ARDS

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ARDS

- life-threatening form of respiratory failure
- characterized by

1. acute hypoxemia
2. bilateral radiographic infiltrates

- ARDS management remains largely **supportive** focusing on strategies intended to limit further lung injury
- high mortality rates persist, with those who survive often facing long-term impairments


Steroid
Injection
Dispense with Medication Guide
attached or provided separately
Lot # 022992

Question 1

- Should Patients with ARDS Receive Systemic Corticosteroids?

- Recommendation. We suggest using corticosteroids for patients with ARDS
- (conditional recommendation, moderate certainty of evidence).

Background

- Corticosteroids are anti-inflammatory medications that inhibit the synthesis of proinflammatory mediators present in ARDS.
- They are widely administered to patients with ARDS for the management of ARDS specifically and for concurrent conditions such as septic shock or pneumonia

- More recently, corticosteroids have been found to reduce mortality in COVID-19–related acute hypoxemic respiratory failure and severe community-acquired pneumonia

- May be associated with increased risk of harm when initiated after > 14 days of mechanical ventilation
- Monitor more closely for adverse effects in patients with immunosuppressed conditions, metabolic syndrome, or known or increased risk of fungal, parasitic, or mycobacterial infections

- Optimal regimen, including type of corticosteroid, is unknown
- For patients with corticosteroid-responsive etiologies, regimen should be tailored to the specific condition
- For other patients, regimens used in prior RCTs may be used
- For patients that improve rapidly, consider discontinuation at time of extubation

- Dexa Ards trial

Original Article

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Conclusions

- Among patients with severe community-acquired pneumonia being treated in the ICU, those who received hydrocortisone had a lower risk of death by day 28 than those who received placebo.

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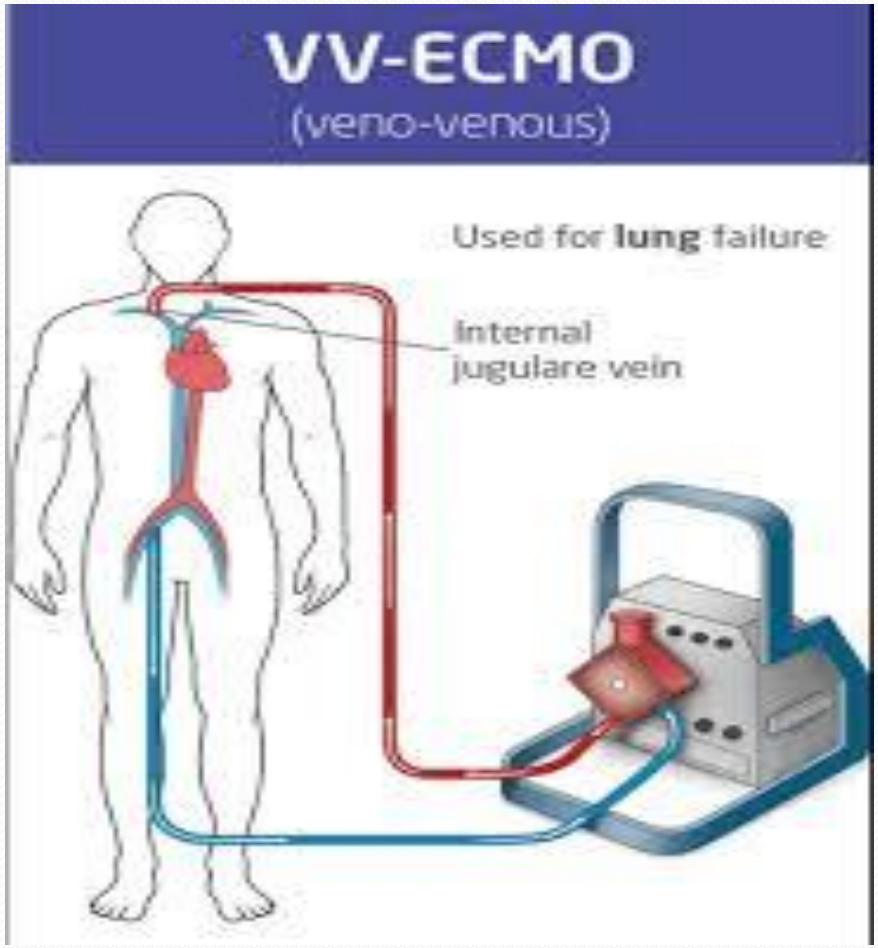
Question 2

- Should Patients with ARDS Receive VV-ECMO?


VV-ECMO
(veno-venous)
Used for lung failure
Internal
jugulare vein

Recommendation

- We suggest the use of VV-ECMO in selected patients with severe ARDS

- (conditional recommendation, low certainty of evidence)

- Less invasive therapies, including lung protective ventilation, prone positioning, and neuromuscular blockade, should be initiated prior to ECMO consideration
- Resource limitations should be considered, with an emphasis on maximizing access for patients most likely to benefit from ECMO
- For patients meeting these criteria at hospitals without ECMO capabilities, consider transfer to ECMO centers when feasible

Conditions associated with increased risk for futility of treatment

- Irreversible etiology of respiratory failure
- Mechanical ventilation > 7 days
- Immunosuppression
- Multi-organ failure
- Older age
- Systemic bleeding or other contraindication to anticoagulation
- Chronic medical condition and life expectancy <1yr
- CNS hemorrhage or irreversible and incapacitating CNS pathology

Question 3

- Should Patients with ARDS Receive Neuromuscular Blockade?

Recommendation

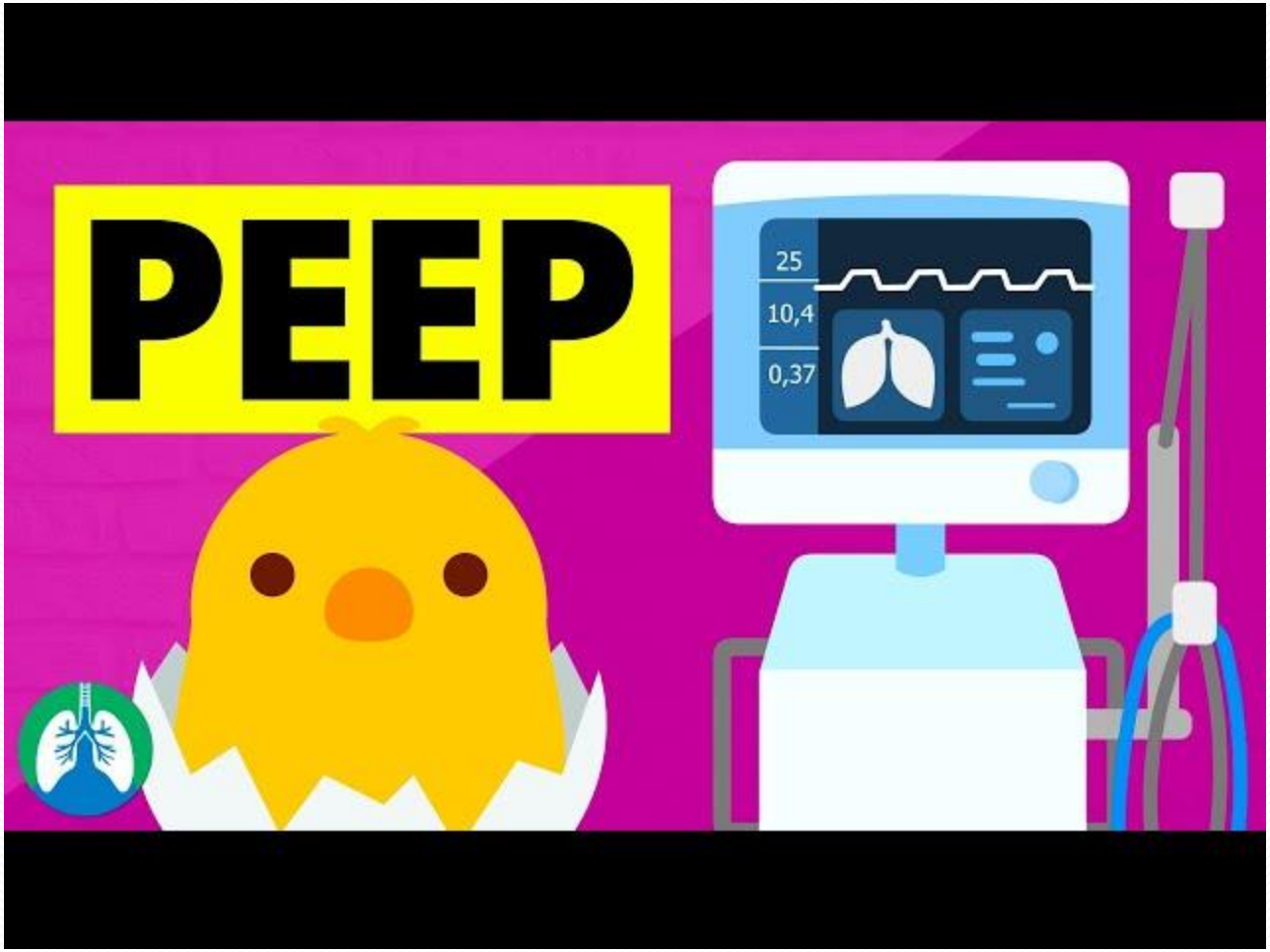
- We suggest using neuromuscular blockade in patients with early severe ARDS -(conditional recommendation, low certainty

- Unknown and potentially increased incidence of neuromuscular weakness with infusions of > 48 hours duration
- Use caution in patients with prior neuromuscular conditions

- Reduced mortality when compared to deep sedation. No mortality benefit when compared to light sedation
- May have greater utility in patients with ventilator dyssynchrony not mitigated by ventilator changes
- Either bolus dosing or continuous infusion may be appropriate
- Consider cessation after 48 hours or earlier for patients that are improving rapidly
- Cisatracurium most frequently used in clinical trials; optimal agent unknown

Question 4

- Should Patients with ARDS Receive Higher Compared with Lower PEEP, with or without LRMs?

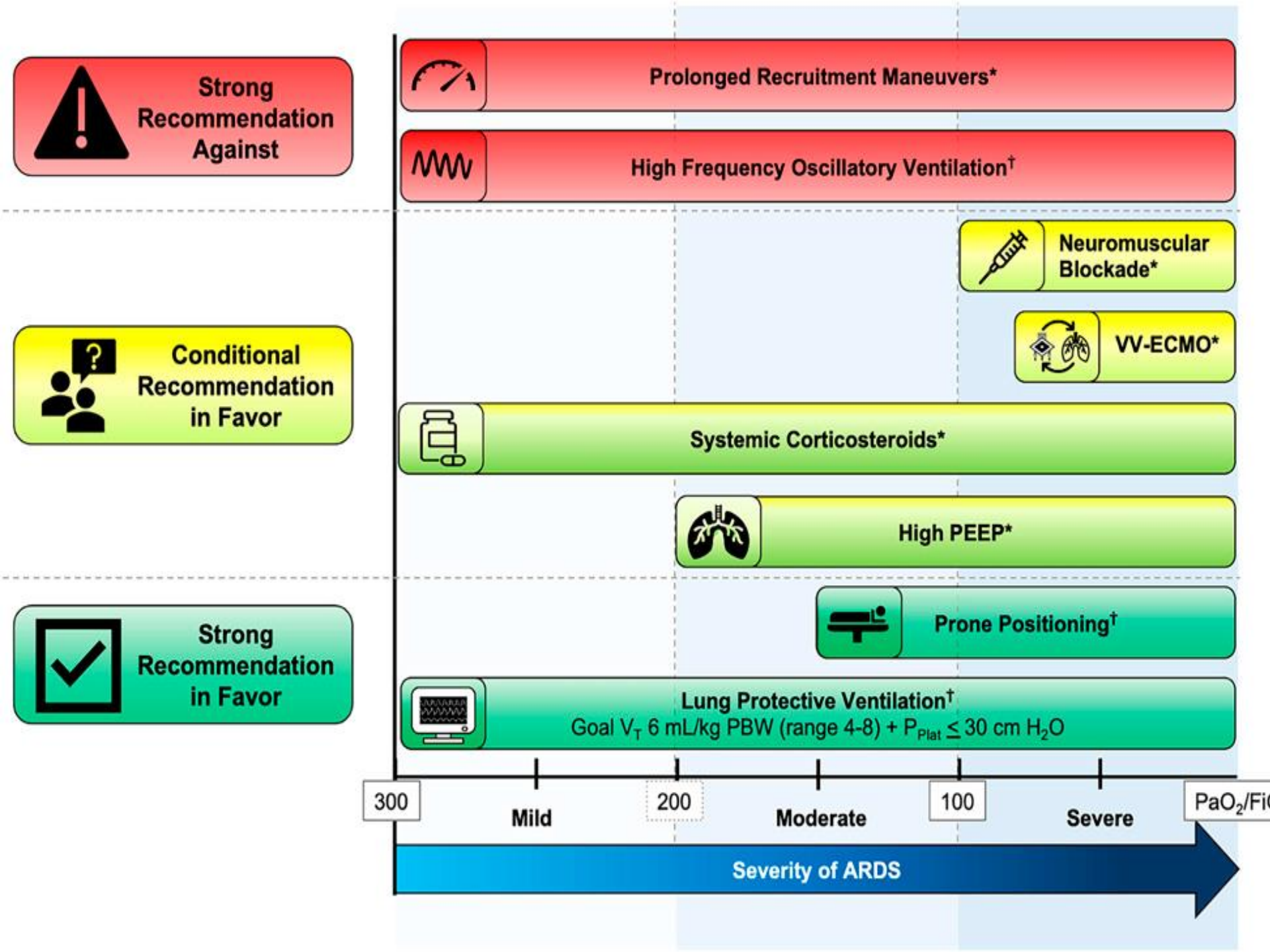

PEEP
25
10,4
0,37

Recommendation

- We suggest using higher PEEP without LRMs rather than lower PEEP in patients with moderate to severe ARDS (conditional recommendation, low-moderate certainty).
- We recommend against using prolonged (PEEP >35 cm H_2O for .60 s) LRMs in patients with moderate to severe ARDS (strong recommendation, moderate certainty).

- Respiratory mechanics, hemodynamics, and response to PEEP should be continuously monitored
- Use additional caution in patients with severe hemodynamic instability or increased risk of barotrauma
- Prolonged recruitment maneuvers should be avoided

- Optimal strategy is unknown; selected strategy should be tailored to clinician expertise
- Potential strategies may include oxygenation-based titration or titration to maximal compliance or maximal safe plateau pressure
- Deleterious clinical response to higher PEEP (i.e. worsened oxygenation, dead space, compliance, or hemodynamics) should prompt re-evaluation of PEEP level


Strong Recommendation Against
Prolonged Recruitment Maneuvers*
High Frequency Oscillatory Ventilation†
Neuromuscular Blockade*
VV-ECMO*
Conditional Recommendation in Favor
Systemic Corticosteroids*
High PEEP*
Strong Recommendation in Favor
Prone Positioning†
Lung Protective Ventilation†
Goal V_T 6 mL/kg PBW (range 4-8) + $P_{Plat} \leq 30$ cm H_2O
300
200
100
PaO_2/Fi
Mild
Moderate
Severe
Severity of ARDS

Thank you


I LOVE LATTAKIA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سورية