

Agent	Brand Names	MOA	Indication	Benefit	Administration	Adverse Effects	Monitoring	Notes
IL-4/13								
Dupilumab (SQ)	Dupixent	Anti IL-4 and IL-13 --> decr eosinophilic inflammation --> decr airway sm mm contractility, decr mucus production	Peripheral Eos >300 uL + Ch bronchitis pheno + incr risk exac despite ICS/LAMA/LABA	Decr ann rate exac Impr QoL (probably)	300 mg q2 wk	Risk of serious AE similar to placebo. No anaphylaxis reported in COPD trials. Uncommon: viral infection, headache, nasopharyngitis, back pain, diarrhea, arthralgia, urinary tract infection, lcl administration reaction, rhinitis, eosinophilia, toothache, and gastritis	CBC/diff baseline, 1 mo, 3mo, periodically (closer if eos >1500)	BOREAS and NOTUS trials Best evidence so far in efficacy
IL-5								
Mepolizumab (SQ)	Nucala	Specifically binds IL-5 --> reduced eos in blood and tissues	Peripheral Eos >300 uL + exacerbations despite ICS/LAMA/LABA	Decr annual rate exac Incr time to first exac	100 mg q4 wk	Risk of serious AE similar to placebo. No anaphylaxis reported in COPD trials. Injection site reactions, headache, angioedema	S&S: of infection (eg, herpes zoster, parasitic infections) 3-6 mo: eval tx response - PFTs, frequency of exacerbations, symptom control - CAT > mMRC, SABA use	MATINEE Trial (Ph III) METREX (Ph III) METREO (Ph III)
IL-13 inhibitor								
Roflumilast (PO)	Daliresp	Selective inhibition of PDE4 --> decr accumulation of cAMP w/in pathogenic inflammatory/structural cells --> suppression of cytokine release + inhibition of neutrophilic lung infiltration. Attenuates pulm/mucociliary remodeling.	Ch bronchitis phenotype	Decr mod-sev exacerbations x 1 year	250 mcg QD x 4 wks then 500 mg QD	HA, dizziness, insomnia, weight loss (5-10% body wt; >10% less common), diarrhea, nausea, decr appetite, influenza, back pain Rare: incr SI	LFTs regularly Weight New/worsening insomnia Anx/depression/suicidal thoughts/mood changes	REACT Trial Freq exac despite optimal med tx w FEV1<50%, chronic bronchitis, prior severe exac
IL-13 and IL-17 inhibitor								
Enfisentrine (NEB)	Ohtuvarye	Dual inhibitor PDE3 and PDE4 --> hydrolysis cAMP and cGMP --> inhib intracellular cAMP/cGMP accumulation --> decr inflammations	GOLD B - mod-severe (FEV1 30-70% pred), early addition With and without chronic bronchitis No recent (w/in 12 weeks) exacerbation	Impr ave FEV1 AUC Decr exacerbations Non-sig impr QoL	3 mg (one unit-dose ampule) BID nebulized	Paradoxical bronchospasm Depression/SI/Anxiety Backpain, HTN, UTI, diarrhea	PFTs Psych reactions	ENHANCE Trials; Per many insurance policies/clinical guidelines don't use with other phosphodiesterase-4 (PDE4) inhibitors (roflumilast) d/t incr risk AE; Enhance didn't enroll LAMA/LABA or ICS/LAMA/LABA; FEV1 <30%, exacerbations relative CI not absolute
Macrolide								
Ch Azithro (PO)		Anti-inflammatory	Required oxygen or PO CCS + 1 exac in last year but stable x 4 weeks.	Incr time to next exac.	3x/week (oft MWF)	Diarrhea Hearing loss QT prolongation	QTc, hearing	BAL cell count/diff or IgE, eos not increased AMAZES trial
Long Acting Anticholinergics								
Revefenacin (LAMA)	Yupleri	Long-acting muscarinic antagonist --> competitively and reversibly inhibits the action of ACh type 3 muscarinic (M3) receptors in bronchial smooth muscle --> bronchodilation	Maint tx of COPD	?Improved adherence d/t once daily dosing	175 mcg/3 mL QD (onset: w/in 45 min; duration: upto 24 hrs)	HTN, dizzy, HA, back pain, bronchitis, nasopharyngitis, URI, dry mouth (<5% all); paradoxical bronchospasm (mx SABA); NA Glaucoma	PFTs Narrow angle glaucoma Urinary retention Antimuscarinic effects (sev renal impairment)	LAMA caution in glaucoma, not rec in liver impairment.

Arformoterol (LABA)	Brovana	(R,R)-enantiomer of the racemic formoterol, long-acting beta2-agonist (pulmonary selective) --> relaxes bronchial smooth muscle	Maint tx of COPD		15 mcg BID	Chest pain, periph edema, pain, rash, diarrhea, backpain, leg cramps, flu-like symptoms; caution in arrhythmias	PFTs Bronchodilator tachyphylaxis	Avoid LABA monotherapy in asthma.
Formoterol (LABA)	Perforomist		Maint tx of COPD		20 mcg BID	Chest pain, anxiety, dizziness, voice disorder, diarrhea, nausea, dry mouth, mm cramps, RTI, bronchitis, pharyngitis, sinusitis	PFTs	Avoid LABA monotherapy in asthma.
BLVR	-----	Decr lung hyperinflation, improves dyspnoea, exercise capacity and pulmonary function	Hyperinflation, poor exercise tolerance, heterogeneous emphysematous phenotype, CI: ax smoking, severe hypoxia, FEV1 <20%, DLCO <20%, ch hypercapnea on BiPAP, +BD testing	Impr FEV1 Improve exercise capacity Impr QoL	-----	Pneumothorax		NETT Research group

*Curated by Dr. Melanie Garbarino March 2026. Cannot be replicated or distributed.

NOTE on ICS in COPD:
ICS strongly indicated if peripheral eos >300
ETHOS and TRIBUTE trial showed benefit in pts with eos <300 - should have risk/benefit discussion re: ICS if eos 100-300