












**BNF 3.1.1 – Adrenoceptor agonists (SABA)**

	Salbutamol	Salbutamol	Terbutaline
<b>Brand name</b>	Airsalb®	Ventolin® Evohaler	Bricanyl® Turbohaler
<b>Device</b>	MDI	MDI	Dry powder
			
<b>Strengths</b>	100 microgram	100 microgram	500 microgram
<b>Adult COPD dose</b>	1 or 2 puffs as necessary. Max 8 puffs in 24hrs  AirSalb may be used with a Vortex® or AeroChamber® Plus spacer device	1 or 2 puffs as necessary. Max 8 puffs in 24hrs  Ventolin may be used with a Volumatic® spacer device	One inhalation as required; max 4 daily.
<b>Steps to use the inhaler – ease of use</b>	<ul style="list-style-type: none"> <li>• The inhalation should be performed sitting or standing, wherever possible.</li> <li>• The protective cap should be removed.</li> <li>• The inhaler should be shaken thoroughly for a couple of seconds before use.</li> <li>• Hold the inhaler upright with your thumb on the base, below the mouthpiece. Breathe out as far as is comfortable. Do not breathe in again yet.</li> <li>• Place the mouthpiece in your mouth between your teeth. Close your lips around it. Do not bite.</li> <li>• Breathe in through your mouth. Just after starting to breathe in, press down on the top of the canister to release a puff of medicine. Do this while still breathing in steadily and deeply.</li> <li>• Hold your breath, take the inhaler from your mouth and your finger from the top of the inhaler. Continue holding your breath for a few seconds, or as long as is comfortable.</li> <li>• If your doctor has told you to take two puffs, wait about half a minute before you take another puff by repeating steps 3 to 7.</li> <li>• After use always replace the mouthpiece cover straight away to keep out dust. Replace the cover by firmly pushing and clicking into position.</li> </ul>		<ul style="list-style-type: none"> <li>• Unscrew the white cover and lift it off.</li> <li>• Hold Turbohaler upright.</li> <li>• Load Turbohaler with a dose, by turning 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. A click will be heard.</li> <li>• Hold Turbohaler away from mouth. Breathe out gently. Do not breathe out through Turbohaler.</li> <li>• Place the mouthpiece gently between your teeth. Close your lips. Breathe in as deeply and as hard as you can through your mouth. Do not chew or bite on the mouthpiece.</li> <li>• Remove Turbohaler from mouth. Then breathe out gently.</li> <li>• Repeat the process if necessary</li> <li>• Replace the cover.</li> </ul>
<b>Miscellaneous information</b>	Clean it at least once a week. If the inhaler gets very cold, take the metal canister out of the plastic case and warm it in your hands for a few minutes before use	Clean it at least once a week. If the inhaler gets very cold, take the metal canister out of the plastic case and warm it in your hands for a few minutes before use	The duration of action of a single dose is up to 6 hours. When not in use, Bricanyl Turbohaler should be stored with the cover tightened. Wipe the outside of the mouthpiece once a week with a dry tissue. When a red mark first appears in the indicator window under the mouthpiece, there are about 20 doses left.
<b>NHS List Price</b>	£1.5029.32 for 120 puffs (30 day supply)	£1.50 for 200 puffs	£8.30 for 100 inhalations




**BNF 3.1.2 - Antimuscarinic Bronchodilators**

	<b>1<sup>st</sup> choice</b>		<b>Alternatives</b>	
	<b>Glycopyrronium</b>	<b>Tiotropium</b>	<b>Aclidinium</b>	<b>Umeclidinium</b>
<b>Brand name</b>	Seebri® Breezhaler®	Spiriva Respimat®	Eklira Genuair®	Incruse Ellipta®
<b>Device</b>	Dry powder (capsule)	MDI	Dry powder (multi-dose)	Dry powder (multidose)
				
<b>Strengths</b>	50 microgram	2.5 microgram	322 microgram	55 microgram
<b>Adult COPD dose</b>	Inhalation of the contents of one capsule once daily with the Seebri® Breezhaler® device at the same time of day.	Two puffs (5 microgram) given from the Respimat inhaler once daily, at the same time of the day.	The recommended dose is one inhalation twice daily	The recommended dose is one inhalation of umeclidinium bromide once daily, at the same time of day
<b>Steps to use the inhaler – ease of use</b>	<p><b>7 Step process</b></p> <ul style="list-style-type: none"> <li>Remove capsule from blister pack</li> <li>Load capsule into inhaler</li> <li>Pierce capsule</li> <li>Inhale powder</li> <li>Check capsule empty</li> <li>Repeat inhalation if necessary</li> <li>Dispose of capsule</li> </ul>	<p><b>4 step process</b></p> <ul style="list-style-type: none"> <li>Turn inhaler until it clicks to load dose</li> <li>Inhale whilst pressing the dose release button (co-ordination required)</li> <li>Hold breath for 10 seconds</li> <li>Repeat.</li> </ul> <p>Inhaler preparation required prior to first use: Load cartridge and prepare cartridge in inhaler – 6 steps</p>	<p><b>3 step process</b></p> <ul style="list-style-type: none"> <li>Press and release button to load dose</li> <li>Inhale dose</li> <li>Indicator shows successful inhalation –repeat if necessary</li> </ul>	<p><b>3 step process</b></p> <ul style="list-style-type: none"> <li>Slide down cover to load dose</li> <li>Inhale dose</li> </ul>
<b>Miscellaneous information</b>	Powder taste and inhaler sound show inhaler working New inhaler with each pack of capsules – no cleaning	Dose indicator Locks when empty Clean mouthpiece once a week	Dose counter Locks closed when empty No need to wash	Dose counter No need to wash “Click” heard when dose loaded In use shelf-life = 6 weeks
<b>NHS List Price</b>	£27.50 for 30 doses (30 day supply)	£23.00 for 60 inhalations (30 day supply)	£28.60 for 60 inhalations (30 day supply)	£27.50 for 30 doses (30 day supply)


**BNF 3.1.4 – Compound Bronchodilator Preparations (LAMA/LABA)**

	1 <sup>st</sup> choice		Alternatives	
	Step up from glycopyrronium:	Step up from tiotropium:	Step up from aclidinium:	Step up from umeclidinium:
	Glycopyrronium / Indacaterol	Tiotropium/Olodaterol	Aclidinium / Formoterol	Umeclidinium / Vilanterol
Brand name	Ultibro Breezhaler®	Spiolto Respimat®	Duaklir Genuair®	Anoro Ellipta®
Device	Dry powder (capsule)	MDI	Dry powder inhaler	Dry powder inhaler
				
Strengths	85 / 43 microgram	2.5 / 2.5 microgram	340 / 12 microgram	55 / 22 microgram
Adult COPD dose	Inhalation of the content of one capsule once daily using the Ultibro Breezhaler inhaler.	Two puffs (5 microgram) given from the Respimat inhaler once daily, at the same time of the day.	The recommended dose is one inhalation twice daily.	The recommended dose is one inhalation once daily
Steps to use the inhaler – ease of use	<p><b>7 Step process</b></p> <ul style="list-style-type: none"> <li>Remove capsule from blister pack</li> <li>Load capsule into inhaler</li> <li>Pierce capsule</li> <li>Inhale powder</li> <li>Check capsule empty</li> <li>Repeat inhalation if necessary</li> <li>Dispose of capsule</li> </ul>	<p><b>4 step process</b></p> <ul style="list-style-type: none"> <li>Turn inhaler until clicks to load dose</li> <li>Inhale whilst pressing the dose release button (co-ordination required)</li> <li>Hold breath for 10 seconds</li> <li>Repeat.</li> </ul> <p>Inhaler preparation required prior to first use: Load cartridge and prepare cartridge in inhaler – 6 steps</p>	<p><b>3 step process</b></p> <ul style="list-style-type: none"> <li>Press and release button to load dose</li> <li>Inhale dose</li> <li>Indicator shows successful inhalation –repeat if necessary</li> </ul>	<p><b>2 step process</b></p> <ul style="list-style-type: none"> <li>Slide down cover to load dose</li> <li>Inhale dose</li> <li>Indicator shows successful inhalation</li> </ul>
Miscellaneous information	Powder taste and inhaler sound show inhaler working New inhaler with each pack of capsules – no washing	Dose indicator Locks when empty Clean mouthpiece once a week	Dose counter Locks closed when empty No need to wash	Dose counter No need to wash “Click” heard when dose loaded In use shelf-life = 6 weeks
NHS List Price	£32.50 for 30 doses (30 day supply)	£32.50 for 60 inhalations (30 day supply)	£32.50 for 60 inhalations (30 day supply)	£32.50 for 30 doses (30 day supply)

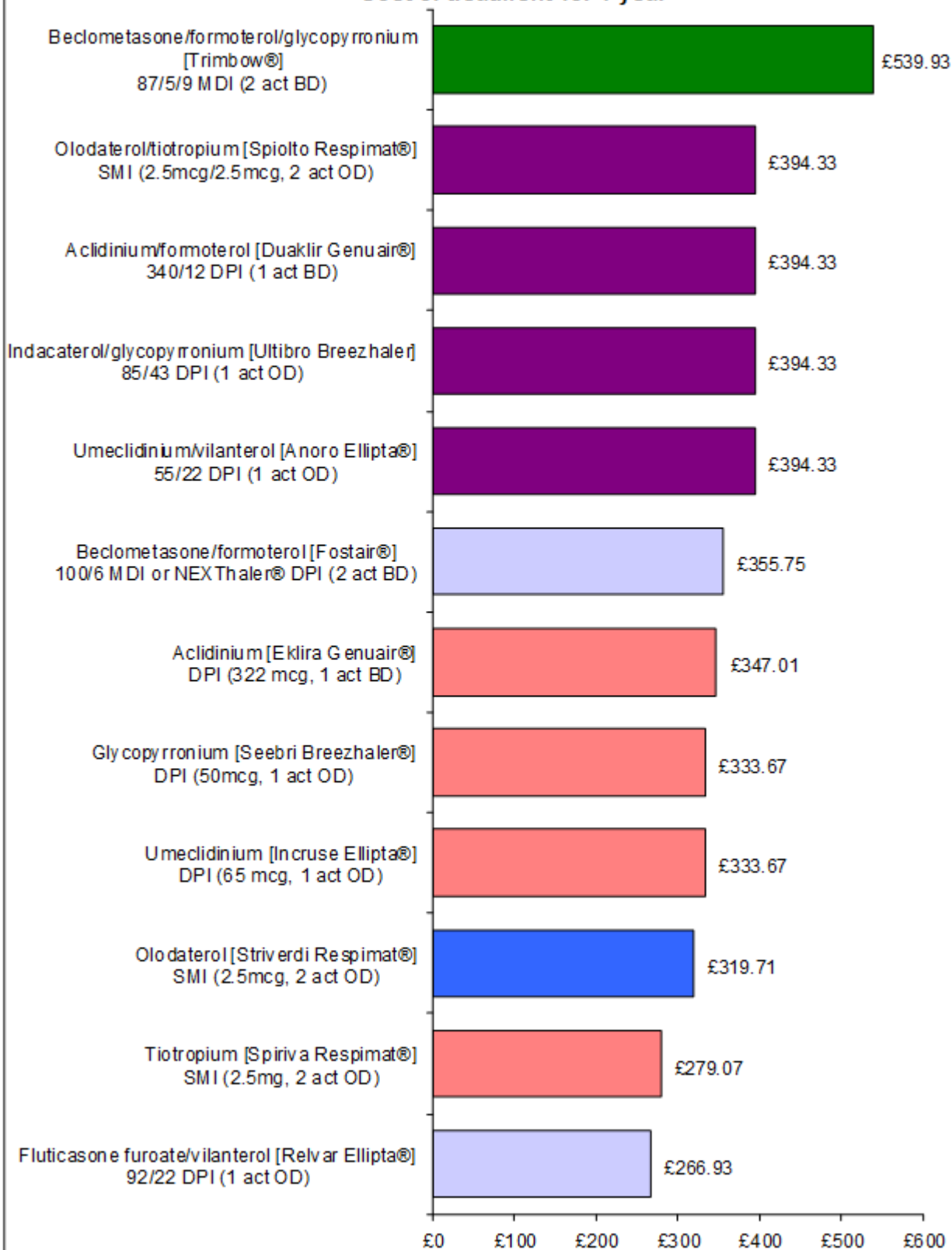
BNF 3.2 – Corticosteroids – ICS/LABA combination inhalers

	Beclometasone / Formoterol	Beclometasone / Formoterol	Fluticasone fuorate / Vilanterol
<b>Brand name</b>	Fostair®	Fostair® NEXThaler	Relvar Ellipta®
<b>Device</b>	MDI	DPI	Dry powder
			
<b>Strengths</b>	100/6 microgram	100/6 microgram	92/22 microgram
<b>Adult COPD dose</b>	2 inhalations twice a day (can use via AeroChamber Plus spacer)  Fostair® 200/6 microgram solution is not indicated for patients with COPD.	2 inhalations twice a day  Fostair® NEXThaler 200/6 microgram solution is not indicated for patients with COPD.	One inhalation of 92/22 mcg once daily.  Relvar Ellipta®184/22 microgram is not indicated for patients with COPD.
<b>Steps to use the inhaler – ease of use</b>	<b>2 Step process</b> <ul style="list-style-type: none"> <li>• Press top of inhaler canister whilst breathing in to inhale dose (co-ordination required)</li> <li>• Repeat</li> </ul>	<b>3 Step process</b> <ul style="list-style-type: none"> <li>• Open the inhaler</li> <li>• Inhale the dose</li> <li>• Repeat and close the inhaler</li> </ul>	<b>2 Step process</b> <ul style="list-style-type: none"> <li>• Slide down cover to load dose</li> <li>• Inhale dose</li> </ul>
<b>Miscellaneous information</b>	Fostair is the only dual combination inhaler which needs to be stored in the fridge (before dispensing only) In use shelf life = 5 months (out of fridge) Suitable for use with the AeroChamber Plus spacer device. Small particle size – 100microgram beclometasone dipropionate (BDP) in Fostair is not equivalent to 100microgram BDP in other inhalers. Fostair contains a small amount of ethanol.	Dose counter Store in the original package in order to protect from moisture. Before first opening the pouch: This medicinal product does not require any special temperature storage conditions. After first opening the pouch: Do not store above 25°C. In use shelf life = 6 months	Dose counter No need to wash “Click” heard when dose loaded In use shelf-life = 6 weeks
<b>NHS List Price</b>	£29.32 for 120 puffs (30 day supply)	£29.32 for 120 puffs (30 day supply)	£22.00 for 30 inhalations (30 day supply)

**BNF 3.2 – Corticosteroids – ICS/LABA/LAMA combination inhalers**

	<b>Beclometasone / Formoterol / Glycopyrronium</b>
<b>Brand name</b>	Trimbow®
<b>Device</b>	MDI
	
<b>Strengths</b>	87 micrograms/5 micrograms/9 micrograms
<b>Adult COPD dose</b>	2 inhalations twice a day (can use via AeroChamber Plus spacer)
<b>Steps to use the inhaler – ease of use</b>	<p><b>2 Step process</b></p> <ul style="list-style-type: none"> <li>• Press top of inhaler canister whilst breathing in to inhale dose (co-ordination required)</li> <li>• Repeat</li> </ul>
<b>Miscellaneous information</b>	<p>The Trimbow® combination inhaler needs to be stored in the fridge (before dispensing only)            In use shelf life = 4 months (out of fridge)            Suitable for use with the AeroChamber Plus spacer device.            Trimbow contains a small amount of ethanol.            Dose counter</p>
<b>NHS List Price</b>	£44.50 for 120 puffs (30 day supply)

**October 2017: Inhaled therapy licensed for COPD (ICS/LABA combinations, LABAs, LAMAs, LABA/LAMA combinations & ICS/LABA/LAMA combinations)**  
**- Cost of treatment for 1 year**



Doses given do not imply therapeutic equivalence

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