



External liquid drug dosage forms

Jana Kučerová

Liquida (Liquids)

- true (ionic and molecular dispersions)
- colloids
 - application: p.o., inj., external
 - High bioavailability
 - solvents:
 - Aqua purificata, A. pro iniectioe, A. conservans
 - Ethanolum 60 %, 85 %, 96 %
 - Helianthi oleum raffinatum
 - Glycerolum 85 %

- **Tinctura ad usum alium (Liquids for other use)**
 - Dispersions designated to be administered on the skin, mucoses, for irrigations or nose or ear instillation
- **Dispresions for compress or application on the skin**
 - liquid preparation used namely in dermatology
 - Water based liquids
 - antiseptic, antibacterial and antiflogistic effects (Solutio Jarish, Kalii permanganas)
 - adstringents (containing Tannin, Argenti nitras; Aluminii acetotartratis solutio)

Solutio Jarish

Rp. Acidi borici 20,0
Glycerini 40,0
Aq. purif. ad 1000,0
M. f. sol.
D. ad vitr.
S. for compressions

Rp. Solutionis Jarish 1000,0
D.S. for compressions

- spirit solutions – antiseptics (Solutio iodi ethanolica, salicylic spirit...)

Rp. Acidi salicylici 2,0
 Ethanoli 60% ad 100,0
 M. f. sol.
 D.S. ...

Solutio Novikov

Rp. Viridis brilliantis	0,2
Ethanolii 85%	0,2
Tannini	0,5
Ricini olei virginalis	1,0
Collodii elastici P.P.	ad 20,0
M. D. S. Solutio Novikov. Ad usum medici.	

Pulveres adpersorii liquidi (Liquid powders)

- semiliquid suspensions
- effects: cooling, antiitching, drying, antiseptic
- solid phase: Zinci oxidum + Talcum (1:1)
- liquid phase (60 – 70 %):
 - Glycerolum 85 %
 - Aqua purificata
 - Ethanolum 60 %
 - Bentoniti magma (5 %)
 - Silica coloidalis anhydrica (3 – 5 %)

Antitching liquid powder

Rp. Mentholi racemici 1,0
Zinci oxidi
Talci
Glyceroli
Bentoniti magmatis aa ad 100,0
M. f. susp.
D. S. liquid powder, shake before
use

- **Preparata ad irrigationem (Preparations for irrigations)**
 - **sterile** water based preparations for irrigation of body cavities, wounds, example: surgery

Rhinoguttae (Nasal drops)

- liquid preparation used for drop into the nose, nose irrigations or spraying with local or systemic effect (calcitonin, oxytocin,...)
- Stabilized by antimicrobial agents, isotonic and isoacid, sometimes sterilized (Sterilisetur!)
- Adjusted into small bottles with dropper - 10–20g

- Mucose decongestion:
 - Ephedrini hydrochloridum (0,5-1%)
 - Naphazolini nitras (0,05 - 0,1%)

- Antiseptic effect: Acidum boricum 3 %
 - Natrii tetraboras 2 %
 - Carbethopendecinii bromidum 0,02 - 0,05 %
 - Argenti diacetyltannas albuminatus 4 - 6 %

- Vehicles: Aqua purificata, sterilisata, conservans

JEN PRO POTŘEBU VÝUKY LF MU

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RECEPT

Série O

poř. č.

Příjmení a jméno NOVAK KAREL

Rodné číslo 470601127 f.

Bydliště (adresa) PRAVNÍKOVA 151
BRNO

	Sk. Kód	Cena
<input checked="" type="checkbox"/> Rp. ✓		
<input type="checkbox"/> C		
<input type="checkbox"/> P		
Carbethopendicini bromidi	0,01	
Ephedrinu hydrochloridi	0,2	
Methylcellulosi	0,14	
Natrii chloridi	0,174	
Foeniculi etherolei q#No.I		
Methylthioninii chloridi hydrici sol. 10/0 q.s.		
<input type="checkbox"/> I		
Aquae purificatae sterilis. ad 200		
<input type="checkbox"/> C		
M.F. sol.		
<input type="checkbox"/> P		
D.S. Modri' nosni' kapky.		
3x denně vzapat!		
Dne: 26.9.2005		
razítko zdrav. zařízení jmenovka a podpis lékaře	MUDr. Václav Samotný Prazdnicko 113, BRNO tel. 541289156	Přípravil: _____ Vydal: _____

Bez data vystavení, razítka smluvního zařízení, jmenovky a podpisu lékaře recept nepiati!

Borephedrine nose drops

Rp. Ephedrini hydrochloridi 0,2
Acidi borici 0,6
Aq. purif. ad 20,0
M. f. sol.
D. ad vitrum guttatum!
S. Nose drops, 3×daily 1 - 2 drops.

Otologuttæ (Ear drops)

- solutions, emulsions or suspensions used for drop into the ear or irrigation
- The same quality as nose drops
- Adjusted into small bottles with dropper - 10–20g
- (Adde guttatorium!)

- To clean the ear:
 - Hydrogenii peroxidum 3%
 - Paraffinum liquidum
 - Glycerolum 85% + Ethanolum 96% (1:1)

- Inflammation of auditory canal:
 - boralcohol (Ac. boricum, Ac. salicylicum a Ethanolum 96% in water)

Rp. Acidi borici 0,6
Ethacridini lactici monohydrici 0,02
Aq. purif. ad 20,0
M. f. otoguttae.
Adde guttatorium!
D. S. Ear drops.

Oculoguttae (Eye drops)

Aquae ophthalmicae (Eye waters)

- Sterile liquid preparations used for drop into the eye or eye irrigation
- Antiseptic preparation, isotonic solutions
 - isoacidity and sterility need has to be part of prescription
- vehicle: Aqua pro iniectione
- Prescribed amount: 10-20g, waters 100 g
- exspiration: 1 - 2 weeks

- **antiseptics:**

- Ready made: Carbethopendecinii bromidum (Ophthalmoseptonex[®])
Benzododecinii bromidum (Ophtal[®])

- IP: Argenti diacetyltannas albuminatus (targesin) 2 %
Argenti nitras 0,25 - 0,5 %
Acidum boricum 1,65 - 1,75 %

- irrigations:

Rp. Natrii tetraborici decahydrici 2,0
Natrii chloridi 0,162
Aq. pro iniectiione ad 100,0
M. f. coll.
Ad vitr. fusc.
D.S. Suo nomine. Ad manus medici.

- **mydriatics:**

- therapeutic:

- Atropini sulfas monohydricus 0,5 - 1%

- Scopolamini hydrobromidum trihydricum 0,1-0,25%

- diagnostic:

- Homatropini hydrochloridum 1%

Rp. Homatropini hydrobromidi 0,1

Aquae pro iniectioe ad 10,0

M. f. oculoguttae

D. ad vitr. gutt.

S. Eye drops. Sub signo veneni!

▪ **miotics (antiglaucomatics):**

- Pilocarpini hydrochloridum 1 – 3 %
- Physostigmini salicylas 0,1 - 0,25 %

Rp. Pilocarpini hydrochloridi 0,6
Physostigmini salicylatis 0,05
Aquae pro iniectioe ad 20,0
M. f. oculoguttae
Ad vitr. gutt.
D. S.: Eye drops. 3x 1-2 drops to the left eye.
Sub signo veneni!