



EVROPSKÁ UNIE



MINISTERSTVO ŠKOLSTVÍ,  
MLÁDEŽE A TĚLOVÝCHOVY



OP Vzdělávání  
pro konkurenceschopnost

INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

# PHYTOPHARMACEUTICALS

academic year 2018/19

## LECTURE 3 – Preparations used to treat some disorders of respiratory system

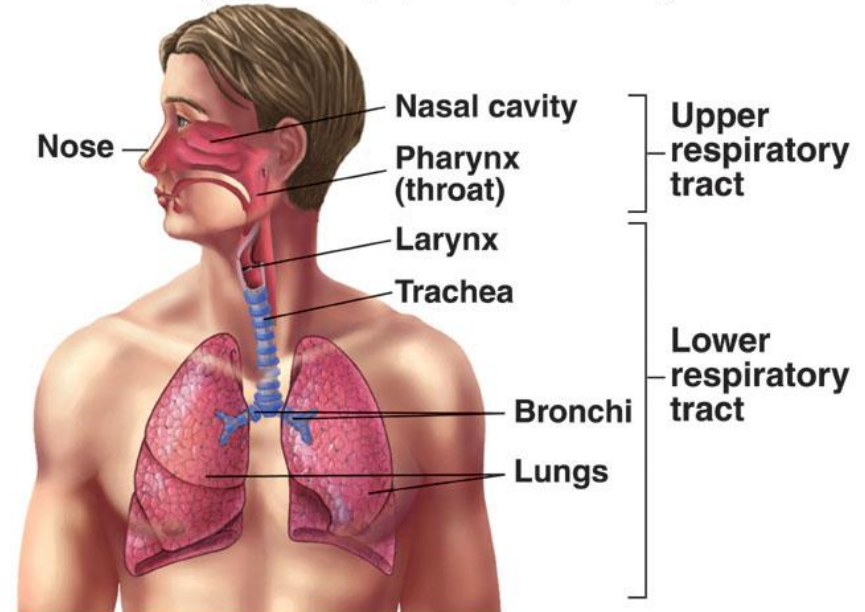
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# PHYTOPHARMACEUTICALS vs. Respiratory system

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- ▶ Treatment of cold, sore throat
- ▶ Antitussive agents
- ▶ Expectorants
- ▶ Antiasthmatic drugs



- ▶ Phytomedicines are suitable supplement in the treatment of respiratory disorders, especially of the upper respiratory tract.
- ▶ In case of bacterial complications they can support the treatment with antibiotics.

# PHYTOPHARMACEUTICALS vs. Respiratory system

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## COMMON COLD

- ▶ an acute infectious inflammation of the upper respiratory tract
- ▶ symptoms:
  - ▶ **sneezing**
  - ▶ **running nose** (due to rhinitis)
  - ▶ **hoarseness** (laryngitis)
  - ▶ difficulty in swallowing and **sore throat** (pharyngitis and tonsillitis), **cough** associated with first serous then mucous sputum (tracheitis, bronchitis)
  - ▶ **sore muscles, fever** (not high), **headache**, and **general malaise** – the symptoms can be present in various combination or sequence

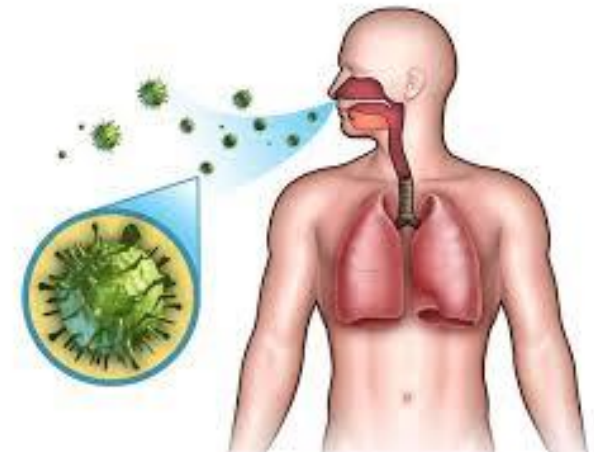
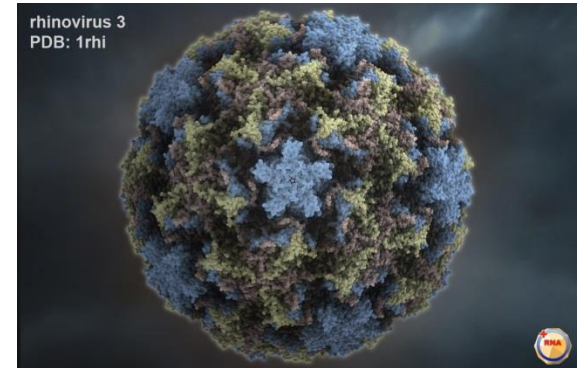


# PHYTOPHARMACEUTICALS vs. Respiratory system

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## ▶ COMMON COLD

- ▶ the causative pathogens are different viruses (rhino-, adeno-, parainfluenza virus) that are transmitted by aerosol droplets produced by coughing and sneezing
- ▶ causative treatment with a virustatic is impossible at present → conventional remedies are intended for symptomatic relief



# PHYTOPHARMACEUTICALS

## vs. Respiratory system

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- ▶ Main active compounds of plants drugs:
  - ▶ essential oils
  - ▶ saponins
  - ▶ mucilage
  
- ▶ other constituents of plants that can be used in respiratory disorders:
  - ▶ bitter principles
  - ▶ flavonoids,...

# PHYTOPHARMACEUTICALS

## vs. Respiratory system

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### ▶ **ESSENTIAL OILS**

- ▶ **expectorant** and **bronchospasmolytic** effect
  - this is caused by a reflex action from the stomach and by a direct action on the bronchial mucosa, since the essential oils are partly excreted via the lungs. Both secretion and the transport brought about the movement of the cilia in the bronchi are enhanced.
- ▶ also the **antiseptic** and **antibacterial** effects of essential oils are important (therapy of rhinitis, sore throat)

# PHYTOPHARMACEUTICALS vs. Respiratory system

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- ▶ Plant drugs containing **essential oils**, e.g.:
  - ▶ Lamiaceae family
    - ▶ Thymi herba – *Thymus vulgaris*, thyme
    - ▶ Serpylli herba – *Thymus serpyllum*
    - ▶ Salviae folium/herba – *Salvia officinalis*, sage
    - ▶ Origani herba – *Origanum vulgare*, oregano
    - ▶ Hyssopi herba – *Hyssopus officinalis*
  - ▶ Apiaceae family
    - ▶ Anisi fructus – *Pimpinella anisum*, aniseed
    - ▶ Foeniculi fructus – *Foeniculum vulgare*, fennel
  - ▶ plant drugs from other plant families, e.g.:
    - ▶ Myrtaceae: Eucalypti folium – *Eucalyptus globulus*

# PHYTOPHARMACEUTICALS vs. Respiratory system

## ESSENTIAL OILS

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*Thymus vulgaris*  
herba



*Thymus serpyllum*  
herba



*Hyssopus officinalis*  
herba



*Pimpinella anisum*  
fructus



*Foeniculum vulgare*  
fructus



*Eucalyptus globulus*  
folium



# PHYTOPHARMACEUTICALS

## vs. Respiratory system

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### ▶ **SAPONINS**

- ▶ **expectorant** – secretolytic and secretomotor action (mucolytics, mucokinetics). Saponins decrease surface tension in aqueous solution, stimulate tracheal mucous secretion due to the reflex action (irritating of stomach mucose cells)
- ▶ some of the saponins have bacteriostatic, antiviral and antiphlogistic activity
- ▶ the overdose can cause vomiting, bleeding of stomach mucose. Do not use in case of acute gastroenteritis
- ▶ *Liquiritiae radix* – do not use in case of hypertension!  
– due to the mineralocorticoid activity

# PHYTOPHARMACEUTICALS

## vs. Respiratory system

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- ▶ Plant drugs containing **saponins**, e.g.:
  - ▶ Liquiritiae radix – *Glycyrrhiza glabra*, Fabaceae, liquorice
  - ▶ Saponariae radix – *Saponaria officinalis*, Caryophyllaceae,
  - ▶ Primulae radix/flos – *Primula veris*, *P. elatior*, Primulaceae
  - ▶ Verbasci flos – *Verbascum densiflorum*, Scrophulariaceae
  - ▶ Hederae folium – *Hedera helix*, Araliaceae
  - ▶ Polygalae senegae radix – *Polygala senega*, Polygalaceae
  - ▶ Quillajae cortex – *Quillaja saponaria*, Quillajaceae
  - ▶ Polygoni avicularis herba – *Polygonum aviculare*, Polygonaceae
  - ▶ etc.

# PHYTOPHARMACEUTICALS vs. Respiratory system

## SAPONINS

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*Saponaria officinalis*  
radix



*Primula veris/elatior*  
radix/flos



*Polygala senega*  
radix



*Verbascum* sp.  
flos

*Hedera helix*  
folium



*Quillaja saponaria*  
cortex

# PHYTOPHARMACEUTICALS vs. Respiratory system

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## ▶ **MUCILAGE**

- ▶ as an **antitussive** (demulcent, expectorant), especially for irritable cough and catarrhal inflammation of the throat
- ▶ protective effect on the mucose of respiratory tract
- ▶ usually part of composite bronchial teas
- ▶ some drugs have also antibacterial effect
  
- ▶ mucilage drugs are suitable for inflamed mucose of digestive tract (protective effect)
- ▶ **!** mucilage decrease absorption of other drugs in small intestine

# PHYTOPHARMACEUTICALS vs. Respiratory system

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- ▶ Plant drugs containing **mucilage**, e.g.:
  - ▶ Althaeae radix/folium – *Althaea officinalis*, Malvaceae
  - ▶ Malvae folium/flos – *Malva sylvestris*, Malvaceae
  - ▶ Farfarae folium/flos – *Tussilago farfara*, Asteraceae
  - ▶ Plantaginis folium – *Plantago lanceolata*, Plantaginaceae
  - ▶ Lichen islandicus – *Cetraria islandica*, Parmeliaceae



# PHYTOPHARMACEUTICALS vs. Respiratory system

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Other plant drugs that can influence respiratory disorders

## ▶ **Bitter principles**

- ▶ due to irritating of stomach mucose membrane they can cause the gastropulmonal reflex reaction → increase of bronchial secret production
- ▶ ! in overdose can cause nausea, vomiting
- ▶ e.g. *Gentianae radix* – *Gentiana lutea*



## ▶ **Flavonoids**

- ▶ drugs containing flavonoid glycosides are usually present in herbal tea mixtures due to their antiphlogistic, antibacterial activity and also **diaphoretic/diuretic** effect

# Phytotherapy of COLD

## Herbal teas

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### Plant drugs with diaphoretic effect:

- ▶ diaphoretic is the state of perspiring profusely, or something that has the power to increase perspiration (sweating)
- ▶ diaphoretics are used in feverish colds and infections – to decrease elevated body temperature
  - ▶ Sambuci flos – *Sambucus nigra*, Adoxaceae, black elder
  - ▶ Tiliae flos – *Tilia cordata*, *Tilia platyphyllos*, Malvaceae, lime tree



# Phytotherapy of COLD

## Herbal teas

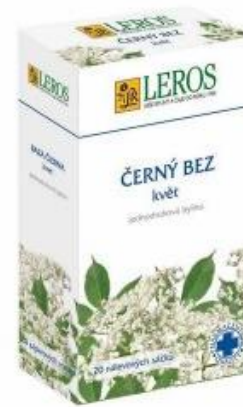
### ▶ „Linden Flower tea“ (Megafyt)

- ▶ Tiliae flos
- ▶ loose tea, 30 g



### ▶ Black Elder Flower (Leros)

- ▶ Sambuci nigrae flos
- ▶ 20 tea bags x 1g
- ▶ sweeten to taste, ideally with honey and lemon
- ▶ drink warm, always prepare fresh



### ▶ Herbal tea „COLD“ (Teekanne)

- ▶ Sambuci nigrae flos
- ▶ Tiliae flos
- ▶ Thymi herba





# Phytotherapy of COLD

## Herbal teas

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### ▶ „Cold and Flu“

(Leros)

- ▶ Cynosbati fructus
- Sambuci nigrae flos
- Foeniculi fructus
- Tiliae flos
- Menthae piperitae herba
- Solidaginis herba
- Lamii albae herba
- black chokeberries  
(= *Aronia melanocarpa* fruits)

### ▶ Herbal tea for COLD

(Megafyt)

- ▶ Sambuci nigrae flos
- Tiliae flos
- Plantaginis folium
- Foeniculi dulcis fructus
- Liquiritiae radix



# Phytotherapy of COLD

## Herbal teas

Other plant drugs used in feverish colds

- ▶ *Zingiberis rhizoma*  
– *Zingiber officinale*,  
Zingiberaceae, ginger
- ▶ *Cinnamomi cortex*  
– *Cinnamomum verum*,  
Lauraceae, cinnamon



### ▶ Herbal tea „COLD with ginger“ (Teekanne)

- ▶ ginger (*Zingiber officinale*) 29 %
- ▶ rooibos (*Aspalathus linearis*) 23 %
- ▶ linden flower (*Tilia* sp.) 12 %
- ▶ black elder flower (*Sambucus nigra*) 11 %
- ▶ spearmint leaf (*Mentha spicata*) 7 %
- ▶ lemon grass (*Cymbopogon* sp.) 5 %
- ▶ liquorice root (*Glycyrrhiza glabra*) 4 %
- ▶ chicory root (*Cichorium intybus*) 4 %
- ▶ cinnamon (*Cinnamomum verum*) 4 %



# Phytotherapy of RHINITIS

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- ▶ locally applied preparations cause vasoconstriction (narrowing the blood vessels) in the nasal area, reduce swelling and congestion of the nasal mucosa and dry up secretions, clearing the nasal passages
  - ▶  $\alpha$ -sympathomimetics
  - ▶ H1-antihistaminics
- ▶ plant drugs with content of essential oils, more often isolated essential oils or isolated compounds as disinfectants
  - ▶ *Menthae piperitae* etheroleum, menthol
  - ▶ *Thymi* etheroleum, thymol
  - ▶ *Eucalypti* etheroleum
  - ▶ *Lavandulae* etheroleum
  - ▶ *Pini sylvestris* etheroleum



*Eucalyptus globulus*

# Phytotherapy of RHINITIS

## Nasal preparations

### ▶ PINOSOL NAS GTT SOL 1X10ML (Zentiva)

- ▶ Pini etheroleum 0,3752 g  
Menthae piperitae etheroleum 0,10 g  
Eucalypti etheroleum 0,05 g  
Thymolum 0,0032 g  
Guaiazulenum 0,002 g  
Tocoferoli alfa acetatas 0,17 g in 10 g of oil solution
- ▶ SUKL code: 0099339,  
OTC medicinal product
- ▶ ATC: R01AX30  
(Other nasal preparations, combinations)

### ▶ PINIO-NASAL drops, spray (Rosen Pharma)



production is  
terminated, 2017



# Phytotherapy of RHINITIS

## Nasal preparations

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### ▶ RYMASTOP SPRAY

(Dr. Weiss)

- ▶ contains extracts of 10 herbal drugs:  
*Euphrasia rostkoviana*, *Viola odorata*, *Malva mauritiana*,  
*Equisetum arvense*, *Tilia cordata*, *Calendula officinalis*,  
*Sambucus nigra*, *Plantago lanceolata*, *Achillea millefolium*,  
*Eucalyptus globulus*  
+ hyaluronic acid, *Boswellia serata* resin extract
- ▶ immediate relief from the stuffy nose
- ▶ gently cleans, regenerates and moisturises the nasal mucosa
- ▶ suitable for long-term use
- ▶ also for pregnant and lactating women



# Phytotherapy of RHINITIS

## Nasal preparations

### ▶ ASPECTON nasal spray (Krewel Meuselbach)

- ▶ hypertonic solution of sea salt
- ▶ camphor, levomenthol, dexpanthenol
- ▶ Thymi etheroleum, Eucalypti etheroleum, Menthae piperitae etheroleum

### ▶ PHYSIOMER<sup>®</sup> Eucalyptus nasal spray (Le Laboratoire de la Mer)

- ▶ hypertonic solution of sea salt (22 g/l)
- ▶ Eucalypti etheroleum, Menthae pip. etheroleum



# Phytotherapy of RHINITIS

## Nasal preparations

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▶ **PantheNose<sup>®</sup>** nasal spray  
(Dr. Müller Pharma)

- ▶ with Aloe vera
- with escin
- with Eucalyptus oil

▶ **PantheNose<sup>®</sup>** nasal ointment  
(Dr. Müller Pharma)

- ▶ with essential oils: Eucalypti, Menthae pip., Thymi, Myrti Lavandulae, Pini pumilionis etheroleum



▶ **TONASOL** nasal drops 10 ml  
(Topvet)

- ▶ with TTO = Tea tree oil  
(*Melaleuca alternifolia*)



# Phytotherapy of RHINITIS

## Nasal preparations

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### ▶ BOROZAN Nasal ointment (Zentiva)

- ▶ ointment with protective effect on skin around nose
- ▶ Eucalyptus oil, Niaouli oil (*Melaleuca viridiflora*), Balm mint oil, Sandalwood oil
- ▶ Zinci oxidum, Tin oxide, Acidum boricum, Methylis salicylas



### ▶ KOSMÍN Nasal ointment (Aromatica)

- ▶ emulgel containing essential oils:
  - Camphor
  - Thymol
  - Menthae pip. etheroleum
  - Turpentine
  - Eucalypti etheroleum





# Phytotherapy of COLD, RHINITIS

## ▶ SINUPRET POR GTT SOL 1X100ML (Bionorica-Schwabe)

- ▶ Extractum herbarum aquae-spirituosum:
  - Gentianae radix
  - Primulae flos
  - Rumicis herba
  - Sambuci flos
  - Verbenae herba
- ▶ SUKL code: 0075868
- ▶ OTC product
- ▶ ATC: V11



Sinupret® kapky  
50 nebo 100 ml



Sinupret®  
50 tablet



Sinupret® forte  
20 tablet

- ▶ SINUPRET POR TBL OBD 50
- ▶ SINUPRET Forte POR TBL OBD 20
- ▶ SINUPRET AKUT POR TBL OBD 20



# Phytotherapy of COLD, RHINITIS

## ▶ RYMANOS SIRUP 150 ML (PharmaSwiss)

- ▶ Sambuci nigrae flos
- ▶ Verbenae herba
- ▶ Althaeae radix
- ▶ Gentianae radix
- ▶ for adults and children up to 3 years



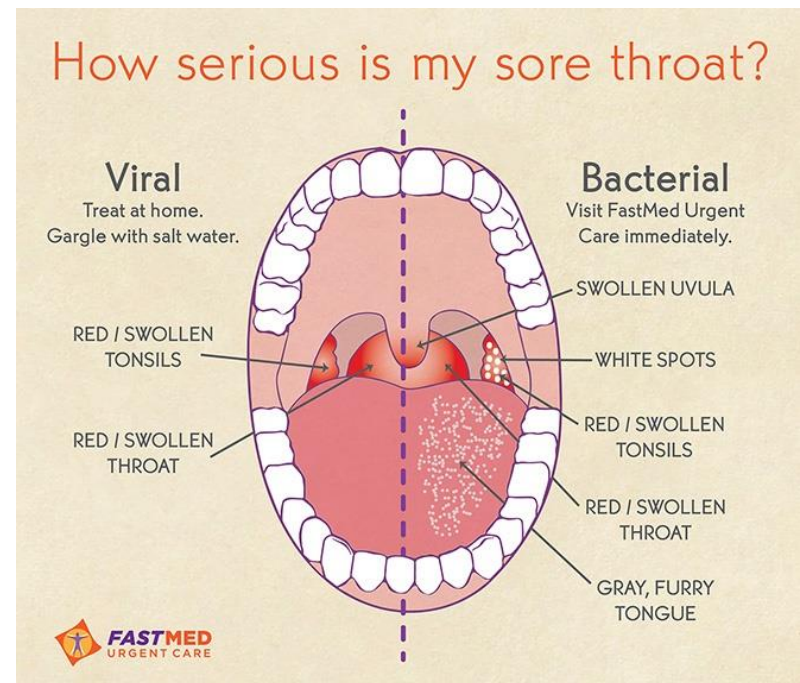
## ▶ RYMANOS TBL

- ▶ Sambuci nigrae flos
- ▶ Verbenae herba
- ▶ Origani herba
- ▶ Althaeae radix
- ▶ Majoranae hortensis herba
- ▶ for adults: 2 tablets a day



# Phytotherapy of SORE THROAT

- ▶ = pain or irritation of the throat.  
A common physical symptom that is usually caused by acute pharyngitis (= inflammation of the throat)
- ▶ ! important information – whether the infection of throat is viral or bacterial → for the treatment of bacterial infections recommend a visit of a physician!



# Phytotherapy of SORE THROAT

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## ▶ lozenges (pastilles)

- ▶ for sucking
- ▶ contain extracts of plant drugs with the content of
  - ▶ mucilage – lubricating and soothing effect on irritated mucose membrane of throat
  - ▶ essential oils – as disinfectants
- ▶ ! sometimes containing local (surface) anesthetics

## ▶ other forms

- ▶ gargles, drops, tinctures, mouth sprays



# Phytotherapy of SORE THROAT

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- ▶ Lichen islandicus, iceland moss  
*Cetraria islandica*
  - ▶ contain **mucilage** (water soluble polysaccharides)
    - lichenin, isolichenin and bitter-tasting **lichen acids** (antibiotically active !)
  - ▶ as a demulcent and expectorant for alleviating irritation of the throat; bacteriostatic effect of lichen acids
  - ▶ immunostimulating effect
  - ▶ (for a lack of appetite and gastroenteritis – lichen acids)



# *Lichen islandicus*, iceland moss

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- ▶ a spray-dried extract is a component of instant bronchial and cough teas
- ▶ together with other plant drugs in various preparations for cough (antitussives, expectorants) and cold, chills, etc.
- ▶ making the tea: Boiling water is poured over 1,5-2,5 g of finely chopped drug, after 10 min passed through a tea strainer. To obtain an expectorant which has plenty of mucilage, but which is less bitter, it has been suggested that after pouring the hot water over the drug, the water should be immediately discarded (it contains most of the lichen acids) and then more hot water added. However, doing this also removes the antibiotically active constituents.

# Phytotherapy of SORE THROAT Lozenges

## ▶ *Lichen islandicus*

- ▶ ISLA Moos, ISLA Cassis  
ISLA Mint (Engelhart Arzneimittel)
- ▶ HERBALMED Dr. Wiess
- ▶ ANGINAL Dr. Müller Pharma
- ▶ DOLO-ANGIN (Diva Pharma)
  - ▶ + benzocaine 10 mg (local anesthetic) !
- ▶ ASPECTON (Krewel Meuselbach), etc.



# Phytotherapy of SORE THROAT

## ▶ **Salviae folium/herba**

- ▶ constituents: essential oils (mainly monoterpenes), tannins, rosmarinic acid, diterpene bitter compounds
- ▶ as an antiphlogistic for inflammation of mouth and throat, for gingivitis, stomatitis – mainly in the form of gargle
- ▶ application forms – for external use: fluid extracts, tinctures (for gargle), sprays, lozenges





# Phytotherapy of SORE THROAT

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## ▶ FLORSALMIN

(Zentiva)

- ▶ concentrate for gargle
- ▶ *Salviae officinalis folii tinctura* (1:6,6)  
extracted with ethanol 60% (V/V)
- ▶ SUKL code: 0093779
- ▶ ATC: V11 (Phytopharmaceuticals and animal products)



## ▶ *Salviae* tincture

- ▶ e.g. Grešík – extract 10 (m/V) of *Salviae* off. folium in ethanol 35% (V/V)



# Phytotherapy of SORE THROAT

## ▶ *Salviae folium*

- ▶ ANGINAL Dr. Müller Pharma – lozenges, mouth spray
- ▶ Galmed, Dr. Theiss, HerbalMed, ...



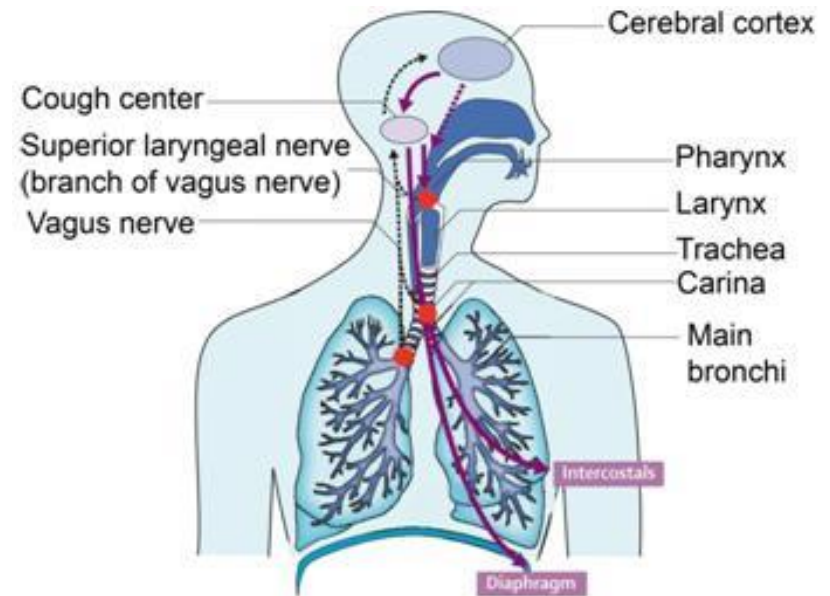
# Phytotherapy of SORE THROAT

- ▶ **other products**, e.g. with:
  - ▶ Eucalypti etheroleum
  - ▶ Tea tree oil – essential oil of *Melaleuca alternifolia* leaves – antiseptic effects
- ▶ **SEPTOLETE D** lozenges  
(Krka, Slovenia)
  - ▶ Benzalkonii chloridum 1mg
  - ▶ Mentholum 1,2mg, Menthae piperitae etheroleum 1,0mg, Eucalypti etheroleum 0,6mg, Thymolum 0,6mg in 1 pastille



# Phytotherapy of COUGH

- ▶ a cough is a protective reflex with sudden noisy expulsion of air that tries to remove the irritant and to clear the airways.
- ▶ coughing starts when part of your breathing passage becomes inflamed or irritated by matter such as dust, smoke or mucus (sputum)
- ▶ cough is controlled due to the cough center



# Phytotherapy of COUGH

- ▶ important information – the characteristic of cough – whether there is „dry“ cough or „chesty“ cough (non-productive/productive), or acute/chronic cough

Dry cough	Chesty cough	
This is the dry, hard, irritating cough that will keep you awake at night. It can be exhausting, tiring, and disturb other people, both at home and at work. It can make your chest muscles ache with coughing.	This is the chesty, loose, phlegmy cough, which helps you cough up all the phlegm lying on your chest. This cough is doing you good by wanting to get rid of this phlegm.	
	<b>Productive</b>	<b>Non-productive</b>
	An individual with a productive chesty cough will notice the presence of the mucus on the chest because (s)he is coughing some of the phlegm off the chest.	In the case of a non-productive cough the mucus is not being moved from the chest, despite the coughing.

# Phytotherapy of COUGH

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- ▶ „**dry cough**“, **non-productive** is irritating, exhausting
  - ▶ antitussive agents
    - ▶ centrally acting – suppress cough by a direct action on medullary cough center (opioid alkaloids and their derivatives – codeine, noscapine, dextrometorphan; synthetic drugs)
    - ▶ peripherally acting – they suppress cough reflex by decreasing the input of stimuli from cough receptors in respiratory passages
      - **pharyngeal demulcents** – soothing action on irritating mucosa - they provide relief to throat, promotes salivation & inhibit impulses from inflamed mucosa
      - **steam inhalation**

# Phytotherapy of COUGH ANTITUSSIVES

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- ▶ antitussive phytomedicines – predominantly **mucilage** plant drugs and their preparations (herbal teas, drops, syrups,...)
  - ▶ Althaeae radix/folium – *Althaea officinalis*, marshmallow
  - ▶ Farfarae folium/flos– *Tussilago farfara*, coltsfoot
  - ▶ Malvae folium/flos – *Malva sylvestris*, common mallow
  - ▶ Plantaginis folium – *Plantago lanceolata*, plantain
  - ▶ Verbasci flos – *Verbascum densiflorum*, mullein
  - ▶ Lichen islandicus – *Cetraria islandica*, iceland moss

# Phytotherapy of COUGH

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- ▶ **„chesty cough“, productive** (the sputum is coughed up)
  - ▶ expectorants
    - ▶ secretolytic (mucolytic) – reduce the viscosity of mucus, stimulate production of watery mucus
    - ▶ secretomotor (mucokinetic)
    - ▶ emetic – *Ipecacuanhae radix* (emetine)
  - ▶ bronchodilatants
    - ▶ mostly synthetic drugs



# Phytotherapy of COUGH

## EXPECTORANTS

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- ▶ expectorant phytomedicines – predominantly plant drugs with the content of **saponins** and **essential oils**
- ▶ various preparations (herbal teas – mostly mixtures; drops, syrups,...)
- ▶ often combination of expectorants and antitussives (Species pectorales, bronchial teas...)
- ▶ the most frequently used plant drugs:
  - ▶ saponine drugs – *Liquiritiae radix*, *Verbasci flos*, *Primulae radix*, *Hederae folium*...
  - ▶ drugs with essential oils – *Thymi herba*, *Serpylli herba*, *Origani herba*, *Foeniculi fructus*, *Anisi fructus*, *Salviae folium*
  - ▶ also mucilage drugs are used in bronchial teas

# Phytotherapy of COUGH EXPECTORANTS

- ▶ **MIXTURA SOLVENS** (= a sputum dissolving mixture)
  - ▶ according the old prescription (Prescriptiones pharmaceuticae 1972):

Ammonium chloratum	25 g
Extractum liquoritiae siccum	25 g
Aqua conservans	950 g
  - ▶ brown liquid with mild odour and sweet-salty taste



1 lozenge contains:  
120 mg dry extract of liquorice root (3-4 :1),  
180 mg Ammonium chloride  
Water



# Phytotherapy of COUGH

## Herbal teas

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### ▶ SPECIES PECTORALES Planta (Leros)

- ▶ Plantaginis folium
- ▶ Althaeae radix
- ▶ Farfarae flos
- ▶ Menthae piperitae herba
- ▶ Liquiritiae radix
- ▶ Verbasci flos
- ▶ Foeniculi fructus
- ▶ SUKL code: 0000965, OTC
- ▶ ATC: V11
- ▶ CI: pregnancy, nursing, hypersensitivity to any constituent
- ▶ Do not use longer than a week without consulting your physician.



# Phytotherapy of COUGH

## Herbal teas

### ▶ Bronchial tea

(Leros)

- ▶ Cynosbati fructus
- Origani herba
- Foeniculi fructus
- Tiliae flos
- Menthae piperitae herba
- Thymi herba
- Verbasci flos
- Plantaginis folium



### ▶ Bronchial Tea

(Megafyt Pharma)

- ▶ Plantaginis folium
- Althaeae radix
- Cynosbati fructus sine semine
- Liquiritiae radix
- Serpylli herba
- Tiliae flos



# Phytotherapy of COUGH

## Herbal teas

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### ▶ Pulmoran (Leros)

- ▶ Salviae folium
- ▶ Althaeae radix
- ▶ Polygoni avicularis herba
- ▶ Thymi herba
- ▶ Urticae herba
- ▶ Foeniculi fructus
- ▶ Sambuci nigrae flos
- ▶ Plantaginis folium
- ▶ Liquiritiae radix

- ▶ 9 plant drugs!



### ▶ Herbal tea „Bronchi“ (Megafyt Pharma)

- ▶ Serpylli herba
- ▶ Matricariae flos
- ▶ Sambuci nigrae flos
- ▶ Tiliae flos
- ▶ bronchial tea with diaphoretic effect



# Phytotherapy of COUGH

## Herbal teas

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### ▶ Bronchial tea (Herbalist Pavel Váňa)

- ▶ Malvae folium
- Filipendulae herba
- Althaeae radix
- Origani herba
- Hyssopi herba



### ▶ „Bronchi and Lungs“ (Teekanne)

- ▶ Anisi fructus (30,8 %)
- Foeniculi fructus
- Liquiritiae radix
- Thymi herba (5,8 %)
- Salviae officinalis folium (4,9 %)
- Serpylli herba



# Phytotherapy of COUGH

## Herbal teas

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### ▶ Children Bronchial Tea (Megafyt Pharma)

- ▶ Foeniculi fructus (25 %)
- Anisi fructus (20 %)
- Sambuci nigrae flos
- Tiliae flos
- Althaeae radix
- Liquiritiae radix
- Primulae radix
- Serpylli herba

- ▶ suitable over  
the 6th month



### ▶ Children Tea „Cough, bronchi“ (Leros Baby)

- ▶ Cynosbati fructus
- Serpylli herba
- Anisi fructus
- Tiliae flos
- Sambuci nigrae flos
- Verbasci flos

- ▶ suitable over  
the 6th month



# Phytotherapy of COUGH

## Drops, tinctures, syrups, medicinal solutions

### ▶ PLEUMOLYSIN gtt.

(IVAX/TEVA)

- ▶ Saponinum 5 mg
  - Codeini phosphas hemihydricus 3,06 mg
  - Aconiti tinctura 40 mg
  - Aurantii tinctura 150 mg
  - Thymi extractum fluidum 30 mg
- in 1 ml (= 33 drops).
- ▶ SUKL code: 0000725
  - ▶ ATC: R05FA01 (Opioid derivatives and mucolytics)
  - ▶ **Prescription-only medicinal product !**  
(due to presence of codeine, Aconiti tinctura)





# Phytotherapy of COUGH

## Drops, tinctures, syrups, medicinal solutions

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### ▶ THYMOMEL syrup

(IVAX/TEVA)

▶ in 100 ml:

Thymi extractum fluidum 4.1624 g

Serpylli extractum fluidum 4.1630 g

Plantaginis extractum fluidum 4.1666 g

▶ SUKL code: 0045339, OTC product

▶ ATC: V11

(Phytopharmaceuticals and animal products)

▶ suitable for children over 1 year of age

▶ content of 3.5 % of alcohol



# Phytotherapy of COUGH

Drops, tinctures, syrups, medicinal solutions

## ▶ MUCOPLANT

Syrup against cough with plantain and honey (Dr. Theiss)

- ▶ active constituents (in 100 g):  
Plantaginis extractum fluidum 5.00 g,  
Menthae piperitae etheroleum 0.01 g
- ▶ Sirupus simplex (50 g), honey (2 g),...
- ▶ SUKL code: 0016289,  
OTC product
- ▶ ATC: V11
- ▶ suitable for children over 3 years of age
- ▶ content of 1.27 % of alcohol



# Phytotherapy of COUGH

Drops, tinctures, syrups, medicinal solutions

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## ▶ BIOTUSSIL POR GTT SOL 1X100ML

(Biomedica)

▶ content in 100 g:

**Herbarum Extractum pro Biotussil 97.80 g:**

(ex. Gentianae radix 0.20 g, Primulae flos 1.50 g,

Plantaginis folium 1.50 g, Thymi herba 1.50 g,

Liquiritiae radix 1.50 g, Sambuci flos 1.50 g

extracted with ethanol 23% (m/m)

Foeniculi amari fructus etheroleum 0.05 g,

Anisi stellati etheroleum 0.05 g

▶ SUKL code: 0067133, OTC product

▶ ATC: V11

▶ suitable for children over 4 years of age



# Phytotherapy of COUGH

## Drops, tinctures, syrups, medicinal solutions

### ▶ HEDELIX POR SOL 1X100ML/2GM (Krewel Meuselbach GmbH)

- ▶ Hederae folii extractum siccum 0.8 g/100 mL
- ▶ Anisi stellati fructus etheroleum
- ▶ SUKL code: 0043903, OTC product
- ▶ ATC: R05CA12
- ▶ available also in drops



### ▶ PROSPAN SIR 100 ML (Engelhard Arzneimittel GmbH)

- ▶ Hederae heliis folii extractum siccum (5-7.5:1) 0.7 g/100 ml
- ▶ SUKL code: 0202353, OTC product
- ▶ ATC: R05CA12



# Phytotherapy of COUGH

## Drops, tinctures, syrups, medicinal solutions

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### ▶ BRONCHIPRET syrup (Bionorica-Schwabe)

- ▶ Thymi herba extract
- ▶ Hederae folium extract
- ▶ SUKL code: 0136001, OTC product
- ▶ ATC: V11
- ▶ suitable for children over 1 year of age

### ▶ BRONCHIPRET tablets

- ▶ Thymi herba extract
- ▶ Primulae radix extract
- ▶ SUKL code: 0058921, OTC product
- ▶ ATC: V11
- ▶ suitable for children over 12 years of age



# Phytotherapy of COUGH

Drops, tinctures, syrups, medicinal solutions

## ▶ KALOBA POR GTT SOL 1X20ML

(Bionorica-Schwabe)

- ▶ EPs® 7630 – *Pelargonium sidoides* root extract  
Pelargonii sidoidis extractum fluidum
- ▶ each 10 g (9.75 mL) of solution contains  
8 g of extract
- ▶ SUKL code: 0023998, OTC product
- ▶ ATC: V11
- ▶ dosage:      children 1-5 y.            3x 10 drops  
                     children 6-12 y.        3x 20 drops  
                     adults and children over 12y. 3x 30 drops

- ▶ also available as syrup and tablets



# Phytotherapy of COUGH

Drops, tinctures, syrups, medicinal solutions

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## ▶ ERDOMED HERBAL syrup

(Angelini Pharma)

- ▶ contains extracts from:  
Thymus vulgaris,  
Pelargonium sidoides,  
Echinaceae purpurea,  
Panax quinquefolius
- ▶ + vitamin C, zinc  
+ Sirupus simplex, honey
- ▶ dosage:  
children 2-6 y.                      2.5 mL 3 times  
adults and children over 6y.    5 mL 3 times



# Phytotherapy of COUGH

Drops, tinctures, syrups, medicinal solutions

- ▶ **VINCENTKA Syrup** with plantain and mother of thyme
  - ▶ content:
    - natural medicinal mineral water „Vincentka“
    - hydroalcoholic extract of **Plantaginis folium** and **Serpylli herba**
  - ▶ suitable for children over 3 years of age





# Phytotherapy of COUGH

Drops, tinctures, syrups, medicinal solutions

- ▶ „Tatras bronchial mixture – syrup“  
(Fytopharma, Slovakia)
  - ▶ composition – extracts of:
    - Althaeae radix
    - Malvae flos
    - Thymi herba
    - Menthae piperitae herba
    - Lichen islandicus
  - ▶ suitable for children over 3 years



# Phytotherapy of COUGH

## Ointments, balms

### ▶ Breast balm (Dr. Müller Pharma)

- ▶ for better breathing in cold
- ▶ contains essential oils (from *Pinus*, *Mentha piperita*, *Eucalyptus*, *Abies*), menthol, camphor
- ▶ apply on the skin of chest and back and massage a few times daily
- ▶ suitable also for children over 3 years



### ▶ Breast balm (Aromatica)

- ▶ for better breathing in cold
- ▶ contains essential oils (from *Pinus sylvestris*, *Mentha piperita*, *Lavandula angustifolia*, *Eucalyptus globulus*), camphor, thymol



# PHYTOPHARMACEUTICALS vs. HOMEOPATICS



**TRADITIONAL HERBAL PRODUCT**  
for cough relief  
(previously as homeopathic product!)

**HOMEOPATHIC MEDICINE**  
recommended to relieve cold  
symptoms, sore throat, dry or  
wet cough

# PHYTOPHARMACEUTICALS vs. HOMEOPATICS

## ▶ STODAL POR SIR 1X200ML

### ▶ content in 100 g of syrupu:

#### ▶ homeopathic compenents:

**Drosera tinctura a.u.h. (?)**

Pulsatilla 6 CH, Rumex crispus 6 CH, Bryonia 3 CH,

Ipecacuanha 3 CH, Euspongia officinalis 3 CH,

Sticta pulmonaria 3 CH, Kalii stibii tartras 6 CH,

Myocardium 6 CH, Dactylopius coccus 3 CH

together **9,5 g (?)**

#### ▶ non-homeopathic components:

**Balsami tolutani sirupus** 19,0 g












**Polygalae sirupus** 19,0 g

#### ▶ Sirupus simplex, benzoic acid, ethanol 96% (as a part of tinctures)

#### ▶ SUKL code: 0060073

#### ▶ ATC: V11 (= **Phytopharmaceuticals**) !!



-  Databáze léků
-  Databáze lékáren
-  Databáze klinic, hodnocení
-  Registr zdrav. prostředků
-  Konopí k léčebným účelům
-  eRecept
-  Důležitá upozornění
-  Hlášení pro SÚKL
-  Dodávky a jiná hodnocení
-  Přehledy a seznamy
-  Otevřená data

**Kalendář akcí**

duben 2016						
Po	Út	St	Čt	Pá	So	Ne
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Úvod / Databáze léků

**Vyhledávání**

[Návod k vyhledávání](#)

Začátek názvu léčivého přípravku:

Kód SÚKL:

ATC skupina:

Začátek názvu účinné látky:

Cesta podání:

Stav registrace:

- Všechny léčivé přípravky
  - Léčivé přípravky vázané na lékařský předpis
  - Léčivé přípravky vázané na lékařský předpis s modrým pruhem
  - Léčivé přípravky vázané na lékařský předpis s omezením
  - Léčivé přípravky bez lékařského předpisu
  - Léčivé přípravky bez lékařského předpisu s omezením
  - Léčivé přípravky bez lékařského předpisu s omezením (RLPO)
- Hrazené ?
  - Plně hrazené ?
  - Obchodované ?
  - Nehrazené ?


[Více parametrů >](#)


**Vyhledat** **Exportovat**

Stránkovat výpis po  záznamech

Počet nalezených záznamů: 1

Název LP	Doplňek názvu
Kód SÚKL	PIL ?
Registrační číslo	ATC sk.
SPC ?	Stav registr. ?
 <b>STODAL</b>	POR SIR 1X200ML
0060073	94/ 700/92-C
stodal.pdf	stodal.pdf
	<b>V11</b>
	R

Přípravky, které mají stanovenou úhradu ze zdravotního pojištění jsou barevně označeny a mají symbol .

Přípravky s aktivním výskytem na českém trhu dle pravidelného hlášení dodávek distributorů v období předchozích tří měsíců (s měsíčním odstupem) jsou označeny symbolem  a jsou uvedeny tučně.

Úvod / [databáze léků](#) / Detail léčivého přípravku

## STODAL

POR SIR 1X200ML

Základní Doprovodné texty Ceny a úhrady Dostupnost Dovoz ve zvláštním režimu Kontakty

<b>Kód SÚKL</b>	0060073
<b>Název LP</b>	STODAL
<b>Doplněk názvu</b>	POR SIR 1X200ML
<b>Cesta</b>	Perorální podání
<b>Léková forma</b>	Sirup
<b>Velikost balení</b>	200ML
<b>Síla</b>	
<b>Jazyk obalu</b>	česky
<b>Typ balení</b>	Lahev
<b>Režim výdeje</b>	volně prodejné léčivé přípravky
<b>Účinná látka</b>	SIRUP Z VÍTODU SENEGY (POLYGALAE SENEGAE SIRUPUS) SIRUP Z TOLUÁNSKÉHO BALZÁMU (BALSAMI TOLUTANI SIRUPUS) (DROSERA - TINCTURA BASICA A. U. H.) (RUMEX CRISPUS 6 C) (BRYONIA 3 C) (IPECACUANHA 3 C) (EUSPONGIA OFFICINALIS 3 C) (STICTA PULMONARIA 3 C) (DACTYLOPIUS COCCUS 3 C) (KALII STIBII TARTRAS 6 C) (MYOCARDIUM 6 C) (PULSATILLA 6 C)
<b>ATC skupina</b>	V11
<b>Název ATC skupiny</b>	Fytofarmaka a živočišné produkty (česká ATC skupina)

INFORMACE O REGISTRACI



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- Databáze lékáren
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