

## HANDOUT 7 (SS 2017)

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### 1) PRESCRIPTION TYPES

Prescriptions can be classified as *individually prepared* or *ready-made*.

- a) **Individually prepared medication**, also called *magistraliter* (from Latin word magister – teacher) is an order that requires mixing of one or more ingredients (active medicaments) with one or more pharmaceutical necessities (vehicle, suspending agent). The physician selects the drugs, doses, and pharmaceutical form that he/she desires and the pharmacist prepares the medication accordingly. The name of each drug is placed on a separate line right under the preceding one. The order of the ingredients is as follows:

**Remedium cardinale (basis)**. The basis is the principal drug and gives the prescription its chief action.

**Remedium adjuvans (adjuvant)**. The adjuvant is a drug that aids or increases the power of the principal ingredient.

**Remedium corrigens (corrective)**. The corrective modifies or corrects undesirable effects of the basic or adjuvant.

**Remedium constituens (vehicle)**. The vehicle is the agent used as a solvent in the solution to increase the size and volume or to dilute the mixture. The most potent or principal drug is written first, the other ingredient second, and the vehicle last, as shown in the example.

E.g.: Invocatio: Rp. (= Recipe = take!)

Ordinatio:	<i>Natrii bromati (bromatis)</i>	6,0	Rem. cardinale
	<i>Phenobarbitali</i>	0,6	Rem. adjuvans
	<i>Sirupi Menthae</i>	60,0	Rem. corrigens
	<i>Aquae destillatae</i>	ad 300,0	Rem. constituens

Subscriptio: M. f. mixt.

= Misce fiat mixtura = Mix (the ingredients) to obtain a mixture.

Signatura: D. S.

= Da. Signa. = Give! Sign! *Jedna lžička třikrát denně po jídle.*

(= One tablespoon 3 times a day after meal).

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- b) **Ready-made medication**, or *specialitas*, does not require mixing of two or more ingredients to obtain the final product. It consists of a drug or a mixture of drugs supplied by a pharmaceutical company by its official or proprietary name and, if it contains more than one substance, the specific ingredients do not have to be listed. Usually, it is distinguishable by the abbreviation *Exp. orig.* (= *Expeditio originalis* = original package).

E.g.: Invocatio: Rp. (= Recipe = take!)

Ordinatio: *Ospamox 750 mg tbl.* (= tabulettas)

*Exp. orig. No. II.*

(=expeditiones originales numero duas = two original packages)

Signatura: *D. S.*

(= Da. Signa. = Give! Sign!) *Jedna tableta každých 12 hodin po dobu dvou týdnů.* (= One tablet every 12 hours for two weeks).

### CZECH MEDICAL PRESCRIPTION

**VZOR**

INSCRIPTIO		RECEPT		pop. č.	
Kód pojistovny		<small>Účtuje se platně pro celý recept (výpis, pohotovost, repetratur s počtem opakování, nutriční a neškodlivost počte, atd.)</small>			
Příjmení a jméno					
PERSONALIA AEGROTI			Číslo pojistěnce	f.	
Bydliště (adresa)					
Popl.	Diagnóza <sup>1)</sup>	Sk.	Kód	Započ.dopl.	Úhrada
INVOCATIO					
Rp.					
ORDINATIO			Kali jodidi	1,0	
a) PRAESCRIPTIO (COMPOSITIO)			Ephedrini hydrochloridi	0,2	
b) SUBSCRIPTIO			Thymi sirupi comp.	20,0	
c) SIGNATURA			Aquae purif.	ad 100,0	
M. f. liquid.					
D. ad lag.					
D. S. 3x denně 1 lžiči					
Popl.	Diagnóza <sup>1)</sup>	Sk.	Kód	Započ.dopl.	Úhrada
DATUM					
Dne:					
SIGILLUM ET NOMEN MEDICI				Připravil: Vydal:	
razítko poskytovatele, jmenovka, podpis a telefon lékaře					
<small><sup>1)</sup> Vypĺňuje se povinně v případě zvýšené úhrady.</small>					

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### 2) PARTS OF THE PRESCRIPTION

#### a) INSCRIPTIO

*The name and the surname of the doctor, the hospital, clinic or polyclinic medical center, their address, and the date.* The date is important to determine the expiration of the prescription. The prescription of narcotics and controlled substances is governed by special laws and regulations.

#### b) PERSONALIA AEGROTI

*Name, address and age of the patient.* This part serves to identify for whom the prescription is intended. The full name and the address are required by law on all prescriptions for controlled substances. The age of the patient is a good additional piece of information, especially with pediatric patients where dosage calculations have to be double-checked for safety. This part may be located on the designated area, or after the last drug on the back of the form.

#### c) INVOCATIO

Consists of the message to the chemist/pharmacist, and it includes only the formula **Rp.** – an abbreviation for *Recipe* meaning *Take!* in Latin.

#### d) ORDINATIO

This is the main part of the medical prescription. There are the *names of medicinal substances, the medicinal forms, and the dosages* (in the magistraliter prescriptions) *or brand name* (in the specialitas prescriptions).

**Magistraliter:** The *medicinal substances* are required to begin with a capital letter and to be in **genitive** (since it is always *a particular amount OF...*). The dosage is noted after the substance or medicinal form using metric units (grams) and Arabic decimal numerals. There can also be instructions concerning in what form or into what package the medicinal preparation should be given, usually with preposition **AD + Accusative:** e.g. *ad lagoenam, ad capsulas*, etc.

**Specialitas:** Brand names are written with capital letter, but these are not inflected and are written as seen in the original packaging. Then *the number of original packages* (ready-made medicines) is given in Roman numerals and full word in the brackets in **accusative** using the **Exp. orig.** formula (or its versions like *Tbl. orig.*).

#### e) SUBSCRIPTIO

In this part there are, if necessary, *instructions to the chemist* on how to make the preparation and the number of doses, or *medicinal forms* to be supplied to the patient, usually introduced by the **M. f.** formula (*Misce fiat* = mix to make...!).

#### f) SIGNATURA

This part conventionally starts with the **D.S.** formula (*Da. Signa.* = Give!Sign!). *Notes intended for the patient* are written in Czech. It provides instructions on how the medicine should be taken. This information must be sufficient to allow the patient to understand fully the amount of the drug product to be taken and the frequency and manner of administration.

#### g) SIGILLUM ET NOMEN MEDICI

*The signature of the doctor* may be placed on the designated area, or after the last drug, and this is for identification data.

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### 3) FORMS OF PHARMACEUTICAL PREPARATIONS AND AGENTS

**capsula** = capsule (e.g. *mollis/enterosolvens* = soft/dissolvable in gastrointestinal tract)

**charta** = a strip of paper (impregnated with medicinal substance)

**cremor** = cream (e.g. *refrigerans* = cooling)

**decoctum** = decoction (extraction of medicinal substances by boiling)

**emplastrum** = sticking-plaster

**fascia** = tightening bandage (e.g. *hydrophila* = absorbing or dissolving in water)

**filum** = a thread (e.g. *sterile*)

**globulus** = globule, ball (e.g. *vaginalis*)

**granulum** = granulated powder (e.g. *effervescens*)

**guttae** = drops (e.g. *oculoguttae* = eye drops)

**infusio** = infusion (e.g. *sodii chloridi*)

**lana** = cotton wool

**ligamentum** = bandage

**oleum** = oil

**pasta** = paste (e.g. *dentrificia* = toothpaste)

**pulvis** = powder (e.g. *adpersorius* = dusting powder)

**sapo, onis, m.** = soap (e.g. *kalinus* = potassium)

**species** = mixture of dried plants to make tea of

**spuma** = foam (e.g. *dermalis*)

**stylus** = stick (e.g. *nasalis*)

**suppositorium** = suppository (e.g. *rectale*)

**tabuleta** = tablet (e.g. *obducta* = coated)

**tela** = gauze (e.g. *hydrophila*)

**tinctura** = alcoholic solution made from plants (e.g. *opii*)

**unguentum** = ointment

**vaselinum** = vaseline (e.g. *album*)

### 4) PARTS OF PLANTS USED IN PHARMACOLOGY

**flos, ris, m.** = flower (e.g. *tiliae* = of linden)

**folium, ii, n.** = leaves (e.g. *menthae* = of mint)

**fructus, us, m.** = fruit (e.g. *foeniculi* = of fennel)

**herba, ae, f.** = the whole plant (e.g. *absynthii* = of absinthe)

**lignum, i, n.** = wood (e.g. *cinammi* = of cinnamon)

**semen, inis, n.** = seed (e.g. *arnicae* = of wolf's bane)

**radix, cis, f.** = roots (e.g. *liquiritiae* = of licorice)

**resina, ae, f.** = resin, pitch (e.g. *cannabis*)

**succus, i, m.** = draught, juice (e.g. *belladonnae* = of deadly nightshade)

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### 5) LIST OF ABBREVIATIONS USED IN MEDICAL PRESCRIPTIONS

<i>a) VERBAL FORMS, INSTRUCTIONS</i>		
<i>abbreviation</i>	<i>full form</i>	<i>translation</i>
add.	adde/addatur/addantur	add/it should be added/they should be added
d. s.	da signa/detur signetur	give and sign/it should be given and signed
d./dent.	da/detur/dentur	give/it should be given/they should be given
d./div.	divide/dividatur	divide/it should be divided
div. in dos. aeq.	divide in doses aequales	divide in equal doses
d. t. d.	dentur tales doses	such doses should be given
disp.	dispensa/dispensetur	divide, distribute/it should be divided, distributed
f.	fiat/fiant	it should be made/they should be made
m.	misce/misceatur	it should be mixed/they should be mixed
m. f.	misce fiat/misce fiant	mix, it should be made/mix, they should be made
rep.	repete/repetatur	repeat/it should be repeated
rp.	recipe	take
s./sig.	signa/signetur	sign/it should be signed
solv.	solve	dissolve
sterilis.	sterilisetur	it should be sterilised
ut f.	ut fiat...	in order to make... (sth)

<i>b) FORMS OF MEDICATIONS</i>		
<i>abbreviation</i>	<i>full form</i>	<i>translation</i>
caps./cps.	capsula/capsulae	capsule/capsules
comp.	compositus, a, um	composed of more constituents
conc.	concentratus, a, um	concentrated
decoct.	decoctum	decoction
drg.	dragées	dragee, coated pill
empl.	emplastrum	sticking-plaster
extr.	extractum	extract
extr. fluid.	extractum fluidum	liquid extract
extr. sicc. /exsicc.	extractum siccum/exsiccatum	dry/dried extract
extr. spiss.	extractum spissum	thick, dense extract
garg.	gargarisma	gargling water
glob.	globuli	globules

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gtt./gutt.	guttae	drops
gossyp.	gossypium	cotton wool
herb.	herba	plant, herb
inf.	infusio	infusion
inj.	injectio	injection
inj. i. c.	injectio intracutanea	injection into the skin
inj. i. m.	injectio intramuscularis	injection into the muscle
inj. i. v.	injectio intravenosa	injection into the vein
inj. subcut.	injectio subcutanea	injection under the skin
linim.	linimentum	liniment
liq.	liquidum	liquid
mixt.	mixtura	mixture
ol.	oleum	oil
past.	pasta	paste
p.o.	peroralis/per os	taken perorally (through mouth)
pro adult.	pro adultis	for adults
pro inf.	pro infantibus	for children
pulv./plv.	pulvis/pulveres	powder/powders
pulv. adsp.	pulvis adspersorius	dusting powder
pulv. div.	pulveres divisi	divided powders
sir.	sirupus	sirup
sol.	solutio/solubilis/solutus	solution/dissolvable/dissolved
sp./spec.	species	tea mixture
succ.	succus	juice, draught
supp.	suppositorium/suppositoria	suppository
susp.	suspensio	suspension
tbl.	tabulettae	tablets
tbl. efferv.	tabulettae effervescentes	effervescent tablets
tbl. obd.	tabulettae obductae	coated tablets
tinct.	tinctura	tincture
ung.	unguentum	ointment

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<i>b) OTHER INSTRUCTIONS concerning dosage, storage, etc.</i>		
<i>abbreviation</i>	<i>full form</i>	<i>translation</i>
aa	ana (partes aequales)	in equal quantities
ad amp.	ad ampullam	into ampule
ad caps.	ad capsulam/-as	into capsule/s
ad ch (art). (cer.)	ad chartam ceratam	into waxed sachet
ad lag.	ad lagoonam	into bottle
ad man. med.	ad manus medici	into the hands of doctor
ad oll.	ad ollam	into gallipot
ad sacc.	ad saccos	into sachets
ad scat.	ad scatulam/as	into box/es
ad us. ext.	ad usum externum	for external use
ad us. int.	ad usum internum	for internal use
ad us. propr.	ad usum proprium	for one's own use
ad vitr.	ad vitrum	into glass (bottle)
ad vitr. fusc.	ad vitrum fuscum	into the brown bottle
aliq.	aliquot	a little of
aq.	aqua	water
aq. dest.	aqua destillata	distilled water
aq. pro inj.	aqua pro injectione	water for injection
aq. purif.	aqua purificata	purified water
aq. steril.	aqua sterilisata	sterilized water
c.	cum	with
cochl. mag./parv.	cochlear magnum/parvum	table-/teaspoon
comp.	compositus	composite, combined
conc.	concentratus	concentrated
ctr.	contra	against
d.	dies, ei, m.	day
dil.	dilutus	dissolved
dupl.	duplex	double
exp. orig.	expeditio originalis/expeditiones originales	original packaging (sg./pl.)
fort.	fortis	strong
fortiss.	fortissimus	the strongest
guttator.	guttatorium	drop-glass, dropper
h.	hora, ae, f	hour

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l. a./leg. art.	lege artis	according to the rules of medicine
m. p.	manu propria	(signed) with one's own hand
no.	numero	in number of...
p. d.	pro dosi	per dose
p. die	pro die	per day
praec.	praecipitatus	precipitated
q. s.	quantum satis	as much as it is necessary
simpl.	simplex	simple
s. n.	suo nomine	(mark) with its name
spir(it).	spiritus	spirit, grain alcohol
s. s. v.	sub signo veneni	under the sign of poison
tot.	totus, a, um	all, whole



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### **EXERCISES:**

#### **1. Put the lines into correct order following the usual structure of prescriptions. Decide which prescription is ready-made:**

*Exp. orig. No. I (unam)*

*Rp.*

*Imunor p. o. 4 x 10 mg*

*D. S. Dle rozpisu.*

*D. ad scat.*

*Acidi borici pulv. 100,0*

*Rp.*

*S. Jednu lžící na litr teplé vody k výplachům.*

#### **2. Fill in missing terms:**

*Rp.*

*Amobarbitali 0,15*

*Codeinii dihydrogenphosphorici 0,03*

*Aminophenazoni 0,25*

*Olei cacao q. \_\_\_\_\_ ut \_\_\_\_\_ supp.*

*D. \_\_\_\_\_ d. \_\_\_\_\_ VI (sex)*

*S. Na noc zavést 1 čípek.*

\_\_\_\_\_

*Asentra 50 tbl. p. o. 28 x 50 mg*

*\_\_\_\_\_ orig. \_\_\_\_\_ IV (quattuor)*

*D. \_\_\_\_\_ 2 tablety denně.*

#### **3. Give full forms of the underlined terms:**

*Rp.*

*Acidi acetylsalicylici*

*Paracetamoli aa 0,3*

*Codeinii dihydrogenphosphorici 0,02*

*Coffeini cum natrio benzoico 0,1*

*Magnesii oxydati 0,05*

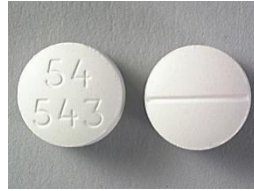
*M. f. pulv.*

*D. t. d. No. XX (viginti) ad caps.*

*S. 3krát denně 1 prášek.*

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## 4. Match the pictures with the terms above:



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### 5. Interpret the samples of medical prescriptions and explain what they are used for/against:

#### ANALGETICUM + ANTIPYRETICUM

*Rp.*  
*acetylsalicylici*  
*Paracetamoli* *aa 0,3*  
*Codeinii dihydrogenphosphorici* *0,02*  
*Coffeini cum natrio benzoico* *0,1*  
*Magnesii oxydati* *0,05*  
*M. f. pulv.*  
*D. t. d. No. XX (viginti) ad caps.*  
*S. 3krát denně 1 prášek.*

#### ANTACIDUM

*Rp.*  
*Extracti belladonnae sicci* *0,4*  
*Papaverinii chlorati* *1,0*  
*Magnesii oxydati* *20,0*  
*M. f. pulv.*  
*Div. in dos. aeq. No. XX (viginti) ad caps.*  
*D. S. 3krát denně 1 prášek mezi dvěma jídly.*

#### UROLOGICUM

*Rp.*  
*Herbae equiseti*  
*Folii uvae ursi* *aa 15,0*  
*Herbae herniariae*  
*Radicis levistici* *aa 20,0*  
*Folii betulae* *30,0*  
*M. f. spec.*  
*D. S. 1 lžíce na šálek nálevu. Denně vypít 3 – 4 šálky.*

#### GYNAECOLOGICUM

*Rp.*  
*Acidi borici pulv.* *100,0*  
*D. ad scat.*  
*S. Jednu lžici na litr teplé vody k výplachům.*

#### MYORELAXANS

*Rp.*  
*Mydocalm 150 mg tbl. p. o. 30 x 150 mg*  
*Exp. orig. No. III (tres)*  
*D. S. 3krát 1 tableta denně.*

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### ANTIDEPRESSIVUM

*Rp.*  
*Asentra 50 tbl. p. o. 28 x 50 mg*  
*Exp. orig. No. IV (quattuor)*  
*D. S. 2 tablety denně.*

### HYPNOTICUM

*Rp.*  
*Amobarbitali* 0,15  
*Codeinii dihydrogenphosphorici* 0,03  
*Aminophenazoni* 0,25  
*Olei cacao q. s. ut f. supp.*  
*D. t. dos. No VI (sex)*  
*S. Na noc zavést 1 čípek.*

### IMMUNOSTIMULANS

*Rp.*  
*Imunor p. o. 4 x 10 mg*  
*Exp. orig. No. I (unam)*  
*D. S. Dle rozpisu.*

### ANTIBIOTICUM

*Rp.*  
*Framykoin plv. ads. 1 x 20 gm*  
*Exp. orig. No. II (duas)*  
*D. S. Aplikovat 2krát denně na postižená místa po dobu 10 dnů.*

### ANTIDOTUM

*Rp.*  
*Carbonis adsorbentis* 30,0  
*Magnesii sulfurici*  
*(seu Natrii sulfurici)* 15,0  
*Aquae purificatae* ad 300,0  
*M. f. susp.*  
*D. S. Cum formula. Pro medico. Po ukončení výplachu vstříknout do žaludku.*

### ANTIMYCOTICUM

*Rp.*  
*Ureae* 40,0  
*Acidi lactici* 1,0  
*Ung. lanalcoli* 20,0  
*Cerae albae* 5,0  
*Vaselini albi* ad 100,0  
*M. f. ung. Týden používat v okluzním obvazu na nehty před aplikací antimykotik.*

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### DIURETICUM

*Rp.*  
*Aminophyllini* 1,8  
*Olei cacao q. s. ut f. supp.*  
*D. t. d. No. VI (sex)*  
*S. 2krát denně zavést 1 čípek do konečníku.*

### PARASYMPATOLYTICUM

*Rp.*  
*Atropini sulphatis* 0,1  
*Aquae pro iniectione* ad 10,0  
*M. f. oculoguttae*  
*D. ad vitrum guttatorium fuscum*  
*S. s. s. v. Denně jednu kapku do každého oka.*

### DERMATOLOGICUM

*Rp.*  
*Acidi salicylici* 7,0  
*Triamcinolon E ung., tub. orig. No. II. (duas)*  
*Vaselini flavi* ad 100,0  
*M. f. ung.*  
*D.S. 1x denně mast na ruce. Repetatur 2x (bis).*

### ANALGETICUM

*Rp.*  
*Ergotamini tartratis* 0,001  
*Diazepami* 0,005  
*Phenobarbitali* 0,020  
*Coffeini* 0,100  
*Paracetamoli* 0,200  
*Lactosi* ad 0,5  
*M.f. plv.*  
*D. t. d. No. L (quinginta)*  
*D. ad caps. gelat.*  
*D.S. 1 tobolku při potížích, max. 2x denně. S. s. v.*