

Comprehensive Clinical Evaluation of Drugs for Moderate-to-Severe Chronic Obstructive Pulmonary Disease

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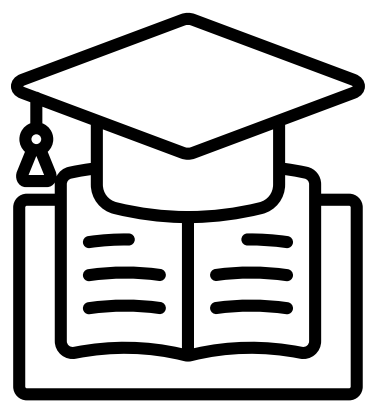


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Introduction

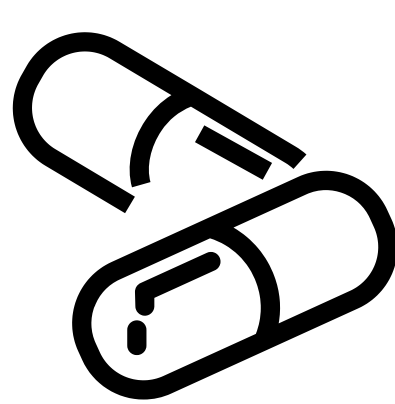
Despite existing national guidelines, challenges in a comprehensive clinical evaluation of chronic obstructive pulmonary disease (COPD) types remain:

1



The reliance on literature and expert opinion rather than real-world data

2



The narrow focus on individual drugs instead of disease-level evaluations.

3



The limited translation of research outcome into actual practice.

Objective

To establish a methodology for a comprehensive clinical evaluation of COPD disease types and to explore the decision-making mechanism in support of rational drug use.

Methodology

• Sample:

The list of medicines for evaluation is determined through extensive literature research and group discussions, which is then employed to develop a preliminary framework and indicator pool.

• Method:

Expert consultation was conducted using the Delphi method to buttress the content of the indicators; experts were selected based on their experience in fields of *clinical practice*, *pharmacy*, and *health technology assessment*.

• Analysis:

Each indicator is graded with relevant scoring rules, before being assigned with an appropriate weight through the analytic hierarchy process.^{1,2}

The evaluation focused exclusively on the moderately severe COPD population for value assessment.

Conclusion

We carried out a comprehensive clinical evaluation of drugs for moderate-to-severe stable COPD phases. This comprehensive value ranking can then be used to select medicines with higher clinical value to inhance treatment efficiency.

Results

1

Results:

- Journals selected for literature review: 109 (62 cited)
- Expert response rate: 80.95%
- Expert authority coefficient: 0.89
- Mean coefficient of variation: 0.17 (relatively high degree of convergence in experts' opinions)

Table 1. Level of consensus and coordination among expert opinions

Index	Average Score	Coefficient of Variation	Kendall's Coefficient
First-Level	4.19	0.17	0.53
Second-Level	4.35	0.16	0.28
Third-Level (stable phase)	4.38	0.17	0.34
Third-Level (acute exacerbation phase)	4.31	0.18	0.22
All	4.33	0.17	0.39

Table 2. Comprehensive Clinical Evaluation Index System for COPD Medications

First-Level Index		Second-Level Index	
	Weight		Weight
Safety	27%	Drug safety information	7%
		Government regulatory measures	3%
		Incidence and severity of adverse events	17%
Effectiveness	27%	Clinical guideline recommendations	3%
		Alleviation of clinical symptoms	15%
		Reduce the risk of acute exacerbations	9%
Economy	15%	Drug price	10%
		Cost-output analysis	5%
Innovation	6%	Clinical innovation	4%
		Industrial innovation	2%
Appropriateness	16%	Technical appropriateness of the drug	4%
		Appropriateness of drug use	12%
Accessibility	9%	Drug accessibility	3%
		Affordability	6%

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