

Pharmacology of drugs used in COPD

EDITING FILE

COLOR INDEX :

- MAIN TEXT
- IMPORTANT
- GIRLS SLIDES
- BOYS SLIDES
- NOTES
- EXTRA



- In general focus on:
- 1- Major side effect.
 - 2- drug of choice for each condition.
 - 3- M.O.A





Objectives:

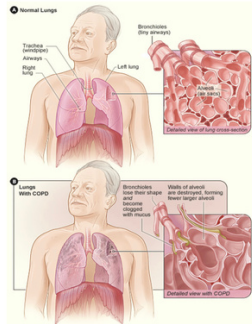
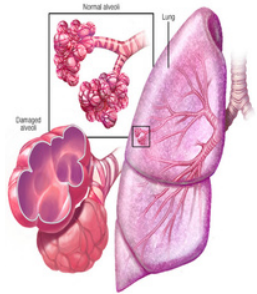
➤ there are no objectives for this topic

Drugs used in chronic obstructive pulmonary disease (COPD)

it is a chronic irreversible airflow obstruction, lung damage and inflammation of the air sacs (alveoli).

it is characterized by chronic bronchitis and emphysema (destruction of walls of alveoli).

Smoking is a high risk factor but air pollution and genetic factors can contribute.



Treatment :



OXYGEN THERAPY



**INHALED
BRONCHODILATORS**
next slide



**INHALED
GLUCOCORTICIDS**



**LUNG
TRANSPLANTATION**



ANTIBIOTICS
specifically **macrolides** such
as **azithromycin** to reduce the
number of exacerbations.

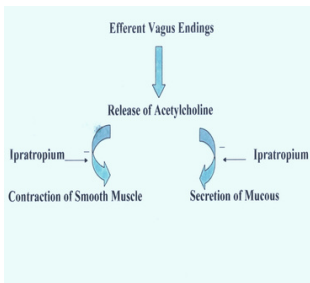
As prophylactic therapy



Important

Anti- muscarinic is
the best
bronchodilator
choice in COPD

INHALED BRONCHODILATORS IN COPD



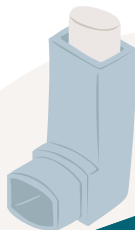
INHALED ANTIMUSCARINICS

- Ipratropium & tiotropium.
- are superior to β_2 agonists in COPD

B2 AGONISTS

these drugs can be used either alone or combined

- salbutamol + ipratropium
- salmeterol + Tiotropium (long acting- less dose frequency).



(Roflumilast)

New Drug



Selective inhibitor for (Phosphodiesterase 4 enzyme)
resulting in an increase cAMP thus Bronchodilation

Approved as add on drug for pateint with (**severe COPD**)
and frequent exacerbation



Side effect:
Wight loss , Nausea , Vomiting



“ study smarter , not harder “

Active recall



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summary



MCQs

1

SELECTIVE INHIBITOR FOR (PHOSPHODIESTERASE 4 ENZYME) , RESULTING IN AN INCREASE CAMP THUS BRONCHODILATION

A ROFLUMILAST

B SALBUTAMOL

C IPRATROPIUM

D TIOtropium

2

ROFLUMILAST USED IN:

A HEADACHE

B COUGH

C RHINITIS

D SEVERE COPD

3

WHAT IS HIGH RISK FACTOR IN COPD?

A SMOKING

B GENETIC

C POLLUTION

D NONE OF THEM

4

WHAT IS ANTIBIOTIC USED TO TREAT COPD?

A MACROLIDES

B B LACTAM

C QUINOLONES

D TETRACYCLINES



SAQs



1 WHAT IS MECHANISM OF Roflumilast?

◆ 9 SLIDES

2 Mention example of Macrolide used in COPD?

◆ 4 SLIDES



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