


Severe CAP in ED: Does Early Steroid Intervention Tilt Outcome?

CAPE COD Trial 2023

 Double blinded RCT in 31 ICUs,
France - **Level 1B Evidence (OCEBM)**

 **N=795**
Adults with **Severe CAP**

- On mechanical ventilation
- High Flow Nasal Cannula
- $\text{FiO}_2 > 50\%$ or PF ratio < 300
- Pneumonia Severity Index > 130

 **Exclusion**

- **Septic shock**
- **Partially treated Pneumonia**
- **Myelosuppression**

 **Intervention**
IV Hydrocortisone 200mg/day
for 4-7 days followed by
taper VS **Placebo**

Key Benefits

- ✓ **Significant reduction in 28-days mortality** (treatment effect -5.6%) ($p = 0.006$)
- ✓ **NNT=18**, treat 18 patients to prevent a death
- ✓ **Reduced need for intubation & vasopressor**
- ✓ **No increase in GI bleeding or HAI incidence**

Evidence– Based Clinical Guidelines

Surviving Sepsis Guideline 2024:

Weak recommendation of steroid use in any clinical sepsis

NICE Guideline 2024:

Relevant recommendation in adequately fluid resuscitated with vasopressor (septic shock)

Limitations of Study

! Patients with **suspected/confirmed viral**, inhalation pneumonia, PTB were **excluded**

! **Hyperglycemia** exacerbation, prone increment usage of **Insulin**



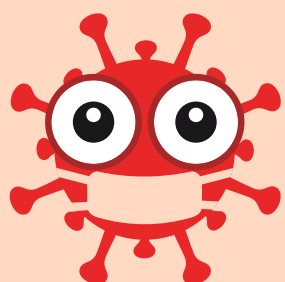
Prominent **generalisability gap**,
Potential steroid response may differ



Underpowered to detect harm in **DM & immunocompromised**

*** Bottom Line for EM ***

For adults with severe CAP requiring significant oxygen, early IV Hydrocortisone in the ED reduces 28-days mortality & need for intubation/vasopressor



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Reference:

<https://www.nejm.org/doi/full/10.1056/NEJMoa2215145>
<https://www.cebm.ox.ac.uk/resources/ebm-tools/levels-of-evidence>