











GMMMG COPD Formulary Inhaler Options – September 2021







BNF 3.1.1 – Adrenoceptor agonists (SABA)

		Salbutamol		Salbutamol		Terbutaline	
Brand name	CO ₂ equivalent	Easyhaler®	 7 -13 miles	Ventolin® Accuhaler	 13 miles	Bricanyl® Turbohaler	 7 miles
Device		Dry powder		Dry powder		Dry powder	
							
Strengths		100 microgram , 200 microgram		200 microgram		500 microgram	
Adult COPD dose		100 microgram inhaler: 100 micrograms to 200 micrograms as necessary. 200 microgram inhaler: 200 micrograms to 400 micrograms as necessary. With either inhaler, maximum of 800 micrograms over any 24 hour period.		200 micrograms as necessary. Maximum 800 micrograms (4 inhalations of 200 micrograms) in 24hrs		One inhalation (500 micrograms) as required; maximum 4 inhalations daily.	
Steps to use the inhaler – ease of use		<ul style="list-style-type: none"> Remove the protective cover and dustcap Shake the inhaler vigorously up and down 3 to 5 times Keep holding the inhaler upright between your forefinger and thumb, and press down until a click is heard, then let the inhaler click back again. Continue holding in an upright position throughout. This releases a dose. Inhalation should take place from either a sitting or standing position. Breathe out normally and place the mouthpiece between teeth and use lips to form a seal around the mouthpiece. Perform a rapid and forced inhalation through the inhaler. Hold breath for at least 5 seconds then resume normal breathing. Do not exhale into the device. 		<ul style="list-style-type: none"> Open using the thumbgrip to reveal a small hole in the mouthpiece. Hold the Accuhaler with the mouthpiece towards the user. Slide the lever away from the patient as far as it will go, which should produce a click. This places a dose of the medicine in the mouthpiece. Before using the Accuhaler breathe out as far as is comfortable. Put the mouthpiece to your lips; breathe in steadily and deeply with your mouth, not through your nose. Remove the Accuhaler from your mouth. Hold your breath for about 10 seconds or for as long as is comfortable. Breathe out slowly. 		<ul style="list-style-type: none"> Unscrew the white cover and lift it off. Holding Turbohaler upright, load 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 should be heard. Hold Turbohaler away from mouth. Breathe out gently (not through Turbohaler). 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. Remove Turbohaler from mouth. Then breathe out gently. Repeat if necessary Replace the cover. 	
Miscellaneous information		The mouthpiece of the inhaler should be cleaned once a week using a dry cloth or tissue. If the Easyhaler Salbutamol gets damp, you will need to replace it with a new one. Dose counter.		Wipe the mouthpiece of the Accuhaler with a dry tissue to clean it. Dose counter.		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. Dose counter.	
NHS List Price		(100mcg) £3.31 /(200mcg) £6.63 for 200 doses		£3.60 for 60 doses		£8.30 for 120 inhalations	

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		Salbutamol		Salbutamol	
Brand name	CO₂ equivalent	Airomir® Inhaler	 35 miles	Salamol®	 35 miles
Device		MDI		MDI	
					
Strengths		100 microgram		100 microgram	
Adult COPD dose		One to two puffs (100 to 200 micrograms) as necessary. Maximum 8 puffs in 24hours, and minimum interval normally 4 hours.		One to two puffs (100 to 200 micrograms) as necessary. Maximum 8 puffs in 24hours, and minimum interval normally 4 hours.	
Steps to use the inhaler – ease of use		<ul style="list-style-type: none"> • The inhalation should be performed sitting or standing, wherever possible. • The mouthpiece cover should be removed. • The inhaler should be shaken vigorously up and down for a couple of seconds before use. • 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. • Place the mouthpiece in your mouth between your teeth. Close your lips around it. Do not bite. • 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. • Hold your breath, take the inhaler from your mouth and your finger from the top of the inhaler. Aim to hold breath for 10 seconds. • Slowly breathe out, and if another dose is not required replace the cover on the mouthpiece • If another dose is needed, wait one minute before repeating above steps to take another dose. <p>After use always replace the mouthpiece cover straight away to keep out dust. Replace the cover by firmly pushing and clicking into position.</p>			
Miscellaneous information		Clean at least once a week. Airomir may be used with an AeroChamber® Plus or AeroChamber® spacer device		Clean at least once a week. Salamol may be used with a Volumatic® spacer device	
NHS List Price		£1.97 for 200 doses		£1.46 for 200 doses	

BNF 3.1.2 – Antimuscarinic bronchodilators (LAMA)

		Lower carbon preferred options:					
		Umeclidinium		Glycopyrronium		Tiotropium	
Brand name	CO2 equivalent	Incruse Ellipta®▼	 23 miles	Seebri® Breezhaler®	 23 miles	Spiriva Respimat®	 33 miles
Device		Dry powder (multidose)		Dry powder (capsule)		Soft Mist Inhaler (SMI)	
							
Strengths		55 micrograms		44 micrograms		2.5 micrograms	
Adult COPD dose		One inhalation (55 micrograms) once daily		One inhalation once daily		Two puffs once daily	
Steps to use the inhaler – ease of use		<p>8 step process</p> <ul style="list-style-type: none"> • Open cover but do not shake • Slide cover down until click is heard, releasing dose • Breathe out as far as is comfortable, not into inhaler • Place mouthpiece between lips and close lips firmly, avoid blocking air vents during use • Inhale with one long, steady, deep breath • Hold for as long as possible (at least 3-4 seconds) • Remove inhaler from mouth • Breathe out slowly and gently 		<p>7 Step process</p> <ul style="list-style-type: none"> • Remove capsule from blister pack • Load capsule into inhaler • Pierce capsule • Inhale powder • Check capsule empty • Repeat inhalation if necessary • Dispose of capsule 		<p>3 step process</p> <ul style="list-style-type: none"> • Turn inhaler until it clicks to load dose • Inhale whilst pressing the dose release button (co-ordination required) • Hold breath for 10 seconds • Repeat for second dose. <p>Six step preparation stage required prior to first use to load and prepare cartridge in inhaler.</p>	
Miscellaneous information		<p>Dose counter The mouthpiece of the inhaler may be cleaned using a dry tissue “Click” heard when dose loaded In use shelf-life is 6 weeks The medicinal product may not be tasted or felt, even when using the inhaler correctly.</p>		<p>You may taste the medicine as you inhale. Capsules can be checked to ensure full dose inhalation. New inhaler with each pack of capsules. Never wash your inhaler with water. Wipe the mouthpiece inside and outside with a clean, dry, lint-free cloth to remove powder residue.</p>		<p>Dose indicator Locks when empty Clean mouthpiece with a damp cloth or tissue at least once a week Respimat device can be used with up to six cartridges before being replaced Contains benzalkonium chloride, which may cause wheezing and breathing difficulties in some people.</p>	
NHS List Price		£27.50 for 30 doses (30 day supply)		£27.50 for 30 doses (30 day supply)		£23.00 for 60 inhalations (30 day supply) Cost for capsules with and without device identical (September 2021 Drug Tariff).	





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BNF 3.1.4 – Compound bronchodilator preparations (LAMA/LABA)

		Lower carbon Options:							
		Step up from glycopyrronium:		Step up from umeclidinium:		Step up from tiotropium:		Alternative to Spiolto	
		Glycopyrronium / Indacaterol		Umeclidinium / vilanterol		Tiotropium / olodaterol		Formoterol/glycopyrronium	
Brand name	CO ₂ equivalent	Ultibro Breezhaler®	 23 miles	Anoro Ellipta® [▼]	 23 miles	Spiolto Respimat®	 33 miles	Bevespi Aerosphere®	 611 miles
Device		Dry powder (capsule)		Dry powder inhaler		SMI		MDI	
									
Strengths		85 / 43 microgram		55 / 22 microgram		2.5 / 2.5 microgram		7.2 / 5 microgram	
Adult COPD dose		One capsule once daily (using the Ultibro Breezhaler inhaler)		One inhalation once daily		Two puffs (5 microgram / 5 microgram), given from the Respimat inhaler, once daily		Two inhalations twice daily	
Steps to use the inhaler – ease of use		7 Step process <ul style="list-style-type: none"> Remove capsule from blister pack Load capsule into inhaler Pierce capsule Inhale powder Check capsule empty Repeat inhalation if necessary Dispose of capsule 		2 step process <ul style="list-style-type: none"> Slide down cover to load dose The dose counter counts down by 1 to confirm dose loaded Inhale dose 		4 step process <ul style="list-style-type: none"> Turn inhaler until clicks to load dose Inhale whilst pressing the dose release button (co-ordination required) Hold breath for 10 seconds Repeat. Six step preparation stage required prior to first use to load and prepare cartridge in inhaler.		2 Step process <ul style="list-style-type: none"> Press top of inhaler canister whilst breathing in to inhale dose (co-ordination required) Repeat. 	
Miscellaneous information		You may taste the medicine as you inhale. Capsules can be checked to ensure full dose inhalation. New inhaler with each pack of capsules Wipe the mouthpiece inside and outside with a clean, dry, lint-free cloth to remove any powder residue. Keep the inhaler dry. Never wash your inhaler		Dose counter No need to wash, but if cleaning use a clean dry tissue “Click” heard when dose loaded In use shelf-life is 6 weeks		Dose indicator Locks when empty Clean mouthpiece once a week using a damp cloth or tissue In-use shelf life cartridge is 3 months Each Respimat® device recommended for use with up to six cartridges before replacement		The inhaler can be used for up to 3 months after first opening Clean the inhaler once each week for the first 3 weeks. Can be used with spacer to aid administration. Compatible with Aerochamber® Plus Flow-Vu spacer device.	
NHS List Price		£32.50 for 30 doses (30 day supply)		£32.50 for 30 doses (30 day supply)		£32.50 for 60 doses (30 day supply) Cost for capsules with and without device identical (September 2021 Drug Tariff)		£32.50 for 120 doses (30 day supply)	







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BNF 3.2 – Corticosteroid combination inhalers (ICS/LABA)

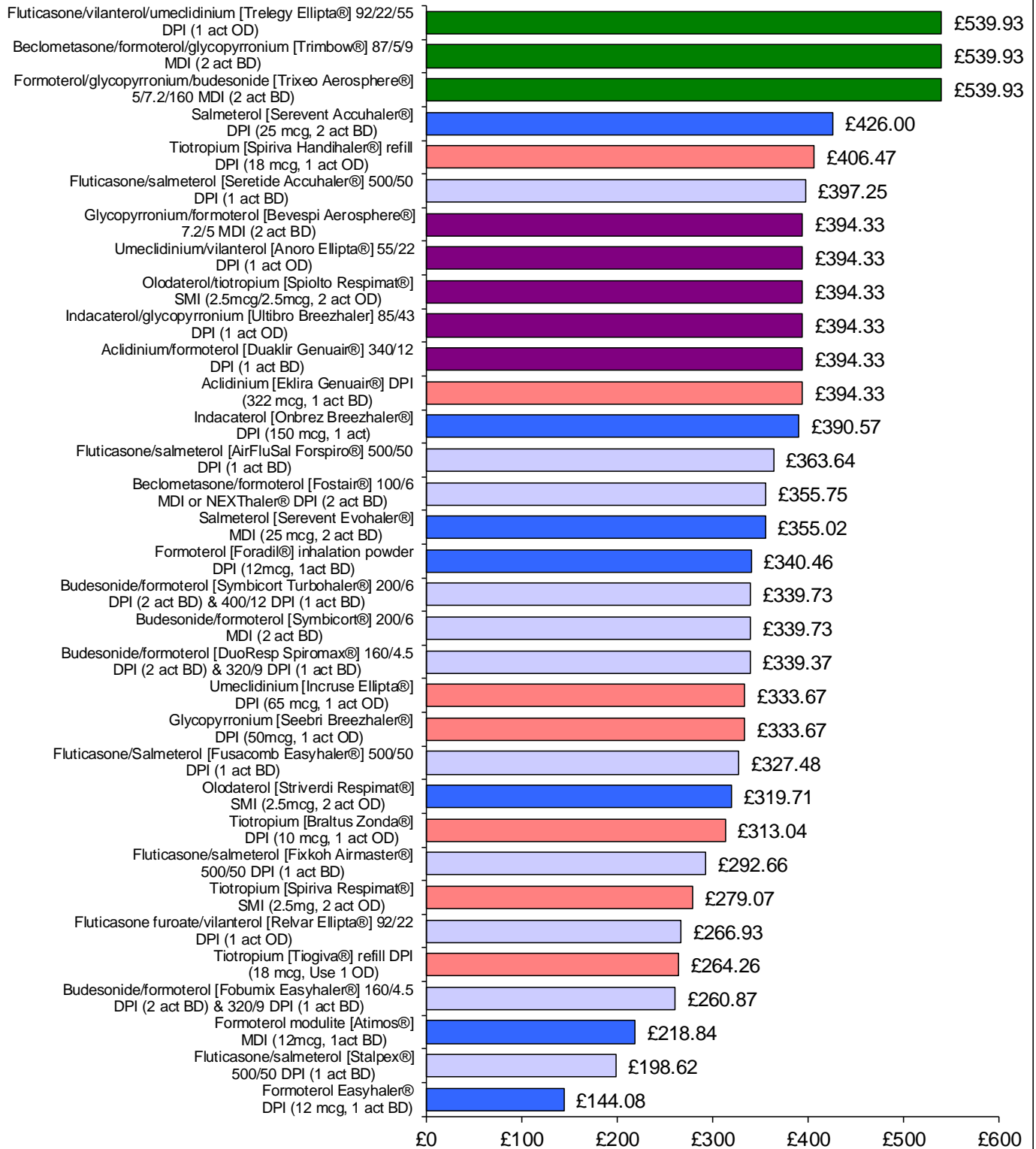
		Fluticasone furoate / vilanterol		Beclometasone / formoterol	
Brand name	CO₂ equivalent	Relvar Ellipta®	 23 miles	Fostair®	 833 miles
Device		DPI		MDI	
					
Strengths		92/22 microgram		100/6 microgram	
Adult COPD dose		One inhalation once daily. Relvar Ellipta®184/22 microgram is not indicated for patients with COPD.		Two inhalations twice a day Fostair® 200/6 microgram solution is not indicated for patients with COPD.	
Steps to use the inhaler – ease of use		2 Step process <ul style="list-style-type: none"> Slide down cover to load dose Inhale dose 		2 Step process <ul style="list-style-type: none"> Press top of inhaler canister whilst breathing in to inhale dose (co-ordination required) Repeat 	
Miscellaneous information		Dose counter No need to wash, but if cleaning use a dry tissue “Click” heard when dose loaded In use shelf-life is 6 weeks		Fostair is the only dual combination inhaler which needs to be stored in the fridge (before dispensing only) In use shelf life is 3 months (once out of fridge) Suitable for use with the AeroChamber Plus spacer device. Small particle size of 100microgram beclometasone dipropionate (BDP) in Fostair means this is not equivalent to 100microgram BDP in other inhalers. Fostair contains a small amount of ethanol.	
NHS List Price		£22.00 for 30 inhalations (30 day supply)		£29.32 for 120 inhalations (30 day supply)	

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BNF 3.2 – Corticosteroids combination inhalers (ICS/LABA/LAMA)

		Fluticasone / umecclidinium / vilanterol		Beclometasone / formoterol / glycopyrronium		Formoterol / glycopyrronium / budesonide	
Brand name	CO ₂ equivalent	Trelegy Ellipta® [▼]	 23 miles	Trimbow®	 819 miles	Trixeo Aerosphere®	 572 miles
Device		DPI		MDI		MDI	
							
Strengths	92 / 55 / 22 micrograms		87 / 5 / 9 micrograms		5 / 7.2 / 160 micrograms		
Adult COPD dose	One inhalation once a day		Two inhalations twice a day		Two inhalations twice daily		
Steps to use the inhaler – ease of use	2 step process <ul style="list-style-type: none"> Open the cover and slide it fully down until a click is heard Inhale dose 		2 Step process <ul style="list-style-type: none"> Press top of inhaler canister whilst breathing in to inhale dose (co-ordination required) Repeat 		2 Step process <ul style="list-style-type: none"> Press top of inhaler canister whilst breathing in to inhale dose (co-ordination required) Repeat 		
Miscellaneous information	Shelf-life after opening the tray is 6 weeks Dose counter		The Trimbow® combination inhaler needs to be stored in the fridge (before dispensing only) In use shelf life, once out of fridge, is; 60 actuation product; 2 months 120 or 180 actuation product; 4 months Suitable for use with the AeroChamber® Plus spacer device. Trimbow contains a small amount of ethanol. Dose counter		In use shelf life: • 56-actuation inhaler: 6 weeks • 120-actuation inhaler: 3 months Dose counter Can use via Aerochamber® Plus Flow-Vu spacer device		
NHS List Price	£44.50 for 30 puffs (30 day supply)		£44.50 for 120 puffs (30 day supply)		£44.50 for 120 puffs (30 day supply)		

July 2021: 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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