

Aligning COPD Outcomes with Patient-informed Value Element Domains For Use in Economic Evaluations

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Background

- With a global prevalence of 11.7%¹ COPD is a leading cause of morbidity and mortality worldwide², and is associated with a significant economic and social burden.³
- One approach to incorporate patient-informed value elements in economic evaluations is to use stated preference methods to derive quantitative results about patients' preferences.
- A better understanding of what patients with COPD value when making healthcare decisions is needed in order for value assessments to better reflect the patient voice.
- Our ongoing work at the Patient-driven Values in Healthcare Evaluation (PAVE) Center aims to elicit the value elements in healthcare decision-making that are important to the patient community by directly engaging patients.

Objectives

The objective of this study was to align chronic obstructive pulmonary disease (COPD) outcomes and value attributes identified in the literature with the patient-informed value elements derived directly from patients.

Methods

- A systematic review was performed in PubMed and EMBASE using the following search terms: 'patient,' 'patient-centered,' 'preference,' 'value,' 'COPD,' 'focus groups,' 'questionnaire,' 'discrete choice experiment,' and 'EQ5D.'
- Full texts of the identified articles meeting the inclusion criteria were reviewed to determine: method used to measure patient preferences or values, analytical method, COPD intervention and outcome(s) evaluated, and value attributes and levels.
- We elicited the value elements in healthcare decision-making that are important to the patient community by directly engaging patients.
- Three independent reviewers mapped each COPD-specific attribute onto one (or more) of 44 patient-informed value elements, which were nested within the 11 domains we derived from our previous research.

Inclusion Criteria

- Studies evaluating patient preferences/value attributes related to COPD treatments and/or outcomes
- Full-text studies in English language

Results

- Of the 288 results our literature search returned, 20 studies met the inclusion criteria after removing duplicates.
- 34 COPD-specific attributes were identified from the literature
- 23 out of 34 literature-derived attributes aligned with 14 out of 44 patient-informed value elements nested within 9 domains (Table 1).
- Attributes from the literature that did not map onto a patient-informed value element were those that were related to the inhaler device.

Table 1. Mapping of value elements

Domain	Patient-Informed Value Element	Literature-Derived Attributes
Tolerability	Medication Frequency	Dosing per day/medication frequency/frequency of dosing
	Side Effects	Side effects of maintenance medicine Sleep disturbance/improvement in sleep/nighttime awakening
Social well-being	Maintain Social Activities	Ability to take part in desired social activities Impacts vacation
Personal well-being	Fatigue	Sleep disturbance/improvement in sleep/nighttime awakening
	Ability to Work	Early morning activity limitation Ability to take part in desired physical activities Impact on ability to exercise
	Impact on Depression	Sadness
	Impact on Anxiety	Fear of the future
Stigma	Embarrassment/self-consciousness	Embarrassment/stigma/self-consciousness

Table 1 (continued)

Domain	Patient-Informed Value Element	Literature-Derived Attributes
Cost incurred on the patient	Affordability	Out-of-pocket cost
		Costs no more than...
Cost incurred on the family	Long-Term Effects on Family	Impact on children
		Levels of autonomy/dependence
Accessibility of care/treatment	Available Treatment Alternative Treatments	No cure?
		No cure?
Forecasting	Inability to Plan	Levels of autonomy/dependence
		How well the medication relieves symptoms
Disease burden	Symptom Importance	Quick relief/quick to work
		Sensitivity to exacerbations
		Stable and well controlled symptoms
		Length of time symptom-free
		Symptoms (Breathlessness, coughing up mucus, chest tightness, wheezing, tiredness, lack of energy, chest infections, back/chest/lung pain)
		Hospitalizations
		Sleep disturbance/improvement in sleep/nighttime awakening

- Patient-informed value elements related to personal values and healthcare service delivery did not have any literature-derived attributes that mapped onto them.

Conclusions

- Existing literature on COPD patient preferences reflect some, but not all, the value elements that were derived by directly engaging patients.
- In order to make value assessments more representative of patient values, future research should address the challenge of how to incorporate patient-informed value elements in economic evaluations.

References

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