

Prescriber adherence to management guidelines and patient adherence to treatment recommendations in COPD

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Background

Adherence to treatment is critical for optimal outcomes in patients with COPD; it is associated with reduced hospitalisations and shorter length of hospital stay.¹ Suboptimal adherence to COPD-X guidelines and poor adherence to treatment were detected in a Victorian study almost 10 years ago.² Prescriber adherence to COPD-X guidelines and patient adherence to treatment in regional Victoria have not been explored. Fifteen years after the first publication of the COPD-X guidelines, it is important to review the use of the COPD-X guidelines in clinical practice. It is anticipated that the findings will inform strategies to improve adherence, and in turn improve outcomes in patients with COPD.

Aim

To assess adherence to COPD-X guidelines and patient adherence to treatment in a regional setting

Methods

Data were collected on comorbidity, spirometry, inhaler technique, smoking status, vaccination status, medicine use, availability of a COPD Action Plan, inpatient treatment, and non-pharmacological strategies. Patient adherence was measured using the TABS scale.³ Data were collected at three time points: face-to-face on admission and during hospital stay, and via telephone two-four weeks after discharge.

Inclusion/Exclusion Criteria

Patients admitted to the emergency department (ED) or the medical wards of University Hospital Geelong for a COPD exacerbation were included. Patients who were very unwell, had cognitive impairment, unable to communicate in English or deaf, blind or mute were excluded.

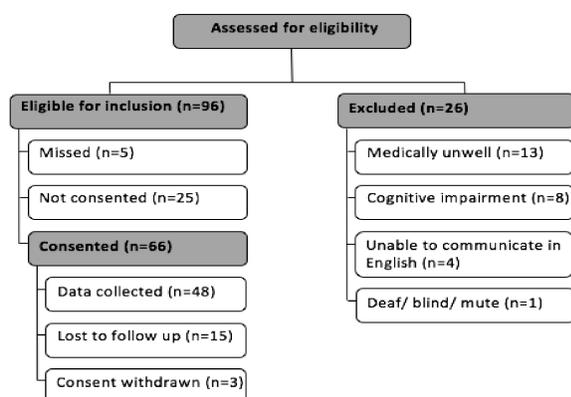


Figure 1. Participant inclusion and follow-up overview

Results

Participants (n = 66) had a mean (SD) age of 69.9(10.5) years; 43.9% were male. Reason for admission was an infective exacerbation of the respiratory condition in 47. On admission, 53 had at least one comorbidity and 19 were still smoking. Severity of COPD was not assessed in 42%. Only 37 had spirometry results; the mean (SD) FEV₁% predicted was 50.16 (26.23).

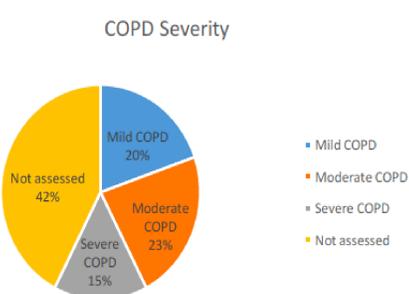


Figure 2. COPD severity in patients studied

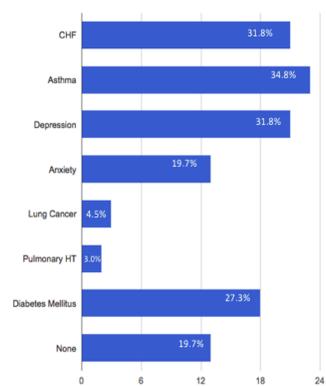


Figure 3. Comorbidity on admission

References

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4. Montes de Oca M, Menezes A, Wehrmeister FC, Lopez Varela MV, Casas A, Ugalde L, et al. (2017) Adherence to inhaled therapies of COPD patients from seven Latin American countries: The LASSYC study. *PLoS ONE* 12(11): e0186777.

Pre-admission management

- Only 2 (3%) patients were managed according to COPD-X guidelines
- 15 (22.7%) patients had a COPD Action Plan
- 5 (7.6%) patients were on a SAMA and a LAMA simultaneously
- 31 (47.0%) patients received the pneumococcal vaccine
- 49 (74.2%) patients received the influenza vaccine
- 59 (89.4%) patients reported poor treatment adherence on the TABS scale

In-hospital management

- Antibiotics were initiated in 55 patients, which included doxycycline (46; 83.6%), ceftriaxone (27; 49.1%), benzylpenicillin (25; 45.5%); amoxicillin (23; 41.8%); and azithromycin (15; 27.3%). Multiple antibiotics were prescribed to some patients.
- Systemic corticosteroids (mean duration 3.5 days) were given for the correct duration in only 4/53 (7.5%) patients.

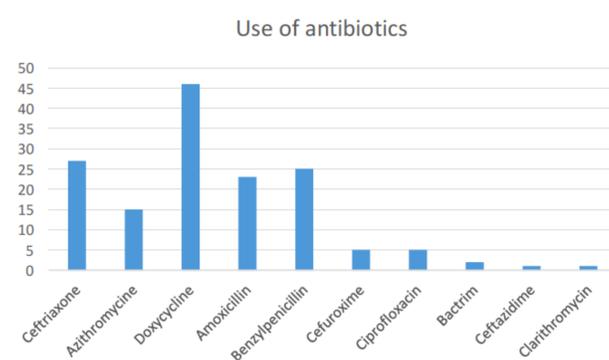


Figure 4. Overview use of antibiotics

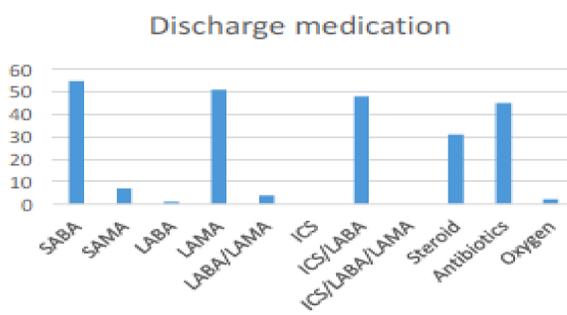


Figure 5. Overview of discharge medication

Post-hospital discharge management (n = 48)

- Six (12.5%) patients were managed according to COPD-X guidelines
- Sixteen (33.3%) patients had a COPD Action Plan
- Two-thirds (30/48) self-reported nonadherence

Discussion

Prescriber adherence to COPD-X and patient adherence to treatment improved following admission to the hospital for a COPD exacerbation. However, guideline adherence and treatment adherence are still suboptimal, with little improvement to the situation reported previously. In clinical practice the average medication adherence rate varies between 20-60%.⁴ Educational interventions targeting prescribers and patients with regular follow-ups and reinforcement may improve adherence and better outcomes in patients with COPD.

Conclusion

Gaps exist between COPD-X guidelines and the management of COPD in both primary and secondary care in the regional setting.

Health professional education focusing on the COPD-X and consumer education targeting treatment adherence are needed.

