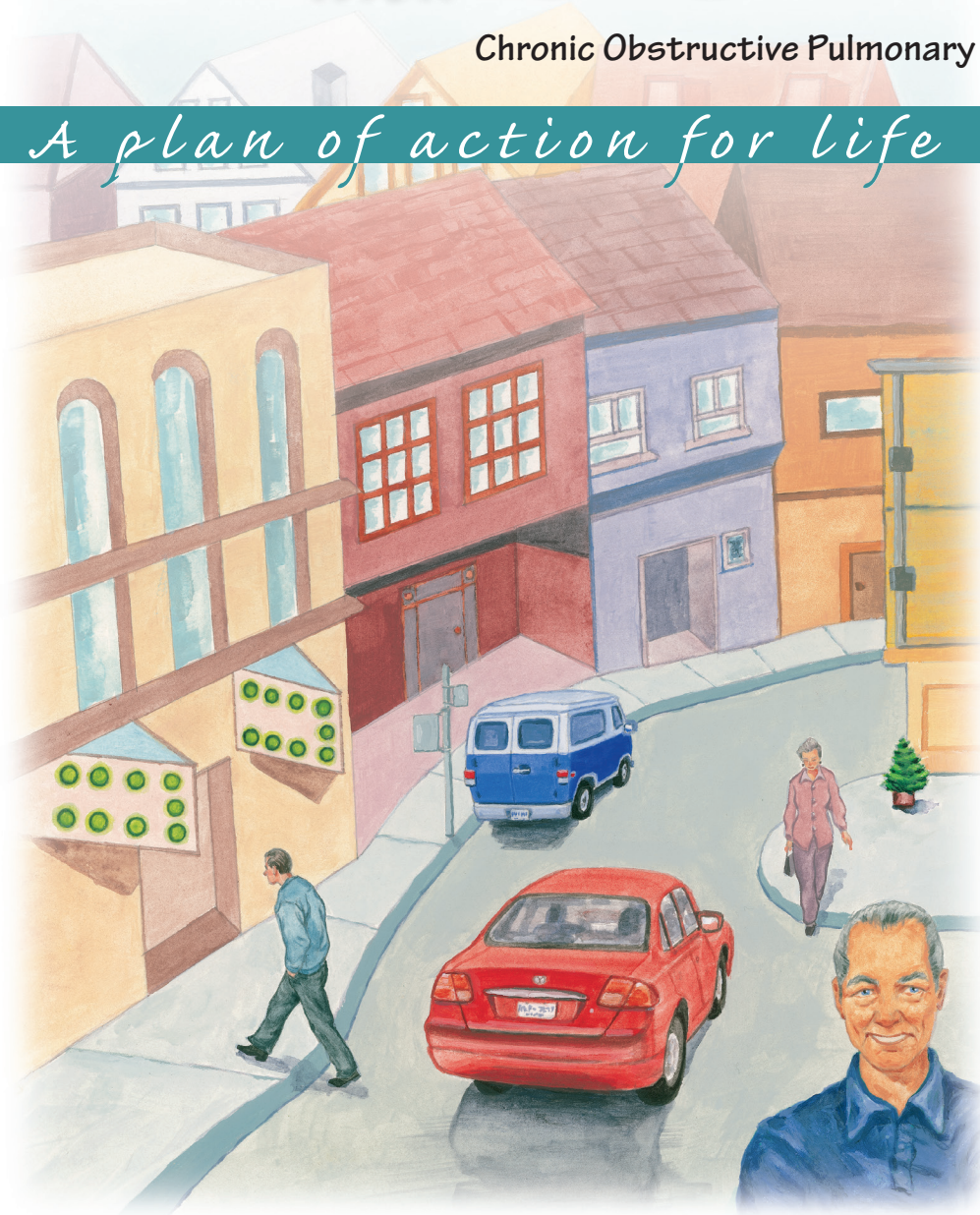


Living Well with COPD™

Chronic Obstructive Pulmonary Disease

A plan of action for life



Medication for COPD and Inhalation Techniques

Flipchart - Part 1

February 2015

Table of contents

Importance of adherence to medication

Medications for COPD

- Bronchodilators
- Anti-inflammatories
- Medications for COPD Exacerbation

Importance of using the proper inhalation technique

Inhalation Devices

- Metered Dose Inhaler (MDI)
- Metered Dose inhaler with Spacing Device
- Dry-powder inhalers (DPI)
- Soft Mist™ inhaler (SMI)

FACILITATOR NOTES

Importance of adherence to medication

Evaluate patient's knowledge about COPD medication. Assess any concerns that may affect compliance.

Suggested questions:

- Which medications do you use for the regular treatment of your COPD (inhalers and pills)?
- Which COPD medication must be used in case of emergency? Give me an example.
- How COPD medications act inside the lungs?
- Do you believe that the medication you take for COPD is effective? In which way?
- Why is it necessary to take your COPD medication regularly?
- What are the concerns you have in regards to the medications you take for your COPD?

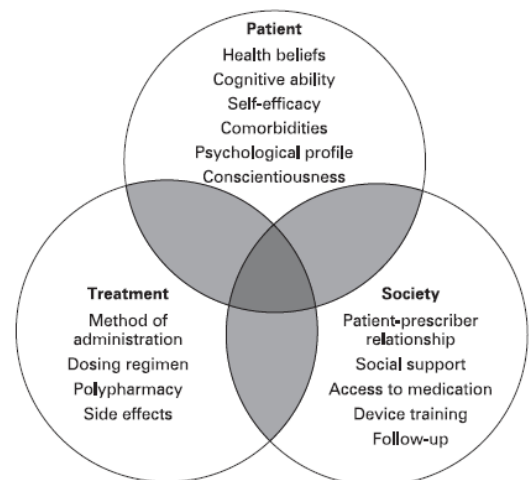
Present each medication role in the COPD treatment (only those prescribed to the patient); review prescription (dose, frequency, etc.) and explain possible side effects (as per product monograph).

"Medications can help to improve your symptoms and your quality of life. You should know the following about your medication: the **name** of each medication you are taking, **what** your medication does, the **dose** you should be taking, **when** you should be taking your medication, **how to take** your medication properly, medication precautions and **side effects**."

Evaluate and reinforce participants' understanding and adherence.

"It is very important to take your medication regularly and exactly as prescribed. **Your health professional can help you to acquire a better routine to make sure to take your medications on a regular basis. If you have any concerns about your medications, ask your doctor and/or your pharmacist. Write your questions in advance.**"

Notes to facilitator: See figure.¹ Adherence to therapy in COPD is complex. Patients require adequate education on the disease process, comorbidities and also on the use of different medications and devices.^{2,3} Adherence to therapy is multifactorial and involves both the patient and the primary care provider. Economic factors may influence patient's selection of both the device and the regimen. Patient's health beliefs, experiences, and behaviors play a significant role in adherence to pharmacological therapy. Recognition of the factors associated to non-adherence in patients with COPD must be the first step in this complicated process of improving adherence.⁴



¹ Bourbeau J, Bartlett SJ. Patient adherence in COPD. Thorax 2008;63:831-838

² Chyssidis E, Frewin DB, Frith PA et al. Compliance with aerosol therapy in COPD. NZMed J 1981; 250: 375-77.

³ Dolce JJ, Crisp C, Manzella B, et al. Medication Adherence Patterns in Chronic Obstructive Pulmonary Diseases. Chest 1991, 99:837-41.

⁴ Restrepo et al. Medication adherence issues in patients treated with COPD. Int J COPD 2008; 3 (3): 371-384.

Medications

Importance of adherence to medication

Medications can help to improve your symptoms and your quality of life.

You should know the following about your medication:

- the name of each medication you are taking
- what your medication does
- the dose you should be taking
- when you should be taking your medication
- how to take your medication properly
- medication precautions and side effects

It is very important to take them regularly and exactly as prescribed.

Your health professional can help you to acquire a better routine to make sure to take your medications on a regular basis.

If you have any concerns about your medications, ask your doctor and/or your pharmacist. Write your questions in advance to not to forget them.



FACILITATOR NOTES

Bronchodilators

- Bronchodilators are the most important medication in COPD therapy.^{1,2}
- They reduce the symptoms of shortness of breath by opening up the airways, reducing air trapping and lung hyperinflation.³
- They also reduce the risk of acute exacerbations (flare-ups) of COPD.⁴
- Because they work for different lengths of time, they are usually called "short-acting" or "long-acting" bronchodilators.
- They may be taken in either of 2 ways: "inhaled" or "oral".
- Certain ones are absolutely essential during an attack of shortness of breath. These are known as "rescue" medications.

There are various types of bronchodilators:

1. Anticholinergics (also called Muscarinic Antagonists)
 - Short-acting (SAAC or SAMA)
 - Long-acting (LAAC or LAMA)
2. Beta₂-agonists
 - Short-acting (SABA)
 - Long-acting (LABA)
3. Combination of bronchodilators
 - Short-acting
 - Long-acting

¹ DE O'Donnell, S Aaron, J Bourbeau et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease - 2007 update. *Can Respir J* 2007; 14 (Suppl B): 5B-32B.

² Global Initiative for COPD - 2013 update. <http://www.goldcopd.org/> access 20130814

³ Restrepo et al. Medication adherence issues in patients treated with COPD. *Int J COPD* 2008; 3 (3): 371-384.

⁴JA Wedzicha et al. The role of bronchodilator treatment in the prevention of exacerbation sin COPD. *Eur Resp J* 2012; 40:6-1545-54.

Medications

Bronchodilators

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2. Beta₂-agonists
 - Short-acting
 - Long-acting
3. Combination of bronchodilators
 - Short-acting
 - Long-acting

FACILITATOR NOTES

Bronchodilators

Short-Acting Anticholinergics (also known as Short-Acting Muscarinic Antagonists)

- Make breathing easier by opening your narrowed airways by blocking cholinergic receptors causing a decrease in vagal tone and a subsequent bronchodilation.¹
- Usually taken regularly, multiple times a day.²
- For some COPD patients, it can be used as needed.³

Here are some examples of available medications in Canada⁴:

1. ^{Pr}Atrovent[®] HFA (Ipratropium Bromide), Inhalation aerosol

¹ ^{Pr}Atrovent[®] HFA Product Monograph, Boehringer Ingelheim (Canada) Ltd., October 29, 2010.

² Global Initiative for COPD - 2013 update. <http://www.goldcopd.org/> access 20130814

³ DE O'Donnell, S Aaron, J Bourbeau et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease - 2007 update. *Can Respir J* 2007; 14 (Suppl B): 5B-32B.

⁴ **Note to the healthcare provider:** Make sure that you have the product monograph of each available medication for COPD in this category.

Medications

Bronchodilators

Short-Acting Anticholinergics

- Make breathing easier by opening your narrowed airways.
- Usually taken regularly, multiple times a day.
- For some COPD patients, they can be used as needed.



FACILITATOR NOTES

Bronchodilators

Long-Acting Anticholinergics (also known as Long-acting Muscarinic Antagonists)

- Indicated for maintenance treatment of COPD.^{1,2,3}
- Reduce dyspnea, disability and exacerbation, and improve quality of life.^{4,5}
- Make breathing easier by opening your narrowed airways by blocking cholinergic receptors, causing a decrease in vagal tone and a subsequent bronchodilation for 12 or 24 hours.^{4,6}
- Taken on a regular basis.^{1,4,7}

Here are some examples of available medications in Canada⁸:

Taken once a day

1. ^{Pr} **Incruse™** (Umeclidinium dry powder for oral inhalation to be used with Ellipta® inhalation device)
2. ^{Pr} **Seebri*** (Glycopyrronium inhalation powder hard capsule to be used with Breezhaler* inhalation device)
3. ^{Pr} **Spiriva®** (Tiotropium capsule for oral inhalation to be used with Handihaler® inhalation device and tiotropium inhalation solution in a cartridge for use only with the Respimat® Inhaler)

Taken twice a day (every 12 hours)

4. ^{Pr} **Tudorza®** (Aclidinium bromide inhalation powder to be used with Genuair® inhalation device)

¹ ^{Pr} **Spiriva®** Product Monograph, Boehringer Ingelheim (Canada) Ltd., August 21, 2012.

² ^{Pr} **Spiriva®** Respimat® Product Monograph, Boehringer Ingelheim (Canada) Ltd., December 12, 2014.

³ ^{Pr} **Seebri*** Breezhaler* Product Monograph, Novartis Pharmaceuticals Canada Inc., October 12, 2012.

⁴ Global Initiative for COPD - 2013 update. <http://www.goldcopd.org/> access 20130814

⁵ DE O'Donnell, S Aaron, J Bourbeau et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease - 2007 update. *Can Respir J* 2007; 14 (Suppl B): 5B-32B.

⁶ ^{Pr} **Incruse™** Ellipta® Product Monograph, GlaxoSmithKline Inc., January 2, 2015.

⁷ ^{Pr} **Tudorza®** Genuair® Product Monograph, Almirall, S.A., July 26, 2013.

⁸ **Note to the healthcare provider:** Make sure that you have the product monograph of each available medication for COPD in this category.

Medications

Bronchodilators

Long-Acting Anticholinergics

- Indicated for maintenance treatment of COPD.
- Reduce breathlessness, disability and exacerbation, and improve quality of life.
- Make breathing easier by opening your narrowed airways.
- Taken on a regular basis.



FACILITATOR NOTES

Bronchodilators

Short-Acting Beta₂-Agonists

- Rescue medication used as needed.^{1,2}
- Open up airways immediately by relaxing smooth muscles to facilitate air passage in the lungs.^{3,4}
- Can also be taken regularly.¹

Here are some examples of available medications in Canada⁵:

1. Pr **Airomir™** (salbutamol sulfate)- MDI^{6,7}
2. Pr **Bricanyl®** (terbutaline sulfate)- Turbuhaler⁴
3. Pr **Ventolin®** (salbutamol sulfate) - MDI³

¹ DE O'Donnell, S Aaron, J Bourbeau et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease - 2007 update. *Can Respir J* 2007; 14 (Suppl B): 5B-32B.

² Global Initiative for COPD - 2013 update. <http://www.goldcopd.org/> access 20130814

³ Pr Ventolin® HFA Product Monograph, GlaxoSmithKline Inc., April 29, 2014.

⁴ Pr Bricanyl® Turbuhaler® Product Monograph, AstraZeneca Canada Inc., January 6, 2014.

⁵ **Note to the healthcare provider:** Make sure that you have the product monograph of each available medication for COPD in this category

⁶ MDI: metered dose inhaler

⁷ Pr Airomir™ Product Monograph, Valeant Canada LP, March 6, 2013

Medications

Bronchodilators

Short-Acting Beta₂-Agonists

- Rescue medication used as needed.
- Open up airways immediately.
- Can also be taken regularly but with the advice of your medical doctor.



FACILITATOR NOTES

Bronchodilators

Long-Acting Beta₂-Agonists

- Indicated for maintenance treatment of COPD.^{1, 2}
- Reduce dyspnea, disability and exacerbation, and improve quality of life.^{3,4}
- Open up airways by relaxing smooth muscles to facilitate air passages in the lungs for 12- 24 hours.
- Should not be used to replace “rescue” medications.

Here are some examples of available medications in Canada⁵:

Taken once a day

1. **PrOnbrez* (Indacaterol maleate inhalation powder hard capsule to be used with Breezhaler* inhalation device)²**

Taken twice a day (every 12 hours)

2. **PrSerevent® (salmeterol xinafoate) - Diskus¹**

¹ PrSerevent® Diskus® Product Monograph, GlaxoSmithKline Inc., September 6, 2012.

² PrOnbrez* Breezhaler* Product Monograph, Novartis Pharmaceuticals Canada Inc., October 24, 2012.

³ Global Initiative for COPD - 2013 update. <http://www.goldcopd.org/> access 20130814

⁴ DE O'Donnell, S Aaron, J Bourbeau et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease - 2007 update. *Can Respir J* 2007; 14 (Suppl B): 5B-32B.

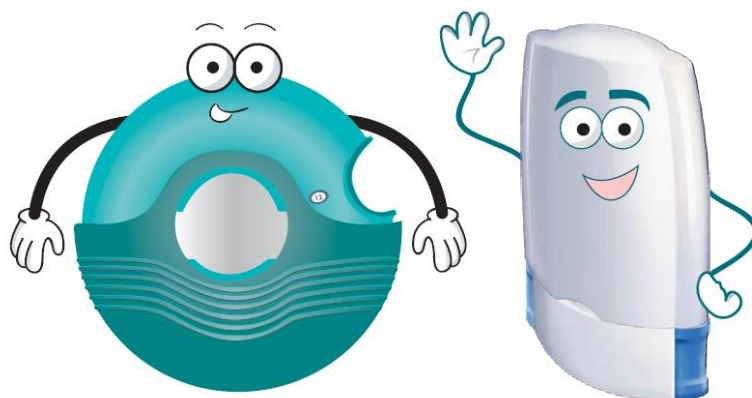
⁵ **Note to the healthcare provider:** Make sure that you have the product monograph of each available medication for COPD in this category.

Medications

Bronchodilators

Long-Acting Beta₂-Agonists

- Indicated for maintenance treatment of COPD.
- Reduce breathlessness, disability and exacerbation, and improve quality of life.
- Open up airways for 12-24 hours.
- Should not be used to replace "rescue" medications.



FACILITATOR NOTES

Bronchodilators

Combination of short-acting bronchodilators

Combination effect of Short-Acting Anticholinergics and Short-Acting Beta₂-Agonists:

- Rescue medication used as needed.^{1,2} Opens up airways immediately by relaxing smooth muscles to facilitate air passage in the lungs.³
- For some COPD patients, it can be used as needed.
- Can also be taken regularly, 4 times a day, but with the advice of your medical doctor.¹

Here is an example of an available medication in Canada⁴:

1. **PrCombivent® (Ipratropium Bromide and Salbutamol inhalation solution in a cartridge for use only with the Respimat® Inhaler)**

¹ DE O'Donnell, S Aaron, J Bourbeau et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease - 2007 update. *Can Respir J* 2007; 14 (Suppl B): 5B-32B.

² Global Initiative for COPD - 2013 update. <http://www.goldcopd.org/> access 20130814

³ PrCombivent® Respimat® Product Monograph, Boehringer Ingelheim (Canada) Ltd., January 8, 2014.

⁴ **Note to the healthcare provider:** Make sure that you have the product monograph of each available medication for COPD in this category.

Medications

Bronchodilators

Combination of short-acting bronchodilators

Combination effect of Short-Acting Anticholinergics and Short-Acting Beta₂-Agonists:

- Rescue medication used as needed - Opens up airways immediately.
- For some COPD patients, it can be used as needed.
- Can also be taken regularly, 4 times a day, but with the advice of your medical doctor.



FACILITATOR NOTES

Bronchodilators

Combinations of long-acting bronchodilators

Combination effect of Long-Acting Anticholinergics and Long-Acting Beta₂-Agonists:

- Open up airways for 24 hours.
- Indicated for maintenance treatment of COPD.
- Prevent shortness of breath and wheezing.
- Reduce disability and exacerbation, and improve quality of life.
- Taken regularly, one inhalation daily.
- Should not be used to replace "rescue" medications.

Here are some examples of available medications in Canada¹:

Combination of Long-Acting Anticholinergics and Long-Acting Beta₂-Agonists

Taken once a day

1. ^{Pr}Anoro[®] Ellipta[®]: Umeclidinium bromide/vilanterol dry powder for oral inhalation.²
2. ^{Pr}Ultibro* Breezhaler*: Indacaterol (as maleate)/glycopyrronium (as bromide) inhalation powder hard capsules to be used only with the supplied Breezhaler* inhalation device.³

¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each available medication for COPD in this category.

² Anoro Ellipta Product Monograph, GlaxoSmithKline Inc., December 17, 2013.

³ Ultibro* Breezhaler* Product Monograph, Novartis Pharmaceuticals Canada, December 19, 2013.

Medications

Bronchodilators

Combinations of long-acting bronchodilators

Combination effect of Long-Acting Anticholinergics and Long-Acting Beta₂-Agonists:

- Open up airways for 24 hours.
- Indicated for maintenance treatment of COPD.
- Prevent shortness of breath and wheezing.
- Reduce disability and exacerbation, and improve quality of life.
- Taken regularly, one inhalation daily.
- Should not be used to replace "rescue" medications.



FACILITATOR NOTES

Anti-inflammatory

Anti-inflammatories reduce certain types of inflammation in your bronchi. Anti-inflammatories come in various forms:

1. Inhaled corticosteroids

- Decrease exacerbation frequency; improve quality of life and lung function.
- In COPD, inhaled corticosteroids can only be used in combination with bronchodilators.^{1,2,3}

2. Inhibitors of phosphodiesterases (PDE) (such as Roflumilast or theophyllines)

- These medications are taken orally on a regular basis for maintenance treatment.^{4,5,6}

3. Oral corticosteroids (such as Prednisone)

- Help to treat exacerbations but are usually not recommended as maintenance treatment.
- **For more information, see the section "Medications to treat Exacerbations".**

¹ Pr Advair® Diskus® Product Monograph, GlaxoSmithKline, December 18, 2012.

² Pr Breo™ Ellipta™ Product Monograph, GlaxoSmithKline, July 11, 2013.

³ Pr Symbicort® Turbuhaler® Product Monograph, AstraZeneca Canada Inc., June 21, 2012.

⁴ PJ Barnes. COPD: current therapeutic interventions and future approaches. ERJ 2005; 25:1084-1106.

⁵ Daxas® Product Monograph, Takeda Canada Inc., March 2013.

⁶ Uniphyll® Product Monograph, Purdue Pharma, June 2012.

Medications

Anti-inflammatories

Anti-inflammatories reduce certain types of inflammation in your bronchi. Anti-inflammatories come in various forms:

- **Inhaled corticosteroids**
 - Make exacerbations less frequent.
 - In COPD, inhaled corticosteroids can only be used in combination with bronchodilators.
- **Inhibitors of phosphodiesterases (PDE) (such as Roflumilast or theophyllines)**
 - These medications are taken orally on a regular basis.
- **Oral corticosteroids (such as Prednisone)**
 - Help to treat exacerbations but are usually not recommended as maintenance treatment.
 - **For more information, see the section "Medications to treat Exacerbations".**

FACILITATOR NOTES

Anti-inflammatories

Inhaled Corticosteroids

In COPD, inhaled corticosteroids can only be used in combination with bronchodilators.

Combinations of Long-Acting Beta₂-Agonists and Inhaled Corticosteroids

- Combination effect:
 - Reduce inflammation and swelling
 - Open up airways
- Decrease exacerbation frequency; improve quality of life and lung function.¹
- Can also be helpful for some patients to further relieve symptoms.²
- Are not indicated for the relief of acute bronchospasm in COPD patients.

Here are some examples of available medications in Canada³:

Taken once a day

1. ^{Pr}Breo[®] Ellipta[®] (fluticasone furoate / vilanterol (as trifenate) dry powder for oral inhalation)⁴

Taken twice a day (every 12 hours)

2. ^{Pr}Dry powder Advair[®] Diskus[®] (salmeterol xinafoate-fluticasone propionate)⁵
3. ^{Pr}Symbicort[®] Turbuhaler[®] (budesonide-formoterol fumarate dihydrate) for oral inhalation⁶

¹ Calverley PM, Anderson JA, Celli B, et al. Salmeterol et fluticasone propionate and survival in chronic obstructive pulmonary disease. N Eng J Med 2007, 356: 775-89.

² DE O'Donnell, S Aaron, J Bourbeau et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease - 2007 update. Can Respir J 2007; 14 (Suppl B): 5B-32B.

³ **Note to the healthcare provider:** Make sure that you have the product monograph of each available medication for COPD in this category.

⁴ ^{Pr}Breo[™] Ellipta[™] Product Monograph, GlaxoSmithKline Inc., July 11, 2013.

⁵ ^{Pr}Advair[®] Diskus[®] Product Monograph, GlaxoSmithKline Inc., December 18, 2012.

⁶ ^{Pr}Symbicort[®] Turbuhaler[®] Product Monograph, AstraZeneca Canada Inc., June 21, 2012.

Medications

Anti-inflammatories

Inhaled Corticosteroids

In COPD inhaled corticosteroids can only be used in combination with bronchodilators.

Combinations of Long-Acting Beta₂-Agonists and Inhaled Corticosteroids

- Combination effect:
 - Reduce inflammation and swelling
 - Open up airways
- Make exacerbations less frequent.
- Can also be helpful for some patients to further relieve symptoms.
- Are not recommended as a rescue medication.



FACILITATOR NOTES

Anti-inflammatory

Inhibitors of phosphodiesterases (PDE)

- These medications result in less inflammation in the lungs and help to stop the narrowing of airways which occurs in COPD.
- They can be only used in addition to an inhaled bronchodilator medication.
- They can decrease breathlessness.
- They must be taken orally (pill form), on a regular basis.
- They must not to be used as rescue medication.

A. Inhibitors of phosphodiesterases (PDE) - such as Theophyllines

- Theophyllines have a bronchodilator effect; however their anti-inflammatory effect is more important in COPD.
- Theophyllines can interact with food and other medications.¹ Make sure your doctor and pharmacist know all the other medications you are taking.
- If you are taking theophyllines, you may require blood tests to monitor how much of the medication is in your body.

Here are some examples of available medications in Canada²:

- ^{Pr}Uniphyll[®] (theophylline 24 hrs sustained release tablets)¹
- Theophylline 12 hrs sustained release caplets are only available on the market via generic versions: Apo-Theo LA, Teva-Theophylline SR, Theo ER.

B. PDE-4 inhibitors - such as Roflumilast

- They are used in patients with a history of frequent exacerbations.
- They can have side effects that are not usually seen with inhaled medication including weight loss, nausea, headache and abdominal pain. Diarrhea is a very common side effect.

Here is an example of an available medication in Canada²:

- ^{Pr}Daxas[®] (roflumilast film-coated tablets, one tablet per day)³

¹ Uniphyll[®] Product Monograph, Purdue Pharma, June 2012.

² **Note to the healthcare provider:** Make sure that you have the product monograph of each available medication for COPD in this category.

³ Daxas[®] Product Monograph, Takeda Canada Inc., November 2014.

Medications

Anti-inflammatory

Inhibitors of phosphodiesterases (PDE)

- These medications result in less inflammation in the lungs and help to stop the narrowing of airways which occurs in COPD.
- They can be only used in addition to an inhaled bronchodilator medication.
- They can decrease breathlessness.
- They must be taken orally (pill form), on a regular basis.
- They must not be used as rescue medication.

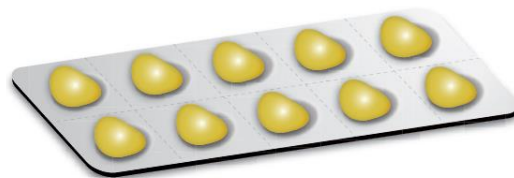
A. Inhibitors of phosphodiesterases (PDE) - such as Theophyllines

- They can interact with food and other medications. Make sure your doctor and pharmacist know all the other medications you are taking.
- You may require blood tests to monitor how much of the medication is in your body.



B. PDE-4 inhibitors - such as Roflumilast

- They are used in patients with a history of frequent exacerbations.
- They can have side effects that are not usually seen with inhaled medication. Diarrhea is a very common side effect.



FACILITATOR NOTES

Medications to treat exacerbations

Oral Anti-Inflammatories (corticosteroids)

- These medications reduce inflammation in the lungs.
- Usually prescribed for short periods (5 to 14 days) when your symptoms get worse (exacerbation). Rarely prescribed on a permanent basis.

The side effects of oral corticosteroids such as Prednisone include¹:

- **Serious side effects that require you to stop taking prednisone** and seek emergency medical attention or contact your doctor immediately: gastrointestinal bleeding, psychic derangements and seizures, an allergic reaction (difficulty breathing, closing of your throat, swelling of your lips, tongue, or face, or hives), increased blood pressure (severe headache or blurred vision), sudden weight gain (more than 2 kg or 5 pounds in a day or two).
- **Other, less serious side effects may occur. Continue to take Prednisone and talk to your doctor** if you experience insomnia, nausea, vomiting, or stomach upset, fatigue or dizziness, muscle weakness or joint pain, problems with diabetes control, increased hunger or thirst.
- **Other side effects that occur only rarely, usually with repeated high doses or prolonged treatment:** Acne, thinning of the skin, cataracts, glaucoma, osteoporosis, roundness of the face.

Other precautions to take with Prednisone:

- **The medication cannot be stopped quickly if it has been taken for a long time.** Doing so can trigger something called acute adrenal insufficiency, causing withdrawal symptoms such as nausea, fatigue, dizziness, loss of appetite, breathlessness and fever. You need to consult a doctor before stopping the medication.
- **Long-term or repeated use** of this medication increases the risk for osteoporosis, a disease in which the bones become fragile and more prone to fracture. Calcium, vitamin D and/or a multivitamin supplement may be required. A doctor can recommend other treatment for post-menopausal women if there is a concern of osteoporosis.

Antibiotics

- Antibiotics relieve symptoms related to a respiratory infection such as sputum, cough or fever.
- Should be taken exactly as prescribed.

Possible side effects¹:

- Intolerances such as upset stomach, nausea, vomiting, diarrhea. Allergic reactions such as a rash or itchy skin; in rare cases severe difficulty breathing, wheezing or dizziness. If you have any of these symptoms or if you are having a severe allergic reaction, you should go to the hospital or call an ambulance.

Note: If more than 1 antibiotic treatment is necessary within a 3-month period, it is recommended to change the antibiotic class on a subsequent prescription to minimize the risk of antibiotic resistance.²

¹ For an exhaustive list please refer the respective product monograph.

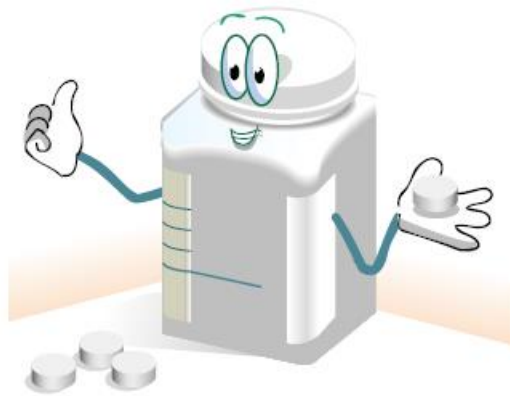
² DE O'Donnell, S Aaron, J Bourbeau et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease - 2007 update. Can Respir J 2007; 14 (Suppl B): 5B-32B.

Medications

Medications to treat exacerbations

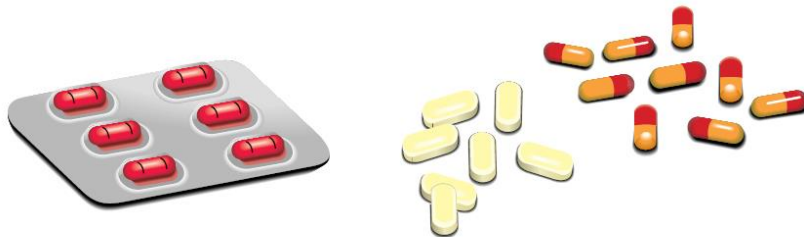
Oral Anti-Inflammatories (corticosteroids)

- These medications reduce inflammation in the lungs.
- Usually prescribed for short periods (5 to 14 days) when your symptoms get worse (exacerbation). Rarely prescribed on a permanent basis.



Antibiotics

- Are useful in treating respiratory infections (sinusitis, infected bronchitis, pneumonia, etc.).
- The treatment has to be taken exactly as prescribed.



These medications can be part of your Plan of Action to be used in the event of an exacerbation.

FACILITATOR NOTES

Importance of using the proper inhalation technique

Evaluate patient's knowledge about inhalation techniques and assess any concern that may affect the use of inhalation devices.

Suggested questions:

- Which inhalation devices are you using?
- Please show me how you use each of your inhalation devices.
- Do you feel uncomfortable taking your inhaled medication in public?

Discuss the importance of using the proper technique.

- In order to work COPD medication must be able to reach your lungs. This is why the proper use of your inhalation devices is essential to prevent and manage your symptoms (shortness of breath, wheezing, etc.).
- Most patients have difficulties with using certain inhalation devices and keeping a good inhalation technique.
- Learning the right inhaler technique can be difficult, but you must persist.
- If you use any of these inhalers incorrectly, the medicine may not get into your airways as it is supposed to, and the therapy could be less effective.
- Handling these devices should become a second nature to you, like a reflex.
- **Ask your health professional, your doctor and/or your pharmacist to verify your inhalation technique at each visit.**

Present each inhalation device individually, following these steps:

1. Demonstrate the inhalation technique and as the patient to practice in front of you. Correct as needed and reinforce proper use of the technique.
2. Describe the maintenance procedure (see the Consumer Information pages from the Product Monograph).

Special notes about inhalers

1. If an inhaled medication contains a corticosteroid, rinse your mouth with water without swallowing.
2. Always slightly tilt back the head before taking inhaled medication.
3. Holding the medication for 5-10 seconds before breathing out allows for better deposition in the lungs.
4. After inhaling the medication, breathing out through the nose is preferred.

Inhalation devices

Importance of using the proper inhalation technique

- In order to work COPD medication must be able to reach your lungs. This is why the proper use of your inhalation devices is essential to prevent and manage your symptoms (shortness of breath, wheezing, etc.).
- Most patients have difficulties using certain inhalation devices and keeping a good inhalation technique.
- Learning the right inhaler technique can be difficult, but you must persist.
- If you use any of these inhalers incorrectly, the medicine may not get into your airways as it is supposed to, and the therapy could be less effective.
- Handling these devices should become a second nature to you, like a reflex.



Ask your health professional, your doctor and/or your pharmacist to verify your inhalation technique at each visit.

FACILITATOR NOTES

Inhalation devices

The devices that deliver your inhaled medications are classified in three categories:

1. The metered-dose inhaler (MDI) and the spacing device

With an **MDI** (also called inhaler or puffer), the medication is dispensed by pressing down on the canister, which releases a spray of medication at a set dose.

When using an **MDI** you need to coordinate your inhalation with the activation of the inhaler.

The use of a **spacing device** is highly recommended since it:

- Increases the amount of medication reaching your lungs.
- Diminishes the amount of medication remaining in your mouth and throat, which may reduce some of the drug side effects (bitter taste, hoarseness and thrush).
- Studies have demonstrated that more than 75% of patients have difficulty using metered dose inhalers.^{1,2}
- 38% of patients do not keep an adequate technique over time.^{3,4}

2. The dry powder inhalers (DPI)

These devices deliver medication as a powder to your lungs when you inhale; the coordination of your inhalation with the medication release is greatly simplified.

Some of these devices are unidose (you need to put a new capsule inside the device to get each dose), while other devices are multidose (the device is preloaded with multiple doses).

Here are some examples of available dry powder inhalers:

- Breezhaler
- Diskus
- Ellipta
- Genuair
- Handihaler
- Turbuhaler

3. Soft Mist™ inhaler (SMI)

This is a new type of inhaler, which is propellant-free. It generates a greater amount of breathable particles of medication. The medication is delivered as a soft mist, which is suspended in a cloud longer, which simplifies coordination of inhaler activation with inspiration. Lung deposition is improved, and impact in the oropharynx is reduced.

Here is an available Soft Mist™ inhaler:

- Respimat

Note to the healthcare provider: Make sure that you have the product monograph of each COPD medication. In the consumer information, the inhalation techniques specific to that medication using that device are described in detail.

¹ Goodman DE, Israel E, Rosenberg M, et al. The influence of age, diagnosis and gender on proper use of metered-dose inhalers. *Am J Respir Crit Care Med* 1994;150:1256-61.

² Van Beerendonk I, Mesters I, Mudde AN, Tan TD. Assessment of the inhalation technique in outpatients with asthma or COPD using a metered-dose inhaler or dry powder device. *J Asthma* 1998;35:273-79.

³ De Blaquiére P, Christensen DB, Carter WB, Martin TR. Use and misuse of metered-dose inhalers by patients with chronic lung disease. *Am Rev Respir Dis* 1989;140:910-16.

⁴ Crompton GK. The adult patient's difficulties with inhalers. *Lung* 1990;Suppl 168:658-62.

Inhalation devices

Inhalation devices

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- increases the amount of medication reaching your lungs, and
- diminishes the amount of medication remaining in your mouth and throat, which may reduce some of the drug side effects (bitter taste, hoarseness and thrush).

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These devices deliver medication as a powder to your lungs when you inhale; the coordination of your inhalation with the medication release is greatly simplified.

Some of these devices are unidose (you need to put a new capsule inside the device to get each dose), while other devices are multidose (the device is preloaded with multiple doses).

3. Soft Mist™ inhalers (SMI)

This is a new type of inhaler, which is propellant-free. It releases medication slowly and gently, making it easy to inhale it into your lungs: the medication is delivered as a soft mist, which is suspended in a cloud longer, which simplifies coordination of inhaler activation with inspiration.

FACILITATOR NOTES

Metered-dose inhaler¹

TECHNIQUE

1. Remove the cap.
2. Shake the inhaler 3-4 times from top-down (to mix the contents well).
3. Tilt your head slightly back and exhale normally.
4. Place carefully the mouthpiece within your teeth and seal your lips around it.
5. Begin to breathe in slowly through your mouth. Press down once on the canister and continue breathing in slowly (only once to release one dose of medication).
6. Continue to breathe in slowly and deeply until your lungs are full.
7. Hold your breath for 5-10 seconds or as long as is comfortable, so the medication will have time to settle in your airways.
8. If another dose is required, wait one minute between puffs and repeat steps 2-7.
9. Replace the protective cap.

MAINTENANCE AND CLEANING

- The mouthpiece of the MDI should be cleaned regularly with a dry tissue, both inside and outside. Once a week, clean the cap and plastic container, without the canister, by soaking them in warm, soapy water, then rinsing and allowing air-drying.
- The canister should be kept warm, away from heat sources and cold. In case of exposure to cold, roll the canister between the palms of your hands to warm it up.
- Some MDI have a dose counter. Otherwise, you can estimate how much medication is left based on your regular usage (for example, if an inhaler contains 60 doses, and you use it twice a day it should be finished within a month).
- If the inhaler is new, or has not been used for one week or more, you should release several puffs in the air (called priming) to ensure that it will work appropriately. Consult the consumer information of the medication that you are taking since the amount of puffs may vary from one product to another.

¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each COPD medication used with this type of inhaler. For additional information, please consult the Consumer Information page (part III of the Product Monograph).

Inhalation devices

Metered-dose inhaler

TECHNIQUE

1. Remove the cap.
2. Shake the inhaler 3-4 times from top-down (to mix the contents well).
3. Tilt your head slightly back and exhale normally.
4. Place carefully the mouthpiece within your teeth and seal your lips around it.
5. Begin to breathe in slowly through your mouth. Press down once on the canister and continue breathing in slowly (only once to release one dose of medication).
6. Continue to breathe in slowly and deeply until your lungs are full.
7. Hold your breath for 5-10 seconds or as long as is comfortable, so the medication will have time to settle in your airways.
8. If another dose is required, wait one minute between puffs and repeat steps 2-7.
9. Replace the protective cap.

Step 2



Step 4



Ask your resource person to do a demonstration and to evaluate your technique.
Note that your inhaler may look different than these images.

FACILITATOR NOTES

Metered dose inhaler with a spacing device¹

TECHNIQUE

1. Remove the caps.
2. Shake the inhaler 3-4 times.
3. Connect the inhaler to the spacing device, keeping it upright.
4. Tilt your head slightly back and breathe out normally.
5. Place the spacing device mouthpiece carefully between your teeth and seal your lips around it.
6. Press down canister once.
7. Breathe in slowly and deeply through your mouth.
8. **a. Single breath technique:** Try to hold your breath for 5-10 seconds or as long as is comfortable. Then exhale normally.
b. Tidal volume technique: If you find it difficult to take one deep breath or to hold your breath for long, breathe slowly in and out of the spacing device, 3-4 times in a row.
9. If you need more than one dose, wait 1 minute between puffs and repeat steps 2-8.
10. Replace the protective caps.

MAINTENANCE AND CLEANING

- Clean the spacer device prior to the first use and once a week thereafter, as per the manufacturer's instructions, to avoid build up of medication residue or propulsion agent on the walls.
- If your spacer device is well-maintained, it can last for one or two years, depending on the type. The device should be replaced earlier if damaged.
- Keep the spacer device in a secure place to ensure that no foreign objects will fall into the chamber.

COMMENTS

- If inspiration is too rapid, you will hear a musical sound, indicating that you should reduce the speed of your breathing, otherwise the medication will remain in the throat more than in the lungs.

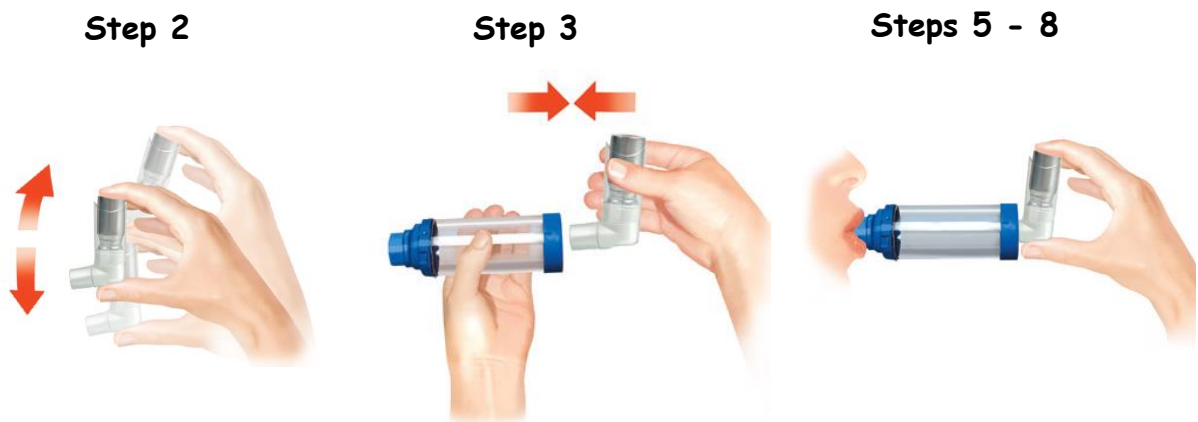
¹ **Note to the healthcare provider:** Make sure that you have the patient information for Spacer devices available in your region. Information about coverage plans by provincial health insurance programs will also be appreciated by patients.

Inhalation devices

Metered dose inhaler with a spacing device

TECHNIQUE

1. Remove the caps.
2. Shake the inhaler 3-4 times.
3. Connect the inhaler to the spacing device, keeping it upright.
4. Tilt your head slightly back and breathe out normally.
5. Place the spacing device mouthpiece carefully between your teeth and seal your lips around it.
6. Press down canister once.
7. Breathe in slowly and deeply through your mouth.
8. **a. Single breath technique:** Try to hold your breath for 5-10 seconds or as long as is comfortable. Then exhale normally.
b. Tidal volume technique: If you find it difficult to take one deep breath or to hold your breath for long, breathe slowly in and out of the spacing device, 3-4 times in a row.
9. If you need more than one dose, wait 1 minute between puffs and repeat steps 2-8.
10. Replace the protective caps.



Ask your resource person to do a demonstration and to evaluate your technique.
Note that your spacing device may look different than these images.

FACILITATOR NOTES

Dry powder inhalers: Breezhaler¹

TECHNIQUE

1. Pull off the cap.
2. **Open inhaler:** Hold the base of the BREEZHALER firmly and tilt the mouthpiece to open the inhaler.
3. **Prepare capsule:**
 - a. Onbrez* Breezhaler*: Immediately before use, with dry hands, remove one capsule from the blister.
 - b. Seebri* and Ultibro* Breezhaler*: Separate one of the blisters from the blister card by tearing along the perforation. Take one blister and peel away the protective backing to expose the capsule. Do not push capsule through foil. With dry hands, remove capsule from the blister.
4. **Insert capsule:** Place the capsule into the capsule chamber.
5. **Close the inhaler:** You should hear a 'click' as it fully closes.
6. **Pierce the capsule:** Hold the inhaler upright with the mouthpiece pointing up. Press both buttons fully one time. You should hear a 'click' as the capsule is being pierced. **Do not press the piercing buttons more than once.**
7. Release the buttons fully.
8. **Breathe out fully: Never blow into the mouthpiece.**
9. **Inhale the medicine:** Before breathing in, hold the inhaler with the buttons to the left and right (not up and down); place the mouthpiece in your mouth and close your lips firmly around the mouthpiece. Breathe in rapidly but steadily, as deeply as you can. **Do not press the piercing buttons.**
10. **Note:** As you breathe in through the inhaler, the capsule spins around in the chamber and you should hear a whirring noise. You will experience a sweet taste as the medicine goes into your lungs.
11. **Hold breath:** Continue to hold your breath for at least 5-10 seconds or as long as comfortably possible while removing the inhaler from your mouth. Then breathe out. Open the inhaler: **If there is powder left in the capsule,** close the inhaler and repeat steps 8-11.
12. **Remove capsule:** Open the mouthpiece again, remove the empty capsule by tipping it out, and discard it. Close the inhaler and replace the cap.
13. **Mark daily dose tracker:** On the inside of the pack there is a daily dose tracker. Put a mark in today's box if it helps to remind you of when your next dose is due.

MAINTENANCE AND CLEANING

- Never wash the inhaler with water. Always keep the inhaler and capsules in a dry place.
- Always use the new inhaler that comes with your new medication pack (use a new inhaler each month).
- Do not store the capsules in the inhaler. Capsules must only be removed from the blister immediately before use.

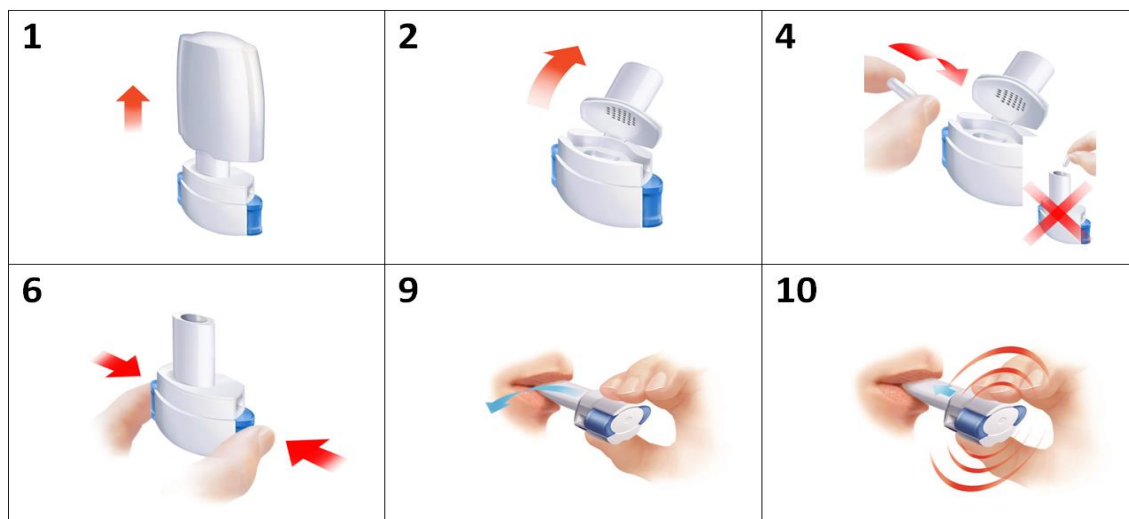
¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each COPD medication used with this type of inhaler. For additional information, please consult the Consumer Information page (part III of the Product Monograph).

Inhalation devices

Dry powder inhalers: Breezhaler

TECHNIQUE

1. Pull off the cap.
2. **Open inhalation device:** Hold the base of the inhaler firmly and tilt the mouthpiece to open the inhaler.
3. **Prepare capsule.**
4. **Insert capsule:** Place the capsule into the capsule chamber.
5. **Close the inhalation device.** You should hear a 'click'.
6. **Pierce the capsule.** Do not press the piercing buttons more than once.
7. Release the buttons fully.
8. **Breathe out.** Never blow into the mouthpiece.
9. Hold the inhaler with the buttons to the left and right. Place the mouthpiece in your mouth and close your lips firmly around the mouthpiece. **Breathe in rapidly but steadily, as deeply as you can.**
10. **Note:** As you breathe in through the inhaler, the capsule spins around in the chamber and you should hear a whirring noise.
11. **Hold your breath** for at least 5-10 seconds or as long as comfortably possible while removing the inhaler from your mouth. Then breathe out.
12. **Remove capsule:** Open the mouthpiece again, remove the empty capsule by tipping it out, and discard it. Close the inhaler and replace the cap.
13. **Mark daily dose tracker:** Put a mark in today's box if it helps to remind you of when your next dose is due.



Ask your resource person to do a demonstration and evaluate your technique.
Note that your inhaler's color may be different.

FACILITATOR NOTES

Dry powder inhalers: Diskus¹

TECHNIQUE

1. **Open:** To open your inhaler hold the outer case in one hand and put the thumb of your other hand on the thumb grip. Push the thumb grip away from you, until you hear it click into place.
2. **Slide:** Hold your inhaler with the mouthpiece towards you. Slide the lever away until you hear another click. Your inhaler is now ready to use.
3. **Exhale:** Hold the inhaler away from your mouth. Breathe out as far as is comfortable. Remember - never exhale into your inhaler.
4. **Inhale:** Before you start to inhale the dose, read through this section carefully. Once you have fully exhaled, place the mouthpiece to your mouth and close your lips around it. Breathe in steadily and deeply through your mouth until a full breath is taken. Remove the inhaler from your mouth. Hold your breath for 5-10 seconds or as long as is comfortable. **Breathe out slowly.**
5. **Close:** To close your inhaler, place your thumb in the thumb grip, and slide it back until you hear a click. The lever is now automatically reset for your next use. The counter on the inhaler indicates how many doses are remaining.

MAINTENANCE AND CLEANING

- The device has a dose counter which tells you the number of doses remaining. To show when the last five doses have been reached the numbers appear in red.
- Each dose is accurately measured and hygienically protected. The Diskus requires no maintenance, and no refilling.

¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each COPD medication used with this type of inhaler. For additional information, please consult the Consumer Information page (part III of the Product Monograph).

Inhalation devices

Dry powder inhalers: Diskus

TECHNIQUE

1. **Open:** To open your inhaler hold the outer case in one hand and put the thumb of your other hand on the thumb grip. Push the thumb grip away from you, until you hear it click into place.
2. **Slide:** Hold your inhaler with the mouthpiece towards you. Slide the lever away until you hear another click. Your inhaler is now ready to use.
3. **Exhale:** Hold the inhaler away from your mouth. Breathe out as far as is comfortable. Remember - never exhale into your inhaler.
4. **Inhale:** Before you start to inhale the dose, read through this section carefully. Once you have fully exhaled, place the mouthpiece to your mouth and close your lips around it. Breathe in steadily and deeply through your mouth until a full breath is taken. Remove the inhaler from your mouth. Hold your breath for 5-10 seconds or as long as is comfortable. **Breathe out slowly.**
5. **Close:** To close your inhaler, place your thumb in the thumb grip, and slide it back until you hear a click. The lever is now automatically reset for your next use. The counter on the inhaler indicates how many doses are remaining.

Step 1



Step 2



Step 4



Step 5



Ask your resource person to do a demonstration and to evaluate your technique.
Note that your inhaler's color may be different.

FACILITATOR NOTES

Dry powder inhalers: Ellipta¹

TECHNIQUE

1. Prepare:

- a. When you take your inhaler out of its box it will be in the closed position.
- b. Keep the cover closed until you are ready to inhale a dose.
- c. When you are ready, slide the cover to the side until you hear one 'click'.
- d. The dose counter will now count down by one number. You are now ready to inhale a dose.

2. Inhale:

- a. While holding the inhaler away from your mouth, breathe out as far as it is comfortable.
Remember - never exhale into your inhaler.
- b. Put the mouthpiece between your lips, and close your lips firmly around it. **Don't block the air vent with your fingers.**
- c. Take one long, steady, deep breath in. Hold your breath for 5-10 seconds or as long as is comfortable.
- d. Remove the inhaler from your mouth. **Breathe out slowly.**

3. Close:

- a. Slide the cover upwards as far as it will go to cover the mouthpiece.

MAINTENANCE AND CLEANING

- You may not be able to taste or feel the medication (this is normal), even when you are using the inhaler correctly.
- You can clean the mouthpiece of the inhaler with a clean dry tissue after you have inhaled the medicine.
- This is a ready-to-use device: you will not need to prime it before using it for the first time.
- A new inhaler shows exactly 30 doses. It counts down by 1 each time you open the cover. If you open and close the cover of your inhaler without inhaling the medicine, you will lose the dose.
- When fewer than 10 doses are left, half of the dose counter shows red, to remind you to refill your prescription. When the counter shows a full solid red background, the inhaler is empty.

¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each COPD medication used with this type of inhaler. For additional information, please consult the Consumer Information page (part III of the Product Monograph).

Inhalation devices

Dry powder inhalers: Ellipta

TECHNIQUE

1. Prepare:

- When you take your inhaler out of its box it will be in the closed position.
- Keep the cover closed until you are ready to inhale a dose.
- When you are ready, slide the cover to the side until you hear one 'click'.
- The dose counter will now count down by one number. You are now ready to inhale a dose.

2. Inhale:

- While holding the inhaler away from your mouth, breathe out as far as it is comfortable. **Remember - never exhale into your inhaler.**
- Put the mouthpiece between your lips, and close your lips firmly around it. Don't block the air vent with your fingers.
- Take one long, steady, deep breath in. Hold your breath for 5-10 seconds or as long as is comfortable.
- Remove the inhaler from your mouth. **Breathe out slowly.**

3. Close:

- Slide the cover upwards as far as it will go to cover the mouthpiece.

Step 1c



Step 2b



Ask your resource person to do a demonstration and to evaluate your technique.
Note that your inhaler's color may be different.

FACILITATOR NOTES

Dry powder inhalers: Genuair¹

TECHNIQUE

1. Remove the protective cap by **lightly squeezing the arrows** marked on each side and pulling outwards.
2. Hold the inhaler **horizontally** with the mouthpiece towards you and the colored button facing straight up.
3. **Press** the colored button all the way down and **release** it. The **green** control window confirms that your medicine is ready for inhalation.
4. Breathe out away from the inhaler.
5. Place your lips tightly around the mouthpiece and inhale **strongly** and **deeply** through your mouth. The inhaler signals that you inhaled correctly by emitting a "**click**" sound. Keep breathing in even after you have heard the "**click**" to be sure you get the full dose.
6. Remove the inhaler from your mouth and hold your breath for 5-10 seconds or as long as is comfortable, then breathe out slowly.
7. Make sure the control window has turned to **red**. This confirms that you have inhaled your full dose correctly. If the coloured control window is still green, please repeat inhaling strongly and deeply through the mouthpiece. If the window still does not change to red, you may have forgotten to release the green button before inhaling or may not have inhaled correctly. If that happens, try again.
8. Once the window has turned red, replace the protective cap by pressing it back onto the mouthpiece.

MAINTENANCE AND CLEANING

- When a **red striped band** appears in the dose indicator this means you are nearing your last dose and you should obtain a new inhaler.
- When 0 (zero) appears in the middle of the dose indicator, you should continue using any doses remaining in the inhaler.
- When the last dose has been prepared for inhalation, the colored button will not return to its full upper position, but will be locked in a middle position. Even though the colored button is locked, your last dose may still be inhaled. After that, the inhaler cannot be used again and you should start using a new inhaler.
- You do not need to clean your inhaler. However, if you wish to clean it you should do so by wiping the outside of the mouthpiece with a dry tissue or paper towel. Never use water to clean the inhaler, as this may damage your medicine.

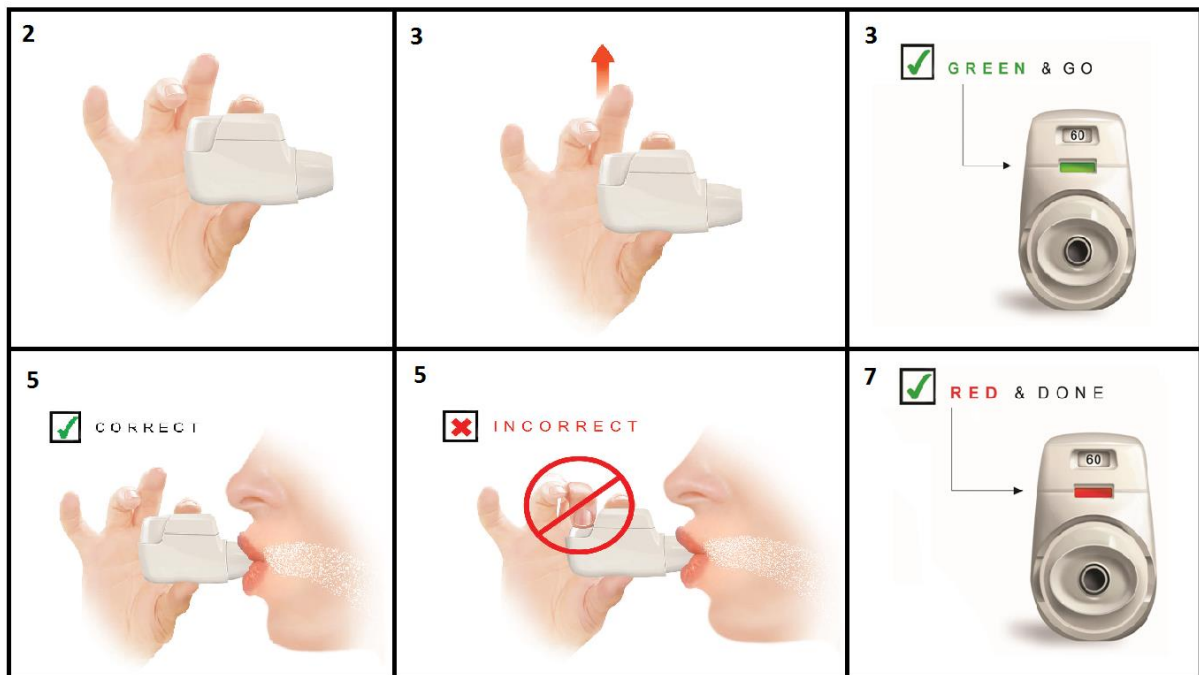
¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each COPD medication used with this type of inhaler. For additional information, please consult the Consumer Information page (part III of the Product Monograph).

Inhalation devices

Dry powder inhalers: Genuair

TECHNIQUE

1. Remove the protective cap by **lightly squeezing the arrows** marked on each side and pulling outwards.
2. Hold the inhaler **horizontally** with the mouthpiece towards you and the colored button facing **straight up**.
3. **Press** the colored button all the way down and **release** it. The **green** control window confirms that your medicine is ready for inhalation.
4. Breathe out away from the inhaler.
5. Place your lips tightly around the mouthpiece and inhale **strongly and deeply** through your mouth. The inhaler signals that you inhaled correctly by emitting a "click" sound. Keep breathing in even after you have heard the "click" to be sure you get the full dose.
6. Remove the inhaler from your mouth and hold your breath for 5-10 seconds or as long as is comfortable, then breathe out slowly.
7. Make sure the control window has turned to **red**. This confirms that you have inhaled your full dose correctly.
8. Replace the protective cap by pressing it back onto the mouthpiece.



Ask your resource person to do a demonstration and to evaluate your technique.
Note that your inhaler's color may be different.

FACILITATOR NOTES

Dry powder inhalers: Handihaler¹

TECHNIQUE

1. To release the dust cap, press the green piercing button completely in and let go.
2. Open the dust cap completely by pulling it upwards, then open the mouthpiece by pulling it upwards.
3. **Immediately** before use, peel the aluminum back foil until one capsule is fully visible. Remove **one** capsule from the blister (do not expose more than one capsule).
4. Place the capsule in the centre chamber.
5. Close the mouthpiece **firmly until you hear a click**, leaving the dust cap open.
6. **Hold the inhaler with the mouthpiece upwards and press the green button completely in only once, and release.**
7. Breathe out completely. **Do not breathe into the mouthpiece at any time.**
8. Hold the inhaler by the grey base. **Do not block the air intake vents.** Raise the inhaler to your mouth and close your lips tightly around the mouthpiece. Keep your head in an upright position and breathe in slowly and deeply but at a rate **sufficient to hear or feel the capsule vibrate.** Breathe in until your lungs are full; then hold your breath for to 5-10 seconds or as long as is comfortable and at the same time take the inhaler out of your mouth. Resume normal breathing.
9. **To ensure complete inhalation of capsule contents, you must repeat steps 7 and 8 once again.**
10. Open the mouthpiece again. Tip out the used capsule and dispose. Do not touch the used capsules. If the dry powder gets in your hands, make sure you wash your hands thoroughly.
11. Close the mouthpiece and dust cap for storage of your device.

MAINTENANCE AND CLEANING

- It is important to clean the inhaler once a month, as follows: Open the dust cap and mouthpiece; open the base by lifting the piercing button; rinse the complete inhaler with warm water to remove any powder; dry the inhaler thoroughly (it takes 24 hours to air dry).
- For additional information, please consult the Consumer Information page (part of the Product Monograph).

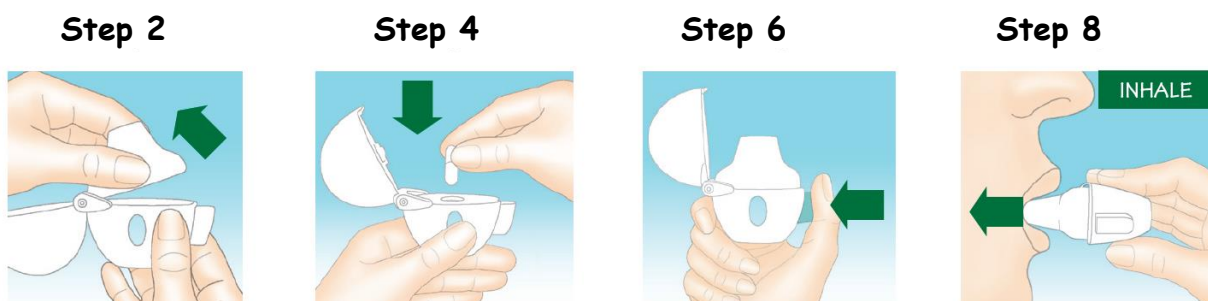
¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each COPD medication used with this type of inhaler. For additional information, please consult the Consumer Information page (part III of the Product Monograph).

Inhalation devices

Dry powder inhalers: Handihaler

TECHNIQUE

1. To release the dust cap, press the green piercing button completely in and let go.
2. Open the dust cap completely by pulling it upwards, then open the mouthpiece by pulling it upwards.
3. **Immediately** before use, peel the aluminum back foil until one capsule is fully visible. Remove **one** capsule from the blister (do not expose more than one capsule).
4. Place the capsule in the centre chamber.
5. Close the mouthpiece **firmly until you hear a click**, leaving the dust cap open.
6. **Hold the inhaler with the mouthpiece upwards and press the green button completely in only once, and release.**
7. Breathe out completely. **Do not breathe into the mouthpiece at any time.**
8. Hold the inhaler by the grey base. **Do not block the air intake vents.** Raise the inhaler to your mouth and close your lips tightly around the mouthpiece. Keep your head in an upright position and breathe in slowly and deeply but at a rate **sufficient to hear or feel the capsule vibrate.** Breathe in until your lungs are full; then hold your breath for 5-10 seconds or as long as is comfortable and at the same time take the inhaler out of your mouth. Resume normal breathing.
9. **To ensure complete inhalation of capsule contents, you must repeat steps 7 and 8 once again.**
10. Open the mouthpiece again. Tip out the used capsule and dispose. Do not touch the used capsules. If the dry powder gets in your hands, make sure you wash your hands thoroughly.
11. Close the mouthpiece and dust cap for storage of your device.



Ask your resource person to do a demonstration and to evaluate your technique.
Note that your inhaler's color may be different.

FACILITATOR NOTES

Dry powder inhalers: Turbuhaler¹

TECHNIQUE

1. Unscrew and lift off the cover. You may hear a rattling sound. This is normal; it is the sound of the drying agent, not the medication.
2. Holding the inhaler upright, **turn the colored grip** as far as it will go in one direction (clockwise or counter clockwise, it does not matter which way you turn it first); then you must turn it back again as far as it will go in the opposite direction. Do not hold the mouthpiece when turning the grip. **The click you hear is part of the loading process.** The inhaler is now ready to use.
3. **Breathe out**, with your mouth away from the mouthpiece. Then, place the mouthpiece gently between your teeth.
4. Now close your lips over the mouthpiece. **Inhale as deeply and strongly as you can.** Remove the inhaler from your mouth and hold your breath for 5-10 seconds or as long as is comfortable. **Repeat this process from step 1 if more than one dose has been prescribed.** When you have taken the prescribed amount of maintenance doses, rinse your mouth with water, and do not swallow.

MAINTENANCE AND CLEANING

- Clean the outside of the mouthpiece once a week with a dry tissue. Never use water or any other fluid when cleaning the mouthpiece. If fluid enters the inhaler it may not work properly.
- Always replace the cover properly after use.

COMMENTS

- The device has a dose counter that can be seen through a small window below the mouthpiece. When the "0" red mark appears, the device is empty.
- If you accidentally drop, shake or breathe out into your device after it is loaded, you will lose your dose. If this happens, you should load a new dose and inhale it.
- If you are not sure you heard the click, and you turn and click the inhaler a second time, you will not end up taking 2 doses by mistake. The design of this device makes it impossible to load more than one dose at a time, even if the inhaler is clicked several times.

¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each COPD medication used with this type of inhaler. For additional information, please consult the Consumer Information page (part III of the Product Monograph).

Inhalation devices

Dry powder inhalers: Turbuhaler

TECHNIQUE

1. Unscrew and lift off the cover. You may hear a rattling sound. This is normal; it is the sound of the drying agent, not the medication.
2. Holding the inhaler upright, **turn the colored grip** as far as it will go in one direction (clockwise or counter clockwise, it does not matter which way you turn it first); then you must turn it back again as far as it will go in the opposite direction. Do not hold the mouthpiece when turning the grip. **The click you hear is part of the loading process.** The inhaler is now ready to use.
3. **Breathe out**, with your mouth away from the mouthpiece. Then, place the mouthpiece gently between your teeth.
4. Now close your lips over the mouthpiece. **Inhale as deeply and strongly as you can.** Remove the inhaler from your mouth and hold your breath for 5-10 seconds or as long as is comfortable. **Repeat this process from step 1 if more than one dose has been prescribed.** When you have taken the prescribed amount of maintenance doses, rinse your mouth with water, and do not swallow.

Step 2



Step 4



Ask your resource person to do a demonstration and to evaluate your technique.
Note that your inhaler's color may be different.

FACILITATOR NOTES

Soft Mist inhaler: Respimat¹

TECHNIQUE

IMPORTANT: Before taking the first dose, the Respimat needs to be properly assembled and prepared.

To prepare the inhaler for first-time use

- a. Hold your inhaler upright with the cap closed. Turn the clear base until it clicks.
- b. Open the plastic cap until it snaps fully open.
- c. Point the inhaler towards the ground, press the dose release button and close the cap.
- d. Repeat steps a-c until a cloud is visible.
- e. Repeat steps a-c three more times to ensure the inhaler is prepared for use.

Using the inhaler (daily use)

1. Hold the inhaler upright, with the cap closed, to avoid accidental release of dose.
2. **Turn** the base in the direction of the red arrows on the label until it clicks (half a turn).
3. **Open** the plastic cap until it snaps fully open.
4. Breathe out slowly and holding the inhaler level, place the mouthpiece carefully between your teeth. Seal your lips around the mouthpiece without covering the air vents.
5. Point your inhaler to the back of your throat. While taking in a slow, deep breath through your mouth, **press** the dose release button and continue to breathe in slowly for as long as you can.
6. Remove the inhaler from your mouth and hold your breath for about 5-10 seconds or as long as is comfortable.
7. Replace the plastic cap.

MAINTENANCE AND CLEANING

- If the inhaler has not been used for more than 7 days, release one puff towards the ground. If the inhaler has not been used for more than 21 days, **then repeat steps a-e**.
- The dose indicator shows approximately how much medication is left. When the pointer enters the red area of the scale, this is when you need to get a new inhaler prescription.
- Once the dose indicator has reached the end of the red scale (i.e. all of the doses have been used), the inhaler is empty and locks automatically. At this point, the base cannot be turned any further.
- At the latest, three months after use the inhaler should be discarded even if not all medication has been used.

¹ **Note to the healthcare provider:** Make sure that you have the product monograph of each COPD medication used with this type of inhaler. For additional information, please consult the Consumer Information page (part III of the Product Monograph).

Inhalation devices

Soft Mist inhaler: Respimat

TECHNIQUE

1. Hold your inhaler upright with the cap closed.
2. **Turn** the clear base until it clicks.
3. **Open** the plastic cap until it snaps fully open.
4. Breathe out slowly and holding the inhaler level, place the mouthpiece carefully between your teeth. Seal your lips around the mouthpiece without covering the air vents.
5. While taking in a slow, deep breath, **press** the dose release button and continue to breathe in slowly.
6. Remove the inhaler from your mouth and hold your breath for about 5-10 seconds or as long as is comfortable.
7. Replace the plastic cap.



Ask your resource person to do a demonstration and to evaluate your technique.
Note that your inhaler's color may be different.

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