

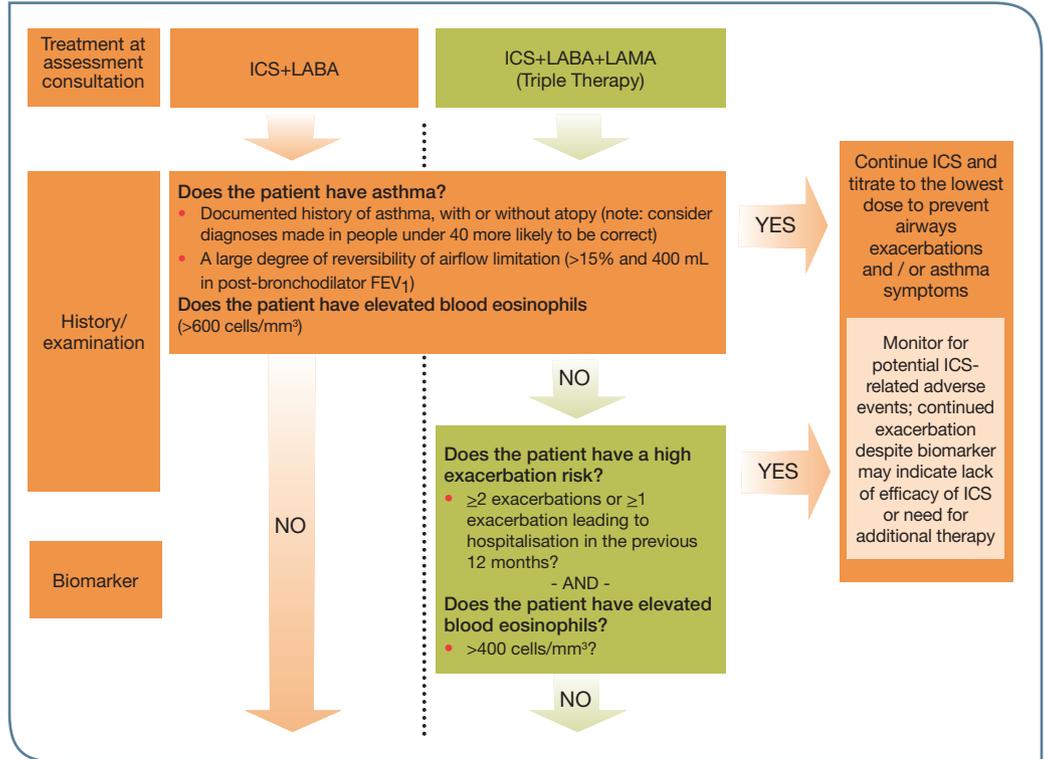


Evaluation of appropriateness of inhaled corticosteroid (ICS) therapy in COPD and guidance on ICS withdrawal

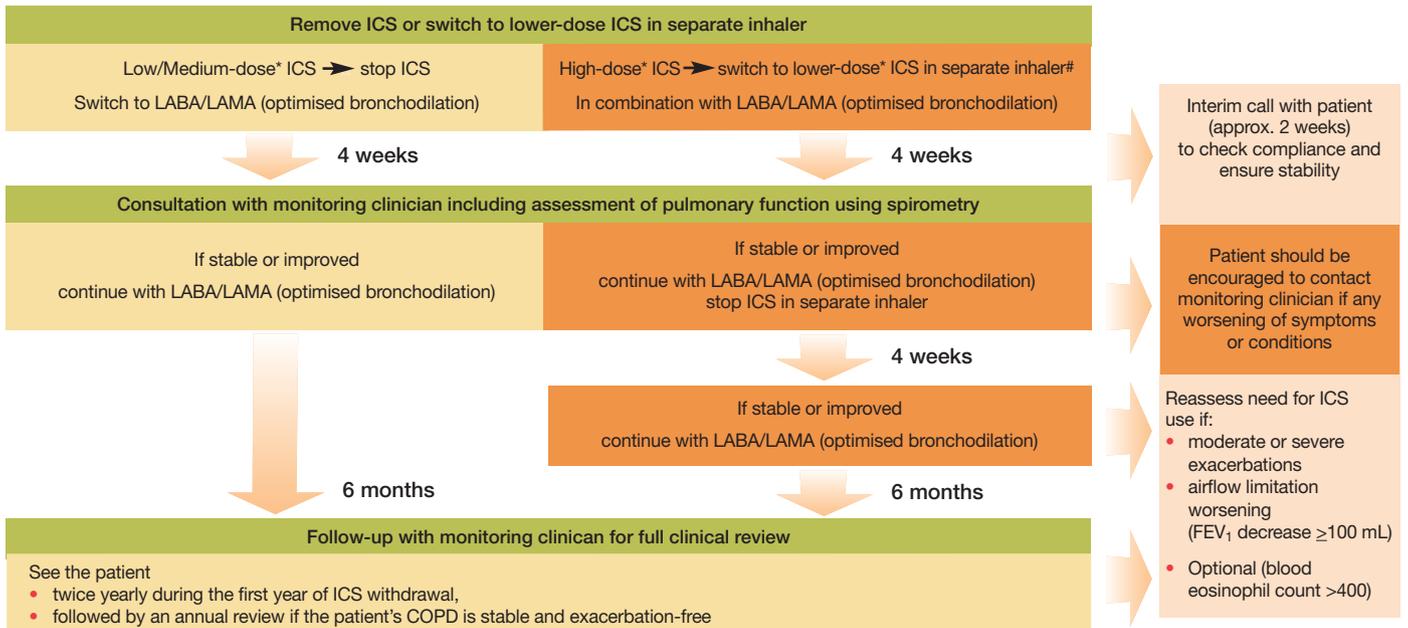
This guide provides an algorithm to identify people with chronic obstructive pulmonary disease (COPD) who might benefit from ICS treatment and those in whom it may not be appropriate, and an approach to withdrawing ICS in patients in whom it is not needed.

- In symptomatic patients with COPD at low risk of exacerbation, bronchodilation should be the first-line treatment. [GOLD 2017]. In symptomatic patients on monotherapy, treatment can be stepped up to a combination long-acting β_2 -agonist plus long acting muscarinic antagonist (LABA+ LAMA), and for patients with severe breathlessness (CAT score 10 or MRC grade 2) initial therapy with LABA+LAMA may be considered [GOLD 2017].
- In patients with symptoms (CAT score <10 or MRC grade <2) at high risk of an exacerbation,

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For people with COPD who don't need ICS



* See next figure # ICS that is not in a combination inhaler is not licensed for treatment of COPD
 Note: Whilst the use of LAMA and LAMA+LABA combinations are recommended as options by GOLD for patients at risk of exacerbation, the licensed indications are as maintenance bronchodilator treatments to relieve symptoms in adult patients with COPD.

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the recommended first-line treatment is a LAMA (stepping up to LABA+LAMA if necessary) or a LABA+LAMA. In more symptomatic high risk patients, combination LABA+ LAMA is the preferred first-line treatment, with LAMA or ICS+ LABA given as alternative options [GOLD 2017]. If exacerbations persist on LABA+ LAMA, patients can be stepped up to LABA+ LAMA+ICS (triple therapy).

- Long-term ICS use is associated with a significant risk of pneumonia [Yawn 2013; Suissa 2013; Kew & Seniukovich 2014], and systemic effects [Price 2012]; therefore ICS-containing regimens are not recommended in low-risk patients, and should only be considered for high-risk patients with features of asthma, or as triple therapy if exacerbations persist despite treatment with a LABA+LAMA [GOLD 2017].
- Discontinuing ICS rapidly decreases the risk of serious pneumonia [Suissa 2015].
- Despite years of guidance on the limited role of ICS in COPD [GOLD 2001], there is evidence of inappropriate use of ICS in COPD patients who are at low risk of exacerbation [Vestbo 2014; Price 2014].
- Recent studies have indicated that ICS can be withdrawn in both low- and high-risk patients, provided adequate bronchodilator therapy is in place [Rossi 2014a; Rossi 2014b; Magnussen 2014]. Withdrawal of ICS only increased exacerbation rates in patients with both raised eosinophils and a history of frequent exacerbations [Calverley 2016].

ICS dose switch guidance

Commonly prescribed ICS treatments for COPD and recommended ICS in separate inhaler for change in treatment

Current treatment	Switch to
<ul style="list-style-type: none"> • Fluticasone/salmeterol - 250/50µg 1 puff twice daily 	<ul style="list-style-type: none"> • LABA/LAMA
<ul style="list-style-type: none"> • Beclomethasone/formoterol - 100/6µg 2 puffs twice daily 	<ul style="list-style-type: none"> • LABA/LAMA
<ul style="list-style-type: none"> • Fluticasone/vilanterol - 92/22µg 1 puff once daily 	<ul style="list-style-type: none"> • LABA/LAMA
<ul style="list-style-type: none"> • Budesonide/formoterol - 400/12µg 1 puff twice daily - 200/6µg 2 puffs twice daily 	<ul style="list-style-type: none"> • LABA/LAMA
<ul style="list-style-type: none"> • Budesonide/formoterol - 400/12µg 2 puffs twice daily 	<ul style="list-style-type: none"> • LABA/LAMA plus - budesonide 200µg 2 puffs twice daily
<ul style="list-style-type: none"> • Fluticasone/salmeterol - 500/50µg 1 puff twice daily 	<ul style="list-style-type: none"> • LABA/LAMA plus - fluticasone 250µg 1 puff twice daily

The following fixed ICS/LABA combination brands are licensed in COPD: Seretide Accuhaler, AirFluSal For Spiro, Relvar Ellipta, Symbicort, DuoResp Spiromax, FostairMDI and Foster NEXThaler, Fobumix Easyhaler

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Adapted, with permission from the International Primary Care Respiratory Group (IPCRG). January 2018. The PCRS-UK wish to acknowledge and thank IPCRG for allowing PCRS-UK to adapt this material specifically for UK use based on current national guidance. This resource is advisory; it is intended for general use and should not be regarded as applicable to a specific case. This resource has been adapted by Dr Noel Baxter, Dr Kevin Gruffydd-Jones, Dr Vince Mak and Dr Iain Small. The online version of this document can be downloaded from <https://pcrs-uk.org/stepping-down-ics-copd>

The original IPCRG version of the desktop helper was written by Dr Alan G Kaplan, Dr Miguel Román Rodríguez, Professor David B Price and Dr Ioanna Tsiligianni and can be obtained from <https://goo.gl/AB713K>

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