Impact of Early Corticosteroids on Preventing Clinical Deterioration in Non-critically Ill Patients Hospitalized with COVID-19: A Multi-hospital Cohort Study

Mi-COVID 19 INITIATIVE
A JOINT CQI VENTURE

Results from 39 Michigan hospitals participating in joint CQI effort from 3/16/20-8/24/20

	Treatment (early steroids within 2 days)	Comparison (no early steroids)	Adjusted Odds Ratio
Primary Outcome			
Composite*	62/219 (28%)	173/716 (24%)	1.1
Secondary Outcome			
Individual components of primary outcome			
In-hospital mortality	48 (22%)	123 (17%)	1.3
Transfer to ICU level of care	35 (15%)	101 (14%)	1.3
Mechanical ventilation	25 (11%)	64 (9%)	1.7
Length of stay ≥ 7 days	93/219 (42%)	317/716 (44%)	0.9

*Composite of in-hospital mortality, mechanical ventilation, and transfer to ICU level of care

<u>Inclusion Criteria</u>

- Lab-confirmed SARS-CoV-2 who:
  - Received supp. O_2 day1/day2
  - Remained alive
  - Non-ICU

<u>Exclusion Criteria</u>

- < 3 days hospitalization
- No supp. O_2 day 1/day 2
- Mechanical ventilation or ICU care day 1/day 2
- Were a hospital transfer
- Pregnant
- Transition to hospice w/in 3 hrs.
- Discharged against medical advice

Key Takeaways

- Corticosteroids = beneficial in <u>critical</u> COVID-19.
- Role of early corticosteroids in <u>non-critical</u> COVID-19 remains unclear.

No association was found between early corticosteroid therapy and reduced mortality, transfer to ICU, or intubation in non-critically ill hospitalized patients.

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Swaminathan L, et al. *Infect Dis Ther*. 2022.