

Diabetic Medication Changes In Hospitalized COPD Patients Treated With Steroids:

A Single Center Experience

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Background

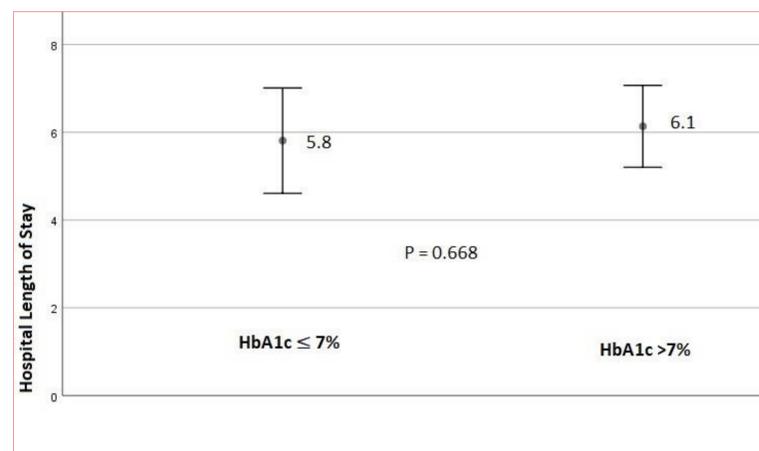
- ❑ Prevalence of patients with both diabetes and COPD is high in the US population.
- ❑ Steroid-induced hyperglycemia frequently poses a challenge in managing these patients with COPD exacerbation in hospital.
- ❑ There have not been studies to look into how this impacts diabetic medications on discharge.

Methodology

- ❑ Retrospective chart review was performed for patients with DM admitted for COPD exacerbation in a community hospital in the year 2018.
- ❑ Demographic parameters; blood sugar on admission, after steroid administration and before discharge; and HbA1c were noted.
- ❑ Diabetic medication changes (Non-insulin and insulin) on discharge as compared to admission were noted.
- ❑ Data analysis was done using IBM SPSS Statistics 25.

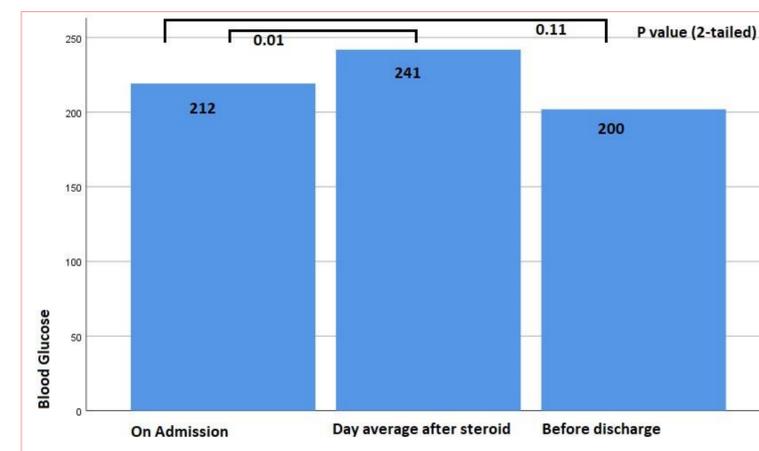
Results

- ❑ A total of 363 patients with a mean age of 67 (\pm 11.8) were studied.
- ❑ HbA1C was available for 178 patients with mean 7.67% (\pm 1.62). 62.3% had HbA1c more than 7%.
- ❑ Compared to the admission blood sugar, there was an increase in blood sugar (BS) after steroid administration, but no increase in BS on discharge day.
- ❑ There was no difference in increases in blood sugar in patients with HbA1c >7% compared to one with \leq 7% (P 0.88, Student T-test).



Results

- ❑ On discharge, 4% of the patients had either increase or a new start of non-insulin diabetic medications.
- ❑ The 6.1% of all patients were newly started on insulin regimens and 5.8% of patients had pre-existing insulin dose increased.
- ❑ Overall, medication escalation (addition or increase in insulin/non-insulin diabetic medication) was seen in 21.8% and 19.1% of patients with hemoglobin A1c of >7% and \leq 7% respectively (OR 1.18, 95% CI 0.55 – 2.51).
- ❑ There was no difference in hospital stay length in patients with HbA1c > 7% or \leq 7%.



Results

- ❑ Of the patients with HbA1c \leq 7% (N = 67), 3% had an increase in pre-existing insulin regimen, and 9% had a new start of insulin regimen.

Conclusion

- ❑ Majority of the diabetic patients with COPD in the study had uncontrolled diabetes.
- ❑ Addition or increase of diabetic medication on discharge on patients with controlled diabetes (HbA1c \leq 7%) based on the steroid-induced hyperglycemia has potential adverse consequences like hypoglycemia, which needs further studies.
- ❑ Patients who had their medication changed on discharge should follow up with PCP or GP for adjustment of their medication as soon as steroid regimen is completed.