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## Medications used in chronic obstructive pulmonary disease

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### Abstract

An exploratory search for my disease in the search for lymphatic sclerosis I the next chapter, which is the main part of this project, which dealt with the treatment of medication, it is divided into jezzine treatment is diluted and which gives the patient immediate relief of shortness of breath and used when needed. The treatment of the condom is not immediate but makes a mistake for the non-pharmacological treatment of this schizophrenia. If you are dealing with oxygen therapy, you should know that you will need to be treated with teloxicin. Your doctor will decide what to do if you are going to work in this course 15 hours a day after that in the fifth chapter, which was to support the satisfaction of chronic obstructive pulmonary disease chapter we explained some things to the patient by mouth to see whether this is true or not we have shown the patient to try to co-exist with the disease, as well as some of the things that help them in their activities such as exercise and control the coughing and phlegm of phlegm and diet system.

**Keywords:** disease, chronic obstructive pulmonary embolism, treatment, inhalation

### Introduction

The objective of pharmacological treatment of chronic obstructive pulmonary disease (COPD) is to prevent and control symptoms, reduce the frequency and severity of exacerbations, and improve general health status and exercise tolerance. None of the classes of drugs currently used in the treatment of COPD are able to modify the progressive decline in lung function which is the hallmark of this disease Smoking cessation is currently the only intervention which has been shown to reduce the progression of COPD.

To achieve this objective, behavioral therapy and pharmacological treatment such as the administration of bupropion (an antidepressant), and nicotine replacement therapy have proved useful.

However, it is important to try to control symptoms of COPD with pharmacological treatment using the following general proposals.

### The treatment by the drugs

There are a lot of drugs types that are used to treat chronic lungs obstruction which we will speak about in details.

### Treatment types

The main aim of the treatment is to reduce the dyspnea that it doesn't stop the symptoms and doesn't cure it completely but it may reduce the severity of its symptoms and the attacks.

There are kinds of the available cure that are divided into two parts.

- Treatment by inhalation.
- Oral treatment.

### Treatment by inhalation

The inhalation instruments may be in different forms and also differentiate in the times that you need to take a specific drugs that it is important to be familiar with your drugs and you.

have always have to try to get the help without any delaying if you was doubt in how to use them because there are some people can help you.

- Your doctor.
- The nurse.
- The pharmacist.

And it's divided into two main groups.

- Lightened treatment.
- Protection treatment.

**Lightened treatment**

The Palliated drugs or savers may releave you immediatly from dyspnea or whistling and there are not specific times to take these drugs that have to be taken just in need.

**Protection drugs**

It protects the opened airways and helps to control the

inflammation in the lungs and it has to be taken regularly to be effective and often it's taken twice a day that it may help to prevent the attacks and reducing the lightened drugs.

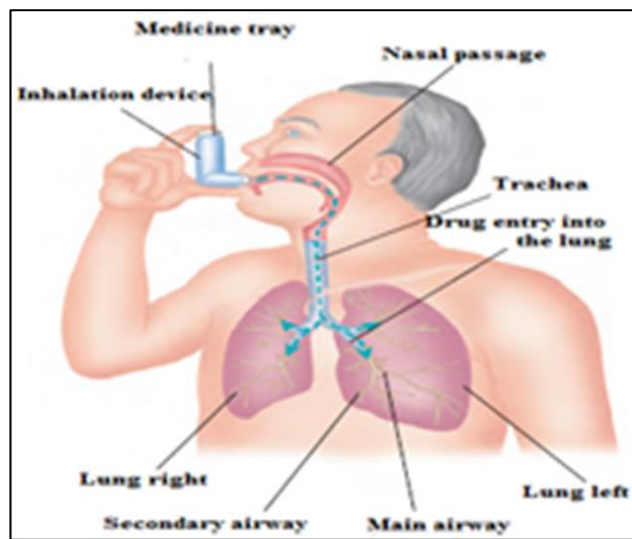
**The corticosteroid**

It's a type of drugs that wrongly known as organic buildy steroid which is used by the athletes and body builders also it's completely different from the corticosteroid that is used to deal with the lungs obstruction.

That is used as a cure which is cures the inflammation in the airways by preventing the substances and the cells that causes in the inflammation and it's often taken twice every day regularly.

**The Treatment by inhalation device**

It's the most effective treatment in protecting and reducing the symptoms where it's separate the treatment quickly along the airways to reduce the symptoms immediatly.



**Fig.1** Treatment with an inhaler

The corticosteroids may not be important if you were suffering from the chronic lungs obstruction or unrecurrenced attacks.the examples includes

- .beclomethasone (becotide).
- .budesonide (blomicort).
- .fluticasone (flucksetide).

**Side effects**

There are a lot of possible side effects as it may cause the tartar disease in the mouth and it may lead to huskiness or sore treat and may we avoid these side effects by rinsing the mouth after taking the drug every morning and evening and recently it discovered that may be a possible danger to improve the bone frailty for the people who take high dosage of inhalation corticosteroid.

These dangerous can be limited by asking your doctor by taking the less possible dose of it and in the same time may can help by playing sports and exercises and make sure of the quantity of the calcium in your meals to keep your bones strength and health.

**Bitas-2-catalyzers:**

There are two groups of them.

- Short time effect.
- Long time effect.

These catalyzer's active bitas-2 receptors on the mouth

muscle cells in the airways which leads to muscle cells relaxation so cause the opening of airways.

Short effect beta-2 catalyzers are used as inhibition drugs that works quickly and it is effect continue up to 4 hours.

The examples includes

- . Salbutamol (Ventolin ).
- Terbutaline (Tropical).

Long effect beta-2catalyzers keeps the airways open for more than 12 hours and it used 2 times. the examples includes.

- Formoterol (Oxis).
- Salmeterol (Serevent).

**Side effects**

There are two side effects due to overdose:- tremors and tachycardia.

**Anti cholines**

There two forms

- Short term anticholines.
- Long term anticholines.

This anticholines used as antagonist to the known receptors that called muscarinic in the lungs because this receptors

cause constriction in the airways and by interrupt it the airways opened

- Short term anticholines work as inhibitors for dyspnea for 6 hours and used 4 times daily.the examples includes.
- Ipratropium (Atrovent).
- Occitropium.
- Long term anticholines can help to keep airways open for 24 hours so it is used one time daily.the examples includes.
- Teutropium (Spirvia.)

**Side effects**

-xerostomia and bad taste

**-the mixed inhalers**

The pharmaceutical manufactures mix many types of inhalers in the same device this technique more effective and reduce the number of requested inhalers. the examples includes.

- Combinvent (Ibratropium + Salbutamol).
- Seritide (fluticazone + salmitrol).
- Semipicture (budesonide + formoterol).

**Inhalers types**

There are many types of inhalers so your doctors have to decide which one is proper for you before giving any prescription.

And it's important for you to adapt with it and the pharmacist or the nurse can help you for this.

-There are many types of inhalers give many types of treatments.

1- The compressed inhalers that have the ability to measure the dose.

Provide treatment in form of and require good coordination between compressing and inhalation but don't use if you have chronic inflammation in your hand joints.

If you cannot coordinate between the compressing and inhalation try use a break with the device to insure the access of drug to the lungs or you can use mechanical respiration which is worked mechanical during your breathing so there is no need to compressing on a button.

**Dry powder inhalers**

This inhaler is in form of powder some people prefer this more than compressed inhalers because they don't prefer

feeling the spray when it inters their throats but others prefer compressed inhalers. Because they don't feel comfortable so in the end the choosing of inhalers depend on which the patient prefer.

In the dry powder inhalers there is no need for coordination to use this type of machines because it just needs for taking a deep breath at the same time of activating the device. and the activating occurs commonly by hand by compressing simply on the machine that give the treatment that is ready for inhalation and the treatment can be inside the inhaler or many need a capsule to contain the dry powder.

**The spray inhalers**

The inhaler is give the treatment in form of vapor by transforming the liquid treatment to vapor can be inhaled by a mask or oral machine and these inhalers provide more doses to the lungs and can be useful for persons who are cannot use the other inhalers.

**The colors system**

You may notice that the inhalers don't have the same shape and size and with different colors also.

The blue color usually used to lightened drugs and the brown color used to protective drugs and may we found other colors in the inhalers like grey,green,purple and red,but some makers adopting standard colors system but some people don't obligate with certain colors,so the law don't ask them to follow a certain color system.

**The inhalation method**

You have to follow the right method to pledge the access of drug to your lungs but if you cannot use your device in the right way there is a possibility to inhale small amount of drug.

But in using the compressed inhalers you have to follow the next method for inhalation.

First the doctor or the nurse or the pharmacist has to explain the right method and then the best method to inhalation that is proved to have a good effectiveness forever.

**How the spray inhaler works?**

The spray inhaler is simple presser for air by liquid of drug gives a spray can be inhaled by a mask or oral device.



Fig. 2 How Intermediates Work

- Remove the cover from the compressed inhaler with measured doses.
- shake it little to insure the mixing of drugs.
- make a good amount of exhalation.
- and put the device in your mouth and start to inhale slowly.
- continue inhalation for possible long time,prefer for 10 seconds.
- now stop inhalation and hold for possible long time may be 10 seconds if possible.
- exhale slowly.
- repeat if you need to another spray remember return the cover finishing and keep the inhaler in safe place.
- now rinse your mouth.

### The separator using

Require the compressed inhalation with measured doses in the right way with good coordination and practice not every person able to use this type in the right way,so the break

- can be used with this device to help to access the treatment,and there is no need for coordination when you use the separator. And remember the following when you use the separator with your inhaler.
- compress the device to deliver on spray to the separator.
- inhale slowly and deeply.
- resist for the longest time you can and it's better for 10 seconds.
- exhale away from the separator.
- not reinhale as you do previously.
- you have to breathe twice for every spray from the inhaler.
- Don't compress on the inhaler more than one time every time to the separator.

### -separating devices

It helps the patient to focus on the treatment inhalation in spite of concerning between the inhalation and pressing on the device.

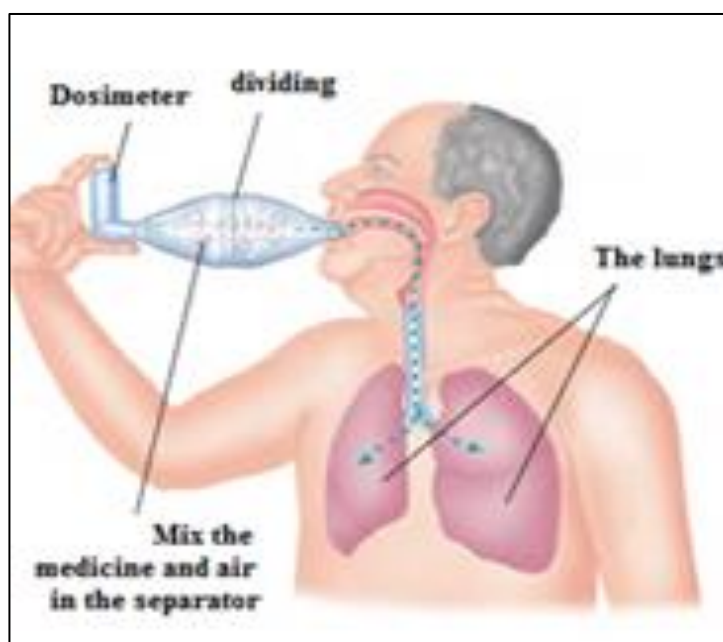


Fig. 3 Separation device

When you spray more than one from the inhaler to the separator it causes the spray to mix that effects on the treatment dosage that has to be delivered to your lungs also it leads the spray to advise inside the inhaler and that causes to deliver less dosage of the treatment.

You have to wash the separator once a month by using the cleaner and let it to dry in the air also you have to avoid the extra cleaning because it leads to create electrostatic charges that prevent the drug to arrive also you have to exchange the separator every 6-12 months.

### The oral treatment

There are many drugs in tablets forms that taken orally and it's usually been given beside the inhaling treatment.

### Corticosteroids

It used orally mainly in the attacks and it controls the lung's inflammation also it may help on fast cure.

### The side effects

It's possible that a dangerous side effects to happen when

you take the corticosteroids orally because it absorbed into the blood and it's most common side effects in th short term :stomach-ach, getting more weight and anorexia.

But for taking it for long time may cause weakness in the immunity system atrophy of the skin and osteoporosis,so you have to avoid taking it regularly and take it only with the attacks.

Although there are few people who use the oral corticosteroids daily and they usually do it to help in treating the strong chronic lungs obstruction.

And the sudden stop of taking them may cause the health weakness attacks and breathing weakness and it also requires the using of additional drugs to prevent muscles weakness in case of taking the corticosteroids for long time.

### Methyl Zantat

It may be used beside the inhaling drugs that it prevents the known substances by phosphosteroise and they are enzymes that corporate in the inflammation process in the body,that leads to limit the inflammation in the airways.

You have to take it because it helps in breathing.

You have to check your blood regularly to make sure of taking the proper doses, INS pate of limiting the unwanted side effects.one example of it Thiofelen (feloconten).

#### **The side effects**

It may cause vomiting dazing and irregular heart attacks and you have to check your blood regularly to exam the drug levels in it so it has to be proper dosage because the extra doses may be toxic also less dose allow the drug to work well.

#### **Mosine**

This drug can also be prescribed; it softens the phlegm in the lungs and makes it less thick and viscous, and thus easy to remove. It can also improve breathlessness and help reduce chest infection by reducing the amount of sputum. This medicine is usually taken 2-4 times a day, and includes the mosquito.

- Carbocysteine (mosidine).
- Mysticine (Fiskler).

#### **Marbouisin the side effects**

May cause a little stomach ache and imphlysis

#### **Antibiotics**

It may be used in the attacks,it kills the bacteria by preventing it of forming cellular walls, also prevents it from reproduction, but it's not active an resisting viruses so you have not to use the antibiotics regularly to prevent infection because it leads the bacteria to resist the antibiotics also it may cause the larva's to grow that have an immunity of the regular antibiotics.

#### **Examples**

- Amoxicillin (amoxil).
- Clarithromycin (Clasid).

#### **The side effects**

It may cause skin rash, diarrhea,nusea and vomiting.

#### **Anti-depressing**

It may be taken to help on resisting the worriness and depressing that are related to the chronic lungs obstruction it slows the chemical that are existed in the brain and that known as nervous translators.

And it makes the mood better and the patient can relax and it's often be taken once daily,examples.

- Citalopram (Cibramil).
- Paroxetine (Seroxat).

#### **The side effects**

It may cause nausea and vomiting.

#### **Conclusion**

In this study, we found that the main cause of chronic obstructive pulmonary disease (COPD) is smoking and can be stopped to avoid the disease, regardless of the major cause of other diseases, nicotine replacement, by the use of nicotine stick, milk, tablets or capsules, etc. Alternatives are to help you better get rid of smoking habit harmful to you and your surroundings.

So that there is no cure for this disease, but can be alleviated symptoms and prevention of seizures drugs and treatments

#### **References**

1. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global Strategy for the Diagnosis, Management and Prevention of Chronic Obstructive Pulmonary Disease 2017 .
2. Calzetta L. Rogliani P. Matera MG. Matera MG. A systematic review with meta-analysis of dual bronchodilation with LAMA/LABA for the treatment of stable COPD.Chest. 2016; 149: 1181-1196
3. Roversi S, Fabbri LM, Sin DD, Hawkins NM, Agusti A. Chronic obstructive pulmonary disease and cardiac diseases: an urgent need for integrated care. Am J Respir Crit Care Med 2016; 194:1319–1336.
4. Dalsgaard M, Plesner LL, Schou M, Kjoller E, Vestbo J, Iversen K. Prevalence of airflow obstruction in patients with stable systolic heart failure. BMC Pulm Med 2017; 17:6.
5. Calverley P. Vlies B. New pharmacotherapeutic approaches for chronic obstructive pulmonary disease.Semin Respir Crit Care Med. 2015; 36: 523-542.
6. Calverley PMA. Anzueto AR. Dusser D. Mueller A. Metzdorf N. Wise RA. Treatment of exacerbations as a predictor of subsequent outcomes in patients with COPD. Int J Chron Obstruct Pulmon Dis. 2018; (in press.)