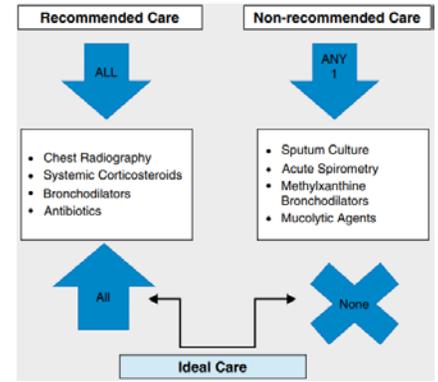


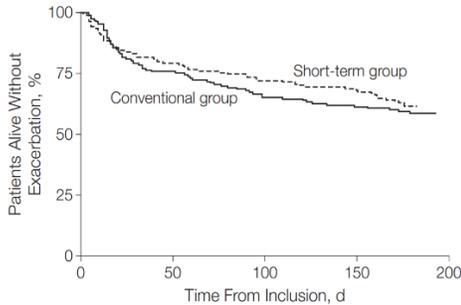
Chronic Obstructive Pulmonary Disease (COPD)

Practice Gap

- Context:** COPD is among the most common reasons for admission and readmission. Many common practices are not evidence-based.
- Current:** Evidence shows a substantial practice gap between actual and optimal care. Progress toward ideal care is slow despite financial penalties for substandard care of COPD patients.¹
- Cutting Edge:** Focus on high-yield practices that are firmly rooted in solid evidence and avoid low-value practices.



Systemic Corticosteroids



- Context:** Steroids reduce airway inflammation and are useful adjuncts to alleviate acute airway obstruction during exacerbations.
- Current:** Steroids are often given intravenously, at high doses, and for extended durations. Extending the duration of steroids does not improve survival or readmission.²
- Cutting Edge:** Prednisone 40mg daily x5 days is as effective as any other steroid strategy and is safer with fewer adverse events than parenteral, higher-dose, or more extended regimens.

Inhaled Corticosteroids (ICS)

- Context:** ICS are substantially beneficial in certain patients, but optimal patient selection has been controversial and difficult to define because of inconsistent or conflicting study results.
- Current:** Use of ICS should not be used as monotherapy. They are not effective for everyone, and may place patients at increased risk for pneumonia. Despite all this, ICS can be a useful adjunct for patients with severe disease and frequent readmissions.³

Strong support	Consider use	Avoid use
History of hospitalisation(s) for exacerbations of COPD [#] ≥2 moderate exacerbations of COPD per year [#] Blood eosinophils >300 cells- μ L ⁻¹ History of, or concomitant, asthma	1 moderate exacerbation of COPD per year [#] Blood eosinophils 100–300 cells- μ L ⁻¹	Repeated pneumonia events Blood eosinophils <100 cells- μ L ⁻¹ History of mycobacterial infection

- Cutting Edge:** Use peripheral eosinophilia to guide initiation and maintenance of ICS s those with substantial eosinophilia are most likely to benefit and those with minimal eosinophilia are unlikely to benefit.

Inhaled Treatments

- Current:** Different inhaled medications come in different delivery devices. Suboptimal administration technique may restrict clinical benefit. Many inhalers are also prohibitively expensive.
- Current:** Optimal use corresponds to improved outcomes, but many barriers (visual acuity, health literacy, dexterity) exist. Educational interventions can effectively train patients to use inhalers appropriately.⁴
- Cutting Edge:** critique patients on inhaler use during admission to increase their chance of thriving at home. Consider nebulizers to increase reliable medication delivery and (for some) improve affordability.

References:

- Rojas et al. Care Quality for Patients with Chronic Obstructive Pulmonary Disease in the Readmission Penalty Era. *Am J Respir Crit Care Med.* 2023;207(1):29-37. PMID: 35916652
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