Infection	Treatment
Pneumonia following influenza	By staph flucloxacillin
Pneumonia with chronic lung disease	Amoxicillin or trimethoprim or ciprofloxacin (H. influenza + pneumonia)
Community acquired pneumonia	- aminoglycoside with cefotaxime - If pseudomonas suspected: Piperacillin - For Pneumocystis carinii penumonia in AIDS give co-trimoxazole orally or IV

* Hospital "Nosocomial"
cause: staph aureus
H. influenza + pseudomonas
- 3rd (CS) → cefotaxime + gentamicine + Aminoglycoside.
** Immunocompromised: S. aureus + S. pneumonia
Aminoglycoside + cefotaxime.

↑ in MRSA
- ciprofloxacin + Vancomycin

Pneumocystis carinii
co-trimoxazole

P aeruginosa
Piperacilin
(anti-pseudomonal)

PGE_2 علي دين ما بدو يخلف (Dinoprostone(دين	PGI_2 ايباء ضغضها مرتفع(Epoprostenol) :	3. PGE_1 analogue قلبو ميسو (Alprostadil):	CLINICAL LT antagonists
Induction of abortion or labour. Enhance labour. Stop post partum hemorrhage. All are given intra-vaginal or intra- amniotic or IV infusion.	sometime used by IV infusion for primary pulmonary hypertension, and to protect platelets during hemodialysis	is useful as urethral suppositories for male impotence, and sometimes IV to maintain patency of ductus arteriosus in some forms of congenital heart disease	Clinically useful LT antagonists used for **asthma prophylaxis** include : **1. <u>Zileuton :</u> 5-LOX inhibitor** that decrease LTs synthesis **2. <u>Zafirleukast & Monteleukast:</u> LT receptor antagonists**
PGE_1 analogue (Misoprostol): ميسو عندها حموضة و ما بدها تولد	**.$PGF_{2\alpha}$ analogue (Latanosert):**		
given orally to prevent peptic ulcer due to NSAIDs , and sometimes for induction of abortion	used as eye drops to increase drainage of aqueous humor and decrease the intraocular pressure in glaucoma		

prostanoid	genital system & eyes	Brain	kidney	endothelium	plattlets	Smooth muscle: vascular	Smooth muscle: GI	Smooth muscle: airways	CNS & PNS	Neuroendocrine organs	Bone metabolism
PGI_2		✓	✓ ↑GFR	✓	✓ inhibits aggregation	✓ - V.d (lower BP) x5 potent than PGE_2	✓ ↓ gastric acid secretion	✓ bronchodilation			
TXA_2			✓ ↓GFR		✓ aggregation	✓ V.C		✓ bronchospasm			
$PGE_{1,2,3,4}$	✓ PGE [illegible] ↓IOP PGE_2 - man → ↑ viability - women:- onset of labour & [illegible]	✓	✓ $PGE_{1,2}$ ↑GFR		✓	✓ - PGE_2 → V.d (lower BP) - maintenance of ductus arteriosus	✓ PGE_2:- ↓ gastric acid secretion	✓ $PGE_{1,2}$ bronchodilation	✓ - $PGE_{1,2}$ ↑ temprature - PGE → ↓NE	✓ PGE promotes the release of ① GH ② prolactin ③ TSH ④ LH ⑤ ACTH ⑥ FSH	✓ PGE_2 ↑ bone turnover (resorption & formation)
PGD_2		✓						✓ bronchodilation			
$PGF_{2\alpha}$	✓ eyes ↓ IOP					✓ V.C		✓ bronchospasm			

Bronchodilator

Beta – agonist		Antimuscarinic	Methylxasin
Short-acting (SABA) 1. salbutamol صلب 2. Terbutaline تولين	**Long-acting (LAMA)** Salmeterol سالم	1. ipratropium 2. Oxitropium اوكسي إبرة	1. Coffaine 2. Theophyline →aminophylline(soluble form- **IV infusion**)
1. Salbutamol (Ventolin; Albuterol) -**acute attacks** can be given by inhalation, orally or by injection in severe cases -Inhaled salbutamol produces **rapid effects** but up to 20% may be absorbed & may produce systemic effects Its t ½ is about 4 hours acts within few minutes & reaches maximum in 30 minutes & action lasts 4-6 hours It is given as 1-2 puffs 4-time daily **Adverse effects:** tremor, tachycardia & hypokalemia due to shift of potassium into cells	is **long-acting ,** has slower onset of action & longer duration (12 hr) It should not be used for treatment of acute attacks because of its slow onset of action (15-30 min) but **used for as prophylaxis in chronic asthma**	- in acute severe asthma combined with β2-agonists to potentiate bronchodilatation - Inhaled , synthetic derivatives of atropine - less effective than adrenergic agonists - They block vagus-mediated effects on bronchi (M3-induced bronchospasm & increase mucous secretion)	It is a bronchodilator useful in acute asthma attacks & in chronic asthma Has been replaced by B2 agonists and CS due to narrow therapeutic window, side effects and drug interactions orally or aminophylline by **IV infusion** , can be administered IV (slowly) (status asthmaticus) -Absorption is good -The t ½ is about 8 hours -To enhance theophylline solubility, it is usually mixed with EDTA forming **aminophylline** **Adverse effects:** nausea, vomiting, insomnia & hypotension Has a narrow therapeutic index Arrhythmias & convulsions may develop with high doses

Expectorants جواي فيمينست ايودين (مؤيد؟)

Theory :

expectoration (removal) of mucus → reduce the viscosity of secretions +disintegrate and thin secretions: thinner mucus that is easier to remove

Direct stimulation

EX : iodine-containing Products such as **iodinated glycerol** + **potassium iodide**

The secretory glands are stimulated directly to increase their production of respiratory tract fluids

Reflex stimulation

EX : **guaifenesin**

- Agent causes irritation of the GI tract

Loosening and thinning of respiratory tract secretions occur in response to this irritation

- Helps loosen phlegm and thin bronchial secretions in patients with stable chronic bronchitis.

Dose :

All every 4 h

Syrup (100mg/5ml)

syrup - 12 years of age and older: 2 to 4 teaspoonfuls (200 mg to 400 mg) not to exceed 2400 mg (24 teaspoonfuls) in 24 hours.

Children 6 years to under 12 years of age: 1 to 2 teaspoonfuls (100 mg to 200 mg) not to exceed 1200 mg (12 teaspoonfuls) in 24 hours. (النص)

Children 2 years to under 6 years of age: ½ to 1 teaspoonful (50 mg to 100 mg) not to exceed 600 mg (6 teaspoonfuls) in 24 hours.(النص)

Children 6 mo. to under 2 years of age: A common dosage is 1/4 to ½ teaspoonful (25 mg to 50 mg) every four hours, not to exceed 300 mg (3 teaspoonfuls) in 24 hours.

النص

Infection	Treatment
Acute bronchitis - S. pneumonia + H. influenze. { fever + pain + cough + expectoration }	Amoxicillin, tetracycline or co-trimoxazole (Trimethoprim + Sulphamethaxzole)
Chronic Bronchitis - chronic smoker	Treating acute exacerbation as acute bronchitis
Community acquired pneumonia S. pneumoniae → { fever + pleurite + chest pain }	Amoxicillin (oral) + Benzylpenicillin IV or (Drug of choice.) In penicillin allergic patients, erythromycin or clarithromycin, azithromycin (Macrolid.) In seriously ill patients use benzylpenicillin with ciprofloxacin (Quinolon) In penicillin-resistant pneumococci infections, cefotaxime (claforan) IV (3d G)
Atypical pneumonia pathogens : Mycoplasma + Pneumonia + Chlamydia + Psittacosis + Legionella	(tetracycline, erythromycin or clarithromycin) for 3 weeks

Reduction of bronchial inflammation	Prophylaxis		
CORTICOSTEROID (CS)	**Leukotriene receptor antagonists**	**Omalizumab (Xolair)**	**Mast cell stabilizer**
1. **Oral" predni-solonein (in** severe attacks) + inhalational الوحدة بارة (بردني سولو) 2. **IV" -methyl-prednisolonein** (severe attacks) 3. **Inhalational" Beclo-methasone بكلة** 4. **Fluti-casone ابت خال فلوتي** 5. **Budesonide(بيد (سرير**	1. **Montelukast** orally once daily 2. **Zafirlukast** orally twice daily مونتي على زافر لانك من عيلة لوكست (بنت عمو)	**Omalizumab (Xolair)** اوه ما لي زنب	**Cromoglicate (Cromolyn)** شلونو قلقت (كلونو)
IN moderate to severe asthma that need frequent daily administrations of **β2**-gonists Topical adverse effects: oral candidiasis (thrush) & hoarseness of voice can be reduced by using a spacer device & rinsing mouth -**are not direct bronchodilators**	- block LTD4-receptors & **prevent** bronchoconstrictor effects of leukotrienes C4, D4 & E4 - as in aspirin-induced asthma (also with other NSAIDs) - well-tolerated & used to reduce frequency of exacerbations التفاقم	-monoclonal antibody -moderate to severe cases, who are poorly controlled by conventional therapy -It binds to immunoglobulin IgE, decrease binding of IgE to receptor on mast cells -Due to high cost, not used as first-line	-not in acute asthmatic attacks -does not reverse bronchospasm -fine powder by inhalation or as aerosol solution for period of **6-8 weeks** to reduce bronchial reactivity

Expectorant syrup	Expectorant codeine syrup
Each 5 ml contains: 1. Guaifenesin 100 mg 2. Chlorpheniramine 2mg 3. Phenylpropanolamine 5mg	Each 5 ml contains: 1. Guaifenesin 100 mg 2. Chlorpheniramine 2mg 3. Phenylpropanolamine 12.5mg 4. Codeine phosphate 10 mg

Mucolytics

Bromhexine بروم هكسين (ستة)بلاش تخليها ستين

Quantity :
Elexir: 4mg/5ml
Inj. : 4mg/2ml
Tab : 8mg

Dose:
Adult 1-2 tabs (10-20 cc elexir) tid
5-10 years : 4mg qid
< 5 years : 4mg bid

-oral mucolytic agent with a low level of associated toxicity.

Mechanism of action:
- acts on the mucus at the formative stages in the glands, within the mucus-secreting cells.
-disrupts the structure of acid mucopolysaccharide fibres in mucoid sputum and produces a less viscous mucus, which is easier to expectorate.

Contraindications
with known hypersensitivity or idiosyncratic reaction to bromhexine hydrochloride (or any of the other ingredients in the product).

Precautions
history of gastric ulceration. "disrupt the gastric mucosal barrier,"

Use in pregnancy
without any proven increase in the frequency of malformations or other direct or indirect harmful effects on the foetus having been observed.

Lactation
It is not known whether is excreted in breast milk or whether it has a harmful effect on the breastfeeding infant. Therefore it is not recommended for breastfeeding

S.E
Gastrointestinal side effects may occur occasionally
transient rise in serum aminotransferase values has been reported.
Other: headache, vertigo دوار(dizziness), sweating and allergic reactions.

NAC ((N-acetyl cysteine))

M.omyst(Acetylcysteine)

Quantity :
Inj : 200mg/ml
Tab : 200mg
Eff. Tab.: 600mg

Mucomyst is used for:
Treatment of abnormal, sticky, or thick mucus secretions in various lung problems

Infection	Treatment
Acute sinusitis → Decongestion [ephedrine + Xylometazoline]	oral amoxicillin or co-amoxiclav or doxycycline ~~phoxis~~ (Tetracycline)
Chronic sinusitis	anatomical abnormalities (polyp, nasal septum deviation) should be corrected & antibiotics are given according to results of culture & sensitivity
Otitis media - viral = spontaneously + analgesia - bacterial → eardrum inflamed + bulging	amoxicillin or Co-amoxiclav
Tonsillitis ↗ viral, ↑ sepsis ⇒ strep pyogenes (Fever + sore throat + swallowing difficulty. * Treatment for 10 day to prevent Rheumatic Fever.	benzylpenicillin (injection), phenoxymethylpenicillin (oral), erythromycin (Macrolide) or clarithromycin, or cephalexin (1st generation)

Anti-tuberculous drugs **Fist line →** 2 month **Second line →** 4 month

	Isoniazid (INH)	Rifampicin (RIF)	Ethambutol	Pyrazinamide	Streptomycin
MOA	Interferes with mycolic acid synthesis (unique to mycobacterial cell wall) زيد خيط الحبيط with "pyridoxine" in both 2 → 4 month.	DNA-dependent RNA polymerase inhibitor, •Bactericidal , G+/- kill intracellular organism ريف البرتقالية	arabinosyl (helps TB in survival inside macrophages) transferases inhibition Bacteriostatic ايما الشاطرة بالعربي عصية	Fatty acid synthesis inhibition Inactivate mycobateria at acidic PH Effective against intracellular organism in machrophages – PH is low زينة دبة	MOA→ Aminoglycoside - Inhibits protein synthesis Bactericidal P.K → Poorly absorbed from GIT - IM. CSF penetration: poor Renal elimination S.E →Ototoxicity, vestibular toxicity, nephrotoxicity Uses → very ill patients , Multi- drug resistance Not responding to treatment
P.K	-GI absorbed -20%CSF -Fatty food & aluminum-containing antacids may reduce absorption -Penetrate well into caseous material -Excretion – urine -Metabolism By acetylation – genetically determined Slow acetylation – better response t ½ - 3h Fast acetylation – t ½ - 1h Poor	-GI absorbed -10-40%CSF -Renal& hepatic Elimination -- Potent CYP-P450 inducer- reduce the serum level of drugs →warfarin, oestrogen(most increase their level with it) *absorbtion influenced by food	-GI absorbed -CSF penetration poor - bioavailability 80% -Elimination renal	-GI absorbed -CSF penetration =plasma concentration -Hepatic metabolism -Excretion - kidney *kill dormant one.	**Capreomycin** MOA→ Peptide antibiotic Broad spectrum antibiotic P.K → IM +Reaches the CSF well S.E → •Causes CNS side effects •affect 8th cranial nerve – deafness, ataxia Uses → drug resistant TB
S.Es	-Hepatotoxicity (↑elderly + acetylator) -Hemeolytic anemia in GP6D deficiency -Rash&acne -Polyneuropathy :prevent by (+pyridoxine "vit B6)	-Hepatotoxicity -Throbocytopnea -+liver enzymes -Rash -Orange urine sweat, tears	- Optic retro-bulbar neuritis	-Hepatotoxicity -GI disturbance -Arthralgia -Hyperuricemia-gout	
	Acts only on mycobacteria -Passes freely to mammalian cell wall -Effective for intracellular organism -Bactericidal – to multiplying organism -Bactericidal – to multiplying organism	-Resistance – chemical modification of DNA-dependent RNA polymerase	-Resistance develops rapidly if used alone	*All take it 30 min bef breakfast.	Others Clarithromycin ,Ciprofloxacin Cycloserine , Kanamycin Amikasin MDR → XDR extensive drug resistant

Antitussives

Used to stop the cough reflex when the cough is nonproductive and/or harmful

Opioid (narcotic)			Nonopioid (nonnarcotic)
Used only for *nonproductive* coughs dry cough by acting on the cough center in the medulla S.E Sedation, nausea, vomiting, lightheadedness, constipation حكى دكستر : مع الكودبين كل شي بيوتي			-Suppress the cough reflex by preventing the cough reflex from being stimulated
Codeine	**Dextromethorphan HBr**	**Clobutinol HCl**	**benzonatate (Tessalon Perles)**
S.E: High abuse potential CNS depressant 10%: Drowsiness, Constipation 1-10: CNS: dizziness, confusion, euphoriaالنشوه, malaiseالضيق, headache, restlessness, CNS stimulation Respiratory: SOBتنهد, dyspnea (use with caution in patients with respiratory disorders) Skin: rash, urticaria GI: xerostomia, anorexia, N/V GU: decreased urination, ureteral spasm	Quantity : Tab 15 mg Drop 4mg/ ml Syrup 15 mg/5ml -unlike the isomeric levorphanol, it has no analgesic or addictive مسبب للإدمانproperties. -Mechanism : elevates the threshold for coughing. = codeine in depressing the cough reflex. pharmacokinetics In therapeutic dosage does not inhibit ciliary activity. -rapidly absorbed from the GIT and exerts its effect in 15 to 30 minutes. The duration of action 3 to 6 h S.E -Dizziness, drowsiness, nausea -may produce central excitement + mental confusion. -Very high doses may produce respiratory depression. -One case of toxic psychosis (hyperactivity, marked visual and auditory hallucinations) - after ingestion of a single dose of 20 tablets (300 mg) has been reported. **cautions** Hepatic disease Asthmatic With MAOI "**antidepressant** "(hallucination, delirium, hyperpyrexia)	Quantity : Tablets 40 mg Drop 60mg/ml Injection 20mg/2ml Dosage: Adults 30-40 drops or 1-2 tab tid Children 1drop/kg tid **Contraindication** Epilepsy ، pregnancy	S.E Dizziness, headache, sedation, nausea, and others

Doctors 2019 (Nabed)
Juman Riyad · 25 Jan ·

مرحبا نبض في اكتر من حد سألني عن تلخيص الفارما فهاد الرابط الي جمعتهم في و هدول الصور بالتوفيق يا رب 💪✊
ضفت ادوية محاضرة 5 عشان الي بدو يدرسهم عالماشي برضو بالصور في تشبيهات لانهم عاخر دراسة قصدي الي بالبوست

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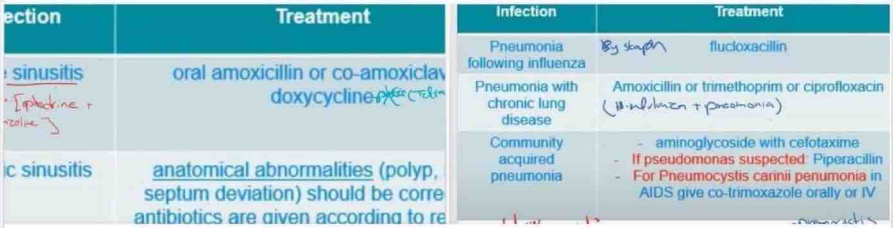

ection	Treatment
sinusitis	oral amoxicillin or co-amoxiclav doxycycline
ic sinusitis	anatomical abnormalities (polyp, septum deviation) should be corre antibiotics are given according to re

Infection	Treatment
Pneumonia following influenza	flucloxacillin
Pneumonia with chronic lung disease	Amoxicillin or trimethoprim or ciprofloxacin
Community acquired pneumonia	- aminoglycoside with cefotaxime - If pseudomonas suspected: Piperacillin - For Pneumocystis carinii penumonia in AIDS give co-trimoxazole orally or IV

Rules

Write a comment...

Doctors 2019 (Nabed)
Private group
904 Members

See Group

First Generation (amine +azine)

EX :

- **Ethanolamines:** DCD كحول ايثان
  Diphenhydramine ,
  Clemastine , Dimethindene
- **Ethylenediame**
  Triprolidine ايثل باخدك رحلة
- **Alkylamine:** الكل كلور
  Chlorpheniramine
- **Phenothiazine:** فينو ثيازين؟ بالروم**Promethazine**
- **Piperazines: Hydroxyzine ,**
  Cyclizine ; Meclizine قلقلة مبلولة مدوره مأكولة (زين)

Uses:

- anaphylaxis
- Antiallergy (dermatoses +.. itis)
- Sedative
  Diphenhydramine
- motion sickness
  (meclizine, cyclizine)
- *Antiemetic*: prophylactic for motion sickness
  (promethazine)
- *Antivertigo* (meclizine)
  safe in pregnancy
- *Local anesthetic*:
  diphenhydramine
- *Antitussive* (cough)
  diphenhydramine نوم و
  تخدير كحه)

S.E

- Sedation (Paradoxical Excitation in children)
- Dizziness + Fatigue
- Tachydysrhythmias in overdose - rare
- Allergic reactions with topical use
- Peripheral antimuscarinic effects
  (dry Mouth, blurred Vision , constipation, urinary Retention)

Drug interactions:

- *antimuscarinics*
- *Potentiate CNS depressants*

Opioids , sedatives ,general and narcotic analgesics , alcohol

Pharmacokinetics:

- oral route+ promoted for topical use in the eye or nose.
- Cross BBB and placenta
- metabolized in the liver (induce hepatic microsomal enzymes).
- T1/2 → 4 to 12 h.

Second Generation (adine)

EX :

- Cetirizine (*Zyrtec*) كيري
- Fexofenadine (*Tel-fast*) فيكس
- Loratadine (*Clarinase*)لورا
- Desloratadine (*Aerius*)
- Azelastin (*Intranasal Spray*ايزي

لور ابدها جبنة كيري عشان فيكس(تصلح) ديس(السيئة) لورا اوكي ايزي ..

Uses:

Antiallergy

S.E

- Lower than fisrt
- terfenadine (seldane) + astemizole (hismanal) removed t due to effects on cardiac K+ channels - prolong QT interval (potentially fatal arrhythmia "*torsades de pointes*")
- fexofenadine is active metabolite of terfenadine
- Cetirizine more sedative than fexofenadine or loratadine. Do not use with pilots.
- Erythromycin and ketoconazole inhibit the metabolism of fexofenadine and loratadine in healthy subjects, this caused no adverse effects

Pharmacokinetics:

Cetirizine , loratadine , fexofenadine لورا ,فكس و كيري

- well absorbed and are excreted mainly unmetabolized form.
- They are less lipid soluble than the first-generation agents
- T1/2 →12–24 h.
- They induce Cyt P450 liver enzymes

HISTAMINE H2 ANTAGONISTS (idine)

EX :

- cimetidine سيمي
  (Tagamet)→prototype.
- Ranitidine (Zantac)+ راني
- famotidine+ فاموت
- nizatidine having fewer S.E than cimetidine. نيزات

نيزات فاموت و اشرب عصير راني .سيم (same)

Uses:

- acid-peptic disease (duodenal ulcer) →reduce nocturnal acid secretion,
- Intravenous →

gastric erosions + hemorrhage that occur in stressed patients in intensive care units.

- In Zollinger-Ellison syndrome, which is associated with gastrinoma and characterized by acid hypersecretion, peptic ulceration, gastrointestinal bleeding, and diarrhea, but very large doses are required; proton pump inhibitors are preferred.
- Used in gastroesophageal reflux disease (GERD), but they are not as effective as proton pump inhibitors

Pharmacokinetics:

- orally active, t1/2→ 1–3 h.
- available in oral over-the counter formulations.