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**THE LATIN LANGUAGE AND
FUNDAMENTALS OF MEDICAL TERMINOLOGY**

Manual for Independent Students' Work

322302-60

УЧЕБНИЙ ЦЕНТР
СОВРЕМЕННОЙ МЕДИЦИНЫ
РЕГИСТРАЦИЯ

**Ternopil
Ukrmedknyha 2002**

Unit 1

Theme: The Latin Alphabet.

The Latin alphabet consists of 25 letters.

Printed Letter	Pronunciation	Printed Letter	Pronunciation
Aa	a	Nn	en
Bb	be	Oo	o
Cc	tse	Pp	pe
Dd	de	Qq	ku:
Ee	e	Rr	er
Ff	ef	Ss	es
Gg	ge	Tt	te
Hh	ha	Uu	u:
Ii	i:	Vv	ve
Jj	jot	Xx	iks
Kk	ka	Yy	ipselon
Ll	el	Zz	zet
Mm	em		

Classification of Sounds

In the Latin alphabet sounds are divided into:

vowels (vocāles) – a, e, i, o, u, y and

consonants (consonantes) – b, c, d, f, g, h, k, l, m, n, p, q, r, s, t, v, x, z.

Among the Latin vowels we distinguish:

monophthongs (monophthongi) – a, e, i, o, u, y and

diphthongs (diphthongi) – ae, oe, au, eu.

Pronunciation of Vowels

There are 6 Vowels in the Latin alphabet.

The letter “a” is pronounced as [ʌ], e.g.: ab (from)

The letter “e” is pronounced as [e], e.g.: vertebra (vertebra), erudītus (scientist), ego (I).

The letter “i” is pronounced as [i], e.g.: ibi (there), rima (crack).

The letter “o” is pronounced as [ɔ], e.g.: odor (smell), os (bone).

The letter “u” is pronounced as [u:], e.g.: tumor (tumour).

The letter “y” is of Greek origin, and is pronounced as [i]. It is used in Greek words only, e.g.: Hydrargyrum (mercury), hydor (water).

Pronunciation of Consonants

There are 19 consonants in the Latin alphabet.

The letter “b” is pronounced as [b], e.g.: bene (well).

The letter “c” is pronounced as [ts] and [k]. It is pronounced as [ts] before the vowels “e”, “i”, “y” and diphthongs “ae”, “oe”, e.g.: cito (quickly), coena (dinner), cera (wax). It is pronounced as [k] before the vowels “a”, “o”, “u” and before other consonants, e.g.: caput (head), costa (rib), cutis (skin), cranium (skull).

“D” is pronounced as [d], e.g.: dens (tooth).

“F” is pronounced as [f], e.g.: febris (fever).

“G” is pronounced as [g], e.g.: gingīva (gum).

“H” is pronounced with aspiration as English [h], e.g.: homo (man).

“J” is pronounced as [j], e.g.: junctūra (junction).

“K” is used in the words of non-Latin origin only and is pronounced as [k], e.g.: kinēsis (movement), Kalium (potassium).

“L” is always pronounced softly as [l*], e.g.: Labor (labour), lac (milk).

“M” is pronounced as [m], e.g.: muscūlus (muscle), manus (hand).

“N” is pronounced as [n], e.g.: natūra (nature).

“P” is pronounced as [p], e.g.: pulmo (lung).

The letter “Q” is always followed by the letter “u” – “qu”. Together they are pronounced as [kw], e.g.: aqua (water), quinque (five).

“R” is pronounced as [r], e.g.: ruber (red), ren (kidney).

“S” is pronounced as [s], e.g.: scarlatīna (scarlet fever), but it may be pronounced as [z] between two vowels as well as a vowel and a consonant “m” or “n”, e.g.: diagnōsis (diagnosis), organismus (organism).

“T” is pronounced as [t], e.g.: tinctūra (tincture).

“V” is pronounced as [v], e.g.: vena (vein).

The letter “X” represents a double consonant and is usually pronounced as [ks], but between two vowels it is pronounced as [gz], e.g.: radix (root), exītus (end).

The letter “Z” is pronounced as [z] in words of Greek origin, e.g.: zona (zone). In words of non-Greek origin it is pronounced as [ts], e.g.: influenza (influenza), Zīncum (zinc).

Diphthongs

A diphthong is a combination of two vowels which are pronounced as one sound. There are four diphthongs:

“ae” is pronounced as one sound [e], e.g.: costae (ribs);

“oe” is pronounced as [e], too e.g.: coena (dinner);

“au” is pronounced briefly as [av/au], e.g.: auris (ear);

“eu” is pronounced briefly as [ev/eu], e.g.: neurītis (neuritis).

If “ae” and “oe” do not form the diphthong, then two points are put above the second vowel, therefore each vowel is pronounced separately, e.g.: aēr (air), poëta (poet).

Letter Combinations

The letter combinations “ch”, “ph”, “th”, “rh” are used only in words of Greek origin.

“Ch” is pronounced as English sound [h], e.g.: chole (bile);

“Ph” is pronounced as English sound [f], e.g.: typhus (typhus);

“Rh” is pronounced as English sound [r], e.g.: rhachītis (rachitis);

“Th” is pronounced as English sound [t], e.g.: thea (tea);

“Sch” is pronounced as [sh], e.g.: schola (school).

Note: Do not mix it with the English sound [S].

The letter combination “ngu” is pronounced as [ngv] before a vowel but it is pronounced as [ngu] before a consonant, e.g.: lingua (language), angūlus (angle).

“Su” is pronounced as [su], e.g.: Sulfur (sulphur); but when it makes a syllable with the following vowel it is pronounced as [sv], e.g.: consuetūdo (habit). “Ti” is pronounced as [tsi] before a vowel, e.g.: solutio (solution).

After “s”, “t”, “x” and before a consonant it is pronounced as [ti], e.g.: combustio (burn), tinctūra (tincture)

“Y” in Words of Greek Origin

The letter “Y” is used in words of Greek origin. You should pay attention to the following prefixes and roots of Greek origin which are most frequently used in medical terminology.

Prefixes of Greek Origin

dys- (indicates functional disorder), e.g.: dyspepsia (stomach disorder);

hyper- (very high), e.g.: hyperacūsīs (abnormally risen acuteness of hearing);

hypo- (very low), e.g.: hypotonia (diminished blood pressure);

syn-/sym- before “m”, “p”, “ph” (joining), e.g.: symphŷsis (symphysis).

Roots of Greek Origin

hydr- (water), e.g.: Hydrophobia (fear of the water, hydrophobia);

oxy- (acute, very sharp), e.g.: oxydatio (oxidation), oxyopia (abnormally risen acuteness of vision).

Exercise 1

Read and explain the pronunciation of vowels in the following words:

Ana (equally), arteria (artery), ego (I), elementum (element), immatūrus (immature), index (index finger), oleum (oil), observāre (observe), os (bone), unus (one), ultīmus (last), systōle (systole), systēma (system), symptōma (symptom).

Exercise 2

Read and explain the pronunciation of the letter “C”:

Costa (rib), centum (hundred), cavitas (cavity), collum (neck), color (colour), fractūra (fracture), cranium (skull), lac (milk), caecum (caecum), cellŭla (cell), cito (quickly).

Unit 2

Theme: Accent. Long and short syllables.

Latin vowels are long and short. Long vowels are marked by a line over a vowel (e.g. *ā*) and short vowels are marked by “˘” symbol (e.g. *ă*). Long vowels are pronounced two times as long as short ones, that is $\bar{a} = \check{a} + \check{a}$. The duration of a vowel sound pronunciation is not important as Latin is not a spoken language, unless accent is concerned. To accent a Latin word correctly you should pay particular attention whether the second syllable is long or short.

The number of syllables in a Latin word corresponds to the number of vowels. Syllables are counted from the end of a word.

A syllable is long in 4 positions:

1. If it contains a diphthong (i.e. two vowels pronounced together to form one sound). A diphthong is always long: *diaeta* (diet).
2. If a vowel is followed by two or three consonants: *ligamētum* (ligament); *sinister* – (left).
3. If a vowel is followed by **x** or **z**: *reflexus* – (reflex), *Oryza* – (rice).
4. If a syllable in a word has always been long. In this case you should put “-” symbol over a vowel: *vesīca* (vesicle), *Urtīca* (nettle).

A syllable is short in 4 positions:

1. If one vowel precedes another vowel: *fovea* (fovea), *deltoides* (deltoid).
2. If a vowel is followed by **h**, **ch**, **ph**, **rh**, **th**: *contrāho* (to contract), *stomāchus* (stomach), *philosōphus* (philosopher), *Bismuthum* (bismuth).
3. If a vowel is followed by **b**, **d**, **g**, **p**, **t**, **c** + **i** or **r**: *vertēbra* (vertebra); *anhȳdrus* (anhydrous), *quadrūplex* (quadruple), *thermomētrum* (thermometer).
4. If a syllable in a word has always been short: *lamīna* (lamina), *orgānon* (organ).

Accent. Never accent a word on the last syllable. If a word consists of two or more syllables it is accented either on the second or third syllable from the end. Syllables are counted from the end of a word $ar^6 - ti^5 - cu^4 - ta^3 - ti^2 - o^1$. A word is accented on the second syllable from the end if it is long: *sinister*, *reflexus*, *vesīca*.

A word is accented on the third syllable from the end if the second syllable is short: *philosōphus*.

In two – syllable words the second syllable from the end of a word is accented: *aqua* (water), *nasus* (nose).

N.B. The first syllable is accented only in poetry and aphorisms: *Fēci, quod potuī, faciānt meliōra potēntes* (I did everything I could, if somebody can do better let him do it).

In non – Latin terms an original accent is preserved: *Cacāo*, *Ginsēng* (ginseng), *therapia* (from a Greek word “*therapeia*”).

Vocabulary

abdōmen – abdomen
acīdum – acid
aethereus – ethereal
Aloë – aloe
cellūla – cell
cerēbrum – cerebrum

contagiōsus – contagious
pilūla – pill
tabuletta – tablet
thorax – thorax
tubercūlum – tubercle

Exercise 1

Determine whether the second syllable from the end is long or short:

Aethereus (ethereal), *palpebra* (palpebra), *cerebellum* (cerebellum), *fissura* (fissure), *cerebrum* (cerebrum), *inflammatio* (inflammation), *medulla* (medulla), *multiplex* (multiple), *gangraena* (gangrene), *theatrum* (theatre), *costa* (rib), *solutio* (solution), *abscessus* (abscess), *posterior* (posterior), *paries* (paries), *atmosphæra* (atmosphere).

Exercise 2

Rewrite the words and accent them:

Numērus (number), *abdōmen* (abdomen), *acīdum* (acid), *cartilāgo* (cartilage), *tubercūlum* (tubercle), *frontālis* (frontal), *contagiōsus* (contagious), *palatīnus* (palatal), *medulla ossium rubra* (red bone marrow), *gastricus* (gastric), *vesīca* (vesicle), *diagnōsis* (diagnosis), *esophāgus* (esophagus), *therapia* (therapy), *decoctum* (decoction), *compositus* (composite), *glandūla radīcis linguae* (glands of the tongue root), *tubercūlum muscūli* (tubercle of the muscle).

Exercise 3

3

Read and explain the pronunciation of the letter "S":

Sacchārum (sugar), sapiens (wise), scribere (write), secundus (second), sterilisāre (sterilise), organismus (organism), dosis (dose), spissus (thick), causa (cause).

Exercise 4

Pay attention to the pronunciation of the consonants "X" and "Z":

Radix (root), oxȳdum (oxide), radix dentis (root of a tooth), sex (six), exemplar (example), Oryza (rice), zoologia (zoology), eczēma (eczema), Zincum (zinc), influenza (influenza).

Exercise 5

Read and explain the pronunciation of diphthongs:

Aegrōtus (sick), gangraena (gangrene), Aether (ether), aēr (air), paediatēr (paediatrician), dyspnoë (dyspnea), Aurum (gold), audīre (listen), auris (ear), pneumonia (pneumonia), neurōsis (neurosis), Europa (Europe).

Exercise 6

Explain the pronunciation of the letter combinations "ch", "ph", "rh", "th":

Chamomilla (camomile), Chloroformium (Chloroform), therapia (therapy), thorax (chest), thermometrum (thermometer), pharmacologia (pharmacology), pharmācon (drugs), rheumatismus (rheumatism), schola (school), rhaphe (stitch).

Exercise 7

Explain the pronunciation of "ti" in the following words:

Auscultatio (auscultation), operatio (operation), mixtio (mixing), combustio (burn), solutio (solution), functio (function).

Exercise 8

Read correctly the words with the suffixes and prefixes of Greek origin:

Dyspnoë (dyspnea), dystrophia (dystrophy), hypertonia (hypertension), hypochondriacus (hypochondrial), syndrōmum (complex of symptoms), sympathicus (sympathetic), hydrochloricus (hydrochloric), oxydātus (oxidized).

Unit 3

Theme: Anatomic terminology. Noun. General information about five declensions of nouns.

Anatomic terminology is taught according to the Parisian nomenclature (Parisiensia Nomina Anatomica), which was adopted on the 3-d International Congress of anatomists in Paris. Anatomic terms are formed by the Latin language, medical terms are formed by the ancient Greek language and pharmaceutical terms are formed by both languages. Nouns and adjectives play important role in anatomic terminology. Today we pay our attention to Latin nouns.

Gender. In English a noun is said to be feminine when it is the name of a living thing of female sex; that is, gender in nouns corresponds to sex in living things; so a masculine noun is the name of a living thing of male sex. Thus "girl" is feminine, "boy" is masculine. In Latin this rule holds good: "puella", a girl, is feminine; "puer", a boy, is masculine. In English all other words are neuter: this is not so in Latin. This language gives gender to names of sexless things. "Insula", an island, in Latin is feminine, "murus", a wall, is masculine. The genders of Latin nouns are called masculine – **genus masculinum (m)**; feminine – **genus femininum (f)**; neuter – **genus neutrum (n)**.

Number: numerus singularis (sing.)

numerus pluralis (plur.)

When a noun names one thing, we say it in singular, when more than one we say it in plural.

Case: Latin has different endings, which show the relationship of the noun to the other words in the sentence. A noun so changed is said to be in a certain case.

The Nominative case (**Nominativus**) is used when the noun is the subject of the sentence.

The Genitive case (**Genetivus**) denotes possession. It is usually translated by "of" and the noun. Thus "insulae", Genitive case, means "of the island".

The Dative case (**Dativus**) is usually translated by "to" or "for" and the noun.

The Accusative case (**Accusativus**) is usually dependent on a verb. It is used to express the direct object.

The Ablative case (**Ablativus**) is usually translated by "by", "with", "from", "on" or "in" and the noun.

The Vocative case (**Vocativus**) is the case of the person addressed.

Thus, there are 6 cases in Latin. The Vocative case is not used in medical terminology.

Declension. A list of all the cases of a noun is called the Declension of the noun. To decline a noun is to go through all its cases.

There are five different sets of inflections in Latin. According as the noun takes the first, second, third, fourth or fifth set we say it belongs to the First, Second, Third, Fourth, Fifth Declension.

Each declension is distinguished by the way in which the nouns belonging to it form the genitive singular.

In a dictionary the forms of Latin nouns are written down in the following succession: the full form of a noun in the Nominative case, comma, genitive inflection, gender, e.g.: aqua, ae f – water; medicus, i m – physician; cranium, i n – skull; homo, inis m – human being; abscessus, us m – abscess; genu, us n – knee; facies, ei f – surface, 2.face. Table "Case inflections of the nouns belonging to different declensions".

CASE ENDINGS OF THE NOUNS BELONGING TO FIVE DECLENSIONS

Declension	I	II		III		IV		V
Gender	f	m	n	mf	n	m	n	f
Sing. Nom.	-a	-us, -er	um, on	different		-us	-u	-es
Gen.	-ae	-i	-i	-is		-us	-us	-ei
Dat.	-ae	-o	-o	-i		-ui	-u(ui)	-ei
Acc.	-am	-um	=Nom	em(im, in)	=Nom	-um	=Nom	-em
Abl.	-ā	-o	-o	-e(-i)	-e(-i)	-u	-u	-e
Voc.	=Nom	-e	=Nom	=Nom	=Nom	=Nom	=Nom	
Plur. Nom.	-ae	-i	-a	-es	-a(ia)	-us	-ua	-es
Gen.	-ārum	-ōrum	-ōrum	-um(-ium)		-uum		-erum
Dat.	-is	-is	-is	-ībus		-ībus(ūbus)		-ēbus
Acc.	-as	-os	=Nom	-es	-a(ia)	-us	-ua	-es
Abl.	-is	-is	-is	-ībus		-ībus(ūbus)		-ēbus
Voc.	=Nom	=Nom		=Nom		=Nom		=Nom

Stem. The part in all nouns of any declension left after removing the termination of the genitive singular is called the stem. E.g. aqua, ae (aqu – is the stem); medicus, i (medic – is the stem); homo, inis (homin – is) – (homin – is the stem); abscessus, us (abscess – is the stem).

A case form always consists of a stem + inflection. To form the case of any noun you should get the stem and add the inflection that marks that case.

You should pay particular attention to the stem of the nouns belonging to the Third Declension because many of them change the form of the Nominative case:

cavitas, ātis (cavitāt – is) – “cavitāt” – is the stem

regio, ōnis (regiōn – is) – “regiōn” – is the stem

corpus, ōris (corpōr – is) – “corpōr” – is the stem

To determine the stem of nouns is important for correct declining and forming compound medical terms.

Anatomic lexical minimum of nouns (5 declensions)

the First Declension

ala, ae f – wing

bucca, ae f – cheek

bursa, ae f – bursa

clavicula, ae f – clavicle

fossa, ae f – hole

crista, ae f – crest

scapula, ae f – scapula

fascia, ae f – fascia

incisura, ae f – incisure

lingua, ae f – tongue

maxilla, ae f – upper jaw

vertebra, ae f – vertebra

costa, ae f – rib

the Second Declension

angulus, i m – angle

musculus, i m – muscle

collum, i n – neck

nervus, i m – nerve

sulcus, i m – sulcus

cranium, i n – skull, cranium

the Third Declension

apex, icis m – apex

axis, is m – axis

canalis, is m – canal

dens, ntis m – tooth

articulatio, ōnis f – joint, articulation

basis, is f – basis

caput, itis n – head

tuber, ěris n – tubercle

the Fourth Declension

arcus, us m – arch

ductus, us m – duct

genu, us n – knee

meatus, us m – passage, meatus

cornu, us n – horn, cornu

the Fifth Declension

facies, ěi f – face

superficies, ěi f – surface

Exercise 1

Determine the declension of the nouns:

fovea, ae f (fovea); dorsum, i n (back); processus, us m (process); cartilago, inis f (cartilage); canalis, is m (canal); foramen, inis n (foramen); genu, us n (knee); dies, ěi m (day); pars, rtis f (part); radix, icis f (root); os, ossis (bone); os, oris n (mouth); membrum, i n (extremity, limb); margo, inis m (margin).

Exercise 2

Determine the nouns stem:

vertebra, ae (vertebra); scapula, ae (scapula); bronchus, i (bronchus); cancer, cri (cancer); pulmo, ōnis (lung); femur, ōris (femur); cervix, icis (neck); tempus, ōris (temple).

Exercise 3

Form the Nom. et Gen. plur. of the following nouns (consult the Table):

Costa, ae f (rib); musculus, i m (muscle); ligamentum, i n (ligament); cartilago, inis f (cartilage); regio, ōnis (regio); arcus, us m (arch); genu, us n (knee); facies, ěi f (face).

Exercise 4

Translate into English:

1. Canalis dentis. 2. Apex pulmōnis. 3. Corpus vertebrae. 4. Incisura mandibulae. 5. Cavitas oris. 6. Cornu ossis.

Exercise 5

Translate into Latin:

1. Neck of the rib. 2. Crest of the rib's neck. 3. Basis of the skull. 4. Incisure of the scapula. 5. Arch of the vertebra. 6. Body of the tongue. 7. Root of the tooth. 8. Angle of the rib. 9. Articulation (joint) of the knee. 10. Tubercle of the upper jaw.

Unit 4

Theme: Anatomic terminology. Adjective. General information.

There are two great classes of adjectives in Latin.

1. Adjectives of the first and second declensions.
2. Adjectives of the third declension.

Here are the examples of some first class adjectives as they are given in a dictionary: **longus, a um** (long), **dexter, tra, trum** (right).

The first class masculine adjective ends in **-us** or **-er**, and is declined like a masculine noun of the Second Declension. The feminine is declined like a noun of the First Declension, and the Nominative of course ends in **-a**. The neuter is declined like a neuter noun of the Second Declension and of course the Nominative ends in **-um**.

The Second Class adjectives are divided into 3 subclasses:

1. Adjectives with three gender inflections:

-er (m); -is (f); -e (n): salūber, salubris, salubre (healthy).

In a dictionary the short form of these adjectives is given.

2. Adjectives with two gender inflections:

-is (m,f), -e (n): cervicālis, cervicāle (cervicle). In a dictionary such forms of these adjectives are given as **cervicālis, -e** (cervicle).

3. Adjectives having the same inflections: **-s, -r, -x** for all genders in the Nominative case, singular.

In a dictionary these adjectives are given in Nom. et Gen. sing (as the Third Declension nouns):

simplex, -īcis(simple); **impar, -āris** (impair), **recens, ntis** (recent, fresh)

You can find the case inflexions of the third declension adjectives on the table in brackets.

In medical terminology there are adjectives which are not used in the positive degree, but the comparative degree corresponds to the positive degree.

You should learn them:

anterior (m, f), **-ius** (n)-anterior

posterior (m, f), **-ius** (n)- posterior

inferior (m, f), **-ius** (n)- inferior

superior (m, f), **-ius** (n)- superior

These adjectives are declined like the third declension nouns. You can see their case inflections in the table.

Adjectives take inflections to show differences in number and gender and case; and they always agree with the noun with which they go, e.g.:

arteria transversa (transverse artery);

sulcus transversus (transverse sulcus);

ligamentum transversum (transverse ligament);

To agree the first class (I and II declension) adjectives with the third declension nouns you should remember that they have different case inflections e.g.: pulmo dexter (right lung); os latum (wide bone). Nouns have the third declension inflections, adjectives have the first and the second declension inflections.

This rule holds good for the second class (the third declension) adjectives and the first, second, fourth, fifth declension nouns agreement, e.g.: fascia cervicālis (cervical fascia); nervus articulāris (articular nerve).

Anatomic lexical minimum of adjectives

Class I.

anatomīcus, a, um – anatomic

coccygeus, a, um – coccygeal

dexter, tra, trum – right

durus, a, um – hard

externus, a, um – external

felleus, a, um – biliary, bilious

fibrōsus, a, um – fibrous

cavus, a, um – caval

gastrīcus, a, um – gastric

internus, a, um – internal

medius, a, um – middle

profundus, a, um – profound

spurius, a, um – unreal

transversus, a, um - transversal

verus, a, um -- real

Class II

abdominālis, e – abdominal

articulāris, e – articular

basālis, e – basal

basilāris, e – basic

biceps, cipītis – two - headed, bicipital

commūnis, e – common

craniālis, e – cranial

dorsālis, e – dorsal

femorālis, e – femoral

frontālis, e – frontal

brevis, e – short
cervicālis, e – cervical

laterālis, e – lateral
maxillāris, e – of the upper jaw
occipitālis, e – occipital
simplex, ĩcis – simple

Exercises 1

Determine the declension and class of adjectives.

verus, a, um (true); dexter, tra, trum (right); acer, cris, cre (sharp); brevis, e (short); recens, ntis (fresh); longus, a, um (long); salūber, bris, bre (healing, curative); basilāris, e (basal).

Exercises 2

Translate the terms into English:

1. Os longum. 2. Os breve. 3. Vertebra cervicālis. 4. Pars dextra. 5. Pulmo dexter. 6. Palātum durum. 7. Membrum sinistrum. 8. Ligamentum flavum. 9. Ren sinister. 10. Articulatio simplex.

Exercises 3

Translate the terms into Latin:

1. Simple joint, compound joint. 2. Transversal ligament. 3. Transverse nerve. 4. Gastric juice. 5. Surface of the joint. 6. Left atrium. 7. Gallbladder. 9. Cervical vertebra.

Unit 5

Theme: The structure of anatomic terms.

A term is a word or a word combination which defines specific concept in some field of science, technology or art.

According to their structure anatomic terms are divided into one-word, two-word, three-word and multi-word terms.

1. One-word anatomic terms are formed by a noun in Nom. sing or plur.: costa (rib); nasus(nose); vertebra(vertebra).

2. Two-word anatomic terms are formed by:

a) a noun in Nom. + an adjective agreed with it: costa vera (real rib); ligamentum transversum (transverse ligament).

b) a noun in Nom. + a noun in Gen.: angulus costae (angle of the rib); corpus vertebrae (body of the vertebra).

3. Three-word anatomic terms are formed by:

a) a noun in Nom. + two adjectives: arteria gastrica dextra (right gastric artery).

In a three-word anatomic term an adjective indicating an organ or the part of an organ precedes an adjective indicating size, shape and location, e.g.: vena hepatica media (right hepatic vein). A noun in Nom. precedes both adjectives.

b) a noun in Nom. + two nouns in Gen.: crista colli costae (crest of the rib's neck); ligamentum capitis femoris (ligament of the femoral bone head).

c) a noun in Nom. + a noun in Gen. + an adjective in Nom.:

fossa cranii media (middle hole of the skull)

or

a noun in Nom. + an adjective in Nom. + a noun in Gen.:

vena coronaria ventriculi (coronary veins of the ventricle)

Pharmaceutical three-word terms are formed by:

a noun in Nom. + a noun in Gen. + an adjective in Nom., e.g.: tinctura Valerianae aetherea-(ethereal tincture of valerian). Anatomic terms do not follow this principle, therefore there are two variants.

Anatomic terms can be defined as different word combinations with a head word (a noun in Nom.): vagina externa nervi optici (external vagina of the optic nerve); segmentum basale posterius pulmonis sinistri (posterior basic segment of the left lung).

Lexical minimum

anterior, ius – anterior

arcus, us m – arch

auditorius, a, um – acoustic

canalis, is m – canal

cavus, a, um – caval

coccygeus, a, um –coccygeal

cor, cordis, n – heart

coronarius, a, um – coronary

biliaris, e (felleus, a, um) – biliary, bilious

foramen, inis n – foramen

internus, a, um – internal

lamina, ae, f – plate, lamina

membrum, i n – extremity, limb

mucosus, a, um – mucous

nutricius, a, um – nutritional

obturatorius, a, um – obturating

paries, etis m - wall

pars, rtis f – part

pelvius, a, um – pelvic

pes, pedis m – foot

petrosus, a, um – petrous

plica, ae f – plica, ridge, fold

scapula, ae f – scapula

sigmoideus, a, um – sigmoid

sinister, tra, trum – left, sinister

sinus, us m – sinus

squamosus, a, um – squamous

sulcus, i m – sulcus

superior, ius – superior

sutura, ae f – suture

thoracicus, a, um – thoracic

transversus, a, um – transverse

tuba, ae f – tube

tunica, ae f - tunic

Exercises 1

Translate the anatomic terms into English:

foramen nutricium; membrum superius sinistrum; canalis nutricius; sulcus sinus sigmoidei; facies pelvina; lamina arcus vertebrae; cornu coccygeum; tuberculum obturatorium anterius; pars petrosa; tunica mucosa vesicae biliaris (felleae); paries internus; plica venae cavae; apex partis petrosae; tuba auditoria (auditiva); sutura squamosa; plicae tunicae mucosae vesicae biliaris (felleae).

Exercises 2

Translate the anatomic terms into Latin:

right foot; transverse ligament; real ribs; mucous tunic of the tongue; transverse nerve of the neck; incisure of the heart apex; plica of the left caval vein; profound incisure of the scapula; hole of the gallbladder; thoracic vertebrae; right coronary artery.

Unit 6

Theme: The First Declension of nouns.

Most nouns of the First Declension end in **-a** in Nom. sing., **-ae** in Gen. sing. and are feminine (e.g. *costa*, ae f (rib); *herba*, ae f (herb); *gutta*, ae f (drop)), unless they are masculine through their own sex: e.g. *collēga*, ae m (colleague); *pharmacopōla*, ae m (pharmacist); *oculista*, ae m (oculist).

First Declension

	<i>Singulāris</i>	<i>Plurālis</i>
<i>Nom.</i>	<i>costā</i>	<i>cost – ae</i>
<i>Gen.</i>	<i>cost – ae</i>	<i>cost – ārum</i>
<i>Dat.</i>	<i>cost – ae</i>	<i>cost – is</i>
<i>Acc.</i>	<i>cost – am</i>	<i>cost – as</i>
<i>Abl.</i>	<i>cost – ā</i>	<i>cost – is</i>

The feminine adjectives of Class I which in the Nominative end in **-a** are declined like the nouns of the First Declension. E.g.: *dextra* (right); *profunda* (profound); *fellea* (bilious).

These adjectives have the same case inflections as the first declension nouns. E.g.:

	<i>Singulāris</i>	<i>Plurālis</i>
<i>Nom.</i>	<i>costa vera</i>	<i>costae verae</i>
<i>Gen.</i>	<i>costae verae</i>	<i>costārum verārum</i>
<i>Dat.</i>	<i>costae verae</i>	<i>costis veris</i>
<i>Acc.</i>	<i>costam veram</i>	<i>costas veras</i>
<i>Abl.</i>	<i>costā verā</i>	<i>costis veris</i>

A lot of Latin nouns have suffixes of particular meaning. Some first declension nouns have suffixes **-ūl (-cūl)**, **-ōl** with diminutive meaning:

pilūla, ae f – pill (from *pila* – ball);
foveōla, ae f – fovea (from *fovea* – fovea).

Nouns indicating general names and abstract notions have **-ia**; **-ntia** – suffixes: *memoria*, ae f – memory;
substantia, ae f – substance (from *substo* – subsist).

Greek nouns of the First Declension. A lot of medical terms are of Greek origin. Most of them have been latinized, that is have taken the form of Latin words, while some nouns have kept the Greek inflections. There are three declensions of nouns of Greek origin in Latin.

Masculine nouns with the ending **-es** in Nom. sing., and **-ae** in Gen. sing. as well as feminine nouns with the ending **-e** in Nom. sing., and **-es** in Gen. belong to the First Declension. E.g.:

diabētes, ae m – diabetes
rhaphe, es f – raphe (seam) – suture
dyspnoë, es f – dyspnea

Lexical minimum*A (anatomic terms)*

<i>aorta</i> , ae f – aorta	<i>palpebra</i> , ae f – palpebra, eyelid
<i>arteria</i> , ae f – artery	<i>pulpa</i> , ae f – pulp
<i>calvaria</i> , ae f – calvaria, superior portion of the cranium	<i>rima</i> , ae f – rima
<i>capsūla</i> , ae f – capsula	<i>squama</i> , ae f – squama
<i>cellūla</i> , ae f – cell	<i>substantia</i> , ae f – substance
<i>clavicūla</i> , ae f – clavícula	<i>urīna</i> , ae f – urine
<i>fibra</i> , ae f – fiber	<i>vagina</i> , ae f – vagina
<i>fissūra</i> , ae f – fissure	<i>valvūla</i> , ae f – valve
<i>glandūla</i> , ae f – gland	<i>vesīca</i> , ae f – bladder
<i>sutūra</i> , ae f – suture	

B (pharmaceutical terms)

<i>ampulla</i> , ae f – ampulle	<i>gutta</i> , ae f – drop
<i>aqua</i> , ae f – water	<i>herba</i> , ae f – herb
<i>axungia</i> , ae f – fat	<i>massa pilulārum</i> – mass of the pill
<i>bacca</i> , ae f – berry	<i>mixtura</i> , ae f – mixture
<i>cera</i> , ae f – wax	<i>officīna</i> , ae f – chemist shop, pharmacy
<i>gemma</i> , ae f – gemma, bud	<i>pilūla</i> , ae f – pill
<i>charta</i> , ae f – paper	<i>planta</i> , ae f – plant
<i>tabuletta</i> , ae f – tablet	<i>tinctūra</i> , ae f – tincture

C (clinical terms)

angīna, ae f – angina, tonsillitis

ascītes, ae m – ascites, accumulation
of fluid in the abdominal cavity

diaeta, ae f – diet

fractūra, ae f – fracture

haemoptoë, es f – hemoptysis,
blood splitting

hernia, ae f – hernia

pneumonia, ae f – pneumonia

phlegmōne, es f – phlegmon

The verb sum, esse – to be

Latin verb “esse” has the same functions as English verb “to be”.

Esse (the Present Tense, Indicative mood)*Singulāris*

1. sum – I am

2. es – you are

3. est – he, she, it is

Plurālis

1. sumus – we are

2. estis – you are

3. sunt – they are

Exercise 1

Decline the following word combinations:

1. Planta medicāta – medical herb. 2. Tinctūra aetherea – ethereal tincture.

Exercise 2

Translate into English:

aorta transversa

bursa profunda

glandūla mucōsa

vena profunda linguae

cera flava

rima palpebrarum

linea alba

fractūra costarum

dyspnoë inspiratoria

bursa subcutanea

charta cerāta

gemmae Betulae

aqua Menthae piperitae

plantae medicatae

haemoptoë acūta

The words used in the exercises 2:

albus, a, um – white

inspiratorius, a, um – inspirable

subcutaneus, a, um – subcutaneous

cerātus, a, um – waxed

flavus, a, um – yellow

chole medicāta conservāta

Betūla, ae f – birch

Mentha piperitae – peppermint

medicātus, a, um – medical, medicinal

acūtus, a, um – acute

chole, es f – bile

conservātus, a, um – conserved

Exercise 3

Translate into Latin:

transverse line; profound incisure of the right scapula; sutures of the skull; drops of aloe tincture; distilled water; juice of the berries; waxed paper; fovea of the tooth.

The words used in the exercise 3:

line – linea, ae f

distilled – destillatus, a, um

juice – succus, i m

waxed – cerātus, a, um

Latin aphorisms

1. Scientia potentia est.

Knowledge is power.

2. Ubi concordia, ibi victoria.

Where is concordance, there is a victory.

3. Terra incognita.

The unknown land.

4. Medicīna soror philosophiae.

Medicine is Philosophy's sister.

5. Historia magistra vitae.

History is the teacher of life.

Unit 7

Theme: The verb. General information. Imperative. Conjunctions. Prepositions.

You will learn the use of Latin verbs in aphorisms and prescriptions. You should know the main categories of Latin verbs:

- a) two numbers: numērus singulāris (sing) – singular
 numērus plurālis (plur.) - plural
- b) three persons: persōna prima – the first person
 persōna secunda – the second person
 persōna tertia – the third person
- c) six tenses (in medical schools only praesens is learnt).
- d) two voices (genus):
 actīvum (active voice)
 passivum (passive voice).
- e) three moods: modus indicatīvus – the Indicative Mood
 modus conjunctīvus – the Subjunctive Mood
 modus imperatīvus – the Imperative Mood.
- f) Infinitive – modus infinitīvus.

The verbs are divided into Conjugations as the nouns into declensions. The verbs are classified according to the termination of their Present Infinitive.

Verbs with infinitives ending in – **āre** belong to the First Conjugation.

Verbs with infinitives ending in – **ēre** belong to the Second Conjugation.

Verbs with infinitives ending in – **ere** belong to the Third Conjugation.

Verbs with infinitives ending in – **īre** belong to the Fourth Conjugation.

E.g.: curāre – 1 (to cure, to treat);
 studēre – 2 (to study);
 dividēre – 3 (to divide);
 nutrīre – 4 (to feed).

To find the **Present stem** you should drop –**re** in the Present Infinitive of the first, second, fourth conjugation verbs, and –**ere** in the Present Infinitive of the third conjugation verbs. E.g.:

curāre – the stem is **curā** –
studēre – the stem is **studē** –
dividēre – the stem is **divid** –
nutrīre – the stem is **nutrī** –

Modus imperatīvus has two forms: the second person singular and the second person plural.

The first one, that is the Imperative Mood singular, is formed by dropping – **re** in the infinitives of four conjugations:

curāre – cura (treat)
studēre – stude (study)
dividēre – dividē (divide)
nutrīre – nutri (feed)

The second form, that is the Imperative Mood plural, is formed by adding the ending – **te** to the stem of the first, second and fourth conjugation verbs and by adding the ending –**ite** to the stem of the third conjugation verbs. E.g.:

1. curāre – curā (stem) + **te** – curāte
2. studēre – stude (stem) + **te** – studēte
3. dividēre – divid (stem) + **ite** – dividite
4. nutrīre – nutri (stem) + **te** – nutrīte

The word order in a Latin sentence is usually different from an English one. The first word is emphatic, and is usually the subject of the sentence, and the last word, also emphatic, is usually the verb. Adjectives in Latin come either before or after the nouns they qualify. Adverbs precede verbs. Other words or phrases, e.g. prepositions and the words they qualify, relative clauses and participles, are usually placed inside the sentence in the natural order of thought.

Conjunction (conjunctio). In medical texts and prescriptions the most frequently occurring conjunctions are:

et (and): clavicūla et scapūla (clavicle and scapula, shoulder blade);

-que (and): This conjunctive part usually comes at the end of the word which it connects. The syllable preceding – **que** is accented in such a word combination. E.g. costae vertebrāque (ribs and vertebrae).

aut (or): it is put between the words which exclude each other, e.g.:

Ego aut tu (I or you).

Convallaria aut Beladonna (lily of the valley or beladonna).

seu, vel, sive (or, that is): these conjunctions indicate the identity of notions, e.g.:

tuba auditiva seu tuba auditoria (both are the names of the tube).

ut (to): this conjunction is used in prescriptions to express the aim, e.g.:

Misce, ut fiat unguentum (Mix to form the ointment).

Prepositions (praepositionēs). Prepositions in Latin help the inflections. The inflections in Latin show the relation between the noun and other words in the sentence, but often require prepositions to help them in doing this, and to indicate special relations. Latin then, has two ways of showing the relation between nouns and other words: prepositions and inflections. English has practically only one – prepositions.

Prepositions are frequently used in medical and pharmaceutical expressions. In Latin prepositions require certain case. Some prepositions take Ablatīvus, the other take Accusatīvus). Two prepositions **in, sub** take either Ablatīvus or Accusatīvus.

The following prepositions take the **Ablative**. It will help you if you learn by heart the following rhyme:

Put the ablative with **de,**
cum and **coram,** **ab** and **e,**
sine, **tenus,** **pro** and **prae**

Meanings

ab or **a** – by or from (ab is used before a vowel)

e.g.: **a** vertebra – from vertebra
ab aorta – from aorta

cum – with

e.g.: **cum** tinctūra – with tincture

de – concerning, or down from

e.g.: **de** vertebrae – concerning vertebrae

e, ex – out of (ex before a vowel)

e.g.: **e** lagoena – out of a bottle
ex 10,0 – 100 ml – out of 10 grams on 100 ml

pro – for, before, on behalf of

e.g.: **pro** aegrotā – for patients
pro patriā – for Motherland

All other prepositions take the **Accusative**:

ad – for, near, in case of

e.g.: **ad** aegrotam – for the patient
ad hypertoniam – in case of hypertension

ante – before

e.g.: **ante** operationem – before the operation

contra – for

e.g.: **contra** tussim – for cough

inter – between

e.g.: **inter** costas – between the ribs

per – through, during

e.g.: **per** telam – through the gauze
per horam – during an hour

post – after

e.g.: **post** cibus – after meals.

Prepositions **in** (into) and **sub** (under) can take either Accusative or Ablative but have a different meaning according to the case. When “motion towards” is meant they are followed by the Accusative. **Super** and **subter** (over and under), can be followed by the both, but are less common:

e.g.: **in** lagoenam nigram – into black bottle
sub scapulam – under the scapula

When “place where” is meant, they take the Ablative,

e.g.: **in** lagoena nigra – in a black bottle
sub scapula – under the scapula

Two nouns (**causa, gratia** – (for the sake of) are used in the function of prepositions with nouns in Genetīvus, e.g.:

amicōrum gratia – for the sake of friends.

These two nouns usually come after a noun or a word combination in Genetīvus.

Lexical minimum of verbs

dare – to give
 praeparāre – to prepare
 filtrāre – to filtrate
 signāre – to sign
 dividēre – to divide
 addēre – to add
 infundēre – to pour
 sumēre – to take orally

solvēre – to dissolve
 miscēre – to mix
 habēre – to have
 docēre – to teach
 studēre – to study
 audīre – to listen
 dormīre – to sleep
 nutrīre – to feed

Exercise 1

Find the stem and the conjugation of the following verbs:

vidēre (to see); dividēre (to divide); agitāre (to shake); miscēre (to mix); scīre (to know); tegēre (to cover); solvēre (to dissolve); docēre (to teach); curāre (to treat, cure); repetēre (to repeat).

Exercise 2

Translate into English:

1. Solve tabulettam in aqua. 2. Sume tabulettam sub linguam. 3. Praepāra tinctūram ex herbis et da aegrōtae. 4. Filtra mixtūram per chartam. 5. Repēte. 6. Da in tabulettis. 7. Misce. Da. Signa. 8. Studēte linguae Latīnae bene (well)!

Exercise 3

Form the Imperative Mood singular and plural from the following verbs:

agitāre (to ~~take~~ shake)
 vertēre (to turn over)
 addēre (to add)

discēre (to learn)
 nutrīre (to feed)
 docēre (to teach)

Exercise 4

Translate into Latin:

1. Mix. Give. Write on label. 2. Prepare mixture for the patient. 3. Add in aseptic conditions. 4. Prepare and divide the mass of the pills. 5. Give in gelatine (gelatinōsus, a, um) capsules. 6. Prepare the tincture of medical herbs.

Latin aphorisms

1. Futūra cogita.
 2. Disce aut discēde.
 3. Perfice te.
 4. Festīna lente.
 5. Fac et spera.

Think about future.
 Study or leave.
 Improve yourself.
 Be quick but slow.
 Do and hope.

Unit 8

Theme: Prescription. General information. Adverbs used in prescriptions.

A prescription (from the Latin word "receptum" – a document taken by smb.) is a doctor's or an obstetrician's written order or direction for the making up and use of a medicine. It consists of the following parts:

- I. **Inscriptio (sign.)** – a medical institution seal indicating its address and phone number.
- II. **Datum** – the date when a prescription was written.
- III. **Nomen aegrōti** – patient's name and age (it is necessary to indicate the age when a patient is under 14 or over 60).
- IV. **Nomen medīci** – a physician's name (when a physician prescribes medicines for himself, then instead of writing his name he can put "Pro auctore" (for the author) or "Pro me" (for me)).
- V. **Invocatio** – a physician's order given to a chemist expressed by the word *Recipe*: (*Rp.* – is a short form) – Take.
- VI. **Designatio materiārum**: the list of ingredients or medicines and their amount.
- VII. **Subscriptio**: orders given to a chemist about the way of making up and packing medicines, their form and dose.

A prescription is called **simple** if only one medicine is prescribed (*formūla remediōrum simplex*).

In **Subscriptio** of a simple prescription a physician writes: *Da. Signa.*

A prescription is called **complex** if two or more medicines are prescribed (*formūla remediōrum composita*). In **Subscriptio** of a complex prescription a medical form is indicated. E.g.: *Misce ut fiant suppositoria.* – Mix to form suppositories.

In addition to a medicine form the number of doses and the way of packing are indicated in **Subscriptio**. E.g.: *Da (Dentur) tales doses numero ... in tabulettis.* – Give ... doses in tablets.

VIII. **Signatūra** – instructions given to a patient about the dose of a medicine (that is an amount of a medicine taken at one time), the time and the way of taking a medicine. This information is given in the state language or the language which a patient can understand.

IX. **Nomen medīci et sigillum personāle.** – a doctor's personal seal and signature.

Designatio materiārum in a complex prescription consists of:

1. **Basis seu remedium cardināle** – medicine having the main therapeutic effect.
2. **Remedium adjūvans** – additional medicines which increase or decrease the effect produced by the chief ingredient.
3. **Remedium corrīgens** – remedy which improves the taste and smell of a medicine.
4. **Remedium constituens** – those substances due to which medications get their final form (sugar, starch are used for powders; distilled water, syrups, spirits etc. are used for liquid forms). You'll be given additional information about it in the chapter "Medication Forms".

The 5th, 6th and 7th part of a prescription are written in Latin. They are called "the Latin part" of a prescription.

When filling **designatio materiārum** you should follow some rules:

1. The name of each ingredient is written in Genetivus and begins a new line. Each line, the names of medical substances and chemical elements are written with a capital letter. The names of plants (leaves, root, cortex, fruits, seeds, etc.) as well as the names of the anions of salts, oxides and adjectives are written with a small letter unless they begin a new line e.g.:

Recipe: Infūsi herbae Adonīdis vernālis 6,0:180 ml

Take: the infusion of the pheasant's eye 6,0:180 ml

2. The amount of an ingredient is indicated on the right. Solid, dry and soft substances are measured in grammes (arabic numerals); liquid substances are measured in ml, grammes or drops. The number of drops is given in Roman numerals and comes after the Latin word **gutta** – drop in Acc., e.g.:

Recipe: Olei Menthae piperitae guttas III

Take: 3 drops of peppermint oil.

Some substances are measured in biological units of action (the first few letters of the words written in a language other than Latin in non-Latin part of a prescription (e.g. English – units). e.g.:

Recipe: Penicillīni 200 000 un.

Take: Penicillin 200 000 un.

If the same amount of some substances is prescribed then it is indicated after the name of the last substance. The word **ana** (**āā** is a short form – an equal part) precedes the figure, e.g.:

Recipe: Tinctūrae Valerianae

Tinctūrae Convallariae ana 10 ml

Misce. Da. Signa: 20-30 drops 2-3 times a day.

Additional information given in prescriptions

Some adverbs and word combinations are often used in prescriptions. If it is necessary to get medicines immediately a doctor (medical attendant or obstetrician) writes down at the top:

Cito! (Quickly!) Statim! (Immediately!)

If for getting the same medicines a patient is to use the prescription twice a physician should indicate at the top of a prescription: Repēte bis! (Repeat twice!) or Bis repetātur! (Repeat – twice!)

Exercise 1

Translate into English (orally):

1. Massa pilulārum. 2. Oleum Ricīni. 3. In capsūlis gelatinōsis. 4. Infūsum foliōrum Cerāsi. 5. In tabulettis. 6. In capsūlis amylaceis. 7. Extractum Frangūlae. 8. Extractum Viburni fluīdum. 9. Rp.: Olei Menthae piperītae guttas III. 10. Acīdum hydrochlorīcum dilūtum. 11. Oleum Terebinthīnae rectificātum. 12. Extractum Crataegi fluīdum.

Exercise 2

Translate the prescriptions into English:

Rp.: Choles medicātae conservātae 250,0

Da. Signa.

Rp.: Olei Terebinthīnae

Olei Camphōrae

Chloroformii ana 100,0

Misce. Da. Signa.

Rp.: Extracti Frangūlae fluidi 0,15

Extracti Viburni fluīdi

Herbae Thymi ana 20 ml

Misce. Da. Signa.

Rp.: Olei Ricīni 1,0

Da tales doses numēro 15 in capsūlis gelatinōsis.

Signa.

Rp.: Acīdi hydrochlorīci dilūti 5 ml

Pepsīni 2 ml

Aquae destillātae 180 ml

Sirūpi Cerāsi 200 ml

Misce. Da. Signa.

Exercise 3

Translate into Latin (in a written form):

1. In gelatin (e) capsules. 2. In starch capsules. 3. The tincture of valerian, lily of the valley. 4. The infusion of a birch's leaves. 5. Take: the tincture of peppermint, five drops. 6. Rectified turpentine: 10 ml. 7. Dry extract of buckthorn. 8. Analginum in tablets. 9. Pour. Grind. 10. Pill's mass as required.

Exercise 4

Translate the prescriptions into Latin:

Take: Liquid extract of buckthorn 0,15
the infusion of rhubarb's leaves
the infusion of birch's buds (gemmas) 50 ml
the decoction of elder's leaves
Aloe sirup 100 ml
Mix. Give. Write on label.

Take: Grinded camphor 0,1
Sugar 0,3
Mix to get powder
Give 10 such doses
Write on label.

Remember the following words and expressions used in prescriptions:

1. **Acīdum hydrochlorīcum dilūtum** – diluted hydrochloric acid.
2. **Camphōra trita** – grinded camphor.
3. **Chloroformium, i n** – chloroform.
4. **Sacchārum, i n** – sugar.

5. **Crataegus, i f** – hawthorn.
6. **Thymus, i m** – mother – of – thyme.
7. **Frangūla, ae f** – buckthorn.
8. **Herba Thymi** – mother-of-thyme herb.
9. **Extractum Frangūlae** – extract of buckthorn.
10. **Extractum Viburni fluidum** – liquid extract of guelder rose.
11. **Extractum Crataegi siccum** – dry extract of hawthorn.
12. **Infusum foliorum Rhei** – ^{infusion} tincture of the rhubarb leaves.
13. **Tinctura Convallariae (Valerianae)** – lily of the valley (valerian) tincture.
14. **Decoctum foliorum Sambūci** – decoction of the elder's leaves.
15. **Sirūpus Cerāsi** – cherry ^{synop} sirup.
16. **Sirūpus Aloēs** – aloe ^{synop} sirup.
17. **Oleum Ricīni** – castor oil.
18. **Oleum Menthae piperītae** – peppermint oil.
19. **Oleum Terebinthinae** – turpentine oil.
20. **Oleum Terebinthinae rectificatum** – purified turpentine.
21. **Oleum Camphōrae** – camphorated oil, camphor liniment.
22. **In capsulis amylaceis** – in starch capsules.
23. **In capsulis gelatinosis duris** – in solid gelatin capsules.
24. **In tabulettis** – in tablets.
25. **Massa pilularum** – pill mass.
26. **Consperge** – ^{pour.powder} *infundere*
27. **Tere** – grind.
28. **Da tales doses numero ...** – Give ... such doses.
29. **Misce, ut fiat pulvis (pasta)** – mix to get powder (paste).
30. **Quantum satis** – the required quantity.

Theme: Praesens indicatīvi actīvi et passīvi.

Latin verbs are divided into four conjugations. The nouns are classed according to the ending of the genitive singular; the verbs are classed according to the ending of their Present Infinitive. The part of a verb left after the removing the ending **-re** in the infinitives of the I, II, IV conjugation verbs, and ending **-ēre** in the infinitives of the III conjugation verbs is called the Present stem.

In a dictionary the following forms of Latin verbs are given:

curo, curāvī, curātum, curāre – to cure

doceo, docui, doctum, docēre – to teach

tego, texi, tectum, tegēre – to cover

nutrio, nutrīvi, nutrītum, nutrīre – to feed.

The form of the first person singular Present Tense always comes first. It is followed by the first person singular Past Tense, then by supine form and the infinitive.

In medical schools only the Present Tense is taught, therefore the students should write down only three forms of Latin verbs in their vocabularies, e.g.:

curo, ātum, āre; doceo, doctum, ēre; tego, tectum, ēre; nutrio, itum, ire.

Each "person" of a Latin verb has its own "personal" ending. Present Indicative Active and Passive endings are:

Activum

Sing.	1 st person	- o
	2 nd person	- s
	3 ^d person	- t
Plur.	1 st person	- mus
	2 nd person	- tis
	3 rd person	- nt

Passivum

Sing.	1 st person	- or
	2 nd person	- ris
	3 ^d person	- tur
Plur.	1 st person	- mur
	2 nd person	- mīni
	3 rd person	- ntur

Personal endings are added directly to the stem of the first, second and fourth conjugation verbs. In the third conjugation verbs you should put the letter **ī** between the stem the personal ending (except the first person singular). In the second person singular of the Indicative Passive before **-r** the letter **ī** changes into **ē**, and in the third person plural both Active and Passive before **-nt** it changes into **-u**. In the third person plural of the fourth conjugation verbs you should put **-u** between the stem and the personal ending.

In the first conjugation verbs the final letter of the stem **a** changes into the personal ending **o** (Active Voice) and **or** (Passive Voice)

**Present Indicative
(praesens indicatīvi)**

curāre – (to cure)
docēre – (to teach)
tegēre – (to cover)
nutrīre – (to feed)

stem curā –
stem docē –
stem teg –
stem nutrī –

ACTĪVUM

Number	Person	Conjugations			
		I	II	III	IV
<i>Singulāris</i>	1.	curo (I cure)	doce – o (I teach)	teg – o (I cover)	nutri – o (I feed)
	2.	curā – s	doce – s	teg – ī – s	nutrī – s
	3.	curā – t	doce – t	teg – ī – t	nutrī – t
<i>Plurālis</i>	1.	curā – mus	docē – mus	teg – ī – mus	nutrī – mus
	2.	curā – tis	docē – tis	teg – ī – tis	nutrī – tis
	3.	cura – nt	doce – nt	teg – u – nt	nutri – u – nt

PASSĪVUM

Number	Person	Conjugations			
		I	II	III	IV
<i>Singulāris</i>	1.	curor (I am cured)	doce – or (I am taught)	teg – or (I am covered)	nutri – or (I am fed)
	2.	curā – ris	docē – ris	teg – ē – ris	nutrī – ris
	3.	curā – tur	docē – tur	teg – ī – tur	nutrī – tur
<i>Plurālis</i>	1.	curā – mur	docē – mur	teg – ī – mur	nutrī – mur
	2.	cura – mīni	doce – mīni	teg – ī – mīni	nutrī – mīni
	3.	cura – ntur	doce – ntur	teg – u – ntur	nutri – u – ntur

The Latin personal pronouns are represented by the inflection or termination only. Do not translate the English pronoun into Latin when it is the subject of the sentence, because each person in Latin has its own particular ending. However, you should indicate the person when you translate a Latin sentence into English, e.g.:

habet – he, she, it **has**

habent – they **have**

REMEMBER THE FOLLOWING VERBS

I Conjugation

agito, ātum, āre	- to agitate
ausculto, ātum, āre	- to auscultate
curo, ātum, āre	- to cure
do, datum, dare	- to give
praeparo, ātum, āre	- to prepare
perforo, ātum, āre	- to perforate
sano, ātum, āre	- to render (more) healthy
servo, ātum, āre	- to serve
palpo, ātum, āre	- palpate
steriliso, ātum, āre	- to sterilize

II Conjugation

adhibeo, ĩtum, ěre	- to use
doceo, doctum, ěre	- to teach
habeo, ĩtum, ěre	- to have
valeo, ĩtum, ěre	- to be healthy
misceo, mixtum, ěre	- to mix
noceo, cĭtum, ěre	- to do harm
studeo, - , ěre	- to study
video, visum, ěre	- to see

III Conjugation

addo, ĩtum, ěre	- to add
divido, vĭsum, ěre	- to divide
recipio, ceptum, ěre	- to take, to receive
repeto, ĩtum, ěre	- to repeat
solvo, solĭtum, ěre	- to dissolve
tego, tectum, ěge	- to cover
terro, tritum, ěre	- to grind
verto, versum, ěre	- to turn

IV Conjugation

audio, ĩtum, ĩre	- to listen
finio, ĩtum, ĩre	- to end, finish
nutrio, ĩtum, ĩre	- to feed
scio, scitum, ĩre	- to know
sentio, sensum, ĩre	- to feel
tussio, ĩtum, ĩre	- to cough
venio, ventum, ĩre	- to come

Exercise 1

Form the third person singular and plural of the verbs:

auscultāre	- to auscultate
miscĕre	- to mix
solvĕre	- to dissolve
audĭre	- to listen
defendĕre	- to defend

Exercise 2

Translate into English:

- Misce. Da. Signa.
- Medĭcus auscultat aegrōtam.
- Discĭte linguam Latinam.
- Pharmaceuta praeparat auram.
- Diaeta aegrōtas sanat.
- Massa pilulārum adhibĕtur in officĭna.
- Chirurgus curat fractūras costārum.
- Constantia ossea in substantiam compactam et substantiam spongiōsam dividitur.

Exercise 3

Translate the prescriptions into English:

Rp.: Camphōrae 1,0
Tinctūrae Valeriānae aethereae 10 ml
Misc. Da. Signa.
℞. Tinctūrae Aloës 30 ml
Da. Signa.

Exercise 4

Translate into Latin (in a written form):

1. The patient takes (sumēre – to take) the drops of valerian. 2. Pharmacists grind and dissolve tablets. 3. They are divided into real and unreal ones. 4. Students study (*studēre* requires Dat. – to study) Latin diligently (*diligenter*). 5. Prepare the pills mass.

Exercise 5

Translate the prescriptions into Latin:

Take: 200 ml of mint water
Give. Sign.
Take: Aloe juice 100 ml
Give. Sign.

The words used in the exercises:

medīcus, i m	- physician	osseus, a, um	- osteal, bony
aegrōta, ae f	- patient	compactus, a, um	- compact
officīna, ae f	- pharmacy	spongiōsus, a, um	- spongy
chirurgus, i m	- surgeon	sumo, sumptum, ěre	- take orally
succus, i m	- juice	studiōsa, ae f	- student (female)
Mentha, ae f	- mint	studiōsus, i m	- student (male)

Latin sayings and aphorisms

1. **Amat victoria curam.** If you want to win you should keep trying.
2. **Aquīla non captat muscas.** Eagles do not catch flies.
3. **Non scholae sed vitae discimus.** We study not for school, but for our life.
4. **Mala herba cito crescit.** Bad herb grows quickly.
5. **Vivēre est cogitāre.** Living is thinking.

Plur. 3. teg - a - ntur they would be covered;
let them be covered

IV Conjugation

Activum

Sing. 3. nutri - a - t he (she, it) would feed; let him (her, it) feed
Plur. 3. nutri - a - nt they would feed; let them feed

Passivum

Sing. 3. nutri - ā - tur he (she) would be fed, let them feed him (her)
Plur. 3. nutri - a - ntur they would be fed, let them be fed

Conjunctivus praesentis of the verb esse

Singulāris

1. **sim** - I would be, let me be
2. **sis** - you would be, let you be, be
3. **sit** - he (she, it) would be
let him (her, it) be

Plurālis

1. **simus** - we would be, let us be, let's be
2. **sitis** - you would be, let you be, be
3. **sint** - they would be, let them be

The verb **fio, fiēri** (become)

The Latin verb **facere** (do) is not used in the Passive Voice. The verb **fiēri** is used instead of it. The verb has the personal endings of the Active Voice but passive meaning.

Praesens indicatīvi

Singulāris

1. **fio**
2. **fis**
3. **fit** (becomes)

Plurālis

1. **finus**
2. **fitis**
3. **fiunt** (become)

Praesens conjunctīvi

Singulāris

1. **fiam**
2. **fias**
3. **fiat** (let him/her/it become)

Plurālis

1. **fiāmus**
2. **fiatis**
3. **fiant** (let them become)

The 3-d person praesentis conjunctivi is used in prescriptions.

Conjunctivus in prescriptions

1. **Misceātur.** (Let it be mixed Mix.).
2. **Detur.** (Let it be given. Give).
3. **Signētur.** (Let it be signed. Sign.).
4. **Solvātur.** (Let it be dissolved).
5. **Sterilisētur.** (Let it be sterilized. Sterilize).
6. **Repetātur.** (Let it be repeated. Repeat).
7. **Dentur tales doses numēro.** (Let such doses be given. Give such doses).

Misce, ut fiat emplastrum (emulsum, linimentum, pulvis, unguentum). (Mix to get a plaster(emulsion, liniment, powder, ointment)).

Misce, ut fiant pilulae (suppositoria rectalia, globuli vaginales). (Mix to get pills (rectal suppositories, vaginal globules)).

Exercise 1

Form the third person singular and plural conjunctivus praesentis activi et passivi of the following verbs:
Auscultāre, defendēre, miscēre, audīre.

Exercise 2

Translate into English:

1. Studeāmus linguae Latinae et disciplinis medicis.
2. Praeparētur mixtura statim.
3. Non vivimus, ut edāmus, sed edimus, ut vivāmus.
4. Sint studiōsae attentae.
5. Sterilisētur extractum.
6. Dividātur massa pilulārum.

Exercise 3

Translate the prescription into English:

Rp.: Camphōrae tritae 0,1
Sacchāri 0,3
Misce, fiat pulvis
Dentur tales doses numero 10
Signētur.

Exercise 4

Translate into Latin (in a written form):

1. The patient should take tablets. 2. Some tablets and mixture should be given. 3. A pharmacist should ~~write~~ ^{Mix} tinctures. 4. It should be given in gelatin capsules.

Exercise 5

Translate the prescription into Latin (in a written form):

Take: Castor oil 1,0
15 such doses should be given in gelatin capsules.
It should be signed.

Latin sayings and aphorisms:

- | | |
|---|---|
| 1. Audiatur et altera pars. | You should listen to both sides. |
| 2. Edimus, ut vivamus non vivimus, ut
vivamus. | We should eat to live, but we should not live
to eat. |
| 3. Ne noceas, si juvare non potes. | If you cannot help, at least you should not do
any harm. |
| 4. Pereat mundus, fiat justitia. | Justice should win even if the world dies. |

Theme: The Ways of Forming Medical Terms.

The better you can analyze medical terms (which means being able to 1) find their roots, suffixes, prefixes, stems; 2) comprehend the meaning of Greek and Latin components; 3) remember the Greek equivalents of the Latin words) the easier you will learn and remember them.

There are two main ways of word forming in Latin:

1. **Affixation** (adding prefixes and suffixes to the stem, e.g.: **vertēbra** (vertebra); **vertebr-āl-is, e** (vertebral); **inter-vertebr-āl-is, e** (intervertebral); **Mentha** (mint), **Menth-ōl-um** (menthol).

The words formed by affixation are called **derived words**.

2. **Word combination** (when two or more stems go together to form a new word. E.g.: **gastroenterologia** (*gaster, gastr-is* (stomach), *enter-on* (intestine), *logia* (science)) – the branch of internal medicine which deals with normal functioning and diseases of the gastrointestinal tract. The nouns formed in this way are called **compound nouns**.

Latin words are joined by the vowels **-i-** and **-o-**, e.g.: **mult-i-cellulāris** (multicellular); **sacr-o-lumbālis** (sacro-lumbar); **cerebr-o-spinālis** (cerebrospinal).

Greek words are joined by the vowel **-o-**, e.g.: **arthr-o-pathia** (the disease of joints). When the second word begins with a vowel, then **-o-** is often dropped, e.g.: **neur-algia** (neuralgia); **aden-ectomy** (adenectomy is the removing of gland).

To form compound and derived words the stems of the words (determined in Gen. sing.) are most frequently used, e.g.: **dermatitis** (from **derma**, **dermat-is** (skin)) means inflammation of the skin, **dermatologia** (the science about skin diseases).

Sometimes the stem of the word in Nom. is used for better pronunciation, e.g.: **py-o-derm-ia** (purulent inflammation of the skin); **epi-derm-is** (epidermis).

In a compound noun an attribute usually comes first, while the head word is the final element (it is called the **final term element**), e.g.: **dermatologia** (derma, tis – skin; logia – science) – the science about skin diseases.

The final term element is a steady element of a compound word, it has constant meaning and can form several terms, e.g.: the term element – **algia** denotes the pain having no organic origin:

gastralgia (gastric pain); **odontalgia** (toothache), **myalgia** (pain in the muscles), etc.

As far as medical terms are formed by both Latin and Greek languages (the anatomic and histologic terms are formed by the Latin language, the clinical terms are formed mainly by the Old Greek language, the pharmaceutical terms are formed by both Latin and Greek languages), you should learn Greek roots and other word-forming elements, especially final term elements of the Latin words.

Clinical terminology is one of the most difficult subsystems of the medical terminology. It includes both the names of diseases or pathologic processes and the ways of their diagnosis and treatment.

Greek equivalents of the Latin first conjugation nouns

<i>Latin word</i>	<i>Greek word and its stem</i>	<i>Meaning</i>
aqua	hydor, hydr-	water
causa	aetia, aeti-	cause
cellūla	cytos, cyt-	cell
cornea	keras, kerat-	cornea
femīna	gyne, gynaec-	woman
glandūla	aden, aden-	gland
natūra	physis, physi-	nature
hernia	cele-, -cele-	hernia
lacrima	dacryon, dacry-	tear
lingua	glossa, gloss-	tongue
mamma	mastos, mast-	mamma
maxilla	gnathos, gnath-	maxilla (upper jaw)
medulla	myelos, myel-	medulla
palpēbra	blepharon, blephar-	palpebra, eyelid
planta	phyton, phyt-	plant
salīva	sialon, sial-	saliva
tuba uterīna	ptyalon, ptyal-	
urīna	salpinx, salping-	uterine tube
vaginā	uron, ur-	urine
	colpos, colp-	vagina

vena
vertebra
vesīca
vesīca biliaris
vita

phleps, phleb-
spondylos, spondyl-
cystis, cyst-
cholecystis, cholecyst-
bios, bi-

vein
vertebra
bladder
gallbladder
life

Final term elements

- aemia	blood, condition of blood (from Greek haema , haemat-is (blood); haem-ia haemat are used as initial term elements, e.g.: haemophilia (hemophilia, predisposition to hemorrhage); haematologia (hematology, science studying blood and hemopoietic organs).
- algia	pain
- algia	painful feeling
- ectasia	extension of hollow or tubular organ
- ectomia	removal
- graphia	examination: X-ray or by means of recording impulses
- logia	science
- odynia	pain (without any organic changes)
- opsia	eyesight
- phobia	fear, phobia
- pathia	sickness
- plegia	paralysis, stroke
- rhagia	hemorrhage
- rhoea	profuse discharge
- scopia	examination
- stomia	forming artificial opening, fistula (from stoma – mouth)
- staphia	suture
- therapia	therapy
- ergia, -urgia	activity, reactivity of the organism
- tomia	incision

Exercise 1

Read the terms, underline their components, determine their meaning, translate into English:

phytotherapia; histologia; cystoplegia; cholecystotomia; myelopathia; glossalgia; hydraemia; Gynaecologia; dacryadenalgia; hyperergia; dysergia; spondylotomia; hypalgesia; dacryorrhoea; phlebectasia; adenectomia; anaemia; keratotomia; blepharoplegia; uraemia; cystoscopia; cytologia; biologia; hydrotherapia; aetiologia; myelocēle; mastopathia; dysopsia; physiologia; biopsia; salpingotomia; physiotherapia.

Exercise 2

Translate into Latin (in a written form):

the increase of water contents in blood; hernia of the spinal cord (medulla); the disease of gallbladder; lacrimation; extension of stomach; forming fistula of gallbladder; excision of vein, hypersalivation; pain in the tongue; reduced reactivity of the organism; suture of the vein; treatment by means of natural agents; science that studies tissues

Unit 12

Theme: The Second Declension of nouns. Masculine nouns.

Most nouns of the Second Declension are masculine. They end in **-us**, **-er** in Nom. sing, and have the ending **-i** in Gen. sing., e.g.: **musculus**, **i m** (muscle); **morbis**, **i m** (disease); **puer**, **eri m** (boy); **cancer**, **ncri m** (cancer); **paediāter**, **tri m** (pediatrician). The masculine nouns of this declension are declined like the two following:

medicus, **i m** (a physician) – **medic** is a stem; **paediāter**, **tri m** (a pediatrician) – **paediatr** is the stem.

	<i>Singulāris</i>		<i>Plurālis</i>	
<i>Nom.</i>	medicus	paediāter	medic-i	paediātr-i
<i>Gen.</i>	medic-i	paediātr-i	medic-ōrum	paediātr-ōrum
<i>Dat.</i>	medic-o	paediātr-o	medic-is	paediātr-is
<i>Acc.</i>	medic-um	paediātr-um	medic-os	paediātr-os
<i>Abl.</i>	medic-o	paediātr-o	medic-is	paediātr-is

N.B. Notice that most nouns ending in **-er** drop the vowel **-e**. The **-e** is retained only in the Nominative, e.g. **cancer**, **cancrī m** (cancer); **magister**, **tri m** (teacher).

The masculine adjectives which in the Nominative end in **-us**, **-er** as well as past participles of the passive voice (participium perfecti passivi) ending in **-us** are declined like the Second Declension masculine nouns. E.g.

	<i>Singulāris</i>		<i>Plurālis</i>	
<i>Nom.</i>	ocūlus dexter	<i>right eye</i>	ocūli dextri	
<i>Gen.</i>	ocūli dextri		oculōrum dextrōrum	
<i>Dat.</i>	ocūlo dextro		ocūlis dextris	
<i>Acc.</i>	ocūlum dextrum		ocūlos dextros	
<i>Abl.</i>	ocūlo dextro		ocūlis dextris	

Some exceptions to the rule concerning the gender of the second declension nouns

Some second declension nouns ending in **-us** and **-er** are feminine or neuter.

Feminine nouns are:

Alvus, **i f** (alvus, stomach, abdomen); **atōmus**, **i f** (atom); **periōdus**, **i f** (period); **crystallus**, **i f** (crystal); **diāmeter**, **tri f** (diameter); **humus**, **i f** (humus); **methōdus**, **i f** (method).

The names of trees and bushes are also feminine: **Amygdālus**, **i f** (almond); **Cerāsus**, **i f** (cherry); **Citrus**, **i f** (citrus); **Crataegus**, **i f** (hawthorn); **Eucalyptus**, **i f** (gum-tree); **Junipērus**, **i f** (juniper); **Padus**, **i f** (bird cherry); **Piceus**, **i f** (pine); **Popūlus**, **i f** (poplar); **Rhamnus**, **i f cathartica (ae)** – purging buckthorn; **Sambūcus**, **i f** (elder); **Serviculus**, **i f** (service tree); **Malus**, **i f** (apple tree).

Neuter nouns are:

- virus**, **i n** 1) virus
- 2) poison, poisonous discharge of the animals
- vulgus**, **i n** – crowd (the adjective derived from this noun is **vulgāris**, **e** (vulgar, common);
- sermo vulgāris** – vulgar language or the language of common people which does not always follow grammar rules.

Lexical minimum

A

alveolus, i m – alveolus	bulbus oculi – eyeball
angulus, i m – angle	carpus, i m – wrist
digītus, i m – digit: a finger or a toe	circūlus, i m – circle
fundus, i m – fundus	esophāgus, i m – esophagus
humērus, i m – humerus	popūlus, i m – people
lobus, i m – lobe	porus, i m – pore
musculūlus, i m – muscle	pylōrus, i m – pylorus
nasus, i m – nose	radius, i m – radius
nervus, i m – nerve	ramus, i m – ramus
nodus, i m – node	sulcus, i m – sulcus
nucleus, i m – nucleus	truncus, i m – trunk
ocūlus, i m – eye	ventricūlus, i m – ventricle, stomach
nodūlus, i m – nodule	

B

fungus, i m – fungus	Hyoscyāmus, i m – henbane
globūlus, i m – globule	Leonūrus, i m – motherwort
Helianthus, i m – sunflower	locus, i m – location, place

numērus, i m – number
 Ricīnus, i m – eastor-bean
 Rubus idaeus, i m – raspberry
 sirūpus, i m – syrup

succus, i m – juice
 Strychnos, i m – strychnos (Gr.
 “nightshade” a tropical tree)

C

aegrōtus, i m – patient *male*
 botulismus, i m – botulism
 cancer, cri m – cancer
 cibus, i m – food
 catarrhus, i m – catarrh
 furuncūlus, i m – furuncle
 ictērus, i m – icterus, jaundice

morbilli, ōrum m (pl) – morbilli,
 measles
 morbus, i m – morbus, disease
 spasmus, i m – spasm
 thrombus, i m – thrombus
 typhus, i m – typhus

Greek equivalents of the Latin second declension masculine nouns

(to be continued)

Latin word	Greek word and its stem	Meaning
anīmus	psyche, psych-	soul
calcūlus	lithos, lith-	calculus
cancer	carcinus, carcin-	cancer
cibus	trophe, troph-	food

Final term elements

- **iatria** – science which deals with the treatment of diseases
- **paedia** – correction of deficiencies or shortcomings, fostering right skills
- **trophia** – nutrition

Exercise 1

Decline the word combinations:

Paediāter perītus (an experienced pediatrician); periōdus crītica (critical period),
 morbus ulcerōsus (ulcerous disease), diamēter transversa (transverse diameter).

Exercise 2

Translate the terms into English :

Anatomic (al)

angūlus ventricūli; nervus transversus; sulcus costae; ramus lobi medii; oculus sinister

Histologic (al)

nucleus planus; nucleolus accessorius; canalicūlus osseus; alveolus pulmōnis; nodūli lymphatici

Pharmaceutical

sirūpus baccārum Cerāsi; gemmae Pini; herba Hyoscyāmi; tinctūra Strychni; in loco fusco et frigido; succus e
 cis Rubi idaei

Clinical

catarrhus siccus; ictērus hepaticus; morbus chronicus; typhus exanthematicus; psychiatria; logopaedia;
 otomia; dystrophia.

Exercise 3

Translate the terms into Latin:

Anatomic

Nucleus of the hypoglossal nerve; body of the humeral bone; ocular nerves; left ventricle of the heart.
 transverse ramus (branch), costal angle.

Histologic (al)

Nervous part; primary nodule; canals of the bone; cameras of the eye; plane (flat) nucleus.

Pharmaceutical

Syrup made from raspberry juice; give 10 doses; in a dark place; juice made from cherry's berries.

Clinical

Catarrh of the ventricle; ulcerous disease; science which deals with psychic diseases.

Vocabulary used in the exercises

Exercise 2

medius, a, um – middle
planus, a, um – plane, flat
accessorius, a, um – accessory
osseus, a, um – bony
pulmo, ōnis m – lung, pulmonary
lymphaticus, a, um – lymphatic, lymph

fuscus, a, um – dark
frigīdus, a, um – cold
siccus, a, um – dry
hepatīcus, a, um – hepatic
exanthematīcus, a, um -
exanthematous

Exercise 3

hypoglossal – hypoglossus, a, um
ocular – ophthalmīcus, a, um
cor – cor, cordis n
transverse – transversus, a, um

nervous – nervōsus, a, um
primary – primarius, a, um
camera – camēra, ae f

Latin sayings and aphorisms:

1. **Medīcus amīcus humāni genēris.**
2. **Lupus non mordet lupum.**
3. **In loco.**

A physician is a man's friend.
A wolf doesn't bite another wolf.
To the point.

Unit 13

Theme: The Second Declension Neuter Nouns.

The second declension neuter nouns end in **-um** and **-on** in Nom. sing. and **-i** in Gen. sing., e.g.: **ligamentum, i n** (ligament), **tuberculum, i n** (tubercle), **scelëton, i n** (skeleton), **ganglion, i n** (ganglion), **encephalon, i n** (encephalon).

Note! The nouns ending in **-on** are of Greek origin. Most of them have been latinized and the ending **-on** has changed into **-um**, e.g.: **orgānon** – organum (organ), **scelëton** – scelëtum (skeleton), so nowadays the both forms are used.

Pay attention to the case inflections of the second declension neuter nouns:

Singulāris

				<i>Plurālis</i>	
Nom.	labium	ganglion	labi -a	gangli -a	
Gen.	labi -i	gangli -i	labi -ōrum	gangli -ōrum	
Dat.	labi -o	gangli -o	labi -is	gangli -is	
Acc.	labi -um	gangli -on	labi -a	gangli -a	
Abl.	labi -o	gangli -o	labi -is	gangli -is	

NB! The adjectives and the second declension neuter nouns they agree with, have the same case inflections, except the nouns of Greek origin ending in **-on** (these nouns have different inflections in Nom. et Acc. sing.):

Singulāris

				<i>Plurālis</i>	
Nom.	remedi -um	sicc -um	remedi -a	sicc -a	
Gen.	remedi -i	sicc -i	remedi -ōrum	sicc -ōrum	
Dat.	remedi -o	sicc -o	remedi -is	sicc -is	
Acc.	remedi -um	sicc -um	remedi -a	sicc -a	
Abl.	remedi -o	sicc -o	remedi -is	sicc -is	

Singulāris

				<i>Plurālis</i>	
Nom.	scelët -on	humān -um	scelët -a	humān -a	
Gen.	scelët -i	humān -i	scelet -ōrum	human -ōrum	
Dat.	scelët -o	humān -o	scelët -is	humān -is	
Acc.	scelët -on	humān -um	scelët -a	humān -a	
Abl.	scelët -o	humān -o	scelët -is	humān -is	

The suffixes

of the second declension nouns

The suffix **-ment -um** when added to the Present Stem forms nouns denoting the means or result of an action. E.g.: **liga -ment -um** (ligament; from **ligāre** – to join); **ornament -um** (ornament; from **ornāre** – to ornament).

The suffixes **-ūl -us, -ūl -um, cūl -us, cūl -um, -ōl -us**, when added to the stem of a noun give it diminutive meaning. Such nouns have the same gender as the nouns they are derived from. E.g.: **nodūlus, i m** (nodule; from **nodus, i m** – node); **muscūlus, i m** (mouse, muscle, from **mus, muris m** – mouse); **tuberculum, i n** (tubercle; from **tuber, ěris n** – tuber); **capitulum, i n** (head, from **caput, capitis n** – head); **alveolus, i m** (alveolus; from **alveus, i m** – alveolus).

The suffixes **-ari -um** (when added to the stem of a noun) and **-ori -um** (when added to the supine's stem) form the nouns which denote location. E.g.: **vivarium, i n** – the place where experimental animals are kept (from **vivus, i m** – a living being); **sanatorium, i n** – sanatorium (from **sano, sanat -um, āre** – to render more healthy).

The suffixes **-ism -us**, when added to the stem of a noun give it the meaning of a poisoning or a disease. E.g.: **botul -ism -us, i m** – botulism, food poisoning; (from **botūlus, i m** – sausage); **alcoholismus, i m** – alcoholism; addiction to alcoholic drink; diseased condition caused by this (from Arabic “alkohl” – essence).

The suffixes **-in -um; -ol -um** form the nouns denoting the names of medicines. E.g.: **Papāver -in -um, i n** – papaverine (from **Papāver, Papavēris n** – poppy); **Mentholum, i n** – menthol (from **Mentha, ae f** – mint).

The suffix **-id -um** forms the nouns denoting the names of anions in the salts of acids. E.g.: **brom -id -um**, (from **Bromum, i n** – bromine (chem.), bromide (med.)).

Lexical minimum

A

antebrachium, i n – forearm
atrium, i n – atrium
brachium, i n – arm
cerebellum, i n – cerebellum
cerebrum, i n – cerebrum
cilium, i n – cilium
cingulum, i n – girdle

collum, i n – neck
cranium, i n – skull, cranium
dorsum, i n – back
encephalon, i n – encephalon
ganglion, i n – ganglion
stratum, i n – stratum
intestinum, i n – intestine

labium, i n – lip
ligamentum, i n – ligament
membrum, i n – extremity, limb
organon, i n – organ
palatum, i n – palate
rectum, i n – rectum

acidum, i n – acid
amylum, i n – amyllum, starch
antidotum, i n – antidote
butyrum, i n – butter
decoctum, i n – decoction
emplastrum, i n – emplastrum, plaster
infusum, i n – infusion
linimentum, i n – liniment
medicamentum, i n – medication
oleum, i n – oil
oleum Persicorum – peach oil
oleum Ricini – castor oil
oleum Terebinthinae – turpentine oil
emulsum, i n – emulsion

consilium, i n – consultation
exsudatum, i n – exudate
delirium, i n – delirium

Translate the terms into English (orally):

Anatomic (al)

antebrachium sinistrum
brachium dextrum
collum costae
septum nasi osseum
cingulum membri
labium superius
ligamenta flava
suturae cranii
digiti membrorum
atrium sinistrum

Pharmaceutic (al)

acidum hydrochloricum dilutum; amyllum Tritici; butyrum Cacao; decoctum foliorum Betulae; emplastrum adhaesivum; unguentum Hydrargyri cinereum; remedium purgativum; serum antidiphthericum; extractum fluidum gossypium chirurgicum.

Clinic (al)

Infantilismus dystrophicus; exsudatum purulentum; vitium cordis innatum; delirium alcoholicum; stadium exacerbationis.

accessorius, a, um – accessory
intermedius, a, um – intermediate
cellularis, e – cellular
stratificatus, a, um – stratified
nervosus, a, um – nervous
tenuis, e – thin, small
durus, a, um – hard
elasticus, a, um – elastic
bulbus, i m – bulb
Triticum, i n – wheat
adhaesivus, a, um – adhesive
cinereus, a, um – grey

scelton, i n – skeleton
spatium, i n – space
septum, i n – septum
sternum, i n – sternum
tuberculum, i n – tubercle
vestibulum, i n – vestibule

B

extractum, i n – extract
folium, i n – leaf
gossypium, i n – cotton wool
granulum, i n – granule
remedium, i n – remedy
saccharum, i n – sugar
serum, i n – serum
suppositorium, i n – suppository
Talcum, i n – talc, talcum
unguentum, i n – ointment, unguent
venenum, i n – poison, venom, toxin
vitrum, i n – glass, testing tube

C

stadium, i n – stage
vitium, i n – failure, defect, disease

Exercise 1

Histologic (al)

nucleolus accessorius
ligamentum elasticum
stratum intermedium
granulum cellulare
epithelium stratificatum
corpusculum nervosum
palatum durum
intestinum tenue
atrium alveolare
bulbus vestibuli

Words used in the Exercise 1

purgativus, a, um – purgative
antidiphthericus, a, um – antidiphtheric
fluidus, a, um – fluid
chirurgicus, a, um – surgical
Hydrargyrum, i n – mercury
infantilismus, i m – infantilism
dystrophicus, a, um – dystrophic
purulentus, a, um – purulent
innatus, a, um – innate, congenital
alcoholicus, a, um – alcoholic
exacerbatio, onis f - exacerbation

Exercise 2

Translate the terms into Latin (in a written form):

Anatomic (al)

yellow ligament; tubercle of the rib; right atrium; lower lip; fingers of the left extremity.

Histologic (al)

enamel organ; elastic stratum; initial segment; primary centre of the ossification; interlobular septum.

Pharmaceutic (al)

10 grammes of the diluted hydrochloric acid; pour the starch of wheat; purgative remedies; antirabic serum; fluid extract of aloe; ointment for eyes; infusion of the cherry leaves.

Clinic (al)

acquired valvular disease; in the stage of exacerbation; venous concrement (calculus); hepatic infantilism.

Words used in the Exercise 2

enamel – enameleus, a, um

initial – initialis, e

centre – centrum, i n

ossification – ossificatio, ōnis f

primary – primarius, a, um

venous – venosus, a, um

hepatic – hepaticus, a, um

interlobular – interlobularis, e

antirabic – antirabicus, a, um

acquired – acquisitus, a, um

segment – segmentum, i n

concrement – concrementum, i n

Exercise 3

Translate the prescription into Latin (in a written form):

Take: Boric acid 0,4 ml

Menthol 0,05 ml

Yellow vaseline up to 10,0

Mix to form the ointment

Give. Write on label.

Boric acid – acidum boricum

menthol – Mentholum, i n

vaseline – Vaselinum, i n

Latin sayings and aphorisms:

1. **Ab ovo usque ad mala.**

2. **Otium post negotium.**

3. **Per aspera ad astra.**

From eggs to apples (From the very beginning).

Rest comes after work.

By overcoming difficulties you reach the stars.

Unit 14

Theme: Class 1 Adjectives (I and II declensions).

There are two great classes of adjectives in Latin. The first class adjectives end in **-us/-er(m); -a(f); -um(n)**. In a dictionary they are written in the following way: **longus, a, um** (long); **dexter, tra, trum** (right). These adjectives are declined like the first and second declension nouns, therefore they are sometimes called the first and the second declension adjectives.

Most masculine adjectives ending in **-er** drop **"-e"** while being declined e. g.: **niger, nigra, nigrum** (black); **ruber, rubra, rubrum** (red).

The first class masculine adjectives ending in **-us, er** are declined like the masculine nouns of the Second Declension; the feminine adjectives are declined like the first declension nouns; the neuter adjectives are declined like the neuter nouns of the Second Declension.

longus, a, um – long (the stem is **-long-**)

	<i>Singulāris</i>			<i>Plurālis</i>		
	<i>m</i>	<i>f</i>	<i>n</i>	<i>m</i>	<i>f</i>	<i>n</i>
<i>Nom.</i>	longus	longa	longum	long-i	long-ae	long-a
<i>Gen.</i>	long-i	long-ae	long-i	long-ōrum	long-ārum	long-ōrum
<i>Dat.</i>	long-o	long-ae	long-o	long-is	long-is	long-is
<i>Acc.</i>	long-um	long-am	long-um	long-os	long-as	long-a
<i>Abl.</i>	long-ō	long-ā	long-o	long-is	long-is	long-is

dexter, tra, trum – right (the stem is **dexter**)

	<i>Singulāris</i>			<i>Plurālis</i>		
	<i>m</i>	<i>f</i>	<i>n</i>	<i>m</i>	<i>f</i>	<i>n</i>
<i>Nom.</i>	dexter	dextra	dextrum	dextr -i	dextr -ae	dextr -a
<i>Gen.</i>	dextr -i	dextr -ae	dextr -i	dextr -ōrum	dextr -ārum	dextr -ōrum
<i>Dat.</i>	dextr -o	dextr -ae	dextr -o	dextr -is	dextr -is	dextr -is
<i>Acc.</i>	dextr -um	dextr -am	dextr -um	dextr -os	dextr -as	dextr -a
<i>Abl.</i>	dextr -ō	dextr -a	dextr -ō	dextr -is	dextr -is	dextr -is

Substantivated adjectives

Latin adjectives are often used in the function of nouns. The process is called **substantivation**. With such adjectives you don't need to use a noun; the case endings **-us, -a, -um** are sufficient. E. g.: adjectives which deal with the noun **intestinum** (intestines) are often used as nouns: **cecum, i n** (intestinum cecum); **rectum, i n** (intestinum rectum); **duodēnum, i n** (intestinum duodenum); **ileum, i n** (intestinum ileum). **Vagus i, m** is used instead of the word combination **nervus vagus**. The adjective **aegrōtus, a, um** (sick) is used as a noun: **aegrōtus, i m** (a male patient); **aegrōta ae f** (a female patient). **Mucōsa, ae f** is often used instead of **tunīca mucōsa** (mucous membrane).

Lexical minimum of the Class 1 adjectives**A**

acusticus, a, um – acoustic
 adiposus, a, um – adipose
 albus, a, um – white
 arteriōsus, a, um – arterial
 felleus, a, um – biliary
 compactus, a, um – compact
 compositus, a, um – composed
 coronarius, a, um – coronary
 crassus, a, um – large, thick
 hyoideus, a, um – hyoid
 fibrōsus, a, um – fibrous
 fuscus, a, um – brown
 hypoglossus, a, um – hypoglossal
 incisivus, a, um – incisive
 latus, a, um – broad
 luteus, a, um – yellow
 longus, a, um – long
 lymphaticus, a, um – lymphatic

magnus, a, um – large
 mucōsus, a, um – mucous
 oblīquus, a, um – oblique
 oblongātus, a, um – oblong
 opticus, a, um – optic
 osseus, a, um – osseous
 palatīnus, a, um – palatine, palatal
 parvus, a, um – small
 proprius, a, um – proper
 rectus, a, um – straight, right
 ruber, bra, brum – red
 spinōsus, a, um – spinous, spinose
 spongiōsus, a, um – spongy
 squamōsus, a, um – squamous
 subcutaneus, a, um – subcutaneous
 thoracicus, a, um – thoracic
 transversus, a, um – transverse
 zygomaticus, a, um – zygomatic

B

adhaesivus, a, um – adhesive
 aethereus, a, um – ethereal

aethylicus, a, um – ethyl
 amārus, a, um – bitter

Pharmaceutical

emplastrum adhaesivum bactericidum; tinctura Valerianae aetherea; spiritus aethylicus; capsulae amylaceae; remedium antipyreticum; charta cerata; sulfur depuratum; oleum Terebinthinae rectificatum; vaccinum purificatum; extracta sicca /fluida /spissa; solutio oleosa; in vitro flavo.

Clinical

morbus infectiosus seu contagiosus; tussis humida; pneumonia chronica; phasis activa, inactiva; insufficiencia cardiaca acuta; cursus morbi progressivus; insufficiencia respiratoria; ulcus duodeni activum chronicum; diabetes mellitus primarius (secundarius).

Words used in the exercises

anulus, i m – ring
bursa, ae f – bursa
fibra, ae f – fiber
trabecula, ae f – trabecula
articulatio, onis f – articulation, joint

bactericidus, a, um – bactericidal
spiritus, us m – spirit
charta, ae f – paper

tussis, is f – cough, tussis
pneumonia, ae f – pneumonia
phasis, is f – phase
insufficiencia, ae f – insufficiency

epitheliocytus, i m – epitheliocitis
textus, us m – texture, tissue
esophageus, a, um – esophageal
glomus, eris n – glomus

B

sulfur, uris n – sulfur
vaccinum, i n – vaccine
solutio, onis f – solution

C

cursus morbi – the course of disease
ulcus, eris n – ulcer
mellitus, a, um – mellitus

Exercise 3

Translate the terms into Latin (in a written form):

Anatomical

spongy substance
palatine sulcus
fibrous rings
optic nerves
acoustic pores

Histological

elastic fibers
lymphatic nodules
mucous membrane of the large intestine
adipose lobules

Pharmaceutical

20,0 of the valerian ethereal tincture; in amylaceous capsules; antipyretic remedies; in waxed paper, glass extract; brown (black) glass.

Clinical

rotund ulcer of the ventricle; inactive phase; acute respiratory insufficiency; primary diabetes mellitus; dry cough (tussis).

Exercise 4

Translate the prescriptions into Latin (in a written form):

Take: 100 ml of gastric juice
Give. Write on label.

Take: 15 ml of rectified turpentine oil
Give. Write on label.

Latin sayings and aphorisms:

1. **Aequo animo.**

Indifferently.

2. **Casus extraordinarius.**

Extraordinary case.

3. **Uno animo.**

Unanimously.

4. **Fortuna caeca est.**

Fortune (fate) is blind.

Pharmaceutical

emplastrum adhaesivum bactericidum; tinctura Valerianae aetherea; spiritus aethylicus; capsulae amylaceae; remedium antipyreticum; charta cerata; sulfur depuratum; oleum Terebinthinae rectificatum; vaccinum purificatum; extracta sicca /fluida /spissa; solutio oleosa; in vitro flavo.

Clinical

morbus infectiosus seu contagiosus; tussis humida; pneumonia chronica; phasis activa, inactiva; insufficiencia cardiaca acuta; cursus morbi progressivus; insufficiencia respiratoria; ulcus duodeni activum chronicum; diabetes mellitus primarius (secundarius).

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anulus, i m – ring
bursa, ae f – bursa
fibra, ae f – fiber
trabecula, ae f – trabecula
articulatio, onis f – articulation, joint

bactericidus, a, um – bactericidal
spiritus, us m – spirit
charta, ae f – paper

tussis, is f – cough, tussis
pneumonia, ae f – pneumonia
phasis, is f – phase
insufficiencia, ae f – insufficiency

epitheliocytus, i m – epitheliocytus
textus, us m – texture, tissue
esophageus, a, um – esophageal
glomus, eris n – glomus

B

sulfur, uris n – sulfur
vaccinum, i n – vaccine
solutio, onis f – solution

C

cursus morbi – the course of disease
ulcus, eris n – ulcer
mellitus, a, um – mellitus

Exercise 3

Translate the terms into Latin (in a written form):

Anatomical

spongy substance
palatine sulcus
fibrous rings
optic nerves
acoustic pores

Pharmaceutical

20,0 of the valerian ethereal tincture; in amylaceous capsules; antipyretic remedies; in waxed paper; brown (black) glass.

Clinical

rotund ulcer of the ventricle; inactive phase; acute respiratory insufficiency; primary diabetes mellitus; dry cough (tussis).

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Latin sayings and aphorisms:

1. **Aequo animo.**

Indifferently.

2. **Casus extraordinarius.**

Extraordinary case.

3. **Uno animo.**

Unanimously.

4. **Fortuna caeca est.**

Fortune (fate) is blind.

Exercise 1

Translate the terms into English (orally):

Anatomic (al)

substantia compacta
muscūli pectināti
fascicūlus retroflexus
medulla oblongāta
ligamentum cruciātum
arteriae circumflexae
lamīna affixa
diamēter transversa
forāmen obturātum
tubuli contorti

Histologic (al)

discus intercalātus
pars convolūta
ductulus transversus
nodus lymphaticus inversus
ligamentum pectinātum
noduli lymphatīci aggregāti
stratum disjunctum
epithelium cornificātum
tubūlus transversus
glomus dispersum

Pharmaceutical

Camphōra trita; Aloë pulverāta; Ferrum reductum; solutio dilūta; spiritus aethylīcus rectificātus; pepsīnūm
divīsus; folia exsiccāta; tabulettae obductae; sulfur praecipitātum; aqua destillata; oleum Terebinthinae
rectificātum; Magnesia usta.

Clinical

fractūra complēta; fractūra complicata; hernia inguinalis incarcerata; vitium cordis acquisītum; functio la
struma diffūsa toxica; vulnus morsum.

Words used in the exercises

forāmen, īnis n - foramen
discus, i m - disc
pars, partis - part
ductulus, i m - duct
fascicūlus, i m - fasciculus, fascicle
inguinālis, e - inguinal
functio, ōnis f - function
glomus, ěris n - glomus
Pepsīnum, i n - pepsin
solutio, ōnis d - solution
Ferrum, i n - iron
pulvis, ěris m - powder
sulfur, ūris n - sulfur
struma, ae f - struma
vulnus, ěris n - wound

Exercise 2

Translate the prescriptions into English:

Rp.: Tincturae Valerianae 10 ml
Camphorae tritae 2,0
Misce. Da. Signa.
Rp.: Camphōrae tritae 1,0
Olei Amygdlarum 10 ml
Gummi arabīci pulverāti 5,0
Aqua destillatae ad 100 ml
Misce, ut fiat emulsum.
Da. Signa.

Gummi arabīcum - gum arabic (dried gummy exudate from acacia).

Exercise 3

Translate the terms into Latin (in a written form):

Anatomic (al)

transverse diameter; contorted tube; circumflex artery of the scapula;
transverse muscle of the tongue; striated ramuses; cruciate ligaments

Histologic (al)

pectinate ligaments; disjunctive stratum; cornificated epithelium; aggregate lymphatic nodules; compo-
morus; striated duct

Pharmaceutic (al)

10,0 of pulverized Aloë; rectified ethyl alcohol (spirit); exsiccated herbs; coated tablet; diluted hydrochloric
acid; tablets dissolved in water; divided powder; cut (sliced) leaves of medical plants; purified vaccine; compo-
fusion

Clinic (al)

congenital heart disease; punctured wound; complicated fractures; nodular diffuse struma; disorder
function of the organ; complete inguinal hernia.

Exercise 4

Translate the prescriptions into Latin (in a written form):

Take: 4 ml of diluted hydrochloric acid

2,0 of pepsin

100 ml of distilled water

Mix. Give. Write on label.

Take: 0,2 of reduced iron

Give in coated tablets 20 ones

Write on label.

Latin sayings and aphorisms:

- | | |
|----------------------------|--|
| 1. Ad infinitum. | Endlessly. |
| 2. Post factum. | After it has happened. |
| 3. Post scriptum. | Post-script (after having been written). 1 sentence(s) added (to a letter) after the signature (abbr PS).
2. Additional or final information. |
| 4. Dictum – factum. | What had been said – that has been done. |

Unit 16

Theme: The Third Declension of Nouns. Types of Declining.

The third declension includes the nouns of all the three genders, which in Nom. sing. have different endings, but in Gen. sing. have one ending *-is*.

The third declension nouns can have *equal* or *inequal* number of syllables.

Nouns that have equal number of syllables in Nom. et Gen sing:

Nom.	ba-sis (f)	ca-nā-lis(m)
Gen.	ba-sis	ca-nā-lis

Nouns that have inequal number of syllables in Nom. et Gen sing (i.e. in Gen. sing there is one extra syllable):

Nom.	ho-mo(m)	re-gi-o(f)
Gen.	ho-mī-nis	re-gi-ō-nis

It should be noted that the stem in the majority of Latin nouns does not coincide with the Nom. case stem, thus in order to determine the stem we must drop the ending *-is* in Gen. sing.:

Nom.	Gen.	Stem	Dictionary form	Translation
apex	apīc-is	apīc-	apex, īcis m	apex
pars	part-is	part-	pars, rtis f	part
corpus	corpōr-is	corpōr-	corpus, ōris n	body
dolor	dolōr-is	dolōr-	dolor, ōris m	pain
os	or-is	or-	os, oris n	mouth
os	oss-is	oss-	os, ossis n	bone
auris	aur-is	aur-	auris, is f	ear

After the nouns that have equal number of syllables in Nom. et Gen sing the dictionaries give ending *-is*, e.g. auris, is f (ear); cutis, is f (skin).

If in the dictionary form of the noun we find except *-is* some two letters (belonging to the stem), then the noun has inequal number of syllables in Nom. et Gen sing, e.g.: tendo, īnis m (tendon) – the stem is *tendīn*.

TYPES OF DECLINING

As the third declension nouns may have various endings in the same case, the third declension is subdivided into three types: consonant, vowel, and mixed.

Case inflections of third declension nouns

	m	f	n	m	f	n
Nom.	different endings			-es		-a(-ia)
Gen.		-is			-um (ium)	
Dat.		-i			-ībus	
Acc.	-em		=Nom.	-es		=Nom
Abl.		-e(-i)			-ībus	

NB! 1. Masculine and feminine nouns of the third declension have identical case inflections.

2. Neuter nouns have similar inflections in Nom. et Acc.

3. The endings of vowel type nouns Acc. are indicated in brackets.

The Consonant Type

Nouns with inequal number of syllables are declined according to the consonant type pattern. Such nouns belong to all genders and their stem ends in one syllable, e.g.: apex, icis m (stem apīc-); radix, icis f (stem radic-), corpus, oris (stem corpōr-).

The nouns belonging to the consonant type have the case inflections which are placed outside the brackets on the chart:

	Singularis		Pluralis	
Nom.	apex	corpus	apīc-es	corpōr-a
Gen.	apīc-is	corpōr-is	apīc-um	corpōr-um
Dat.	apīc-i	corpōr-i	apīc-ībus	corpōr-ībus
Acc.	apīc-em	corpus	apīc-es	corpōr-a
Abl.	apīc-e	corpōr-e	apīc-ībus	corpōr-ībus

The Vowel Type

Only the neuter nouns which have in Nom. sing. the following endings: *-e, -al, -ar* belong to the vowel type. E.g.: rete, is n (network), animā, ālis n (animal) calcar, āris n (spur). The inflections of vowel type nouns are shown on the chart in brackets.

	Singularis		Pluralis	
Nom.	rete	animā	ret-ia	animāl-ia
Gen.	ret-is	animāl-is	ret-ium	animāl-ium
Dat.	ret-i	animāl-i	ret-ībus	animāl-ībus
Acc.	rete	animā	ret-ia	animāl-ia
Abl.	ret-i	animāl-i	ret-ībus	animāl-ībus

The Mixed Type

According to the mixed type the following nouns are declined:

- a) those with equal number of syllables ending in Nom.sing. in **-es, -is**: e.g. auris, is, f, (ear); pubes, is f (pubis); canalis, is m.
 b) those with unequal number of syllables and the stem ending in two or three consonants: e.g. pars, rtis f, os, ossis n, dens, ntis m.

	Singulāris			Plurālis		
Nom.	dens	pars	os	dent-es	part-es	oss-a
Gen.	dent-is	part-is	oss-is	dent-ium	part-ium	oss-ium
Dat.	dent-i	part-i	oss-i	dent-ibus	part-ibus	oss-ibus
Acc.	dent-em	part-em	os	dent-es	part-es	oss-a
Abl.	dent-e	part-e	oss-e	dent-ibus	part-ibus	oss-ibus

PRACTICE SECTION

Ex. I Determine the stem and declension type of the following nouns:

- flos, floris m (flower); caput, itis n (head); pulmo, ōnis, m (lung); cavitas, ātis f (cavity); tempus, ōris n (example); articulatio, ōnis f (joint); vulnus, ěris n (wound); radix, ĩcis f (root); phalanx, ngis f (phalanx); femur, ōris n (femur); forāmen, ĩnis n (foramen).

Ex. II Translate the following terms into English:

pes dexter	os cartilagineum
os parvum	paries membranaceus
apex pulmōnis	arbor bronchiālis
arbor vitae	cortex cerebellāris
pulmo sinister	pes terminālis
muscūli thorācis	venter anterior
rīma oris	labia oris
pariētes ventricūli	cervix dentis
digiti pedis	terminātio neuralis
cavitas oris	pars plana

Pharmaceutical terms:

- solutio oleosa; pulvis radīcis Rhei; Carbo activātus, flores Tiliae, infūsum florum Tiliae; cortex Viburni; herba medicinālis; herba Bursae pastōris.

Clinical terms:

- foetor ex ore; herpes zoster; pavor nocturnus; phasis actīva; phasis exacerbatiōnis; functio laesa; intoxicatio tuberculosa.

Ex. III Translate the prescription into English:

- Rp.: Infūsi herbae Bursae pastōris 10,0-200,0
 Da. Signa.
 Rp.: Decocti cortīcis Viburni 10,0-200,0
 Da. Signa.
 Rp.: Infūsi florum Tiliae 500,0
 Da. Signa.

Ex. IV Translate the following terms into Latin:

Anatomical:

the left foot; the toes of the left foot; the apexes of the lungs; oral fissure; thoracic cavity.

Histological:

membranaceous bone, cutaneous part, lip of the mouth, respiratory area; fixed part.

Pharmaceutical:

spirit solution, powder of rhubarb root 0,5; activated charcoal 50,0, decoction of guelderose bark.

Clinical:

alcoholic tremor, depressive stupor, acute pain, nocturnal fear, food poisoning.

Ex. V Translate the prescriptions into Latin:

Take: Decoction of chamomile (matricary) flowers 10,0-200 ml

Give. Write on label.

Take: 100 g of activated charcoal

Give in a box. Write on label.

Vocabulary:

activātus, a, um	activated
Aether, ēris m	ether
alimentarius, a, um	alimentary
apex, icis m	apex
arbor, ōris f	tree
bronchialis, e	bronchial
Bursa pastōris	shepherd's purse
Carbo, ōnis m	charcoal
cavitas, ātis f	cavity
cerebellāris, e	cerebellar
cervix, icis f	cervix
Chamomilla, ae f	matricary
cortex, icis m	cortex
cutaneus, a, um	cutaneous
exacerbatio, ōnis f	exacerbation
flos, floris m	flower
foetor, oris m	fetor
functio, ōnis f	function
intoxicatio, ōnis f	intoxication, poisoning
membranaceus, a, um	membranaceous
nocturnus, a, um	nocturnal
os, oris n	mouth
os, ossis n	bone
paries, ētis m	wall
pars, rtis f	part
pavor, ōris m	fear
pes, pedis m	foot, leg
pulmo, ōnis m	lung
radix, icis f	root
regio, ōnis f	region, area
rima, ae f	fissure
Rheum, i n	rhubarb
solutio, ōnis f	solution
spirituōsus, a, um	spirit
terminatio, ōnis f	termination
terminālis, e	terminal
thorax, ācis m	chest, breast, thorax
Tilia, ae f	lime
tremor, ōris	tremor
venter, ntris m	belly
scatūla, ae f	box

Unit 17

Theme: Masculine Nouns of the Third Declension

The masculine nouns of the third declension have the following inflections in Nom.et Gen. sing.:

Nom.	Gen.	Example	Translation
-o	-inis	homo, homīnis	human being
	-onis	pulmo, pulmōnis	lung
-or	-ōris	tumor, tumōris	tumor
-os	-ōris	mos, moris	custom
-er	-ris	pater, patris	father
	-ēris	vomer, vomēris	vomer
	-ēris	trochanter, trochantēris	trochanter
-es	-ēdis	stapes, stapēdis	stirrup
	-ētis	paries, ētis	wall
-ex	-īcis	apex, apicis	apex

NB There are some exceptions from the rule about the endings of the third declension nouns. The following nouns belong to the *feminine*:

-o	caro, carnis f	meat
-or	arbor, arbōris f	tree
-er	gaster, gastris f	stomach
	mater, matris f	mother
-es	quies, quiētis f	quietness
	requies, ētis f	calming down
-ex	lex, legis f	law

The following nouns belong to the *neuter*:

-or	cor, cordis n	heart
-os	os, oris n	mouth
-os	os, ossis	bone
-er	cadaver, ěris n	corpse
	Papāver, ěris n	poppy
	Piper, ěris n	pepper
	tuber, ěris n	tuber
	ver, veris n	spring

Lexical minimum of the third declension masculine nouns:

Anatomical terms:			
abductor, ōris m	abductor muscle	larynx, ngis m	larynx
apex, ěcis m	apex, top	levātor, ōris m	levator
cortex, ěcis m	cortex	paries, ētis m	wall
dilatātor, ōris m	dilatator	pes, pedis m	foot
depressor, ōris m	depressor	pollex, ěcis m	thumb
extensor, ōris m	extensor	pulmo, ōnis m	lung
flexor, ōris m	flexor	venter, ntris m	belly
homo, ěnis m	man	vertex, ěcis m	vertex
index, ěcis m	index finger	vomer, vomēris m	vomer

B	
aēr, aēris m	air
Aether, ěris m	ether
auctor, ōris m	author
Carbo, ōnis m	charcoal
cortex, ěcis m	cortex
flos, floris m	flower
liquor, ōris m	liquid
pastor, ōris m	shepherd
Bursa pastōris	shepherd's purse (herb)
sapo, ōnis m	soap

Polygōnum (-i) hydropīper(-ēris) water pepper

C

calor, ōris m	heat, warmth
dolor, ōris m	pain, ache
foetor, ōris m	fetor
odor, ōris m	smell, odor
herpes, ētis m	herpes
rubor, ōris m	reddening
tremor, ōris m	tremor
tumor, ōris m	tumor

Practice section

✓ **Ex. I Form word combinations agreeing the adjectives with the nouns and translate them into English**
mater/durus,a,um; dolor/acutus,a,um; quies/absolūtus,a,um; pes/dexter, tra, trum; tuber/parvus,a,um;
Papāver/somnifer, ěra, ěrum; sapo/medicātus,a,um; Piper /niger, gra, grum.

Ex. II Translate the terms into English:

Anatomical: apex pulmōnis, ossa digitōrum pedis, muscūli levatōres costārum, muscūlus depressor angulioris, parietes ventricūli, musculus levator labii alaeque nasi, muscūli thoracis, muscūlus flexor digitōrum, muscūlus extensor pollicis longus, ventor anterior.

Histological: ventricūlus laryngis, cavitas laryngis, cortex renālis, paries internus (externus), dura mater, paries membranaceus, lobūlus pulmōnis secundarius, cortex cerebrālis, venter posterior muscūli digastrīci, pes basālis.

Pharmaceutical: liquor ad clavos, tabulettae Carbōnis activāti, Extractum Polygōni hydropipēris, Extractum Viburni fluidum, decoctum corticis et baccarum Viburni, infūsum Papavēris somnifēri, Piper nigrum.

Clinical: tumor malignus (benignus), foetor ex ore, tumor albus, dolor anginosus, dolor obtūsus, odor phthisicus, tremor kinētīcus.

Ex. III Translate the prescriptions into English:

Rp.: Florum Calendūlae 30,0

Da. Signa.

Rp.: Decocti foliōrum et corticis Savibūci 8,0-180 ml.

Da. Signa.

✓ **Ex. IV Translate the terms into Latin:**

Anatomical:

apices of the lungs

abductor muscle of finger

vertex of cornea

proper oral cavity

the wall of the left ventricle

wing of the vomer

primary pulmonary lobulus

renal cortex

pia mater

cerebral cortex

Pharmaceutical:

activated charcoal tablets, fluid extract of water pepper, 100 ml of fluid extract of guelderose, 50,0 of black pepper, somniferous poppy.

Clinical:

anginal pain, dull ache, kinetic tremor, white tumor, benign tumor, malignant tumor.

V. Translate into Latin:

Take: fluid extract of water pepper

fluid extract of guelderose 20 ml each

Mix. Give. Write on label.

Latin proverbs and sayings:

1. **Alma mater.** Nurturing mother (a traditional metaphoric name alumni use for the higher education institution they graduated from)
2. **Dura lex, sed lex.** The law is strict, but it is the law.
3. **Homo ornat locum, non locus homīnem.** It's the man who decorates the place, and not the place that decorates the man.
4. **Honōres mutant mores, sed raro in meliōres.** Honours change customs, but rarely for better.
5. **Honōris causa.** For the sake of honour.

Unit 18

Theme: Feminine Nouns of the Third Declension

In the Latin language the feminine nouns of the third declension have the following inflections in Nom. et gen. sing.:

Nom.	Gen.	Examples	Translation
-as	-ātis	cavitas, ātis	cavity
-is	-is	cutis, is	skin
-es (equal syl.)	-is	tabes, is	tabes, decay, atrophy
-us	-ūdis	incus, ūdis	incus
	-ūtis	salus, ūtis	health, welfare
-s (inequal syl.)	-tis	pars, rtis	part
-x (except ex)	-īcis	radix, īcis	root
	-ngis	phalanx, ngis	phalanx
-do	-īnis	hirūdo, īnis	leech
-go	-īnis	cartilāgo, īnis	cartilage
-io	-ōnis	operatio, ōnis	operation

Exceptions from the rule about the gender of the third declension nouns

There is a number of nouns in the Latin language which in Nom. et Gen. sing. have the typical feminine endings, however these nouns belong to *masculine* or *neuter* gender. Here is the list of the most commonly used medical and pharmaceutical terms which are exceptions from the rule about the gender of the third declension nouns.

The following nouns belong to the masculine gender:

-as:	atlas, atlantis m	the first cervical vertebra (Gr. <i>Atlas</i> the Greek god who bears up the pillars of the Heaven
-is:	axis, axis m	axis, second cervical vertebra
	canālis, is m	canal
	pulvis, pulvĕris m	powder
	vermis, is m	worm
	finis, is m	end, final
	sanguis, sanguīnis m	blood
	unguis, is m	nail
-s (preceded by a consonant):	dens, dentis m	tooth
	adeps, adīpis m	fat
	hydrops, hydrōpis m	edema
-x:	anthrax, anthrācis m	anthrax
	hallux, hallūcis m	hallux, great toe
	calix, calīcis	cup-shaped organ or cavity
	calyx, calycis m	cup
	fornix, fornīcis m	vault, fornix
	larynx, laryngis m	larynx
	pharynx, pharyngis m	throat, pharynx
	coccyx, coccygis m	coccyx
	thorax, thorācis m	chest, thorax
-do:	tendo, tendīnis m	tendon
-go:	margo, margīnis m	margin

The following nouns belong to the *neuter* gender:

vas, vasis n	vessel
erysipēlas, erysipelātis n	erysipelas (Gr. <i>erythros</i> red + <i>pella</i> skin) acute superficial form of cellulitis
pancreas, pancreātis n	pancreas
Ribes, is n	currant

LEXICAL MINIMUM

A

appendix, īcis f	appendage	frons, ntis f	forehead
articulatio, ōnis f	joint	unctio, ōnis f	junction
auris, is f	ear	pars, rtis f	part
basis, is f	basis	meninx, ngis f	one of the three brain membranes
bilis, is f	bile	pelvis, is f	pelvis
calix, īcis m	cup-shaped organ	portio, ōnis f	portion
cartilāgo, īnisf	cartilage	regio, ōnis f	region
cavitas, ātis f	cavity	radix, īcis f	radix, root
cervix, īcis f	neck		
cutis, is f	skin		

B

Adōnis, īdis m	pheasant's eye	mucilāgo, īnis f-mucilage (an artificial viscid paste)	
Digitālis, is f	foxglove	Plantāgo, īnis f	plantain
emulsio, ōnis f	emulsion	solutio, ōnis f	solution
hirūdo, īnis f	leech	solutio Ammonii caustici -	ammonia spirit
injectio, ōnis f	injection		

C

adipositas, ātis f	adiposity, obesity	inflammatio, ōnis f	inflammation
amputatio, ōnis f	amputation	intoxicatio, ōnis f	intoxication
auscultatio, ōnis f	auscultation	palpatio, ōnis f	palpation
cicatrix, īcis f	scar, cicatrix	percussio, ōnis f	percussion
combustio, ōnis f	burn	resectio, ōnis	resection
contusio, ōnis f	contusion, bruise	transfusio, ōnis f	transfusion
curatio, ōnis f	treatment, cure	transplantatio, ōnis f	transplantation
functio, ōnis f	function	tuberculōsis, is f	tuberculosis

PRACTICE SECTION

Ex. I Form word combinations agreeing the adjectives with the nouns and translate them into English:

Axis/opticus, a, um; canālis/nutricius, a, um; cutis/siccus, a, um; injectio/subcutaneus, a, um;
margo/interosseus, a, um; pancreas/accesorius, a, um; vas/lymphaticus, a, um; hydrops/cardiācus, a, um.

Ex. II Translate the terms into English:

Anatomical: vagīna fibrosa tendīnis, pars optica tendīnis, phalanges digitorum, articulationes thorācis, cartilāgines nasi, apex partis petrōsae, radix pulmōnis, appendix fibrōsa hepātis, tuberositas deltoidea humeri, calyces renāles.

Histological: pars endocrīna pancreātis, regio respiratoria, cavitas oris, axis cellulāris, cartilāgo tubae auditoriae, portio terminālis, appendix vermiformis, cervix utēri, unctio intercellulāris simplex, calix terminālis.

Pharmaceutical: pro injectionibus subcutaneis, solutio oleōsa, hirudīnes medicīnāles, pulvis compositus, pulvērēs compositi, pulvis foliōrum Digitālis, emulsio olei Ricini, Ribes nigrum.

Clinical: amputatio secundaria, cicatrices post variolam, inflammatio allergica, auscultatio aegrōti, tuberculōsis actīva, transfusio sanguinis intravenōsa, adipositas alimentaria.

Ex. III Translate the prescriptions into English:

Rp.: Emulsiōnis olei Ricīni 150 ml.

Olei Menthae guttas III.

Saloli 3,0

Misce. Da. Signa.

Rp.: Infūsi foliōrum Digitālis 0,5: 180 ml.

Sirupi simplicis 20 ml.

Misce. Da. Signa.

Ex. IV Translate the terms into Latin:

Anatomical: the apex of the root of a tooth, neck of a tooth, composite joint, laryngeal cartilages, margin of the petrous part, basis of the phalanx.

Histological: terminal part, skin glands, fibrous cartilage, cell axis, the cavity of the calix, musculotendinous junction.

Pharmaceutical: divided composite powder, aqueous solutions, medical leeches, alcoholic iodine solution, for subcutaneous injections.

Clinical: primary amputation, myocardial scars, cerebral contusion, tuberculous intoxication, indirect blood transfusion, gangrenous inflammation..

Ex. V. Translate into Latin:

Take: Decoction of pheasant's eye herb 6,0:180 ml.

Sodium bromide 6,0

Codeine phosphate 0,2

Mix. Give. Write on label.

Lexical material for the exercises:

A. Latin	English	B. English	Latin
petrōsus, a, um	petrous, stony	terminal	terminālis, e
hepar, ātis n	liver	petrous	petrōsus, a, um
endocrīnus, a, um	endocrine	basis	basis, is f
renālis, e	renal	myocardium	myocardium, i n
cellulāris, e	cellular	alcoholic (solution)	(solutio) spirituosa
vermiformis, e	vermiform (shaped like a worm)	tuberculous	tuberculōsus, a, um
intercellulāris, e	intercellular	gangrenous	gangraenōsus, a, um
simplex, icis	simple	cellular	cellulāris
terminālis, e	terminal	musculotendinous	myotendineus, a, um
		aqueous	aquōsus, a, um
		iodine	Iodum, i n
		indirect	indirectus, a, um
		sodium bromide	Natrii bromidum
		codeine phosphate	Codeini phosphas (-ātis)

Latin proverbs and quotations:

1. **Conditio sine quā non.** Condition that we cannot do without.
2. **Consuetūdo est altēra natūra.** Custom is a second nature.
3. **Medicīna soror philosophiae.** Medicine is a sister of philosophy.
4. **Repetitio est mater studiōrum.** Revising is the mother of studying.
5. **In vino veritas, in aqua sanitas.** Truth is in wine, health is in water.

