



# Overview of inpatient management of acute exacerbations of COPD : a case-series

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## INTRODUCTION

First-line treatment for patients admitted for acute exacerbation of COPD (AECOPD) includes inhaled short-acting bronchodilators (beta-2 adrenergic agonists or anticholinergics - BD), short course of systemic corticosteroids (SCS) and antibiotics (for patients with bacterial respiratory infection) which have been shown to reduce length of stay, early relapse and treatment failure. The use of inhaled corticosteroids (ICS) alone for the treatment of exacerbations is not recommended. Automatically collected electronic data suggest an over-prescription of ICS for AECOPD.

The goals of this study are to verify the hypothesis of over-use of inhaled corticosteroids and to analyze the pharmacological management of AECOPD.

## METHOD

✓ 12 months retrospective study on medical records of randomly selected patients admitted for AECOPD (n=71) in the internal medicine wards of the Centre Hospitalier du Valais Romand between May 1<sup>st</sup> 2015 and April 30<sup>th</sup> 2016.

✓ Main outcomes measures: % of patients receiving ICS alone, SCS, BD and antibiotics in adherence with the GOLD 2016 guideline (see Table 1).

## CONCLUSION

- Pharmacotherapeutic management of patients admitted with AECOPD is only partially consistent with recommendations.
- ICS use is low but SCS are underused.
- Barriers preventing compliance to the recommendations should be identified and addressed in order to improve care of patients with AECOPD.

## RESULTS

Out of 267 admissions for respiratory conditions, 71 were selected for full record exams, 48 met criteria for AECOPD (67.6%) and were analyzed.

- Although not recommended as first choice 15% of the patients were treated with nebulized ICS (inhaled budesonide).
- While 67% received at least one dose of SCS, only 23% received SCS at low dose for a 5-day period.
- Short-acting inhaled bronchodilators were prescribed at admission to 63% of the patients.
- Antibiotic treatment was in agreement with recommendations for 83% of the patients.

Drug category	Full adherence criteria	Partial adherence criteria
SCS	Oral prednisone at fixed dose (30-40mg) for 5 days without tapering	At least one dose of SCS, but not in agreement for the other aspects: - SCS > 5 days - SCS < 5 days - Tapering of SCS
Short-acting bronchodilators	SAMA or SABA started or increased on admission	SAMA or SABA prescribed «on demand» (prn)
Antibiotics	Oral or IV antimicrobial therapy, unless procalcitonine < 0.25 µg/l	

Table 1 : Criteria for defining adherence to GOLD guidelines in AECOPD

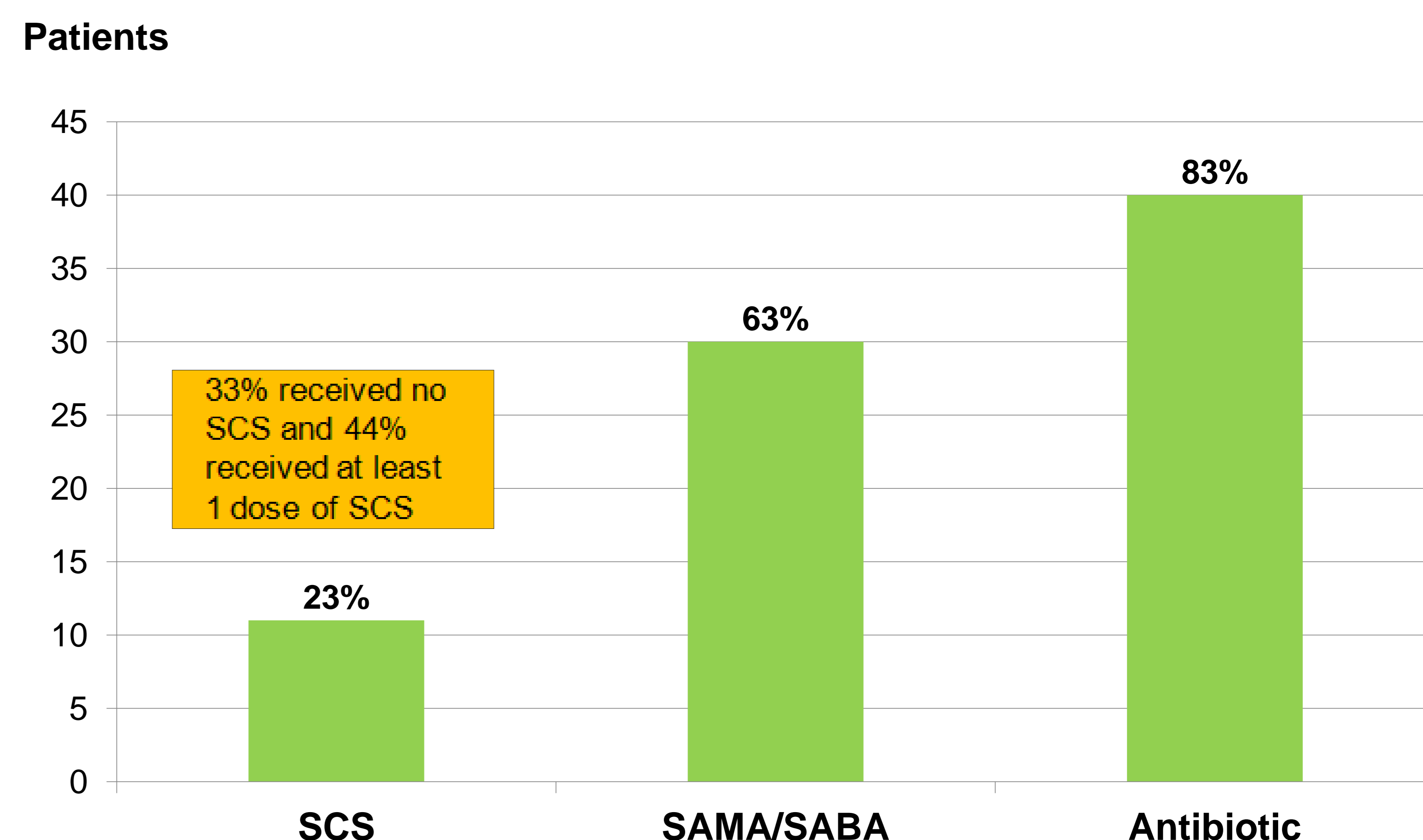


Figure 1 : Percentage of full adherence criteria for treatment of AECOPD (n=48)

*This work was carried out during the 1st author's postgraduate training in clinical pharmacy, supported in part by pharmaSuisse (www.pharmasuisse.org). There is no conflict of interest to declare.*

