $0,2 \%-30,0$

Give

Write on a label:
2)Take: Methyloestradiol 0,00002

Give of such doses number 20 in a tablet form
Write on a label:
3) Take: Liquid extract of aloe 1 ml

Give of such doses number 10 in ampoules Write on a label:
4)Take: Synthomycin 0,2 Castor oil 20 ml

Mix to make a liniment Give
Write on a label:
5) Take: Ointment of xeroform 10\%-30,0 Give

Write on a label:
Self training for the test in Pharmaceutical terminology
Self training for the test in Pharmaceutical terminology

1. The aim of the lesson:
1) Educational:

- To check the assimilation of the material.
- To form theoretical knowledge on the subject;
- To form practical skillsin independent search of the information on the given topic;
- To form practical skills in the work.

Concrete tasks:
A student should know:

1. Standard prescription phrases indicating orders and instructions.
2. Cliniclatin and Greek component elements used in drug names
3. Prescription regulations

4 Latin names of chemical elements

A student shoud be able to:
Towrite prescriptions.
To form Latin names of drugs.
To translate multiword farmaceutical forms.
2) Developing aim:
-to perfect cognition skills;
-to develop cognitive interest to the questions of farmaceutical terminology
I. Translate the following prescriptions from English into Latin:

1) Take: Liquid hawthorn extract 25 ml

Let it be given.
Let it be labeled:
2) Take: Anaesthesin 2,5

Talc 15,0
Vaseline up to 50,0
Mix to make a liniment

Give.

Write on a label:
3) Take: Tablets of Tetracycline with nystatin coated 100000 ED number 25

Give.
Write on a label:
4) Take: Sulfadimezin

Streptocid
Synthomycin of each 1,0
Mix to make a powder
Give.

Write on a label:
5) Take: Powder of ampicillin for suspensions 60,0

Give in a dark phial

Write on a label:
6) Take: Acetylsalicylic acid

Phenacetin of each 0,25

Caffeine 0,05

Give of such doses number 12 in a tablet form
Write on a label:
Take: Ichthyol 1,25
Zinc oxide
Wheat starch of each 12,5
Vaseline up to 50,0
Mix to make a paste Give.
Write on a label:
8) Take: Iodine 0,03

Iodide potassium 1,3
Glycerin 30,0
Peppermint oil III drops
Mix. Give.

Write on a label:
9) Take: Magnesium carbonate 4,0

Potassium carbonate 5,0
Sodium hydrocarbonate 1,0
Glycerin in sufficient amount
Mix to make a paste
Give.
Write on a label:
10) Take: Tincture of althea root 180 ml

Sodium hydrocarbonate
Sodium benzoate of each 5,0
Simple syrup 20,0
Mix. Give. Write on a label:
II. Find component elements carrying information about pharmaceutical characteristics of the drug names, give their meaning:

Benzonalum, Dipheninum, Pyrimethaninum, Erythromycinum, Sulfathiazolum,

Sulfamethoxazolum, Vancomycinum, Diphenhydraminum, Cyclosporinum,
Cyanocobalaminum, Methyluracilum, Hydrolysin, Nitroglycerinum, Benzobarbitalum, Methindionum, Mycoseptinum, Chlorochininum, Cyclophosphamidum, Cerebrolysinum, Novosedum.

## Latin-EnglishPharmaceutical

Dictionary

| acĭdum acetǐcum | acetic acid |
| :---: | :---: |
| acǐdum acetylsalicylĭcum acǐdum ascorbinĭcum | acetylsalicylic acid ascorbic acid |
| acǐdum benzoĭcum | benzoic acid |
| acǐdum borǐcum acǐdum folĭcum | boric acid folic acid |
| acǐdum glutaminĭcum | glutaminic acid |
| acĭdum hydrochlorĭcum | hydrochloric acid |
| acĭdum hydrosulfurǐcum | hydrosulfuric acid |


| acǐdum lactǐcum | lactic acid |
| :---: | :---: |
| acǐdum lipoĭcum | lipoic acid |
| acǐdum nicotinǐcum | nicotinic acid |
| acǐdum nitrǐcum | nitric acid |
| acǐdum nitrōsum | nitrous acid |
| acĭdum phosphorĭcum | phosphoric acid |
| acǐdum salicylĭcum | salicylic acid |
| acǐdum sulfurĭcum | sulfuric acid |
| ač̌dum sulfurōsum | sulfurous acid |
| adōnis (ĭdis m, f) vernālis (is, e) | spring adonis |
| adrenalīnum, in | adrenalin |
| aërosōlum, in | aerosol |
| aether, ěris m | ether |
| aethinyloestradiōlum, in | aethinyloestradiol |
| aethylĭcus, a, um | ethyl |
| aethylmorphīnum, i n | aethylmorphine |
| albus, a, um alǒë, es f | white aloe |
| althaea, ae f | althea |
| amidopyrīnum, i n | amidopyrin |
| aminophyllīnum, in | aminophyllin |
| ampicillīnum, in | ampicillin |
| amy̆lum (i n) Tritǐci (um, i n) | wheat starch |
| anaesthesīnum, in | anaesthesin |
| analgīnum, in | analgin |
| antiasthmatĭcus, a, um | antiasthmatic |
| apomorphīnum, i n | apomorphine |
| aqua, ae f | water |


| barbitālum-natrĭum, i n | -B- |
| :--- | :--- |
| belladonna, ae f | barbital-sodium |
| benzylpenicillīnum-natrĭum, in | belladonna |
| bismŭthum, i n | bismuth |
| cacao | cocoa |
| calcĭum, i n | calcium |
| calendŭla, ae f | calendula |
| camphŏra, ae f | camphora |
| capsŭla, ae f | cerebrolysin |
| cerebrolysīnum, in | matricary |
| chamomilla, ae f | chinosol |
| chinosōlum, in | chloroform |
| chloroformĭum, i n | chloxylum, i n |


| codeīnum, i n | codeine |
| :--- | :--- |
| coffeīnum, i n | caffeine |
| coffeīnum-natrĭibenzŏas, | coffeine-sodiumbenzoate |
| coffeīni-natrĭibenzoātis | complex |
| composĭtus, a, um | lily of the valley |
| convallarĭa, ae f | corglycon |
| corglycōnum, i n | cortison |
| cortex, ĭcis m | corvalol |
| cortisōnum, i n |  |


| crataegus, if | hawthorn |
| :---: | :---: |
|  | -D- |
| decoctum, in | decoction |
| depurātus,a, um | clear |
| destillātus, a, um | distilled |
| dibazōlum, in | dibazol |
| dicaīnum, in | dicain |
| digitālis, is f | foxglove |
| dilūtus, a, um | diluted |
| dimedrōlum, in | dimedrol |
| diprophyllīnum, i n | diprophyllin |
| diuretǐcus, a, um | diuretic, urinative |
| dragée | dragée |
|  | -E- |
| emplastrum, in | plaster |
| emulsum, in | emulsion |
| ephedrīnum, in | ephedrin |
| eucalyptus, if | eucalyptus |
| eucatōlum, in | eucatol |
| euphyllīnum, i n | euphyllin |
| extractum, i n | extract |
|  | -F- |
| farfăra, ae f | coltsfoot |
| ferrum, in | iron |
| flavus, a, um | yellow |
| florenālum, i n | florenal |


| flos, floris m | flower |
| :---: | :---: |
| fluĭdus, a, um | liquid |
| fluōrum, in | fluorine |
| folĭum, in | leaf |
| frangŭla, ae f | buckthorn |
| furacilīnum, in | furacilin |
| furazolidōnum, in | furazolidon |
|  | -G- |
| glucōsum, i n | glucose |
| glycerinōsus, a, um | glyceric |
| granŭlum, i n | granule |
| gutta, ae f | drop |
|  | -H- |
| hepavītum, in | hepavit |
| herba, ae f | herb |
| hydrargy̆rum, i n | mercury |
| hydrochlorothiazīdum, i n | hydrochlorothiazid |
| hydrocortisōnum, in | hydrocortison |
| hydrogeň̆um, i n | hydrogen |

ichthyōlum, i n infūsum, in iodum, in isotonǐcus, a, um
kalĭum, in
lamella (ae f) ophthalmĭca (us, a, um) leonūrus, i m linimentum, in linum, in
magnesĭum, i n magnĭum, i n membranŭla (ae f) ophthalmǐca (us, a, um) mentha, ae f menthōlum, in methylēnum (i $n$ ) coerulěum
(us, a, um)
methylĭi salicylas, ātis methyloestradiōlum, in millefolĭum, in mixtūra, ae f morphīnum, in
ichthyol infusion iodine isotonic
-K-
potassium
-L-
ophthalmic film
motherwort liniment flax
-M-
magnesium magnesium ophthalmic film mint menthol
blue methylen
methyl salicylate methyloestradiol milfoil
mixture morphine

| mucilāgo, ĭnis f | mucilage |
| :--- | :--- |
| mycosolōnum, i n | mycosolon |
| naphthalānum, in | -N- |
| natrium, i n | naphtalan |
| nitroglycerīnum, in | sodium |
| norsulfazōlum, i n | norsulfazol |
| novocaīnum, i n | novocain |
| nystatīnum, i n | nystatin |
| -O- |  |
| obductus, a, um | coated |
| oleandomycīnum, in | oleandomycin |
| oleōsus, a, um | oily, oil |
| olěum (i n) Ricĭni (us, i m) | castor oil |
| olěum (i n) Helianthi (us, i m) | sunflower-seedsoil |


| olěum (i n) Persicōrum (um, i n) | peach oil |
| :---: | :---: |
| olěum, i n | oil |
| ophthalmĭcus, a, um | ophthalmic |
| oxaphenamīdum, in | oxaphenamid |
| oxygenǐum, i n | oxygen |
| oxytetracyclīnum, i n | oxytetracycline |
|  | -P- |
| pasta, ae f | paste |
| pectorālis, e | pectoral |
| phenacetīnum, in | phenacetin |
| phenobarbitālum, in | phenobarbital |
| phenobolīnum, in | phenobolin |
| phenoxymethylpenicillīnum, in | phenoxymethylpenicillin |
| phenylı̆i salicylas, ātis m | phenyl salicylate |
| phthalazōlum, in | phthalazol |
| phthivazīdum, in | phthivazid |
| phthorum, in | fluorine |
| phthoruracīlum, i n | phthoruracil |
| pilŭla, ae f | pill |
| piperītus, a, um | pepper |
| plantāgo, ĭnis f | common (greated) plantain |
| plumbum, in | lead |
| polyphepānum, in | polyphepan |
| prednisolōnum, i n | prednisolon |
| pulvis, ěris m | powder |
| pyracetāmum, in | pyracetam |
| pyrazidōlum, in | pyrazidol |


| quercus, us f | -Q- |
| :--- | :--- |
| oak |  |
| radix, īcis f | -R- |
| rectālis, e | root |
| rectificātus, a, um | rectal |
| rheum, i n | rhubarb |
| rhizōma, ătis n | rhizome |
| riboflavīnum, i n | -S- |
| sacchărum, i n | sacchar |
| salicylas, ātis m | saluzid |


| salvĭa, ae f | sage |
| :--- | :--- |
| semen, ĭnis n | seed |
| siccus, a, um | dry |
| simplex, ǐcis | simple |
| sirŭpus, i m | syrup |
| solubĭlis, e | soluble |
| solutĭo Ammonid ammonia (solution of (um, i n) caustĭci | ammonia) |
| (us, a, um) | solution |
| solutĭo, ōnis f | species |
| specĭes, ērum (plural) f | spirituous, alcoholic |
| spirituōsus, a um |  |



| vaselīnum, i n | vaseline |
| :--- | :--- |
|  | $-\mathrm{X}-$ |
| xeroformǐum, i n | xeroform |
| zincum, in | -Z- |
| zinc |  |

English-Latin Pharmaceutical Dictionary

|  | -A- |
| :---: | :---: |
| acetic acid | acǐdum acetǐcum |
| acetylsalicylic acid | acĭdum acetylsalicylĭcum |
| adrenalin | adrenalīnum, in |
| aerosol | aërosōlum, in |
| aethinyloestradiol | aethinyloestradiōlum, in |
| aethylmorphine | aethylmorphīnum, i n |
| alcohol | spirǐtus, us m |
| alcoholic | spirituōsus, a, um |
| aloe | alŏë, es f |
| althea | althaea, ae f |
| amidopyrin | amidopyrīnum, i n |
| aminophyllin | aminophyllīnum, in |
| ampicillin | ampicillīnum, in |
| anaesthesin | anaesthesīnum, in |
| analgin | analgīnum, i n |
| antiasthmatic | antiasthmatǐcus, a, um |


| apomorphine | apomorphīnum, in |
| :---: | :---: |
| ascorbic acid | acĭdum ascorbinǐcum |
|  | -B- |
| barbital-sodium | barbitālum-natrĭum, i n |
| belladonna | belladonna, ae f |
| benzoic acid | acǐdum benzoĭcum |
| benzylpenicillin-sodium | benzylpenicillīnum-natrüum, i n |
| bismuth | bismŭthum, i n |
| blue methylen | methylēnum (i n) coerulěum (us, a, um) |
|  | 234 |
| boric acid | acĭdum borǐcum |
| buckthorn | frangŭla, ae f |
|  | -C- |
| caffeine | coffeīnum, in |
| calcium | calcĭum, in |
| calendula | calendǔla, ae f |
| camphora | camphŏra, ae f |
| capsule | capsǔla, ae f |
| castor oil | olěum (i n) Ricĭni (us, i m) |
| cerebrolysin | cerebrolysīnum, in |
| chinosol | chinosōlum, in |
| chloroform | chloroformǐum, in |
| chloxyl | chloxylum, in |
| clear | depurātus, a, um |
| coated | obductus, a, um |
| cocoa | cacao |
| codeine | codeīnum, i n |


| coffeine-sodiumbenzoate | coffeīnum-natrǐibenzǒas, coffeīni-natrǐibenzoātis |
| :---: | :---: |
| coltsfoot | farfăra, ae f |
| common (greated) plantain | plantāgo, ĭnis f |
| complex | compositus, a, um |
| corglycon | corglycōnum, i n |
| cortex | cortex, ${ }_{\text {İcis }} \mathrm{m}$ |
| cortison | cortisōnum, i n |
| corvalol | corvalōlum, in |
|  | -D- |
| decoction | decoctum, in |
| dibazol | dibazōlum, in |
| dicain | dicaīnum, in |
| diluted | dilūtus, a, um |
| dimedrol | dimedrōlum, in |
| diprophyllin | diprophyllīnum, i n |
| distilled | destillātus, a, um |
| diuretic, urinative | diuretǐcus, a, um |
| dragée | dragée |
| drop | gutta, ae f |
| dry | siccus, a, um |
|  | -E- |
| emulsion | emulsum, in |
| ephedrin | ephedrīnum, in |
| ether | aether, ěris m |
| ethyl | aethylĭcus, a, um |


| eucalyptus | eucalyptus, if |
| :---: | :---: |
| eucatol | eucatōlum, in |
| euphyllin | euphyllīnum, i n |
| extract | extractum, in |
|  | -F- |
| flax | linum, in |
| florenal | florenālum, i n |
| flower | flos, floris m |
| fluorine | fluōrum, in or phthorum, in |
| folic acid | acĭdum folĭcum |
| foxglove | digitālis, is f |
| furacilin | furacilīnum, in |
| furazolidon | furazolidōnum, in |
|  | -G- |
| glucose | glucōsum, in |
| glutaminic acid | acĭdum glutaminĭcum |
| glyceric | glycerinōsus, a, um |
| granule | granŭlum, i n |
|  | -H- |
| hawthorn | crataegus, if |
| hepavit | hepavītum, in |
| herb | herba, ae f |
| hydrochloric acid | acĭdum hydrochlorĭcum |
| hydrochlorothiazid | hydrochlorothiazīdum, in |
| hydrocortison | hydrocortisōnum, in |
| hydrogen | hydrogenĭum, in |
| hydrosulfuric acid | acĭdum hydrosulfurǐcum |

-I-

| ichthyol | ichthyōlum, in |
| :--- | :--- |
| infusion | infūsum, i n |
| iodine | iodum, i n |
| iron | ferrum, i n |
| isotonic | isotonĭcus, a, um |
| lactic acid | acĭdum lactĭcum |
| lead | plumbum, i n |
| leaf | folĭum, i n |
| lily of the valley | convallarĭa, ae f |
| liniment | linimentum, i n |
| lipoic acid | acĭdum lipoĭcum |


| liquid |  | fluĭdus, a, um |
| :---: | :---: | :---: |
| liquid ammonia | (solution | of solutĭo Ammonı̆i (um, i n) caustǐci |
| ammonia) |  | (us, a, um) |
|  |  | -M- |
| magnesium |  | magnesĭum, in or magnĭum, in |
| matricary |  | chamomilla, ae f |
| mercury |  | hydrargy̆rum, in |
| menthol |  | menthōlum, i n |
| methyl salicylate |  | methylĭi salicylas, ātis m |
| methyloestradiol |  | methyloestradiōlum, i n |
| milfoil |  | millefolǐum, in |
| mint |  | mentha, ae f |
| mixture |  | mixtūra, ae f |



```
paste
peach oil
pectoral
pepper
phenacetin
phenobarbital
phenobolin
phenoxymethylpenicillin
phenyl salicylate
phosphoric acid
phthalazol
phthivazid
phthoruracil
pill
plaster
polyphepan
potassium
powder
prednisolon
pyracetam
pyrazidol
rectal
rectificat
rhizome
rhubarb
riboflavin
```

pasta, ae f
olěum (in) Persicōrum (um, in)
pectorālis, e
piperītus, a, um
phenacetīnum, i n
phenobarbitālum, in
phenobolīnum, in
phenoxymethylpenicillīnum, i n
phenylǐi salicylas, ātis m
acǐdum phosphorǐcum
phthalazōlum, in
phthivazīdum, in
phthoruracīlum, i n
pilŭla, ae f
emplastrum, in
polyphepānum, i n
kalĭum, i n
pulvis, ěris m
prednisolōnum, in
pyracetāmum, in
pyrazidōlum, in
-R-
rectālis, e
rectificātus, a, um
rhizōma, ătis n
rheum, in
riboflavīnum, i n
root
sacchar
sage
salicylate
salicylic acid
saluzid
seed
simple
sodium
soluble
solution
species
spirituous, alcoholic
spring adonis
-S-
sacchărum, in
salvǐa, ae f
salicylas, ātis m
acǐdum salicylĭcum
saluzīdum, in
semen, ǐnis n
simplex, ǐcis
natrium, in
solubǐlis, e
solutīo, ōnis f
specǐes, ērum (plural) f
spirituōsus, a um
adōnis (ĭdis m, f) vernālis (is, e)

## 240

streptocid
strophanthin
sulfacyl-sodium
sulfadimezin
sulfazin
sulfur
sulfuric acid
sulfurous acid
sunflower-seedsoil
suppository
suspension
streptocīdum, in
strophanthīnum, in
sulfacylum-natrĭum, in
sulfadimezīnum, in
sulfazīnum, in
sulfur, ŭris $n$
acǐdum sulfurǐcum
acǐdum sulfurōsum
olĕum (i n) Helianthi (us, i m)
suppositorǐum, i
n
suspensǐo, ōnis
f

| synoestrol | synoestrōlum, in |
| :---: | :---: |
| synthomycin | synthomycīnum, in |
| syrup | sirŭpus, i m |
|  | -T- |
| tablet | tabuletta, ae f |
| talc | talcum, in |
| tannin | tannīnum, i n |
| testosteron | testosterōnum, i n |
| tetracycline | tetracyclīnum, i n |
| thiamin | thiamīnum, in |
| tincture | tinctūra, ae f |
|  | -V- |
| vaginal | vaginālis, e |
| valerian | valeriāna, ae f |
| validol | validōlum, in |
| vaseline | vaselīnum, in |
|  | -W- |
| water | aqua, ae f |
| wheat starch | amy̆lum (i n) Tritĭci (um, i n) |
| white | albus, a, um |
|  | -X- |
| xeroform | xeroformĭum, in |
|  | -Y- |
| yellow | flavus, a, um |
|  | -Z- |
| zinc | zincum, in |

## Common Abbreviations Used in

## Prescriptions

This appendix is meant to be a complete list of all abbreviations used in prescriptions in Englishspeakingcountries (its listing here does not mean such abbreviations should be used).
-aa (ana) - of each
-ad - to, up to
-a.c. (ante cibium) - before meals
-a.d. (aurio dextra) - right ear
-ad lib. (ad libitum) - use as much as one desires; freely
-admov. (admove) - apply
-agit (agita) - stir/shake
-alt. h. (alternis horis) - every other hour
-a.m. (ante meridian) - morning, before noon
-amp - ampule
-amt - amount
-aq (aqua) - water
-a.l., a.s. (aurio laeva, aurio sinister) - left ear
-A.T.C. - around the clock
-a.u. (auris utrae) - both ears
-bis (bis) - twice
-b.i.d. (bis in die) - twice daily
-B.M. - bowel movement
-bol. (bolus) - a large pill
-B.S. - blood sugar
-B.S.A - body surface areas
-cap., caps. (capsula) - capsule
-c (cum) - with (usually written with a bar on top of the "c")
-c (cibos) - food

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-cc - cubic centimetre; also means "with food" (cum cibos)
$\cdot c f$ - with food
-C.H.F. - congestive heart failure
-comp. - compound
-cr., crm - cream
-D5W - dextrose 5\% solution (sometimes written asD5W)
-D5NS - dextrose 5\% in normal saline ( $0.9 \%$ )
-D.A.W. - dispense as written
-dc, D/C, disc - discontinue
-dieb. alt. (diebus alternis) - every other day
-dil. - dilute
-disp. - dispense
-div. - divide
-d.t.d. (dentur tales doses) - give of such doses
-D.W. - distilled water
-elix. - elixir
-e.m.p. (ex modo prescripto) - as directed
-emuls. (emulsum) - emulsion
-et - and
-ex aq - in water
$\bullet f l .$, fld. - fluid
-ft. (fiat) - make; let it be made

- g - gram
-G.I. - gastrointestinal
-gr - grain
-gtt(s) (gutta(e)) - drop(s)
-G.U. - genitourinary
-H - hypodermic
-h, hr - hour
-H.A. - headache
-H.B.P. - high blood pressure
-h.s. (hora somni) - at bedtime
-HTN - hypertension
-ID - intradermal
-IM - intramuscular (with respect to injections)
-inj. (injectio) - injection
-IP - intraperitoneal
-IV - intravenous
o IVP - intravenous push
o IVPB - intravenous piggyback
-L.A.S."' - label as such
-LCD - coal tar solution
-lin (linimentum) - liniment
-liq (liquor) - solution
-lot. - lotion
-M. (misce) - mix
$\cdot \mathrm{m}$, min (mininum) - a minimum
-mcg - microgram
-mEq - milliequivalent
-mg - milligram
-mist. (mistura) - mix
-mitte (mitte) - send
-mL - millilitre
- N\&V, N/V - nausea and vomitting
-nebul (nebula) - a spray
-N.K.A. - no known allergies
-N.K.D.A. - no known drug allergies
-N.M.T. - not more than
-noct. (nocte) - at night
-non rep. (non repetatur) - no repeats
-NPO, n.p.o. (non per os) - nothing by mouth
-NS - normal saline ( $0.9 \%$ )
-1/2NS - half normal saline (0.45\%)
-N.T.E. - not to exceed
-O_2 - both eyes, sometimes written aso2
-o.d. (oculus dexter) - right eye
-o.s. (oculus sinister) - left eye
-o.u. (oculo utro) - both eyes
-oz - ounce
-per - by or through
-p.c. (post cibium) - after meals
-p.m. (post meridian) - evening or afternoon
-prn (pro re nata) - as needed
$\bullet$ p.o. (per os) - by mouth or orally
-p.r. - by rectum
-pulv. (pulvis) - powder
- $q$ (quaque) - every
-q.a.d. (quoque alternis die) -every other day
-q.h. (quaque hora) - every hour
-q. 1 h (quaque 1 hora) - every 1 hour; (can replace " 1 " with other numbers)
-q.d. (quaque die) - every day
-q.i.d. (quater in die) - four times a day
-q.o.d. - every other day
-q.s. (quantum sufficiat) - a sufficient quantity
-R- rectal
-rep., rept. (repetatur) - repeats
-RL, R/L - Ringer's lactate
-s (sine) - without (usually written with a bar on top of the "s")
-s.a. (secundum artum) - use your judgement
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-SC, subc, subq, subcut - subcutaneous
-sig - write on label
-SL - sublingually, under the tongue
-S.O.B. - shortness of breath
-sol (solutio) - solution
-s.o.s., si op. sit (si opus sit) - if there is a need
-ss (semis) - one half
-stat (statim) - immediately
-supp (suppositorium) - suppository
-susp - supsension
-syr (syrupus) - syrup
-tab (tabella) - tablet
-tal., t (talus) - such
-tbsp - tablespoon
-troche (trochiscus) - lozenge
-tsp - teaspoon
-t.i.d. (ter in die) - three times a day
-t.i.w. - three times a week
-top. - topical
-T.P.N. - total parenteral nutrition
-tr, tinc., tinct. - tincture
-u.d., ut. dict. (ut dictum) - as directed
-ung. (unguentum) - ointment
-U.R.I. - upper respitory infection
-U.T.I. - urinary tract infection
-vag - vaginally
-V.S. - vital signs
-w - with
-W.B.C. - white blood count
-w/o - without

X - times
Y.O. - years old

Sample of the Examination Card
I. Translate from English into Latin the following anatomical terms:

1. joints of rib's head;
2. major and minor horns;
3. superficial lymphatic vessels;
4. widest muscle of back;
5. anterior intercostal veins;
6. nerve nodes of sympathic networks;
7. minor palatine canals;
8. external occipital protuberance.
II. Form the Greek / Latin clinical terms according to the meanings:

| 1. lack of hair | 6. removal of gallbladder |
| :--- | :--- |
| 2. study of life | 7. inflammation of tear sac |
| 3. disease of blood vessels | 8. disturbance of vision |
| 4. fear of cancer | 9. fixation of the uterus |
| 5. bleeding from the lip | 10. one finger on the hand |

III. Explain the meaning of the following clinical terms:

1. myopathia
2. lipoma
3. hypokinesia
4. melanuria
5. pyelocystitis
6. myelogramma
7. gastroscopia
8. microencephalia
9. interosseus
10. nephroma
IV. Translate the prescriptions from English into Latin:

Take: Solution of glucose 5\%-500 ml
Let it be sterilized!

Give.

Write on a label:

Take: Euphyllin 0,2

Cocao oil 2,0

Mix to make suppository
Give of such doses number 6

Write on a label:
V.Find in the drug names component elements carrying information about pharmaceutical characteristics:

1. Erythromycinum
2. Pyocidum
3. Thiophosphamidum
4. Chloraminum
5. Sarcolysinum

## REFERENCES

## Main References

1. Demchenko O. The Latin Language and the Fundamentals of Medical Terminology / O. Demchenko, M. Zakaliuzhnyi. - Ternopil : Ukrmedknyha, 2004. - 283 p. 2. Latin Grammar in Tables and Exercises (on the basis of Latin Anatomical Terminology) / Compiled by G.K. Volkova, T.V. Titiyevskaya, N.D. Yechina. - Zaporozhye : Zaporozhye State Medical University, 2004. - 36 p. 3. Latin Grammar. Handbook (Anatomical Terminology) [Electronic resource] / Compiled by G.K. Volkova, T.V. Titiyevskaya, N.D. Yechina. - Electronic text data. - Zaporozhye : ZSMU, 2009. - 32 p. 4. Latin phonetics. Practical course for foreign students [Electronic resource] / Compiled by T. V. Titiyevskaya. Electronic text data. - Zaporozhye : ZSMU, 2008. - 9 p. 5. The Latin Language and Medical Terminology Basics / ed. L. Yu. Smolska. - Kyiv : AUS 'Medicine’, 2012. - 400 p. Other References 1. КондратьевД.К. Latin and Fundamentals of Medical Terminology. For Medical Students / Д. К. Кондратьев, О. Е. Вылегжанина, Ю. В. Князева. - Гродно :ГрГМУ, 2005. - 250 с. 2. Bugaj М. Lingua Latina pharmaceutica / M. Bugaj, W. Bugaj, A. Kierczak. - Warszawa : Wydawnictwo Lekarskie PZWL, 2005. - 510 s. 4. Fałdrowicz W. Lingua Latina pro usu medico / W. Fałdrowicz, Z. GrechŻmilewska. - Warszawa : Wydawnictwo Lekarskie PZWL, 2004. - 214 s. 5. Kołodziej A. Lingua Latina medicinalis / A. Kołodziej, S. Kołodziej. - Warszawa : Wydawnictwo Lekarskie PZWL, 2008. - 108 s. 6. Latin for pharmacy students / Ye. I. Svetlichnaya, I. A. Tolok, Ye. A. Volobuyeva. - Kharkiv : NUPh 'Golden pages', 2011. - 248 p. 7. Olędzka B. Latin in Medicine. Course for medical students / B.

Literature:
Main literature:

1. М.Н. Чернявский. Латинский язык и основы медицинской терминологии. Москва, «ШИКО», 2011 г.
2..КондратьевД.К. Latin and Fundamentals of Medical Terminology. For Medical Students / Д. К. Кондратьев, О. Е. Вылегжанина, Ю. В. Князева. - Гродно :ГрГМУ, 2005. - 250 с.
2.М.Н.Нечай. Латинский язык для педиатрических факультетов: учебное пособие. Изд.3-е, перераб. и доп.- Москва. Кнорус, 2013.
2. Л.А.Бахрушина (под ред. В.Ф. Новодрановой). Латинско - русский и русско-латинский словарь наиболее употребительных анатомических терминов. 2-е издание. Москва, Геотар. Медиа, 2010
3. Хацаева Д.Т., Шуракова Г.В., Чопикашвили З.М., Булацева З.В. Сборник методических разработок по латинскому языку для самостоятельной работы для студентов 1 курса лечебного, педиатрического, медико-профилактического факультетов. Изд-во СОГМА 2010г.

Additional literate:
Latin Grammar in Tables and Exercises (on the basis of Latin Anatomical Terminology) / Compiled by G.K. Volkova, T.V. Titiyevskaya, N.D. Yechina. - Zaporozhye : Zaporozhye State Medical University, 2004. - 36 p.

1. Р.Е. Березникова, Т.А. Костомарова. Сборник тестовых заданий по латинскому языку и основам медицинской терминологии. Курск, КГМУ, 2005.
2. Т.А. Бухарина, В.Ф. Новодранова. Основы медицинской терминологии в курсе латинского языка. Москва, Медицина 2006.
3.А.Г. Ильханов. Античные корни русского языка. Ростов н/ Дону, Феникс, 2006.
3. М.Н. Нечай. Латинский язык для педиатрического факультета. Ростов н/ Дону, 2007.
4. Г.Д. Арнаудов. Медицинская терминология на пяти языках. София. 1979с
