A Practical Guide on Inhalers used in Asthma and COPD

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eSSC Report (July 2014)
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This project is all my own work unless otherwise stated. All text, figures, tables, data or results which are not my own work are indicated and the sources acknowledged.

DISCLAIMER: The products reviewed in this guide were chosen solely on the grounds of their frequent use at the Bristol Royal Infirmary. No contact was made with any product manufacturer in this study.
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Introduction

Chronic respiratory diseases constitutes a major disease burden and a majority of it is represented by Asthma and Chronic Obstructive Pulmonary Disease (COPD) having been estimated to affect 235 million and 64 million people respectively worldwide (1, 2). In UK, 9-10% of adults have asthma accounting for the highest prevalence globally and costing the NHS approximately £1 billion annually (3). Moreover, 23,000 deaths in the UK are due to COPD which is not only the second most common cause of emergency admission to hospital but also one of the most costly inpatient conditions treated by the NHS(3).

The British Thoracic Society, GINA and GOLD (Global Initiative for asthma and COPD) guidelines highlight inhaler therapy as the first line and the cornerstone of treatment for both asthma and COPD which fall into the category of obstructive type respiratory disorders (4-7). Today, inhaled therapy is used to deliver corticosteroids and bronchodilator drugs in various doses which reverse and prevent airways constriction and inflammation thereby minimising symptoms (4, 7).

Since the introduction of the first pressurised metered dose inhaler (pMDI) in 1956 by Riker Laboratories, treatment of asthma and COPD has changed significantly (8). Today it is evident that there is a confusing array of inhaler devices and each one has its own unique specificities to prepare the dose and deliver the drug to the target. Different types of inhalers are designed to best suit the patient’s level of education, coordination and dexterity. In general, inhalers could be divided to pMDIs, dry powder inhalers (DPIs), soft mist inhalers (SMI) and nebulisers.

However, many decades after the introduction of inhalers, incorrect inhaler techniques remain as an obstacle to achieve proper disease control (9). Correct inhaler techniques is a crucial aspect to be taken into account when evaluating patients with asthma and COPD and guidelines have given a particular importance to assessing inhaler techniques for better disease outcomes (4, 7). A proportion of patients may encounter difficulties in using inhaler devices, leading to under and/or misuse resulting in treatment withdrawal while having serious consequences on both the patient and on the healthcare system (10, 11).
Awareness and demonstration of correct inhaler techniques by healthcare providers to patients is very important and hence this is a challenge that is faced in the control of asthma and COPD. Due to the large number of inhalers, most healthcare providers are not fully competent with proper inhaler techniques before demonstrating to patients. This was revealed by the preliminary survey carried out at the beginning of this study prior to designing this inhaler guide.

The aim of this eSSC is to develop a practical guide on inhalers used in asthma and COPD targeted for use by any type of healthcare provider before they demonstrate correct inhaler techniques to patients. The objectives of this project are as follows:

1. Initially developing a step-by-step concise and user-friendly guide on how to use different types of inhalers deployed in the respiratory clinic at the Bristol Royal Infirmary (BRI).

2. Developing this guide further and refining it after receiving feedback from the supervisor and several other healthcare professionals (by means of a questionnaire)

3. Gaining an overall understanding of the different types of and techniques used in inhalers.

4. To understand the different combinations of drugs used in inhalers.

In this report, I will discuss in detail how I carried out the surveys, analysed and used their results and how I developed the guide and refined it after receiving feedback and whether I was successful to fulfil the aforementioned aims and objectives. Furthermore I will reflect on the entire experience of doing this project and also indicate areas for further development in the future.
Method

Flowchart which summarises the steps in designing this guide

LEGEND

- Discussion Meetings
- Surveys
- Designing of the guide

Meeting with the supervisor and discussing the aims and objectives

Meeting with the respiratory specialty nurse team

Making a list of inhalers

Carrying out the first survey to assess the need of a guide consisting instructions for different inhaler types

Reviewing the list of inhalers by the respiratory nurses and gaining approval to design the guide

Designing the guide

Carrying out the second survey to receive feedback on the guide

Reviewing of the guide by the respiratory nurses

Meeting with the supervisor to present and discuss the completed guide

Making necessary amendments suggested by feedback survey and by the supervisor

Publishing this guide as a booklet

Carrying out the third survey to audit this guide with patients
The initial step in developing this guide involved a meeting with my supervisor, Dr. Nabil Jarad, Consultant Respiratory Physician at the BRI. A meeting was held to discuss the aims and objectives of this project at which both of us came to an agreement.

Because of this eSSC would involve working with a multidisciplinary team, Dr. Jarad directed me to Rosalyn Badman, lead respiratory nurse specialist at the BRI for further guidance and support. I then had a discussion with the lead respiratory nurse and her team as to how I should design the guide in terms of the format and layout.

Prior to designing the guide, I planned and conducted a survey (in the form of a questionnaire) to assess the state of pre-existing knowledge on using inhalers by different healthcare providers (Appendix 1). This survey was carried out among a wide range of healthcare providers including GPs, FY1s, SHOs, registrars (medical), respiratory consultants, other consultants (medical), respiratory nurses, other nurses (medical) and medical students. Stratified convenient sampling was used to select the participants in the survey. To make the results more comparable, I aimed to have at least a minimum of five responses from each type of healthcare provider. This survey was conducted primarily to assess the current state of awareness on correct inhaler techniques and also to confirm the necessity for a concise guide on the correct inhaler use techniques for different types of inhalers.

Analysis of the results of this initial survey revealed that although most healthcare providers are aware of some inhaler techniques, a majority of them were not fully competent to give instructions to patients on the use of all of the wide range of inhalers which are in use today, particularly on the use of the new inhalers. Hence the need to develop a comprehensive guide compiling user techniques for the commonly used inhalers that could be used in day-to-day practice was confirmed.

The next step was to design the guide. At the start of the designing process, the lead respiratory nurse gave me few leaflets which were used by them when giving instructions to patients. Even though these were very basic, it gave me a general idea of how to develop such a guide. Below are some examples of the leaflets.
How to use an Easy-breathe

1. Shake inhaler.
2. Hold inhaler upright. Open the cap.
3. Breathe out gently. Keep inhaler upright, put mouthpiece in mouth and close lips and teeth around it (the slit holes on the cap must not be blocked by the hand).
4. Breathe in steadily through mouthpiece. Don’t stop breathing when the inhaler runs out and continue taking a really deep breath.
5. Hold breath for about ten seconds.
6. After-use, hold inhaler upright and immediately close cap.
7. For a second dose, wait a few seconds before repeating steps 1-6.

How to use a Turbhaler

1. Unscrew and lift off white cover. Hold turbhaler upright and twist grip forwards and backwards as far as it will go. You should hear a click.
2. Breathe out gently, put mouthpiece between lips and breathe in as deeply as possible. Even when a full dose is taken there may be no taste.
3. Remove the turbhaler from mouth and hold breath for about 10 seconds. Replace the white cover.

How to use a Respimat

INSERTING THE CARTRIDGE AND PREPARATION FOR USE

1) With the green cap closed, press the safety catch and pull off the clear base.
2) Take the cartridge out of the box. Push the narrow end of the cartridge into the inhaler until it clicks into place. The cartridge should be pushed gently against a firm surface to ensure that it has gone all the way in. (Do not remove the cartridge once it has been inserted in the inhaler.
3) Replace the clear base. Do not remove the clear base again.
4) Hold the Spiriva Respimat inhaler upright, with the green cap closed. Turn the base in the direction of the red arrows on the label until it clicks (half a turn).
5) Open the green cap until it snaps fully open.
6) Point the Spiriva Respimat inhaler towards the ground. Press the dose release button. Close the green cap.

Repeat steps 4, 5 and 6 until a cloud is visible. Then repeat steps 4, 5 and 6 three more times to ensure the inhaler is prepared for use.

The Respimat inhaler is now ready to use.

USING THE RESPIMAT INHALER

1) Hold the Respimat inhaler upright, with the green cap closed, to avoid accidental release of the dose. Turn the base in the direction of the red arrows until it clicks (half a turn).
2) Open the green cap until it snaps fully open. Breathe out slowly and fully, then close your lips around the end of the mouthpiece without covering the air vents. Point your Respimat to the back of your throat.

Whilst 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. Hold your breath for 10 seconds or as long as comfortable.

3) Repeat steps 1 and 2 so that you get the full dose.

You will need to use this inhaler only ONCE A DAY.

2 puffs

Close the green cap until you use your Spiriva Respimat inhaler again.
As an initial step I researched the internet to find names of different types of inhalers (according to their brand names) and were categorised according to their drug class/classes(Appendix 2). This initial list contained more than 50 different types of inhalers (included all inhalers used in UK). Once this list was reviewed by the respiratory nurses, 33 inhalers were selected for inclusion in the guide excluding those that were not used in BRI(Appendix 3). This list comprised all inhalers that are commonly used in the BRI.

The guide was designed listing inhalers alphabetically according to their brand names. For each inhaler, the first page comprised a picture of the inhaler and a table providing a summary information for that particular inhaler with regards to the active ingredient, type of inhaler, manufacturer and available doses. This was followed by step by step instructions on the correct inhaler use technique. The instructions were accompanied by diagrams wherever possible in order to make them clearly understood. The instructions and the diagrams were extracted from the respective manufacturer’s leaflets. Furthermore, YouTube videos and inhaler demonstration videos in the Asthma UK website (http://www.asthma.org.uk/Sites/healthcare-professionals/pages/inhaler-demos) were referred to before designing this guide.

Once a draft copy of the inhaler guide was prepared, it was shared with the respiratory nurses to see if there were any errors in the instructions and also to see if there were any discrepancies in practical situations they experienced. A few suggestions were made by them and they were incorporated accordingly. One of the suggestions was to insert a step for the patients to rinse their mouth after the use of any inhaler irrespective of whether it was a DPI or a MDI. Although this procedure is only required after the use of a DPI (for the purpose of minimising side effects caused by the drug such as oral candidiasis due to steroids), some patients may need to use 2 or 3 different types of inhalers concurrently for their condition, and therefore it was felt that routine mouth rinsing would make it simple and easier for the patient to comply with.

As a next step, I carried out a survey among the aforementioned healthcare providers (with stratified convenient sampling aiming for a minimum of 5 responses from each type of healthcare provider) to receive feedback on the guide (Appendix 4). This survey was also made available on Google Docs so that I could get more responses from people who are not physically approachable.
A total of 54 healthcare providers responded to the feedback questionnaire. Upon receiving feedback, the necessary amendments were made. I also specifically consulted a psychiatrist who works with individuals with learning disabilities to obtain more refined feedback regarding the format and the layout of the instructions as it is a key aspect of this project.

Once the survey was completed, I had a meeting with Dr. Jarad to present and discuss the completed guide. He made one suggestion, namely to insert a section on “indications for use” and the “drug type” on the first page of each inhaler guide. He approved the format of the guide, the simplicity of the step-by-step instructions and all other aspects of this guide. The suggestion was incorporated and the final guide is presented in Appendix 5. He also suggested that this guide could be used not only by healthcare providers but also by patients because it is user-friendly. Hence this led me to evaluate the guide/audit with patients.

As a next step, this guide was tested on 17 patients who attended the respiratory clinic at the BRI. Verbal consent was gained from patients to take part in the survey. The participants were asked if they had used an inhaler before /are using an inhaler. An inhaler was picked randomly (by drawing a number from a box). If the randomly selected inhaler was an inhaler which they were familiar with, another number was drawn from the box. This was done until the patient received an inhaler which they were not familiar with. The patients were then asked to read the instructions of the respective inhaler from the guide book (they did not receive any input from me as to how to use the inhaler). A placebo inhaler was given to the patient who was then asked to demonstrate the correct inhaler technique as laid out in the guide. This was then evaluated by me whether he/she demonstrated the correct inhaler technique. Finally the patient was asked to fill out a questionnaire (Appendix 6) to assess the effectiveness of the guide. Finally Dr. Jarad suggested that I publish this guide as a booklet so that it could be made available to be used by healthcare providers and patients in the respiratory clinics and in wards. This necessitated that I consult a professional book designer to design the cover page and other entities of the book before it was printed. The printing costs of this book was borne by Dr. Jarad’s research fund and a total of 30 copies of this guide were published. Photographs of the printed guide are shown below.
A Practical Guide on Inhalers used in Asthma & COPD

Asthma and COPD being obstructive airway diseases represent the majority of respiratory disorders worldwide and the inhaler is key to the delivery of drugs to the lungs. In this guide, different types of inhalers, their rapid advancements in technology, and their uses are discussed. The aim of delivering the guide is to support the reader, Dr. Khaleel A. AlSwaihan, in choosing the right therapies, understanding the differences in types of inhalers, and learning from the benefits of the techniques described. The information and techniques are clearly explained in layman's terms. The reader is expected to consult a respiratory specialist and make the final decision on whether to use a specific technique or a particular brand of inhaler. This guide is not a replacement for the guidance of a respiratory specialist. The reader must acquire all the necessary information and make the best possible decision. This guide is available in the University of Bristol library and can be purchased from various online stores.
How to use Anoro Ellipta™

Dose counter
This shows how many doses of medicine are left in the inhaler. Before the inhaler has been used, it shows exactly 30 doses.

Each time you press the inhaler, one dose is given. If the counter is 9 at each time you open the cover.
When fewer than 10 doses are left, half of the dose counter shows red. After you have used the last dose, half of the dose counter shows red and the number 0 is displayed. Your inhaler is now empty.

- If you open the cover after this, the dose counter will change from half red to completely red.

1. Slide the cover down to expose the mouthpiece. You should hear a "click." The counter will count down by 1 number. Your inhaler is now ready to use. (see figure 1)

2. While holding the inhaler away from your mouth, breathe out as far as comfortable. Do not breathe out into the mouthpiece. (see figure 2)

3. Put the mouthpiece between your lips, and close your lips firmly around it. Your lips should fit over the curved shape of the mouthpiece. (see figure 3) Do not block the air vent with your fingers. (see figure 4)

4. Take a long, steady, deep breath in through your mouth. Do not breathe in through your nose.

5. Remove the inhaler from your mouth and hold your breath for 10 seconds or as long as comfortable for you.


- You may not taste or feel the medicine, even when you are using the inhaler correctly. Do not take another dose from the inhaler even if you do not feel or taste the medicine.

7. Slide the cover up and over the mouthpiece as far as it will go. (see figure 5)

8. Rinse your mouth with water once you finish using the inhaler.

The dose indicator on the inhaler shows the number of doses that are remaining.

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How to use Seebri Breezhaler™

1. Pull off the cap. Ensure that nothing is blocking the mouthpiece. (see figure 1)

2. Hold the base of the inhaler firmly and tilt the mouthpiece. This opens the inhaler. (see figure 2)

3. With dry hands, remove one capsule from the blister. (see figure 3)

4. Place the capsule into the capsule chamber. Never place a capsule directly into the mouthpiece. (see figure 4)

5. Close the inhaler until you hear a "click." (see figure 5)

6. Hold the inhaler upright with the mouthpiece pointing up. Pierce the capsule by firmly pressing together both side buttons at the same time. You should hear a "click" as the capsule is being pierced. Do this only once. (see figure 6)

1. Remove the side buttons fully. (see figure 7)

2. While holding the inhaler away from your mouth, breathe out (while you take the breath in, do not breathe out into the mouthpiece. (see figure 8)

3. Place the mouthpiece in your mouth and close your lips around the mouthpiece. Make sure to keep your head horizontally. (see figure 9)

4. Breathe in rapidly but steadily and as deeply as you can through your mouth. (see figure 10) Do not breathe in through your nose.

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 flavour as the medicine goes into your lungs.

5. Open the inhaler to see if any powder is left in the capsule. If there is powder left in the capsule, close the inhaler and repeat steps 1-12.

6. After you have finished taking your medicine, Opert the mouthpiece again and remove the empty capsule by tipping it out of the capsule chamber. Close the inhaler and replace the cap. Rinse the mouth with water.
Results

In total, 3 surveys were carried out in this eSSC project. The results were analysed separately among the different cohorts and also as a single population in each of these surveys.

The first survey (Appendix 1) was to assess the level of familiarity with the different types of inhalers among different categories of healthcare providers. Detailed data analysis of this survey could be downloaded from here: https://www.dropbox.com/s/20s1z1vjbfnjiu6/Results-1st%20Questionnaire-%20Assessing%20the%20pre-existing%20knowledge%20of%20inhalers.xlsx

A majority of the healthcare providers (62%) were “not sure” if the patient information leaflet with the inhaler pack clearly explains the method of use. 10% of the respondents held the view that the leaflet does not clearly explain the method of use. Upon further questioning, the main reasons for this were that the print in the leaflets was too small to read easily and that some had confusing instructions. Respondents also thought that there were too many instructions under bullet point. This was noted and I tried to minimise this as much possible when designing the guide.

Does the Patient Information leaflet (PIL) with the inhaler pack clearly explain the method of use?

- Yes: 44 (62%)
- No: 7 (10%)
- Not Sure: 20 (28%)
79% of the respondents said that they will look up the leaflet if they were not sure of the correct inhaler technique. Hence this led me to refer to the leaflets, and use the instructions from them before formulating the instructions in this guide. Instructions were also accompanied by illustrations in this guide because 99% of the respondents thought that illustrations are useful in giving instructions. Further questioning revealed that 92% of the respondents held the view that a guide book which includes instructions for all commonly used inhalers would be beneficial in clinical practice mainly due to the fact that a wide range of inhalers are in use today. The reasons which were given by those who felt that the guide will not be beneficial were that this guide will be not practical as it should be regularly updated and also that the internet could be used to obtain instructions in case of doubt.

Furthermore 93% of the respondents thought that they will feel confident by having such a guide when giving instructions to patients.
The second survey was to receive feedback on the inhaler guide (Appendix 4). Detailed data analysis of this survey could be downloaded through this link: https://www.dropbox.com/s/4g79g9fcnioeh7f/Results-2nd%20Questionnaire-%20Feedback%20Questionnaire%20-%20Healthcare%20Providers%20Questionnaire.xlsx

A total of 54 healthcare providers took part in this survey. An average score of 8.94 (1=very difficult, 10=very easy) was obtained when asked how easy the guide was to read. An average score of 8.81 (1=very unclear, 10=very clear) was obtained when asked regarding the clarity of the instructions. 98% of the respondents thought that this guide had the appropriate amount of information and 96% thought that the font size used was appropriate. Illustrations were used in this guide to accompany step by step instructions, and 85% thought that illustrations were “very helpful” in understanding the correct technique. When asked whether patients themselves will be able to understand the correct inhaler techniques by reading this guide, 96% thought that it would be possible.

As a further step, a random inhaler was selected by drawing a number from a box. Separate questionnaires were made which had different randomly selected inhalers. Each questionnaire had a different inhaler for Question 9. The respondents were asked to rate their level of competence of the inhaler before and after reading the guide. An average score of 4.7 (1=No Knowledge, 10=Full Knowledge) was obtained before reading the guide and an average score of 8.78 was obtained after reading the guide. This demonstrates that this guide has a useful impact in clinical practice.

**Before reading this guide, at what level were you conversant in using the (random name) inhaler?**

![Pie chart showing the distribution of responses](Image)
The third survey was to audit this guide with patients (Appendix 6). Detailed data analysis of the third survey could be downloaded through this link: https://www.dropbox.com/s/v766ql07erdncco/Results-3rd%20Questionnaire-%20Auditing%20Questinnaire%20%28patients%29.xlsx. A total of 17 patients took part in this survey after obtaining verbal consent.

The auditing process was carried out as described in the method section. Similar results were obtained as in the feedback survey. An average score of 9.06 (1=very difficult, 10=very easy) was obtained when asked as to how easy the guide to read. An average score of 8.81 (1=very unclear, 10= very clear) was obtained regarding the clarity of the instructions. All patients held the view that the font size was large enough to read and 76% of the patients held the view that illustrations were “very helpful” in understanding inhaler techniques. An average score of 9.11 (1=No Knowledge, 10=Full Knowledge) was obtained when the patients were asked to rate their level of competence of using the given inhaler after reading the guide. All patients apart from 1 patient (96%) held the view that information leaflets as such would be useful to have with them to be able to refer to them when necessary if they are not sure of the correct inhaler use technique.
Discussion

The results from the first survey (Appendix 1) indicates that even though most are aware of some inhaler techniques, a majority of the healthcare providers are not fully competent to give instructions to patients on the use of a wide range of inhalers which are in use today. This was particularly the case with the modern types of inhalers. The sample size used in this survey was 71. The aim was to have many responses from a wide array of healthcare professionals for the results to be meaningful. This survey was done only among healthcare providers who were related to a medical setting rather than a surgical setting to avoid negatively skewing of the results.

Apart from what was discussed in the results section, the first survey also revealed some surprising findings. The graph above shows the percentage of healthcare providers who are fully competent to give instructions to patients on different types of inhaler. It was surprising to see that apart from respiratory consultants and nurses, majority of the other healthcare providers were not fully competent with correct inhaler techniques. Since this survey was done before designing the guide, I was not aware some of the most common types of inhalers that are used in the UK. Autohaler®, Clickhaler®, Twisthaler® and Novolizer® are not commonly used. Due to the same reason I have missed out a few inhaler types such as the Genuair®,...
Ellipta® and Easyhaler® which are commonly used today. However, it is still evident that there is a large proportion of healthcare providers who are not fully competent with a wide array of inhalers. This is greatly evident in GPs, FY1s, SHOs, registrars and other nurses.

Consistent with the above results, this survey also revealed that many healthcare providers were not familiar with some drugs that are being administered through inhalers. The graph below shows the familiarity of some new drugs among the different healthcare providers. This is consistent with the previous graph where most healthcare providers (apart from respiratory consultants and nurses) were not familiar with the new drugs that are being administered through inhalers today.

Both of these findings together show that there is a poor understanding regarding inhalers and their drugs amongst the healthcare providers, although this cannot be established until further research is done with a larger sample size. However the cumulative result from this survey favours as to why there should be a guide consisting of all commonly used inhalers in clinical practice as healthcare providers could refer to it when necessary.

In terms of feedback, the guide was assessed by the second survey (Appendix 4) which was positive and it was indicated that this guide will be a useful resource in clinical practice. The average score of 4.7 (1=No Knowledge, 10=Full Knowledge)
obtained before reading the guide and an average score of 8.78 obtained after reading the guide carries some weight that this guide will be able to make a significant change in clinical practice. Since the allocation of inhalers was totally random in this survey, allocation bias was minimised.

The third survey (Appendix 6) revealed that this guide could be also used by patients. Compared to the other two surveys, the sample size was small (17) and this could be a limitation which could affect the generalizability of the results. However, the purpose of this survey was to assess whether this guide was easy to follow by patients and whether they were able to understand and demonstrate the correct inhaler technique which was proved by the survey results (discussed in results section). The patients who took part in this survey were selected from the respiratory clinic while they were waiting to be seen by the doctor. Selection of patients was done by the nurse assistant at the clinic according to their waiting times; hence it cannot induce any selection bias.

The main aim of this eSSC and the aforementioned objectives were all achieved successfully. This guide also includes instructions for few inhalers which are not yet in use but have already finished clinical trials. In fact I managed successfully to carry out three surveys which were not a part of the initial plan and to draw out few important conclusions from them. Another goal that was not a part of the initial plan was that I was able to accomplish to compile and publish this guide to be available for use in clinical practice. However, this guide needs regular updating when new inhalers are being introduced. Also further discussions with Dr. Jarad is necessary to look into the possibility of integrating it into the BRI hospital intranet so that it could be accessible from any given location in the hospital and also to make this available to other hospitals in the southwest region.
Conclusion

The aim of this eSSC was to develop a practical guide on inhalers used in asthma and COPD. The idea was initially suggested by my supervisor Dr. Nabil Jarad. An initial survey was carried out among 71 different healthcare providers to check the necessity for such a guide in clinical practice. This was strongly indicated by this survey. It was also evident that most of the healthcare providers were not fully competent in correctly using a wide array of inhalers. With further discussions and supervision by my supervisor and advice from the respiratory speciality nurse team at the BRI, a step-by-step guide accompanied with illustrations was developed.

A second survey was carried out among 54 different healthcare providers to receive feedback on the guide. This guide was further refined after receiving feedback on several aspects of the guide. More than 90% of the respondents thought this guide will be beneficial in clinical practice and that it will have a positive impact on clinical practice.

Finally this guide was audited on patients. 95% of the respondents held the view that this guide is beneficial and the instructions for inhaler use techniques could be easily followed. Due to the high level of positive responses from both the feedback survey and the auditing survey, this guide was then compiled and published as a book and 30 hard copies of it were printed (funded by a research fund) to be used in the BRI.

Reflection

Having completed the first year of clinical medicine, this eSSC has not only been a rewarding experience but also an enjoyable one. It has been particularly nice to focus on an area that I was partially familiar with as a medical student. This eSSC project has taught me a great detail regarding a wide array of inhalers, their user techniques and the drugs/combinations that are used. This will be of more importance to me as my future career interest lies in respiratory medicine.

Initially designing such a guide sat uneasily with me as I thought this would be merely reproducing information that was already available in leaflets. But this view
of mine changed when I engaged in the project and I realised that it should be made as simple as possible with the use of illustrations and also by integrating and working with many different healthcare providers. This project involved working closely with respiratory nurses and other healthcare providers in order to make this successful. Working with a multidisciplinary team made me acquire an in-depth understanding of their role in the healthcare system. Trying to achieve the maximum number of responses for all surveys has taught me how to be focussed and to achieve targets.

I also believe that I have improved my communication skills by designing this guide, having to lay down instructions in the clearest and simplest possible manner, so that the reader could easily follow and understand the instructions. The surveys done in this project also gave me the confidence that I have first proved a point of a necessity of such a guide and then giving a solution to this problem by designing an effective guide which was tested and evaluated among healthcare providers and patients.

Personally I am glad that I have put in a great amount of effort (also achieving many objectives which were not a part of the initial plan) and that finally I was able to produce a useful clinical resource which will be of value to healthcare providers. From here, I hope to take this further ahead as I have mentioned previously and also update the guide as new inhalers are being introduced.

**Acknowledgements**

I would like to thank Dr. Jarad, Rosalyn Badman and her respiratory nurse team, all other healthcare providers and patients who provided their generous support in designing this guide and their valuable input in surveys.
References

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6. BTS/SIGN. British guideline on the management of asthma. 2012.
7. GINA. Global strategy for Asthma management and prevention. 2014.
# Appendix 1

A questionnaire on the pre-existing knowledge of using different types of inhalers in asthma and COPD

1. **Your healthcare profession** *(Please tick appropriate)*
   - GP [ ]
   - FY1 [ ]
   - SHO [ ]
   - Registrar [ ]
   - Respiratory Consultant [ ]
   - Other Consultant [ ]
   - Respiratory Nurse [ ]
   - Other nurse [ ]
   - Medical Student [ ]
   - Other (please specify) ………………….. [ ]

2. **Which drugs do you know of as being administered through inhalers?** *(Please tick appropriate)*

<table>
<thead>
<tr>
<th>Drug</th>
<th>Drug</th>
<th>Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salbutamol</td>
<td>Glycopyrronium</td>
<td>Sodium Cromoglycate</td>
</tr>
<tr>
<td>Terbutaline</td>
<td>Acildinium bromide</td>
<td>Budesonide + Formeterol</td>
</tr>
<tr>
<td>Formoterol</td>
<td>Umeclidinium bromide</td>
<td>Fluticasone + Salmeterol</td>
</tr>
<tr>
<td>Salmeterol</td>
<td>Budesonide</td>
<td>Fluticasone + Formoterol</td>
</tr>
<tr>
<td>Indacaterol</td>
<td>Fluticasone Propionate</td>
<td>Fluticasone + Vilanterol</td>
</tr>
<tr>
<td>Olodatrol</td>
<td>Ciclesonide</td>
<td>Beclometasone + Formoterol</td>
</tr>
<tr>
<td>Ipratropium bromide</td>
<td>Mometasone</td>
<td>Umeclidinium bromide + Vilanterol</td>
</tr>
<tr>
<td>Tiotropium bromide</td>
<td>Beclometasone</td>
<td></td>
</tr>
</tbody>
</table>

Any other drugs (please specify) ..............................................................................................................................................

3. **Which inhaler types do you know of with respect to the delivery mechanisms?** *(Please tick appropriate)*

<table>
<thead>
<tr>
<th>Inhaler</th>
<th>Inhaler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuhaler</td>
<td>Handihaler</td>
</tr>
<tr>
<td>Autohaler</td>
<td>Pressurised Metered Dose Inhaler</td>
</tr>
<tr>
<td>Clickhaler</td>
<td>Turbuhaler</td>
</tr>
<tr>
<td>Diskhaler</td>
<td>Novolizer</td>
</tr>
<tr>
<td>Easi-breathe</td>
<td>Twisthaler</td>
</tr>
<tr>
<td>Respimat</td>
<td>Spacer devices</td>
</tr>
</tbody>
</table>

Any other delivery type (please specify) ..............................................................................................................................................
4. At what level are you conversant with the following inhalers? Please tick appropriate
(1- No knowledge, 2- Have Partial Knowledge, 3- Have full knowledge)

<table>
<thead>
<tr>
<th>Inhaler</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuhaler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autohaler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clickhaler</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Diskhaler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easi-breathe</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Respimat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Handihaler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressurised Metered Dose Inhaler</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Turbuhaler</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Novolizer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twisthaler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spacer devices</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. How frequently would you explain inhaler techniques to a patient? (Please tick)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>At least once a day</th>
<th>At least once a month</th>
<th>Never</th>
<th>At least once a week</th>
<th>At least once in 3 months</th>
</tr>
</thead>
</table>

6. Have you given instructions to patients on the use of the following inhalers? (Please tick)

<table>
<thead>
<tr>
<th>Inhaler</th>
<th>No</th>
<th>If not why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuhaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autohaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clickhaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diskhaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easi-breathe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handihaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressurised Metered Dose Inhaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turbuhaler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novolizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respimat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spacer devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twisthaler</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Do you think that the patient information leaflet (PIL) which is included in the inhaler pack clearly explains the method of use?

Yes ☐ No ☐ If not why?………………………………………………………………………………………………

Not sure ☐

8. Will you look up the patient information leaflet (PIL) if you are not sure as to how to use the inhaler?

Yes ☐ No ☐ If not why?………………………………………………………………………………………………

9. Do you think that illustrations are useful in giving instructions?

Yes ☐ No ☐ If not why?………………………………………………………………………………………………
10. Do you think a guide book which includes instructions for all different types of inhalers would be beneficial?

   Yes □   No □  If not why?........................................................................................................

11. By having such a guide will you feel more confident in giving instructions to patients?

   Yes □   No □  If not why?........................................................................................................
Appendix 2

Initial list of inhalers before being reviewed by the respiratory nurses

### Short Acting Beta-2 Agonist (SABA)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Trade names</th>
<th>Available doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salbutamol</td>
<td>Airomir Autohaler</td>
<td>100 mcg</td>
</tr>
<tr>
<td></td>
<td>Airomir Inhalator (MDI)</td>
<td>100 mcg</td>
</tr>
<tr>
<td></td>
<td>Asmasal Clickhaler</td>
<td>95 mcg</td>
</tr>
<tr>
<td></td>
<td>Easyhaler Salbutamol (DPI)</td>
<td>100 mcg, 200 mcg</td>
</tr>
<tr>
<td></td>
<td>Pulvinal Salbutamol Inhaler</td>
<td>200 mcg</td>
</tr>
<tr>
<td></td>
<td>Salamol Easi-Breathe (MDI)</td>
<td>100 mcg</td>
</tr>
<tr>
<td></td>
<td>Salbulin MDPI Novolizer</td>
<td>100mcg</td>
</tr>
<tr>
<td></td>
<td>Salamol CFC-Free (MDI)</td>
<td>100 mcg</td>
</tr>
<tr>
<td></td>
<td>Ventolin Accuhaler (DPI)</td>
<td>200 mcg</td>
</tr>
<tr>
<td></td>
<td>Ventolin Evohaler (MDI)</td>
<td>100 mcg</td>
</tr>
<tr>
<td>Terbutaline</td>
<td>Bricanyl Turbuhaler (DPI)</td>
<td>500 mcg</td>
</tr>
</tbody>
</table>

### Long Acting Beta-2 Agonist (LABA)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Trade names</th>
<th>Available doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formoterol</td>
<td>Atimos Modulite</td>
<td>12 mcg</td>
</tr>
<tr>
<td></td>
<td>Foradil</td>
<td>12 mcg</td>
</tr>
<tr>
<td></td>
<td>Formoterol Easyhaler</td>
<td>12 mcg</td>
</tr>
<tr>
<td></td>
<td>Oxis Turbuhaler</td>
<td>6, 12 mcg</td>
</tr>
<tr>
<td>Salmeterol</td>
<td>Serevent Evohaler (MDI)</td>
<td>25 mcg</td>
</tr>
<tr>
<td></td>
<td>Serevent Accuhaler (DPI)</td>
<td>50 mcg</td>
</tr>
<tr>
<td></td>
<td>Serevent Diskhaler (DPI)</td>
<td>50 mcg</td>
</tr>
<tr>
<td>Indacaterol</td>
<td>Onbreze Breezhaler (DPI)</td>
<td>150, 300 mcg</td>
</tr>
<tr>
<td>Olodatrol</td>
<td>Striverdi Respimat</td>
<td>2.5 mcg</td>
</tr>
</tbody>
</table>
### Short acting anti-muscarinic (SAMA)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Trade names</th>
<th>Available doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ipratropium bromide</td>
<td>Atrovent Inhaler CFC-Free</td>
<td>20 mcg</td>
</tr>
</tbody>
</table>

### Long acting anti-muscarinic (LAMA)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Trade names</th>
<th>Available doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiotropium bromide</td>
<td>Spiriva HandiHaler (caps)</td>
<td>18 mcg</td>
</tr>
<tr>
<td></td>
<td>Spiriva Respimat (MDI)</td>
<td>2.5 mcg</td>
</tr>
<tr>
<td>Glycopyrronium</td>
<td>Seebri Breezhaler (DPI, caps)</td>
<td>44 mcg</td>
</tr>
<tr>
<td>Aclidinium bromide</td>
<td>Eklira Genuair</td>
<td>322 mcg</td>
</tr>
<tr>
<td>Umeclidinium bromide</td>
<td>Incruse</td>
<td>55 mcg</td>
</tr>
</tbody>
</table>

### Inhaled Corticosteroids

<table>
<thead>
<tr>
<th>Drug</th>
<th>Trade names</th>
<th>Available doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budesonide</td>
<td>Budelin Novolizer</td>
<td>200, 400 mcg</td>
</tr>
<tr>
<td></td>
<td>Budesonide Easyhaler</td>
<td>100, 200, 400 mcg</td>
</tr>
<tr>
<td></td>
<td>Pulmicort Turbuhaler</td>
<td>100, 200, 400 mcg</td>
</tr>
<tr>
<td>Fluticasone Propionate</td>
<td>Flixotide Accuhaler</td>
<td>50, 100, 250, 500 mcg</td>
</tr>
<tr>
<td></td>
<td>Flixotide Diskhaler</td>
<td>100, 250, 500 mcg</td>
</tr>
<tr>
<td></td>
<td>Flixotide Evohaler (MDI)</td>
<td>50, 125, 250 mcg</td>
</tr>
<tr>
<td>Ciclesonide</td>
<td>Alvesco</td>
<td>40, 80, 160 mcg</td>
</tr>
<tr>
<td>Mometasone</td>
<td>Asmanex Twisthaler</td>
<td>200, 400 mcg</td>
</tr>
<tr>
<td>Beclometasone</td>
<td>Asmabec Clickhaler</td>
<td>50, 100, 250 mcg</td>
</tr>
<tr>
<td>Diporpionate</td>
<td>Clenil Modulite (MDI)</td>
<td>50, 100, 200, 250 mcg</td>
</tr>
<tr>
<td></td>
<td>Easyhaler Beclometasone</td>
<td>200 mcg</td>
</tr>
<tr>
<td></td>
<td>Pulvinal Beclometasone</td>
<td>100, 200, 400 mcg</td>
</tr>
<tr>
<td></td>
<td>Qvar Aerosol (MDI)</td>
<td>50, 100 mcg</td>
</tr>
<tr>
<td></td>
<td>Qvar Autohaler</td>
<td>50, 100 mcg</td>
</tr>
<tr>
<td></td>
<td>Qvar Easi-Breathe (MDI)</td>
<td>50, 100 mcg</td>
</tr>
</tbody>
</table>

### Combination

<table>
<thead>
<tr>
<th>Drug class</th>
<th>Active ingredient</th>
<th>Trade names</th>
<th>Available doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corticosteroids + LABA</td>
<td>Budesonide + Formeterol</td>
<td>Symbicort Turbuhaler</td>
<td>100/6, 200/6, 400/12 mcg</td>
</tr>
<tr>
<td></td>
<td>Fluticasone + Salmeterol</td>
<td>Advair Diskus</td>
<td>100/50, 250/50, 500/50 mcg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seretide Accuhaler</td>
<td>100/50, 250/50, 500/50 mcg</td>
</tr>
<tr>
<td>Drug</td>
<td>Trade names</td>
<td>Available doses</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>Sodium Cromoglycate</td>
<td>Intal</td>
<td>5mg</td>
<td></td>
</tr>
<tr>
<td>Fluticasone + Formoterol</td>
<td>Flutiform</td>
<td>50/5, 125/5, 250/10 mcg</td>
<td></td>
</tr>
<tr>
<td>Fluticasone + Vilanterol</td>
<td>Breo Ellipta</td>
<td>100/25 mcg</td>
<td></td>
</tr>
<tr>
<td>Beclometasone + Formoterol</td>
<td>Fostair</td>
<td>100/6 mcg</td>
<td></td>
</tr>
<tr>
<td>LAMA + LABA</td>
<td>Umeclidinium bromide + Vilanterol</td>
<td>55/22 mcg</td>
<td></td>
</tr>
<tr>
<td>Seretide Evohaler</td>
<td>Flutiform</td>
<td>50/25,125/25,250/25 mcg</td>
<td></td>
</tr>
<tr>
<td>Relvar Ellipta</td>
<td></td>
<td>92/22, 184/22 mcg</td>
<td></td>
</tr>
<tr>
<td>Beclometasone + Formoterol</td>
<td></td>
<td>100/6 mcg</td>
<td></td>
</tr>
<tr>
<td>LAMA + LABA</td>
<td></td>
<td>100/6 mcg</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 3

New list of inhalers after reviewing by the respiratory nurses

1. Alvesco
2. Anoro Ellipta
3. Atrovent Inhaler CFC-Free
4. Beclometasone Easyhaler
5. Bricanyl Turbohaler (DPI)
6. Budesonide Easyhaler
7. Clenil Modulite (MDI)
8. Eklira Genuair
9. Flixotide Accuhaler
10. Flixotide Evohaler (MDI)
11. Flutiform
12. Fostair
13. Incruse Ellipta
14. Onbrez Breezhaler (DPI)
15. Oxis Turbuhaler
16. Pulmicort Turbuhaler
17. Qvar Aerosol (MDI)
18. Qvar Easi-Breathe (MDI)
19. Relvar Ellipta
20. Salamol CFC-Free (MDI)
21. Salamol Easi-Breathe (MDI)
22. Salbutamol Easyhaler (DPI)
23. Seebri Breezhaler (DPI, caps)
24. Seretide Accuhaler
25. Seretide Evohaler
26. Serevent Accuhaler (DPI)
27. Serevent Evohaler (MDI)
28. Spiriva HandiHaler (caps)
29. Spiriva Respimat (MDI)
30. Striverdi Respimat (MDI)
31. Symbicort Turbuhaler
32. Ventolin Accuhaler (DPI)
33. Ventolin Evohaler (MDI)
Appendix 4

Feedback questionnaire on the inhaler guide

1. Your position as a healthcare provider - *Please tick appropriate*
   - GP
   - FY1
   - SHO
   - Registrar
   - Respiratory Consultant
   - Other Consultant
   - Respiratory Nurse
   - Other nurse
   - Medical Student
   - Other (please specify) ...........................................

2. How easy was the guide to read? *Please circle appropriate*
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7
   - 8
   - 9
   - 10

   Very difficult ..................................................................................................................................................
   Very easy ..................................................................................................................................................

   Other comments ..........................................................................................................................................

3. Were the instructions clear?

   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7
   - 8
   - 9
   - 10

   Very unclear ..........................................................................................................................................
   Very clear ..........................................................................................................................................

   Other comments ..........................................................................................................................................

4. How much information does this guide give on inhaler techniques *Please tick appropriate*
   - Very little
   - Comprehensive
   - Too much

5. Was the font size large enough to read? *Please tick appropriate*
   - Too small
   - Appropriate
   - Too large

6. Do you find the illustrations are useful in understanding inhaler techniques *Please tick appropriate*
   - Not useful at all
   - Somewhat useful
   - Very useful
7. Do you think a patient could read this guide themselves and follow the correct technique of inhaler use? *(Please tick appropriate)*

Yes ☐ No ☐

8. Would you use or refer to this guide (if you are not conversant with the correct technique) when instructing a patient on the use of inhalers? *(Please tick appropriate)*

Yes ☐ No ☐

9. Before reading this guide, at what level were you conversant in using the *(name of a randomly selected) inhaler?*

1 2 3 4 5 6 7 8 9 10

No Knowledge Full Knowledge

Now read how to use the *(name of the above mentioned inhaler)* on the inhaler guide.

10. After reading this guide, at what level are you conversant in using the *(name of the above mentioned inhaler)*? *(Please circle appropriate)*

1 2 3 4 5 6 7 8 9 10

No Knowledge Full Knowledge

11. Any suggestions for improvement?
Appendix 5

Final version of the Inhaler Guide

Please scroll down

**DISCLAIMER:** The products reviewed in this guide were chosen solely on the grounds of their frequent use at the Bristol Royal Infirmary. No contact was made with any product manufacturer in this study.
A Practical Guide on Inhalers used in Asthma and COPD

This guide contains all commonly used inhalers as at July 2014

Compiled by
Thisarana Wijayaratne
Year-3 Medical Student,
University of Bristol (2013/2014)

Supervised by
Dr. Nabil Jarad
Consultant Respiratory Physician,
Bristol Royal Infirmary

Assisted by
Rosalyn Badman
Lead Respiratory Nurse Specialist,
Bristol Royal Infirmary

DISCLAIMER: The products reviewed in this guide were chosen solely on the grounds of their frequent use at the Bristol Royal Infirmary. No contact was made with any product manufacturer in this study.
Asthma and COPD being obstructive airways diseases encompass the majority of respiratory diseases worldwide and the mainstay of treatment is delivery of drugs to the lungs by means of inhalers. The field of inhalers is rapidly evolving and hence today there are more than 60 different types of inhalers. New drugs are being added to the list and also combination therapy is widely used. With rapid advancement in technology, there are many different types of delivery mechanism of inhalers to best suit the patient’s level of education, coordination and dexterity.

The idea of designing this guide initially was suggested by my supervisor, Dr. Nabil Jarad. Prior to designing this guide, a survey was carried out among different healthcare providers (doctors, nurses etc) to assess their familiarity with different types of inhalers and their competence in providing guidance to patients on them. This revealed that although most are aware of some inhaler techniques, a majority of the healthcare providers are not fully competent to give instructions to patients on the use of a wide range of inhalers which are in use today. Hence the need was felt for a comprehensive guide compiling user techniques for the commonly used inhalers that could be used in day-to-day practice.

This inhaler guide was designed for use by any type of healthcare provider (doctors, nurses etc) before demonstrating correct inhaler techniques to patients. Furthermore this guide could also be used by patients themselves if they are not very competent on the correct use of inhaler techniques. In this guide a total of 33 different types of inhalers which are commonly used in the UK have been arranged
alphabetically according to their brand name. The use of large fonts and colourful diagrams which accompany step-by-step instructions makes this guide reader friendly and easy to follow. The instructions and the diagrams laid out in this guide have been extracted from the respective patient information leaflets (PILs) of the products themselves, and also based on suggestions made by respiratory specialty nurses at the Bristol Royal Infirmary (BRI). The guide has been validated by testing it on a range of healthcare providers and patients.

This inhaler guide was designed as a part of my 3rd year eSSC project supervised by Dr. Nabil Jarad, Consultant Respiratory Physician at the Bristol Royal Infirmary. This guide contains all commonly used inhalers as at July 2014.

Thisarana Wijayaratne
Year-3 Medical Student (MBChB)
University of Bristol
2013/2014
Acknowledgements

I take this opportunity to express my profound gratitude and deep regards to my supervisor Dr. Nabil Jarad, Consultant Respiratory Physician at the Bristol Royal Infirmary for his exemplary guidance, monitoring and constant encouragement throughout the course of preparing this guide.

I also take this opportunity to express a deep sense of gratitude to Rosalyn Badman, lead respiratory specialty nurse at the Bristol Royal Infirmary and her team for their cordial support, valuable information and guidance, which helped me in completing this task through various stages.

I am obliged to all healthcare providers for the valuable information provided in their respective fields by taking part in the surveys which were a part of my project. I am grateful for their cooperation during the period of my assignment.

Special thanks to Tom Rock (medical student), Dr. Hannah Kate Williams (SHO) and Dr. Marina Brimioulle (FY1) for the constant support and encouragement given throughout this project.

Lastly, I thank my parents, my uncle and aunt and my friends for their support and constant encouragement without which this assignment would not have been possible.

Thisarana Wijayaratne
Year-3 Medical Student (MBChB)
University of Bristol
2013/2014
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Alvesco®
How to use Alvesco®

If you have a new inhaler, or if you have not used your inhaler for a week or more, it must be tested before you use it. Remove the mouthpiece cover and press down three times on the canister inside the inhaler to release three puffs into the air - away from you.

1. Remove the mouthpiece cover and check the mouthpiece, both the inside and the outside, to make sure that it is both clean and dry. (see figure 1)

2. Shake the inhaler up and down few times.

3. Hold the inhaler as shown in the diagram (base of the canister at the top) with your forefinger on the base of the canister and your thumb under the mouthpiece. (see figure 2)

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Alvesco®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Ciclesonide</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid</td>
</tr>
<tr>
<td>Available Doses</td>
<td>40 mcg, 80 mcg, 160 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Takeda GmbH</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>

If you have been advised to use this inhaler with a spacer device, please refer page 97
4. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. *(see figure 3)*

6. **Start to breathe in slowly and deeply through your mouth and press down on the canister.** This releases one puff of medication. **It is important that you continue to breathe in after releasing the puff.**

7. Remove the inhaler from your mouth. Hold your breath for about 10 seconds, or for as long as is comfortable. Then breathe out slowly.

8. If your doctor has prescribed you more than one puff, repeat steps 2-7.

9. After use replace the cover on the mouthpiece. Replace firmly and snap into position. *(see figure 4)*

10. Rinse your mouth with water once you finish using the inhaler.

*Figure 1  Figure 2  Figure 3  Figure 4*
When the canister is completely empty you will not feel or hear any of the propellant being discharged.
<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Anoro Ellipta™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Umeclidinium bromide + Vilanterol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>55/22 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>COPD</td>
</tr>
</tbody>
</table>
How to use Anoro Ellipta™

1. Slide the cover down to expose the mouthpiece. You should hear a “click.” The counter will count down by 1 number. Your inhaler is now ready to use. *(see figure 1)*

2. While holding the inhaler away from your mouth, breathe out as far as is comfortable. **Do not breathe out into the mouthpiece.** *(see figure 2)*

---

**Figure 1**

**Figure 2**

---

**Dose counter**

This shows how many doses of medicine are left in the inhaler.

*Before the inhaler has been used, it shows exactly 30 doses.*

It counts down by 1 each time you open the cover.

*When fewer than 10 doses are left, half of the dose counter shows red.*

After you have used the last dose, half of the dose counter shows red and the number 0 is displayed. Your inhaler is now empty.

If you open the cover after this, the dose counter will change from half red to completely red.
3. Put the mouthpiece between your lips, and close your lips firmly around it. Your lips should fit over the curved shape of the mouthpiece. *(see figure 3)* **Do not block the air vent with your fingers.** *(see figure 4)*

4. Take a **long, steady, deep breath in through your mouth. Do not breathe in through your nose.**

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you).

   
   *You may not taste or feel the medicine, even when you are using the inhaler correctly.* **Do not take another dose from the inhaler even if you do not feel or taste the medicine.**

7. Slide the cover up and over the mouthpiece as far as it will go. *(see figure 5)*

8. Rinse your mouth with water once you finish using the inhaler.

*The dose indicator on the inhaler shows the number of doses that are remaining.*
If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Atrovent® (CFC-Free)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Ipratropium Bromide</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>20 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Boehringer Ingelheim</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Atrovent®

1. Remove the cap from the mouthpiece by pulling the cap. Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down and hold the inhaler as shown in the diagram (base of the canister at the top) with your forefinger on the base of the canister and your thumb under the mouthpiece. *(see figure 1)*

3. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.** *(see figure 1)*

4. Place the mouthpiece in your mouth and close your lips firmly around it. *(see figure 2)*

5. Start to **breathe in slowly and deeply through your mouth and press down on the canister as shown.** This releases one puff of medication. **It is important that you continue to breathe in after releasing the puff.** *(see figure 2)*

6. Remove the inhaler from your mouth. Hold your breath for about 10 seconds, or for as long as is comfortable. Then breathe out slowly. *(see figure 3)*

7. If your doctor has advised to take more than one puff, wait at least a minute before taking the next puff. Then repeat steps 2-6. Replace the cap on the mouthpiece and rinse your mouth with water.
<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Beclometasone Easyhaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Easyhaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Beclometasone dipropionate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid</td>
</tr>
<tr>
<td>Available Doses</td>
<td>200 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Orion Pharma (UK) Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Beclometasone Easyhaler®

1. Remove the dust cap. Ensure that nothing is blocking the mouthpiece. *(see figure 1)*

2. Shake the Easyhaler vigorously up and down three to five times. After shaking, hold the Easyhaler in the upright position. *(see figure 2)*

3. Press the Easyhaler once between your index finger and thumb until you hear a “click” and let it click back again. This delivers the powder into the inhalation channel inside the mouthpiece. Keep holding the Easyhaler in the upright position. *(see figure 3)*

![Figure 1](image1.png)  
*Figure 1*

![Figure 2](image2.png)  
*Figure 2*

![Figure 3](image3.png)  
*Figure 3*

4. While holding the inhaler away from your mouth, breathe out (exhale) as far as is comfortable. **Do not breathe out through the Easyhaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.** *(see figure 4)*

![Figure 4](image4.png)  
*Figure 4*
6. Take a **strong and deep** breath in through your mouth. **Do not breathe in through your nose.**

7. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out slowly.

8. If your doctor has advised to take more than one puff, then repeat steps 2-7.

9. Put the dust cap back on the mouthpiece.

10. Rinse your mouth with water once you finish using the inhaler.

*The dose counter on the side of the inhaler gives you the number of doses remaining (see figure 5)*

![Dose counter](image)
<table>
<thead>
<tr>
<th><strong>Name of Inhaler</strong></th>
<th>Bricanyl Turbohaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Inhaler</strong></td>
<td>Turbohaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td><strong>Drug Ingredient</strong></td>
<td>Terbutaline Sulphate</td>
</tr>
<tr>
<td><strong>Drug Type</strong></td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td><strong>Available Doses</strong></td>
<td>500 mcg</td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td>AstraZeneca UK Limited</td>
</tr>
<tr>
<td><strong>Indication for use</strong></td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to prepare your new turbohaler for first time use

1. Unscrew and lift off the white cover. Ensure that nothing is blocking the mouthpiece.

2. Hold the turbohaler upright with the blue grip downwards. **Do not hold from the mouthpiece. (see figure 2)**

3. Turn the blue grip as far as it will go in one direction, and then back again in the opposite direction as far as it will go. It does not matter which way you turn first. During this procedure you will hear a “click”.

4. Repeat step 3 once more.

5. The turbohaler is now prepared for use, and **you should not repeat the above procedure again**. To take a dose, please continue according to the instructions below.
Instructions for regular use

1. Unscrew the white cover and lift it off. Ensure that nothing is blocking the mouthpiece. *(see figure 3)*

2. Hold your Turbohaler upright with the blue grip at the bottom. **Do not hold from the mouthpiece.** *(see figure 3)*

3. To load your Turbohaler with a dose, turn the blue grip as far as it will go in one direction. Then turn it as far as it will go in the other direction (it does not matter which way you turn it first). You should hear a “click” sound. Your Turbohaler is now loaded and ready to use. *(see figure 2)*

4. While holding the inhaler away from your mouth, breathe out (exhale) as far as is comfortable. **Do not breathe out through the Turbohaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. **Make sure to keep your head horizontally.** *(see figure 4)*

6. **Breathe in as deeply and as hard as you can through your mouth. Do not breathe in through your nose.**

*Figure 3  Figure 4*
7. Remove your Turbohaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently.

   **The amount of medicine that is inhaled is very small. This means you may not be able to taste it after inhalation.**

8. If your doctor has advised to take more than one puff, then repeat steps 2-7.

9. Replace the cover by screwing it back on tightly. *(see figure 5)*

10. Rinse your mouth with water once you finish using the inhaler.

   ![Figure 5](image_url)

**When to start using a new Turbohaler**

When you first see a red mark in the indicator window *(see figure 6)*, there are about 20 doses left. When the red mark has reached the bottom of the indicator window *(see figure 7)*, you must start using your new Turbohaler.

![Figure 6](image_url)  ![Figure 7](image_url)
<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Budesonide Easyhaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Easyhaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Budesonide</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid</td>
</tr>
<tr>
<td>Available Doses</td>
<td>100 mcg, 200 mcg, 400 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Orion Pharma (UK) Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Budesonide Easyhaler®

1. Remove the dust cap. Ensure that nothing is blocking the mouthpiece. (see figure 1)

2. Shake the Easyhaler vigorously up and down three to five times. After shaking, hold the Easyhaler in the upright position. (see figure 2)

3. Press the Easyhaler once between your index finger and thumb until you hear a “click” and let it click back again. This delivers the powder into the inhalation channel inside the mouthpiece. Keep holding the Easyhaler in the upright position. (see figure 3)

4. While holding the inhaler away from your mouth, breathe out (exhale) as far as is comfortable. **Do not breathe out through the Easyhaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.**(see figure 4)
6. Take a **strong and deep** breath in through your mouth. **Do not breathe in through your nose.**

7. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out slowly.

8. If your doctor has advised to take more than one puff, then repeat steps 2-7.

9. Put the dust cap back on the mouthpiece.

10. Rinse your mouth with water once you finish using the inhaler.

*The dose counter on the side of the inhaler gives you the number of doses remaining (see figure 5)*

*Figure 5*
Clenil Modulite®

If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Clenil Modulite®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Beclometasone dipropionate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid</td>
</tr>
<tr>
<td>Available Doses</td>
<td>50 mcg, 100 mcg, 200 mcg, 250 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Chiesi Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Clenil Modulite®

1. To remove the mouthpiece cover, hold between the thumb and forefinger, squeeze gently and pull apart as shown (see figure 1). Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down few times and hold it upright as shown, with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.** (see figure 2)

3. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.** (see figure 3)

4. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still breathing in steadily and deeply (see figure 4). **Do not breathe in through your nose.**

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently (see figure 5)

6. If your doctor has advised to take more than one puff, then repeat steps 2-5. Wait for about a minute before taking the next puff.

7. After use, replace cover (see figure 6) and rinse your mouth with water.
# Eklira Genuair®

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Eklira Genuair®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Aclidinium Bromide</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>322 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Almirall Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>COPD</td>
</tr>
</tbody>
</table>
How to use Eklira Genuair®

1. Remove the protective cap by lightly squeezing the arrows marked on each side and pulling outwards. Ensure that nothing is blocking the mouthpiece. (see figure 1)

2. Hold the Genuair inhaler horizontally with the mouthpiece towards you and the green button facing straight up. (see figure 2)

3. Press the green button all the way down and then release it. **DO NOT CONTINUE TO HOLD THE GREEN BUTTON DOWN.** (see figures 3 and 4)

4. Make sure the coloured control window has changed to green (see figure 5). The green control window confirms that your medicine is ready for inhalation. If the coloured control window stays red, please repeat step 3.

5. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.**
6. Put your lips tightly around the mouthpiece of the Genuair inhaler and inhale **strongly and deeply** through the mouthpiece (see figure 6). While you breathe in you will hear a “CLICK” which signals that you are using the Genuair inhaler correctly.

**Keep breathing in even after you have heard the inhaler “CLICK” to be sure you get the full dose.**

**Do not hold the green button down while you are inhaling** (see figure 7).

![Figure 6](image1)

![Figure 7](image2)

7. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently.

8. Make sure the colour control window has turned to red (see figure 8). This confirms that you have inhaled your full dose correctly.

![Figure 8](image3)

![Figure 9](image4)

9. If the coloured control window is still green, please repeat step 6

10. Replace the protective cap by pressing it back onto the mouthpiece (see figure 9).

11. Rinse your mouth with water.

**The dose indicator shows you the number of doses remaining.**
<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Flixotide Accuhaler™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Accuhaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Fluticasone Propionate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid</td>
</tr>
<tr>
<td>Available Doses</td>
<td>50 mcg, 100 mcg, 250 mcg, 500 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Flixotide Accuhaler™

1. Hold the Accuhaler in one hand and put the thumb of your other hand on the thumb grip (see Figure 1).

2. Push your thumb away from you as far as it will go until the mouthpiece appears and snaps into position (see Figure 1). Ensure that nothing is blocking the mouthpiece.

3. Hold the Accuhaler in a level, horizontal position with the mouthpiece towards you.

4. Slide the lever away from you as far as it will go until it “clicks” (see Figure 2). The Accuhaler is now ready to use.

Please note that the diagrams appear here are of a different colour from the actual inhaler.
5. Before inhaling your dose of Flixotide Accuhaler, breathe out as far as is comfortable, holding the Accuhaler level and away from your mouth (see Figure 3). **Do not breathe out into the Accuhaler mouthpiece.**

6. Put the mouthpiece to your lips and ensure a tight seal around it (see Figure 4).

7. **Take a breath in quickly and deeply through the Accuhaler. Do not breathe in through your nose.**

8. Remove the Accuhaler from your mouth. Hold your breath for about 10 seconds, or for as long as is comfortable. Then breathe out slowly.

9. To close the Accuhaler when you have finished taking a dose, put your thumb on the thumb grip and slide the thumb grip back towards you as far as it will go (see Figure 5). The Accuhaler will click shut. The lever will automatically return to its original position. The Accuhaler is now ready for you to take your next scheduled dose.

10. Rinse your mouth with water after breathing in the medicine.

*The dose indicator on top of the Accuhaler shows you how many doses are remaining.*
### Flixotide Evohaler™

If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Flixotide Evohaler™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Fluticasone Propionate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid</td>
</tr>
<tr>
<td>Available Doses</td>
<td>50 mcg, 125 mcg, 250 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Flixotide Evohaler™

1. To remove the mouthpiece cover, hold between the thumb and forefinger, squeeze gently and pull apart as shown (see figure 1). Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down few times and hold it upright as shown, with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. Do not breathe out through the inhaler. (see figure 2)

3. Place the mouthpiece in your mouth and close your lips firmly around it. Keep your head in a horizontal position. (see figure 3)

4. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still breathing in steadily and deeply (see figure 4). Do not breathe in through your nose.

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. (see figure 5)

6. If your doctor has advised to take more than one puff, then repeat steps 2-5. Wait for about a minute before taking the next puff.

7. After use, replace cover (see figure 6) and rinse your mouth with water.
If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Flutiform®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Fluticasone propionate + Formoterol fumarate dihydrate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid and Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>50/5 mcg, 125/5 mcg, 250/10 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Napp Pharmaceuticals Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Flutiform® for the first time

1. Remove mouthpiece cover as shown (see figure 2)

2. Shake the inhaler vigorously up and down three to five times.

3. Point the mouthpiece away from you and release one puff (actuation) by pressing down on the aerosol can. This step should be performed 4 times.

4. Now the inhaler is ready for use.

Instructions for regular use

1. Remove mouthpiece cover as shown check if the mouthpiece is clean and ensure that nothing is blocking the mouthpiece. (see figure 2)

2. Shake the inhaler vigorously up and down three to five times.

3. Breathe out as far as is comfortable. Never breathe out through the inhaler.
4. Hold the inhaler upright as shown and place the mouthpiece in your mouth and close your lips firmly around it. (see figure 3)

![Figure 3](image)

![Figure 4](image)

5. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still breathing in steadily and deeply. (see figure 4)

6. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently.

7. If your doctor has advised to take more than one puff, then repeat steps 2-6. Wait for about a minute before taking the next puff.

8. After use, replace mouthpiece cover and rinse your mouth with water.

*The dose indicator on inhaler shows you how many doses are remaining.*
If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Fostair®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Beclometasone dipropionate + Formoterol fumarate dihydrate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid and Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>100/6 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Chiesi Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Fostair®

1. To remove the mouthpiece cover, hold between the thumb and forefinger, squeeze gently and pull apart as shown (see figure 1). Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down few times and hold it upright as shown, with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. Do not breathe out through the inhaler. (see figure 2)

3. Place the mouthpiece in your mouth and close your lips firmly around it. Keep your head in a horizontal position. (see figure 3)

4. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still breathing in steadily and deeply (see figure 4). Do not breathe in through your nose.

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. (see figure 5)

6. If your doctor has advised to take more than one puff, then repeat steps 2-5. Wait for about a minute before taking the next puff.

7. After use, replace cover (see figure 6) and rinse your mouth with water.
Incruse Ellipta™

Please note that the diagrams appear here are of a different colour from the actual inhaler.

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Incruse Ellipta™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Umeclidinium bromide</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>55 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>COPD</td>
</tr>
</tbody>
</table>


How to use Incruse Ellipta™

1. Slide the cover down to expose the mouthpiece. You should hear a “click.” The counter will count down by 1 number. Your inhaler is now ready to use. (see figure 1)

2. While holding the inhaler away from your mouth, breathe out as far as is comfortable. Do not breathe out into the mouthpiece. (see figure 2)
3. Put the mouthpiece between your lips, and close your lips firmly around it. Your lips should fit over the curved shape of the mouthpiece. *(see figure 3)* Do not block the air vent with your fingers. *(see figure 4)*

4. Take a **long, steady, deep breath in through your mouth. Do not breathe in through your nose.**

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you).

   *You may not taste or feel the medicine, even when you are using the inhaler correctly. Do not take another dose from the inhaler even if you do not feel or taste the medicine.*

7. Slide the cover up and over the mouthpiece as far as it will go. *(see figure 5)*

8. Rinse your mouth with water once you finish using the inhaler.

*Figure 3  Figure 4  Figure 5*

*The dose indicator on the inhaler shows the number of doses that are remaining.*
<table>
<thead>
<tr>
<th><strong>Name of Inhaler</strong></th>
<th>Onbrez Breezhaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Inhaler</strong></td>
<td>Dry powder inhaler (DPI), hard capsules</td>
</tr>
<tr>
<td><strong>Drug Ingredient</strong></td>
<td>Indacaterol maleate</td>
</tr>
<tr>
<td><strong>Drug Type</strong></td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td><strong>Available Doses</strong></td>
<td>150 mcg, 300 mcg</td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td>Novartis Pharmaceuticals UK Ltd</td>
</tr>
<tr>
<td><strong>Indication for use</strong></td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Onbrez Breezhaler®

1. Pull off the cap. Check to see that nothing is blocking the mouthpiece. (see figure 1)

2. Hold the base of the inhaler firmly and tilt the mouthpiece. This opens the inhaler. (see figure 2)

3. With dry hands, remove one capsule from the blister. (see figure 3)

4. Place the capsule into the capsule chamber. **Never place a capsule directly into the mouthpiece.** (see figure 4)

5. Close the inhaler until you hear a “click”. (see figure 5)

6. Hold the inhaler upright with the mouthpiece pointing up. Pierce the capsule by firmly pressing together both side buttons at the same time. **Do this only once.** (see figure 6)
7. You should hear a “click” as the capsule is being pierced.

8. Release the side buttons fully. *(see figure 7)*

9. While holding the inhaler away from your mouth, breathe out (exhale) fully. **Do not breathe out into the mouthpiece.** *(see figure 8)*

10. Place the mouthpiece in your mouth and close your lips firmly around the mouthpiece. **Make sure to keep your head horizontally.** *(see figure 9)*

11. Breathe in **rapidly but steadily and as deeply as you can.** *(see figure 10)*

   Do not breathe in through your nose.

   **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 flavour as the medicine goes into your lungs.

12. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Breathe out slowly and gently.

13. Open the inhaler to see if any powder is left in the capsule. If there is powder left in the capsule- Close the inhaler and repeat steps 9-12.

14. After you have finished taking your medicine: Open the mouthpiece again and remove the empty capsule by tipping it out of the capsule chamber. Close the inhaler and replace the cap. Rinse the mouth with water.
Oxis Turbohaler®

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Oxis Turbohaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Turbohaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Formoterol fumarate dihydrate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>6 mcg, 12 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>AstraZeneca UK Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to prepare your new turbohaler for first time use

1. Unscrew and lift off the white cover. Ensure that nothing is blocking the mouthpiece.

2. Hold the turbohaler upright with the turquoise grip downwards. **Do not hold from the mouthpiece.** *(see figure 2)*

3. Turn the turquoise grip as far as it will go in one direction, and then back again in the opposite direction as far as it will go. It does not matter which way you turn first. During this procedure you will hear a “click”.

4. Repeat step 3 once more.

5. The turbohaler is now prepared for use, and **you should not repeat the above procedure again**. To take a dose, please continue according to the instructions below.
Instructions for regular use

1. Unscrew the white cover and lift it off. Ensure that nothing is blocking the mouthpiece. *(see figure 3)*

2. Hold your Turbohaler upright with the turquoise grip at the bottom. **Do not hold from the mouthpiece.** *(see figure 3)*

3. To load your Turbohaler with a dose, turn the turquoise grip as far as it will go in one direction. Then turn it as far as it will go in the other direction (it does not matter which way you turn it first). You should hear a “click” sound. Your Turbohaler is now loaded and ready to use. *(see figure 2)*

4. While holding the inhaler away from your mouth, breathe out (exhale) as far as is comfortable. **Do not breathe out through the Turbohaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. **Make sure to keep your head horizontally.** *(see figure 4)*

6. **Breathe in as deeply and as hard as you can through your mouth. Do not breathe in through your nose.**

*Figure 3*  
*Figure 4*
7. Remove your Turbohaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently.

    The amount of medicine that is inhaled is very small. This means you may not be able to taste it after inhalation.

8. If your doctor has advised to take more than one puff, then repeat steps 2-7.

9. Replace the cover by screwing it back on tightly. (see figure 5)

10. Rinse your mouth with water once you finish using the inhaler.

![Figure 5](image)

**When to start using a new Turbohaler**

When you first see a red mark in the indicator window *(see figure 6)*, there are about 20 doses left. When the red mark has reached the bottom of the indicator window *(see figure 7)*, you must start using your new Turbohaler.

![Figure 6](image) ![Figure 7](image)
**Name of Inhaler** | Pulmicort Turbohaler®
---|---
**Type of Inhaler** | Turbohaler, Dry powder inhaler (DPI)
**Drug Ingredient** | Budesonide
**Drug Type** | Inhaled corticosteroid
**Available Doses** | 100 mcg, 200 mcg, 400 mcg
**Manufacturer** | AstraZeneca UK Limited
**Indication for use** | Asthma & COPD
How to prepare your new turbohaler for first time use

1. Unscrew and lift off the white cover. Ensure that nothing is blocking the mouthpiece.

2. Hold the turbohaler upright with the brown grip downwards. **Do not hold from the mouthpiece. (see figure 2)**

3. Turn the brown grip as far as it will go in one direction, and then back again in the opposite direction as far as it will go. It does not matter which way you turn first. During this procedure you will hear a “click”.

4. Repeat step 3 once more.

5. The turbohaler is now prepared for use, and **you should not repeat the above procedure again**. To take a dose, please continue according to the instructions below.
Instructions for regular use

1. Unscrew the white cover and lift it off. Ensure that nothing is blocking the mouthpiece. (see figure 3)

2. Hold your Turbohaler upright with the brown grip at the bottom. Do not hold from the mouthpiece. (see figure 3)

3. To load your Turbohaler with a dose, turn the brown grip as far as it will go in one direction. Then turn it as far as it will go in the other direction (it does not matter which way you turn it first). You should hear a “click” sound. Your Turbohaler is now loaded and ready to use. (see figure 2)

4. While holding the inhaler away from your mouth, breathe out (exhale) as far as is comfortable. Do not breathe out through the Turbohaler.

5. Place the mouthpiece in your mouth and close your lips firmly around it. Make sure to keep your head horizontally. (see figure 4)

6. Breathe in as deeply and as hard as you can through your mouth. Do not breathe in through your nose.

Figure 3  Figure 4
7. Remove your Turbohaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently.

    The amount of medicine that is inhaled is very small. This means you may not be able to taste it after inhalation.

8. If your doctor has advised to take more than one puff, then repeat steps 2-7

9. Replace the cover by screwing it back on tightly. (see figure 5)

10. Rinse your mouth with water once you finish using the inhaler.

---

**When to start using a new Turbohaler**

When you first see a red mark in the indicator window (see figure 6), there are about 20 doses left. When the red mark has reached the bottom of the indicator window (see figure 7), you must start using your new Turbohaler.
Qvar Aerosol®

If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Qvar Aerosol®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Beclometasone Dipropionate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>50 mcg, 100 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Teva UK Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Qvar Aerosol®

1. To remove the mouthpiece cover, hold between the thumb and forefinger, squeeze gently and pull apart as shown (see figure 1). Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down few times and hold it upright as shown, with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.** (see figure 2)

3. Place the mouthpiece in your mouth and close your lips firmly around it. *Keep your head in a horizontal position.* (see figure 3)

4. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still **breathing in steadily and deeply** (see figure 4). **Do not breathe in through your nose.**

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. (see figure 5)

6. If your doctor has advised to take more than one puff, then repeat steps 2-5. Wait for about a minute before taking the next puff.

7. After use, replace cover (see figure 6) and rinse your mouth with water.
### Qvar Easi-Breathe®

<table>
<thead>
<tr>
<th><strong>Name of Inhaler</strong></th>
<th>Qvar Easi-Breathe®</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Inhaler</strong></td>
<td>Pressurised metered dose inhaler (Breath activated MDI)</td>
</tr>
<tr>
<td><strong>Drug Ingredient</strong></td>
<td>Beclometasone Dipropionate</td>
</tr>
<tr>
<td><strong>Drug Type</strong></td>
<td>Inhaled Corticosteroid</td>
</tr>
<tr>
<td><strong>Available Doses</strong></td>
<td>50 mcg, 100 mcg</td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td>Teva UK Limited</td>
</tr>
<tr>
<td><strong>Indication for use</strong></td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to prepare Qvar Easi-Breathe® for first time use

1. To test spray your inhaler, unscrew the top of it so you can see the metal can inside.

2. Open the cap, shake the inhaler and spray the aerosol by pressing the can with your finger or thumb.

3. Close the cap and put the top back on.

4. You have to repeat steps 1-3 if you have not used the inhaler for more than 2 weeks.

Instructions for regular use

1. Shake the inhaler vigorously up and down three to five times.

2. Hold the inhaler upright and make sure that your hand is not blocking the air holes. (see figure 1)
3. Expose the mouthpiece by folding down the cap which fits over the mouthpiece. Ensure that nothing is blocking the mouthpiece. *(see figure 2)*

4. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.** *(see figure 3)*

6. **Breathe in slowly and deeply through the mouthpiece.** Don’t stop breathing when the inhaler puffs the dose into your mouth. Carry on until you have taken a deep breath. **Do not breathe in through your nose.**

7. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. *(see figure 4)*

8. If your doctor has advised to take more than one puff, then repeat steps 4-7. Wait for about a minute before taking the next puff.

9. After you have used your inhaler, hold it upright and close the cap immediately and rinse your mouth with water.

*When the inhaler is empty you will not hear or feel any propellant being discharged*
<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Relvar Ellipta™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Fluticasone furoate + vilanterol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid and Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>92/22 mcg, 184/22 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Relvar Ellipta™

1. Slide the cover down to expose the mouthpiece. You should hear a “click.” The counter will count down by 1 number. Your inhaler is now ready to use. *(see figure 1)*

2. While holding the inhaler away from your mouth, breathe out as far as is comfortable. **Do not breathe out into the mouthpiece.** *(see figure 2)*
3. Put the mouthpiece between your lips, and close your lips firmly around it. Your lips should fit over the curved shape of the mouthpiece. *(see figure 3)* **Do not block the air vent with your fingers.** *(see figure 4)*

4. Take a **long, steady, deep breath in through your mouth. Do not breathe in through your nose.**

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you).

   *You may not taste or feel the medicine, even when you are using the inhaler correctly. Do not take another dose from the inhaler even if you do not feel or taste the medicine.*

7. Slide the cover up and over the mouthpiece as far as it will go. *(see figure 5)*

8. Rinse your mouth with water once you finish using the inhaler.

*Figure 3  Figure 4  Figure 5*

*The dose indicator on the inhaler shows the number of doses that are remaining.*
**Salamol® CFC Free Inhaler**

If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Salamol® CFC Free Inhaler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Salbutamol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>100 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>IVAX Ltd</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Salamol® CFC Free Inhaler

1. To remove the mouthpiece cover, hold between the thumb and forefinger, squeeze gently and pull apart as shown (see figure 1). Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down few times and hold it upright as shown, with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.** *(see figure 2)*

3. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.** *(see figure 3)*

4. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still breathing in steadily and deeply *(see figure 4).* **Do not breathe in through your nose.**

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. *(see figure 5)*

6. If your doctor has advised to take more than one puff, then repeat steps 2-5. Wait for about a minute before taking the next puff.

7. After use, replace cover *(see figure 6)* and rinse your mouth with water.
<table>
<thead>
<tr>
<th><strong>Name of Inhaler</strong></th>
<th>Salamol Easi-Breathe®</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Inhaler</strong></td>
<td>Pressurised metered dose inhaler (Breath activated MDI)</td>
</tr>
<tr>
<td><strong>Drug Ingredient</strong></td>
<td>Salbutamol</td>
</tr>
<tr>
<td><strong>Drug Type</strong></td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td><strong>Available Doses</strong></td>
<td>100 mcg</td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td>Teva UK Limited</td>
</tr>
<tr>
<td><strong>Indication for use</strong></td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
Using Salamol Easi-Breathe® for the first time

1. To test spray your inhaler, unscrew the top of it so you can see the metal can inside.

2. Open the cap, shake the inhaler and spray the aerosol by pressing the can with your finger or thumb.

3. Close the cap and put the top back on.

4. You have to repeat steps 1-3 if you have not used the inhaler for more than 2 weeks.

Instructions for regular use

1. Shake the inhaler vigorously up and down three to five times.

2. Hold the inhaler upright and make sure that your hand is not blocking the air holes. *(see figure 1)*
3. Expose the mouthpiece by folding down the cap which fits over the mouthpiece. Ensure that nothing is blocking the mouthpiece. (see figure 2)

4. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.** (see figure 3)

6. **Breathe in slowly and deeply through the mouthpiece.** Don’t stop breathing when the inhaler puffs the dose into your mouth. Carry on until you have taken a deep breath. **Do not breathe in through your nose.**

7. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. (see figure 4)

8. If your doctor has advised to take more than one puff, then repeat steps 4-7. Wait for about a minute before taking the next puff.

9. After you have used your inhaler, hold it upright and close the cap immediately and rinse your mouth with water.

*When the inhaler is empty you will not hear or feel any propellant being discharged*
Salbutamol Easyhaler®

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Salbutamol Easyhaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Easyhaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Salbutamol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>100 mcg, 200 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Orion Pharma (UK) Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Salbutamol Easyhaler®

1. Remove the dust cap. Ensure that nothing is blocking the mouthpiece. *(see figure 1)*

2. Shake the Easyhaler vigorously up and down three to five times. After shaking, hold the Easyhaler in the upright position. *(see figure 2)*

3. Press the Easyhaler once between your index finger and thumb until you hear a “click” and let it click back again. This delivers the powder into the inhalation channel inside the mouthpiece. Keep holding the Easyhaler in the upright position. *(see figure 3)*

4. While holding the inhaler away from your mouth, breathe out (exhale) as far as is comfortable. **Do not breathe out through the Easyhaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.** *(see figure 4)*
6. Take a **strong and deep** breath in through your mouth. **Do not breathe in through your nose.**

7. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out slowly.

8. If your doctor has advised to take more than one puff, then repeat steps 2-7.

9. Put the dust cap back on the mouthpiece.

10. Rinse your mouth with water once you finish using the inhaler.

**The dose counter on the side of the inhaler gives you the number of doses remaining (see figure 5)**

![Dose counter](image)
<table>
<thead>
<tr>
<th><strong>Name of Inhaler</strong></th>
<th>Seebri Breezhaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Inhaler</strong></td>
<td>Dry powder inhaler (DPI), hard capsules</td>
</tr>
<tr>
<td><strong>Drug Ingredient</strong></td>
<td>Glycopyrronium Bromide</td>
</tr>
<tr>
<td><strong>Drug Type</strong></td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td><strong>Available Doses</strong></td>
<td>44 mcg</td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td>Novartis Pharmaceuticals UK Ltd</td>
</tr>
<tr>
<td><strong>Indication for use</strong></td>
<td>COPD</td>
</tr>
</tbody>
</table>
How to use Seebri Breezhaler®

1. Pull off the cap. Ensure that nothing is blocking the mouthpiece. (*see figure 1*)

2. Hold the base of the inhaler firmly and tilt the mouthpiece. This opens the inhaler. (*see figure 2*)

3. With dry hands, remove one capsule from the blister. (*see figure 3*)

4. Place the capsule into the capsule chamber. **Never place a capsule directly into the mouthpiece.** (*see figure 4*)

5. Close the inhaler until you hear a “click”. (*see figure 5*)

6. Hold the inhaler upright with the mouthpiece pointing up. Pierce the capsule by firmly pressing together both side buttons at the same time. You should hear a “click” as the capsule is being pierced. **Do this only once.** (*see figure 6*)
7. Release the side buttons fully. *(see figure 7)*

8. While holding the inhaler away from your mouth, breathe out (exhale) fully. **Do not breathe out into the mouthpiece.** *(see figure 8)*

9. Place the mouthpiece in your mouth and close your lips firmly around the mouthpiece. **Make sure to keep your head horizontally.** *(see figure 9)*

10. Breathe in **rapidly but steadily and as deeply as you can through your mouth.** *(see figure 10)* Do not breathe in through your nose.

   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 flavour as the medicine goes into your lungs.

12. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Breathe out slowly and gently.

13. Open the inhaler to see if any powder is left in the capsule. If there is powder left in the capsule- close the inhaler and repeat steps 9-12.

14. After you have finished taking your medicine: Open the mouthpiece again and remove the empty capsule by tipping it out of the capsule chamber. Close the inhaler and replace the cap. Rinse the mouth with water.
# Seretide Accuhaler™

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Seretide Accuhaler™</th>
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</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Accuhaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Salmeterol + Fluticasone propionate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator and Corticosteroid</td>
</tr>
<tr>
<td>Available Doses</td>
<td>50/100 mcg, 50/250 mcg, 50/500 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Seretide Accuhaler™

1. Hold the Accuhaler in one hand and put the thumb of your other hand on the thumb grip (see Figure 1).

2. Push your thumb away from you as far as it will go until the mouthpiece appears and snaps into position (see Figure 1). Ensure that nothing is blocking the mouthpiece.

3. Hold the Accuhaler in a level, horizontal position with the mouthpiece towards you.

4. Slide the lever away from you as far as it will go until it “clicks” (see Figure 2). The Accuhaler is now ready to use.
5. Before inhaling your dose of Seretide Accuhaler, breathe out as far as is comfortable, holding the Accuhaler level and away from your mouth (see Figure 3). **Do not breathe out into the Accuhaler mouthpiece.**

6. Put the mouthpiece to your lips and ensure a tight seal around it (see Figure 4).

7. **Take a breath in quickly and deeply through the Accuhaler. Do not breathe in through your nose.**

8. Remove the Accuhaler from your mouth. Hold your breath for about 10 seconds, or for as long as is comfortable. Then breathe out slowly.

9. To close the Accuhaler when you have finished taking a dose, put your thumb on the thumb grip and slide the thumb grip back towards you as far as it will go (see Figure 5). The Accuhaler will click shut. The lever will automatically return to its original position. The Accuhaler is now ready for you to take your next scheduled dose.

10. Rinse your mouth with water after breathing in the medicine.

*The dose indicator on top of the Accuhaler shows you how many doses are remaining.*
Seretide Evohaler™

If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Seretide Evohaler™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Salmeterol + Fluticasone propionate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator and Corticosteroid</td>
</tr>
<tr>
<td>Available Doses</td>
<td>25/50 mcg, 25/125 mcg, 25/250 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Seretide Evohaler™

1. To remove the mouthpiece cover, hold between the thumb and forefinger, squeeze gently and pull apart as shown (see figure 1). Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down few times and hold it upright as shown, with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. Do not breathe out through the inhaler. (see figure 2)

3. Place the mouthpiece in your mouth and close your lips firmly around it. Keep your head in a horizontal position. (see figure 3)

4. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still breathing in steadily and deeply (see figure 4). Do not breathe in through your nose.

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. (see figure 5)

6. If your doctor has advised to take more than one puff, then repeat steps 2-5. Wait for about a minute before taking the next puff.

7. After use, replace cover (see figure 6) and rinse your mouth with water.
Serevent Accuhaler™

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Serevent Accuhaler™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Accuhaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Salmeterol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>50 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Serevent Accuhaler™

1. Hold the Accuhaler in one hand and put the thumb of your other hand on the thumb grip (see Figure 1).

2. Push your thumb away from you as far as it will go until the mouthpiece appears and snaps into position (see Figure 1). Ensure that nothing is blocking the mouthpiece.

3. Hold the Accuhaler in a level, horizontal position with the mouthpiece towards you.

4. Slide the lever away from you as far as it will go until it “clicks” (see Figure 2). The Accuhaler is now ready to use.

Please note that the diagrams appear here are of a different colour from the actual inhaler.
5. Before inhaling your dose of Serevent Accuhaler, breathe out as far as is comfortable, holding the Accuhaler level and away from your mouth (see Figure 3). Do not breathe out into the Accuhaler mouthpiece.

6. Put the mouthpiece to your lips and ensure a tight seal around it (see Figure 4).

7. Take a breath in quickly and deeply through the Accuhaler. Do not breathe in through your nose.

8. Remove the Accuhaler from your mouth. Hold your breath for about 10 seconds, or for as long as is comfortable. Then breathe out slowly.

9. To close the Accuhaler when you have finished taking a dose, put your thumb on the thumb grip and slide the thumb grip back towards you as far as it will go (see Figure 5). The Accuhaler will click shut. The lever will automatically return to its original position. The Accuhaler is now ready for you to take your next scheduled dose.

10. Rinse your mouth with water after breathing in the medicine.

The dose indicator on top of the Accuhaler shows you how many doses are remaining.
If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Serevent Evohaler™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Salmeterol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>25 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Serevent Evohaler™

1. To remove the mouthpiece cover, hold between the thumb and forefinger, squeeze gently and pull apart as shown (see figure 1). Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down few times and hold it upright as shown, with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.** (see figure 2)

3. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.** (see figure 3)

![Figure 1](image1.png)  ![Figure 2](image2.png)  ![Figure 3](image3.png)

4. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still **breathing in steadily and deeply** (see figure 4). **Do not breathe in through your nose.**

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. (see figure 5)

6. If your doctor has advised to take more than one puff, then repeat steps 2-5. Wait for about a minute before taking the next puff.

7. After use, replace cover (see figure 6) and rinse your mouth with water.

![Figure 4](image4.png)  ![Figure 5](image5.png)  ![Figure 6](image6.png)
**Spiriva Handihaler®**

<table>
<thead>
<tr>
<th><strong>Name of Inhaler</strong></th>
<th>Spiriva Handihaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Inhaler</strong></td>
<td>Dry powder inhaler (DPI), hard capsule</td>
</tr>
<tr>
<td><strong>Drug Ingredient</strong></td>
<td>Tiotropium Bromide</td>
</tr>
<tr>
<td><strong>Drug Type</strong></td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td><strong>Available Doses</strong></td>
<td>18 mcg</td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td>Boehringer Ingelheim Limited</td>
</tr>
<tr>
<td><strong>Indication for use</strong></td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Spiriva Handihaler®

1. To release the dust cap press the piercing button completely in and let go. (*see figure 1*)

2. Open the dust cap completely by pulling it upwards.

3. Then open the mouthpiece by pulling it upwards. Ensure that nothing is blocking the mouthpiece. (*see figure 2*)

4. Remove a Spiriva capsule from the blister and place it in the centre chamber as shown. It does not matter which way the capsule is placed in the chamber. (*see figure 3*)

5. Close the mouthpiece firmly until you hear a “click”, leaving the dust cap open. (*see figure 4*)

6. Hold the Handihaler device with the mouthpiece upwards and **press the piercing button completely in only once, and release**. This makes holes
in the capsule and allows the medication to be released when you breathe in. *(see figure 5)*

7. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.** *(see figure 6)*

8. Place the mouthpiece in your mouth and close your lips firmly around the mouthpiece. **Keep your head in a horizontal position.** *(see figure 7)*

9. **Take a breath in quickly and deeply through the inhaler. Do not breathe in through your nose.**

   *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 flavour as the medicine goes into your lungs.*

10. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Breathe out slowly and gently.

11. Repeat steps 7-10 once again to completely empty the capsule.

12. After you have finished taking your medicine: Open the mouthpiece again and remove the empty capsule by tipping it out of the capsule chamber. Close the mouthpiece and dust cap.

13. Rinse the mouth with water.

*Figure 5  Figure 6  Figure 7  Figure 8*
<table>
<thead>
<tr>
<th><strong>Name of Inhaler</strong></th>
<th>Spiriva Respimat®</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Inhaler</strong></td>
<td>Respimat, Inhalation solution</td>
</tr>
<tr>
<td><strong>Drug Ingredient</strong></td>
<td>Tiotropium Bromide</td>
</tr>
<tr>
<td><strong>Drug Type</strong></td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td><strong>Available Doses</strong></td>
<td>2.5 mcg</td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td>Boehringer Ingelheim Limited</td>
</tr>
<tr>
<td><strong>Indication for use</strong></td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to prepare Spiriva Respimat® for first time use

1. With the green cap closed, press the safety catch while pulling off the clear base. (see figure 1)

2. Take the cartridge out of the box. Push the narrow end of the cartridge into the inhaler until it clicks into place. (see figure 2) The cartridge should be pushed firmly against a firm surface to ensure that it has gone all the way in. (see figure 3)

   Do not remove the cartridge once it has been inserted into the inhaler.

3. Replace the clear base. (see figure 4)

4. Hold the Spiriva Respimat inhaler upright, with the green cap closed. Turn the base in the direction of the red arrows on the label until it clicks (half a turn). (see figure 5)
5. Open the green cap until it snaps fully open. *(see figure 6)*

6. Point the Spiriva Respimat inhaler towards the ground. Press the dose release button. *(see figure 7)*

7. Repeat steps 4, 5 and 6 until a cloud is visible.

8. Then repeat steps 4, 5 and 6 three more times to ensure the inhaler is prepared for use.

9. Close the green cap.

10. Your Spiriva Respimat inhaler is now ready to use.

**Instructions for regular use**

1. Hold the Spiriva Respimat inhaler upright, with the green cap closed.

2. Turn the base in the direction of the red arrows on the label until it clicks (half a turn). *(see figure 8)*

3. Open the green cap until it snaps fully open. Ensure that nothing is blocking the mouthpiece. *(see figure 6)*
4. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around the mouthpiece without covering the air vents. **Keep your head in a horizontal position. (see figure 9)**

6. While taking in a **slow, deep breath in through your mouth**, press the dose release button and continue to breathe in slowly for as long as you can. **Do not breathe in through your nose.**

7. Hold your breath for 10 seconds or for as long as comfortable.

8. Repeat steps 1-7 once more so that you get the full dose.

9. Once you finish using the inhaler close the green cap.

10. Rinse your mouth with water

*Figure 8*  
*Figure 9*

**The dose indicator on the inhaler shows the number of doses left**
<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Striverdi Respimat®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Respimat, Inhalation solution</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Olodaterol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>2.5 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Boehringer Ingelheim Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>COPD</td>
</tr>
</tbody>
</table>
How to prepare Striverdi Respimat® for first time use

1. With the yellow cap closed, press the safety catch while pulling off the clear base. *(see figure 1)*

2. Take the cartridge out of the box. Push the narrow end of the cartridge into the inhaler until it clicks into place. *(see figure 2)* The cartridge should be pushed firmly against a firm surface to ensure that it has gone all the way in. *(see figure 3)*

   **Do not remove the cartridge once it has been inserted into the inhaler.**

3. Replace the clear base. *(see figure 4)*

4. Hold the Striverdi Respimat inhaler upright, with the yellow cap closed. Turn the base in the direction of the black arrows on the label until it clicks (half a turn). *(see figure 5)*
5. Open the yellow cap until it snaps fully open. *(see figure 6)*

6. Point the Striverdi Respimat inhaler towards the ground. Press the dose release button. *(see figure 7)*

![Figure 5](image1.png) ![Figure 6](image2.png) ![Figure 7](image3.png)

7. Repeat steps 4, 5 and 6 until a cloud is visible.

8. Then repeat steps 4, 5 and 6 three more times to ensure the inhaler is prepared for use.

9. Close the yellow cap.

10. Your Striverdi Respimat inhaler is now ready to use.

**Instructions for regular use**

1. Hold the Striverdi Respimat inhaler upright, with the yellow cap closed.

2. Turn the base in the direction of the black arrows on the label until it clicks (half a turn). *(see figure 8)*

3. Open the yellow cap until it snaps fully open. Ensure that nothing is blocking the mouthpiece. *(see figure 6)*
4. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around the mouthpiece without covering the air vents. *(see figure 9)*

6. While taking in a **slow, deep breath in through your mouth**, press the dose release button and continue to breathe in slowly for as long as you can. **Do not breathe in through your nose.**

7. Hold your breath for 10 seconds or for as long as comfortable.

8. Repeat steps 1-7 once more so that you get the full dose.

9. Once you finish using the inhaler, close the yellow cap.

10. Rinse your mouth with water

*Figure 8*  
*Figure 9*

*The dose indicator on the inhaler shows the number of doses left*
<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Symbicort Turbuhaler®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Turbohaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Budesonide + Formeterol fumarate dihydrate</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Corticosteroid and Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>100/6 mcg, 200/6 mcg, 400/12 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>AstraZeneca UK Limited</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to prepare your new turbohaler for first time use

1. Unscrew and lift off the white cover. Ensure that nothing is blocking the mouthpiece.

2. Hold the turbohaler upright with the red grip downwards. **Do not hold from the mouthpiece.** *(see figure 2)*

3. Turn the red grip as far as it will go in one direction, and then back again in the opposite direction as far as it will go. It does not matter which way you turn first. During this procedure you will hear a “click”.

4. Repeat step 3 once more.

5. The turbohaler is now prepared for use, and **you should not repeat the above procedure again.** To take a dose, please continue according to the instructions below.
Instructions for regular use

1. Unscrew the white cover and lift it off. Ensure that nothing is blocking the mouthpiece. *(see figure 3)*

2. Hold your Turbohaler upright with the red grip at the bottom. **Do not hold from the mouthpiece.** *(see figure 3)*

3. To load your Turbohaler with a dose, turn the red grip as far as it will go in one direction. Then turn it as far as it will go in the other direction (it does not matter which way you turn it first). You should hear a “click” sound. Your Turbohaler is now loaded and ready to use. *(see figure 2)*

4. While holding the inhaler away from your mouth, breathe out (exhale) as far as is comfortable. **Do not breathe out through the Turbohaler.**

5. Place the mouthpiece in your mouth and close your lips firmly around it. **Make sure to keep your head horizontally.** *(see figure 4)*

6. **Breathe in as deeply and as hard as you can through your mouth. Do not breathe in through your nose.**

*Figure 3*  
*Figure 4*
7. Remove your Turbhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently.

   The amount of medicine that is inhaled is very small. This means you may not be able to taste it after inhalation.

8. If your doctor has advised to take more than one puff, then repeat steps 2-7

9. Replace the cover by screwing it back on tightly. (see figure 5)

10. Rinse your mouth with water once you finish using the inhaler.

   The dose indicator on the inhaler shows the number of doses remaining
**Ventolin Accuhaler™**

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Ventolin Accuhaler™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Accuhaler, Dry powder inhaler (DPI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Salbutamol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>200 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Ventolin Accuhaler™

1. Hold the Accuhaler in one hand and put the thumb of your other hand on the thumb grip (see Figure 1).

2. Push your thumb away from you as far as it will go until the mouthpiece appears and snaps into position (see Figure 1). Ensure that nothing is blocking the mouthpiece.

3. Hold the Accuhaler in a level, horizontal position with the mouthpiece towards you.

4. Slide the lever away from you as far as it will go until it “clicks” (see Figure 2). The Accuhaler is now ready to use.
5. Before inhaling your dose of Ventolin Accuhaler, breathe out as far as is comfortable, holding the Accuhaler level and away from your mouth (see Figure 3). **Do not breathe out into the Accuhaler mouthpiece.**

6. Put the mouthpiece to your lips and ensure a tight seal around it (see Figure 4).

7. **Take a breath in quickly and deeply through the Accuhaler. Do not breathe in through your nose.**

8. Remove the Accuhaler from your mouth. Hold your breath for about 10 seconds, or for as long as is comfortable. Then breathe out slowly.

9. To close the Accuhaler when you have finished taking a dose, put your thumb on the thumb grip and slide the thumb grip back towards you as far as it will go (see Figure 5). The Accuhaler will click shut. The lever will automatically return to its original position. The Accuhaler is now ready for you to take your next scheduled dose.

10. Rinse your mouth with water after breathing in the medicine.

*The dose indicator on top of the Accuhaler shows you how many doses are remaining.*
Ventolin Evohaler™

If you have been advised to use this inhaler with a spacer device, please refer page 97

<table>
<thead>
<tr>
<th>Name of Inhaler</th>
<th>Ventolin Evohaler™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Inhaler</td>
<td>Pressurised metered dose inhaler (MDI)</td>
</tr>
<tr>
<td>Drug Ingredient</td>
<td>Salbutamol</td>
</tr>
<tr>
<td>Drug Type</td>
<td>Inhaled Bronchodilator</td>
</tr>
<tr>
<td>Available Doses</td>
<td>100 mcg</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Asthma &amp; COPD</td>
</tr>
</tbody>
</table>
How to use Ventolin Evohaler™

1. To remove the mouthpiece cover, hold between the thumb and forefinger, squeeze gently and pull apart as shown *(see figure 1)*. Ensure that nothing is blocking the mouthpiece.

2. Shake the inhaler up and down few times and hold it upright as shown, with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. **Do not breathe out through the inhaler.**(see figure 2)

3. Place the mouthpiece in your mouth and close your lips firmly around it. **Keep your head in a horizontal position.** *(see figure 3)*

4. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release a puff while still breathing in steadily and deeply *(see figure 4).** Do not breathe in through your nose.

5. Remove the inhaler from your mouth and hold your breath for 10 seconds (or as long as comfortable for you). Then breathe out gently. *(see figure 5)*

6. If your doctor has advised to take more than one puff, then repeat steps 2-5. Wait for about a minute before taking the next puff.

7. After use, replace cover *(see figure 6)* and rinse your mouth with water.
Spacer Devices:
AeroChamber Plus™

<table>
<thead>
<tr>
<th>Name of Spacer</th>
<th>AeroChamber Plus™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatibility</td>
<td>Metered dose inhalers (MDI)</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>Indication for use</td>
<td>Patients who have coordinating difficulties in using MDIs alone</td>
</tr>
</tbody>
</table>
How to use a Metered Dose Inhaler (MDI) with AeroChamber plus™

1. To remove the mouthpiece cover of the inhaler, hold the cover between the thumb and forefinger, squeeze gently and pull apart as shown (see figure 1). Ensure that nothing is blocking the mouthpiece.

2. Remove protective cap from mouthpiece of the AeroChamber Plus device. (see figure 2)

3. Look inside the AeroChamber Plus to check there is nothing inside it. (see figure 3)
4. Insert mouthpiece of inhaler into inhaler port of AeroChamber Plus. *(see figure 4)*

5. While holding the AeroChamber Plus and the inhaler firmly, shake the unit briskly, 4 to 5 times. Make sure the inhaler mouthpiece inside the AeroChamber Plus points straight towards the mouthpiece. *(see figure 5)*

6. Breathe out as far as is comfortable. **Do not breathe out through the AeroChamber.**

7. Place the mouthpiece of the AeroChamber Plus in your mouth and close lips tightly around the mouthpiece for an effective seal. **Keep your head in a horizontal position.** *(see figure 6)*
8. Just after starting to breathe in through your mouth, press down on the top of the inhaler (canister) to release a puff while still breathing in steadily and deeply (see figure 7). Do not breathe in through your nose.

The Flow Signal Whistle makes a whistling sound when the patient is breathing in too quickly.

If you are unable to do this they can simply breathe in and out 2–3 times (through the mouth) to obtain the medication.

![Figure 7](image.png)

9. If your doctor has advised to take more than one puff, then repeat steps 5-8. Wait for about a minute before taking the next puff.

10. After use, remove inhaler from the AeroChamber and replace mouthpiece covers of both the inhaler and the AeroChamber.

11. Rinse your mouth with water.
Appendix 6

Auditing questionnaire on the inhaler guide

1. Have you got any respiratory illness? *(Please tick appropriate)*
   - Yes [ ] If yes then please mention.....................................................
   - No [ ]

2. Do you use an inhaler regularly? Or have you used one before? *(Please tick appropriate)*
   - Yes [ ] If yes then please mention name........................................
   - No [ ]

3. How easy was the guide to read? *(Please circle appropriate)*
   
   1 2 3 4 5 6 7 8 9 10

   Very difficult                     Very easy

4. Were the instructions clear? *(Please circle appropriate)*
   
   1 2 3 4 5 6 7 8 9 10

   Very unclear                     Very clear

5. Was the font size large enough to read? *(Please tick appropriate)*
   - Too small [ ]
   - Appropriate [ ]
   - Too large [ ]

6. Do you find the illustrations are useful in understanding inhaler techniques *(Please tick appropriate)*
   - Not useful at all [ ]
   - Somewhat useful [ ]
   - Very useful [ ]

7. After reading this guide, at what level are you conversant in using the *Inhaler*? *(Please circle appropriate)*
   
   1 2 3 4 5 6 7 8 9 10

   No Knowledge                        Full Knowledge

8. Do you think that having an instructions leaflet (like this one) with you would make you feel more confident in understanding inhaler techniques? *(Please tick appropriate)*
   - Yes [ ]
   - No [ ] If not then why?........................................................................

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