2026 California Thoracic Society Annual Educational Conference

& Chronic Obstructive Pulmonary Disease Symposium

Thursday March 12, 2026-Sunday March 15, 2026

Earn up to 19 CME/CEU/MOC Credits

Jointly Provided by AKH Inc., Advancing Knowledge in Healthcare and the California Thoracic Society

PORTOLA HOTEL & SPA
AT MONTEREY BAY

Thursday March 12, 2026 (6 CME/CEU/MOC Credits)
COPD Symposium
Friday March 13, 2026 (6.5 CME/CEU/MOC Credits):
Advances in Interventional Pulmonary, Remote Monitoring in Pulmonary and Sleep Medicine, Approach to Symptom Management in Chronic Lung Disease and Critical Care
Saturday March 14, 2026 (6.5 CME/CEU/MOC Credits)
Sepsis and Shock, Extracorporeal Membrane Oxygenation, Inpatient Pulmonary Complications of Cancer Care
Sunday March 15, 2026
Fellow and Resident Track Symposium

California Thoracic Society
ATS Chapter Serving California and Arizona

AKH INC.
ADVANCING KNOWLEDGE IN HEALTHCARE

California Thoracic Society
Annual Conference
March 12-15, 2026
Portola Hotel and Spa, Monterey, CA

Saturday March 14, 2026

Advances in Management of the Patient with Sepsis

8:00 am – 8:10 am: Welcome and Introduction

8:10 am – 8:55 am: Keynote Address – Phenotyping and Personalized Medicine in Sepsis

- **Angela Rogers, MD (Stanford)** - This speaker will discuss phenotyping in the patient with sepsis and septic shock and how close we are to precision medicine in managing sepsis.

8:55 am – 9:20 am: Incorporating Artificial Intelligence Decision Making in Identifying Sepsis

- **Gabriel Wardi, MD (UC San Diego)** - This speaker will describe how artificial intelligence can be used to identify the septic patient before they present with end stage symptoms to impact care earlier in the course of illness.

9:20 pm – 9:35 pm: Pro: The Severe Sepsis and Septic Shock Early Management Bundle (SEP-1) Bundle Saves Lives

- **Sean Townsend, MD (CPMC-Sutter)**- This speaker will argue the benefits of the SEP-1 Bundle/how it saves lives.

9:35 pm – 9:50 pm: Con: : The Severe Sepsis and Septic Shock Early Management Bundle (SEP-1) Bundle Does Not Save Lives

- **Natalie Achamallah, MD, MS (Cottage Health)** - This speaker will argue the against the SEP-1 Bundle/highlight its limitations.

9:50-10:00 am Question and Answer

10:00 am – 10:30 am: Break

Extracorporeal Membrane Oxygenation

10:30 am – 10:55 am: When to refer to an ECMO center and when to deploy ECMO

- **Nida Qadir, MD (UC Los Angeles)** - This speaker will discuss the evidence behind the use of ECMO in patients with respiratory failure and when providers should consider referral to an ECMO center and when centers should use ECMO.

10:55 am – 11:20 am: What about ECMO to go?

- **Mazen Odish, MD (UC San Diego)** - This speaker will discuss the advent of mobile ECMO services, how they can help improve patient care, and the use of extracorporeal cardiopulmonary resuscitation.

11:20 am – 11:45 pm: Ventilator Strategies for the patient on ECMO

- **Abirami Kumaresan, MD (Cedars-Sinai)** - This speaker will discuss the how ventilator strategies may differ in the patient on ECMO and how different ECMO configurations impact which ventilator strategy to use.

11:45 pm – 12:10 pm: What you need to know about pediatric ECMO

- **Kathleen Ryan, MD (Stanford)** - This speaker will discuss the utility of ECMO in neonates and children, and the complexities of management in children who needs mechanical support.

12:10 pm – 12:20 pm: Question and Answer

12:20 pm – 1:20 pm: Lunch

Hands-On Session:

1:20 pm – 2:20 pm: Non-Invasive Cardiac Output Monitors **Speaker Abirami Kumaresan, MD (Cedars-Sinai)** ECMO Machines **Mazen Odish, MD (UC San Diego)** ECMO Placement **David Gordon, DNP (UC San Francisco) & Brianna Zuckerman, NP (UC San Francisco)** Ventilator Settings and Portable ventilators **Joe Van Vleet, RT (UC Los Angeles) & Theresa Cantu, RT (Valley Children's)**

2:20 pm – 2:45 pm: Break

Inpatient and Pulmonary Complications of Cancer Care

2:45 pm – 3:10 pm: Pulmonary Complications of Hematopoietic Stem Cell Transplantation

- **Husham Sharifi, MD (Stanford)** - This speaker will discuss the pulmonary complications that arise after HCT, in particular the development of bronchiolitis obliterans syndrome and approaches to management.

3:10 pm – 3:35 pm: Pulmonary Vascular Complications of Malignancy

- **Naomi Habib, MD (Norton Thoracic Institute)**- This speaker will discuss the Pulmonary Vascular Disease complications of malignancy including PA sarcoma, pulmonary tumor thrombotic microangiopathy, and medications that can cause PAH.

3:35 pm – 4:00 pm: Drug induced Interstitial Lung Disease and Pneumonitis During Cancer Therapy

- **Weijia Chua, MD (Stanford)** - This speaker will discuss the pulmonary complications of interstitial lung disease and pneumonitis that develop after chemotherapy and targeted immunotherapy

4:00 pm – 4:25 pm: Respiratory Complications of Acute Leukemia

- **Hugh Davis, MD (City of Hope)** - The speaker will discuss various oncologic emergencies, how they are recognized, and how they are managed in the acute setting.

4:25 pm – 4:35 pm: Question and Answer

5:30 pm – 7:30 pm: Trainee Poster Competition (NON-CME) – Food and beverages will be served

Dr. Nida Qadir is an Associate Professor of Medicine at the David Geffen School of Medicine at UCLA and the Co-Director of the Medical ICU at Ronald Reagan UCLA Medical Center. Her current research focuses on ARDS and post-intensive care syndrome. She is passionate about evidence-based medicine and works with multiple organizations on the development of clinical practice guidelines in the field of critical care. Developing pragmatic, evidence-based clinical guidance that can be effectively applied by practicing intensivists is a core part of Dr. Qadir's broader academic mission, which is aimed at translating clinical trial results into clinical decision-making in the ICU.

When to refer to an ECMO center and when to deploy ECMO

Nida Qadir, MD

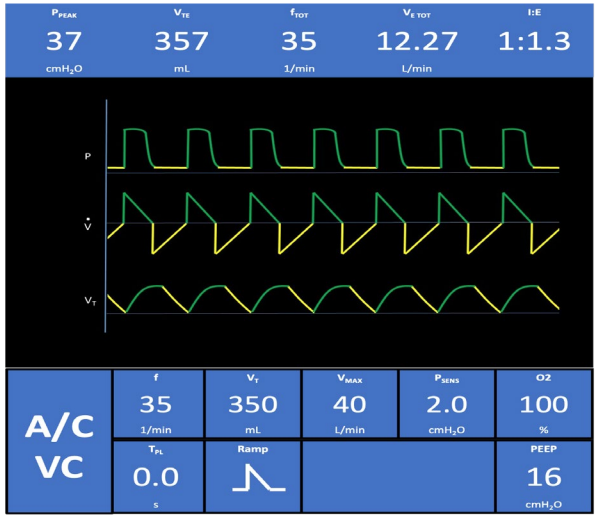
Associate Professor of Medicine

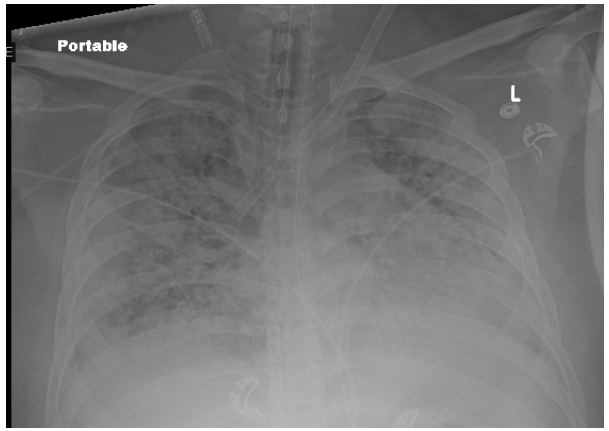
Co-Director, Medical ICU

Ronald Reagan UCLA Medical Center

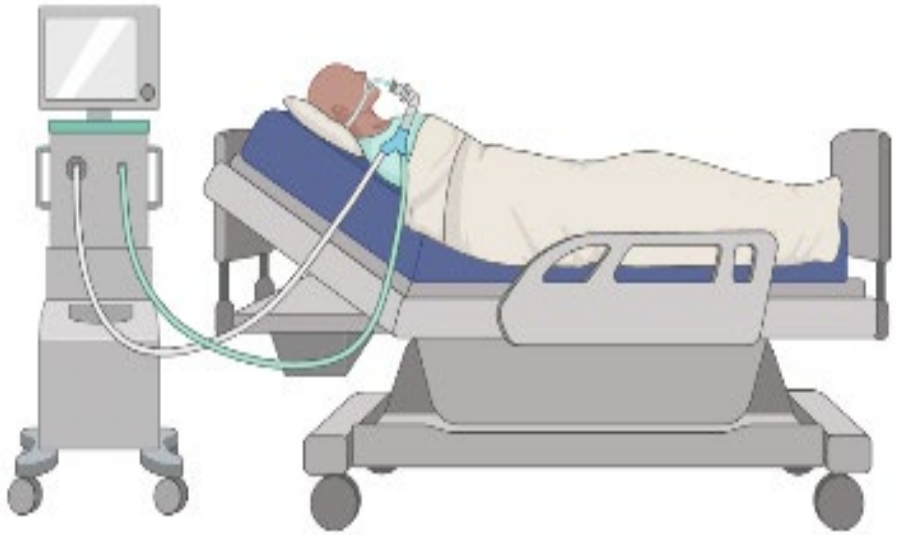
Disclosures

- No disclosures



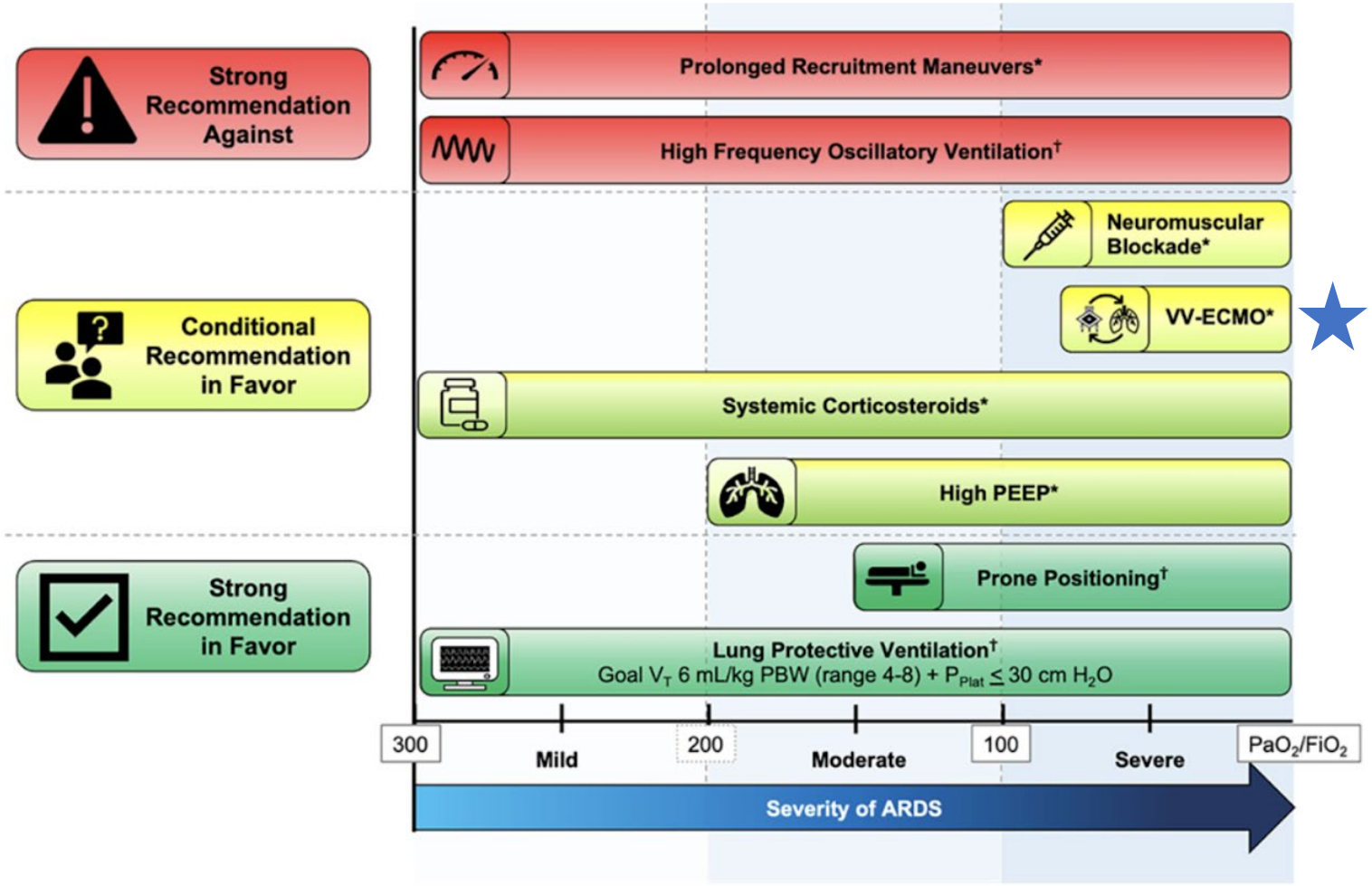


- 52M h/o obesity + DM2, a/w influenza
- Intubated on HD #1
- Sedated and on NMB
- P_{PLAT} 36, ABG: 7.17/56/58



Should we start ECMO?

Clinical Practice Guidelines



Qadir et al. Am J Respir Crit Care Med. 2024 Jan 1;209(1):24-36.

Venovenous ECMO

We suggest the use of VV-ECMO in selected patients with severe ARDS (conditional recommendation, low certainty)

- 2 RCTs, 429 patients

Outcome	RR or MD	95% CI	Certainty of Evidence
Mortality	0.76	0.60 to 0.95	Moderate
Ventilator-Free Days	8 days more	2 to 15	Moderate
Vasopressor-Free Days	8 days more	3 to 13	Moderate
Renal Replacement Therapy- Free Days	7 days more	2 to 13	Moderate
Hemorrhage	1.64	1.17 to 2.31	Moderate
Pneumothorax	1.13	0.61 to 2.12	Low
Stroke	0.38	0.10 to 1.39	Very Low

Qadir et al. Am J Respir Crit Care Med. 2024 Jan 1;209(1):24-36.

Strong vs. Conditional Recommendations

Strength of Recommendation		
Stakeholders	**Strong Recommendation**	**Conditional Recommendation**
Patients	Nearly all individuals in this situation would want the recommended course of action; only a small proportion would not.	The majority of individuals in this situation would want the suggested course of action, but many would not
Clinicians	Most patients should receive the recommended course of action. Adherence to this recommendation could be used as a quality criterion or performance indicator.	Different choices will be appropriate for different patients. The clinician must help patients arrive at management decisions consistent with their preferences and values. Clinicians should expect to spend more time with patients when working towards a decision.
Policy Makers	The recommendation can be adapted as policy in most situations. Quality improvement initiatives could use adherence to this recommendation as a performance indicator.	Policy making will require substantial debate and involvement of many stakeholders. Policies may also vary between regions and health systems.

Qadir et al. Am J Respir Crit Care Med. 2024 Jan 1;209(1):24-36.

VV-ECMO: Committee Discussion

Data Limitations

- Comparator = usual care, not optimal care
- Uncertain generalizability of trials done at high-volume, expert ECMO centers
- Limited data on long-term outcomes
- Recommendation limited to patients meeting EOLIA inclusion criteria (i.e., $PaO_2/FiO_2 < 80$ or pH < 7.25 with $PaCO_2 \geq 60$, < 7 days of MV, minimal risk factors for futility)

Resource Limitations

- ECMO is resource intensive and not universally available
- Less invasive therapies (i.e., lung-protective ventilation, prone positioning, higher PEEP, NMBAs) 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
- Potential variability in feasibility and cost-effectiveness in different health systems
- Potential implications for health equity

Qadir et al. Am J Respir Crit Care Med. 2024 Jan 1;209(1):24-36.

ECMO Indications & Contraindication in ARDS

Indications

Reversible etiology of respiratory failure

AND

Appropriate conventional management:

- Ventilator optimization (both VT and PEEP)
- Prone positioning (unless contraindicated)
- Neuromuscular blockade

AND

O_2

HYPOXIA:
PaO_2/FiO_2 < 80 mm Hg

OR

CO_2

HYPERCAPNIA
pH < 7.25 with
$PaCO_2 \geq 60$ mm Hg

Relative contraindications

No absolute contraindications

ARDS-related conditions

- Irreversible etiology of respiratory failure (unless pre-transplant)
- Mechanical ventilation > 7 days

Non-ARDS-related conditions

- Immunosuppression
- Multi-organ failure
- Older age
- Systemic bleeding or other contraindication to anticoagulation
- Chronic medical conditions with life expectancy < 1 year
- CNS hemorrhage or other irreversible and incapacitating CNS pathology

Trieu & Qadir. Crit Care Clin. 2024 Apr;40(2):329-351

Principles of Patient Selection

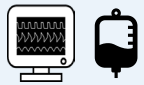
ECMO is a limited resource

ECMO is a bridge, not a destination

ECMO is a supportive measure for acute illness & cannot fix chronic disease

ECMO does not benefit everyone

ECMO is more likely to be successful if started early and before the onset of irreversible organ failures



Medical management should be optimized before consideration of ECMO

ECMO is a Limited Resource

- ECMO capacity
  - ECMO is resource intensive → high cost with substantial personnel and equipment needed
  - Can potentially divert resources away from other center needs
  - Duration of ECMO can be unpredictable
  - Capacity can be variable
- ECMO allocation
  - Access should be maximized for patients most likely to benefit
  - **Contraindications should become more stringent as ECMO capacity decreases**

Badulak et al. ASAIO J. 2021;67(5):485-495.

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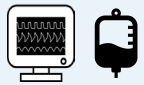

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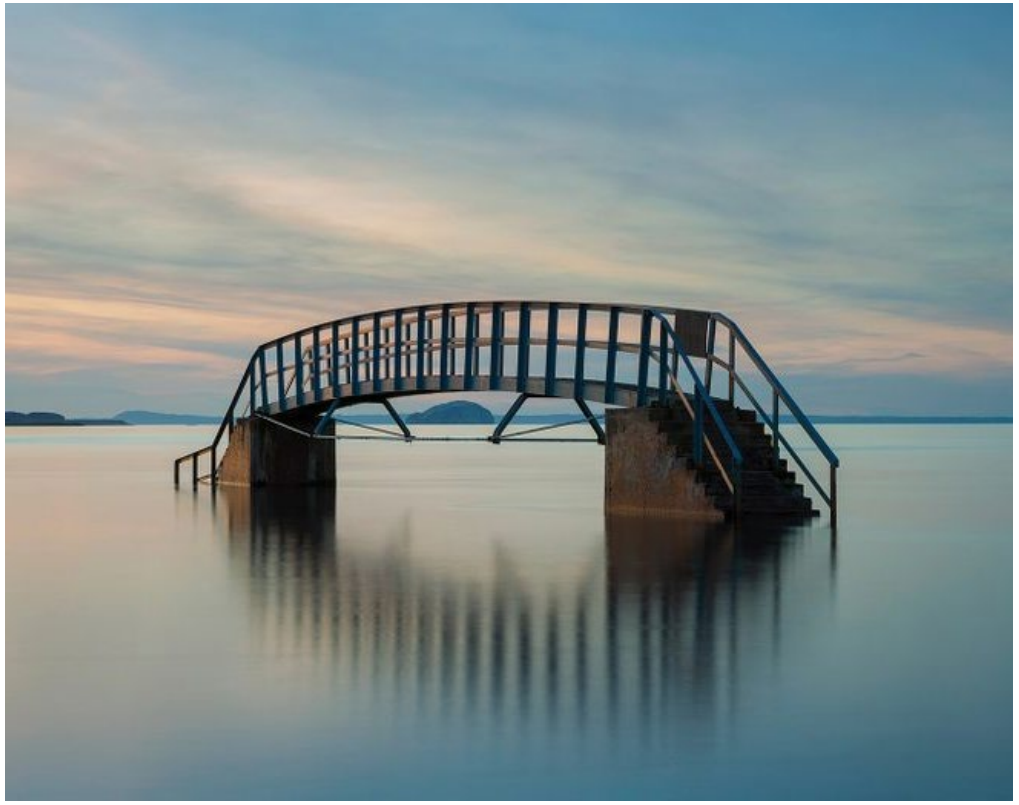
ECMO as a Bridge

- **ECMO is a transient therapy**
- Bridge to recovery
- Bridge to definitive therapy



Avoid the bridge to nowhere!!

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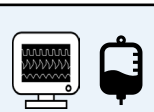

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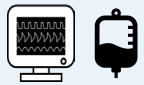

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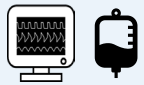

Medical management should be optimized before consideration of ECMO

Timing

- Consider your goals
  - Respiratory support
  - **Facilitate lung rest**
- ↑Days of MV pre-ECMO → ↑mortality
  - < 48 hours of MV → highest likelihood of survival
  - > 7 days of MV → highest likelihood of mortality
- **Start ECMO as early as possible, but not before you've optimized medical management**

Tonna et al. ASAIO J. 2021; 67(6): 601–610
Schmidt et al. Am J Respir Crit Care Med. 2014;189(11):1374-82.
Combes et al. N Engl J Med 2018; 378:1965-1975

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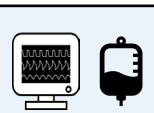
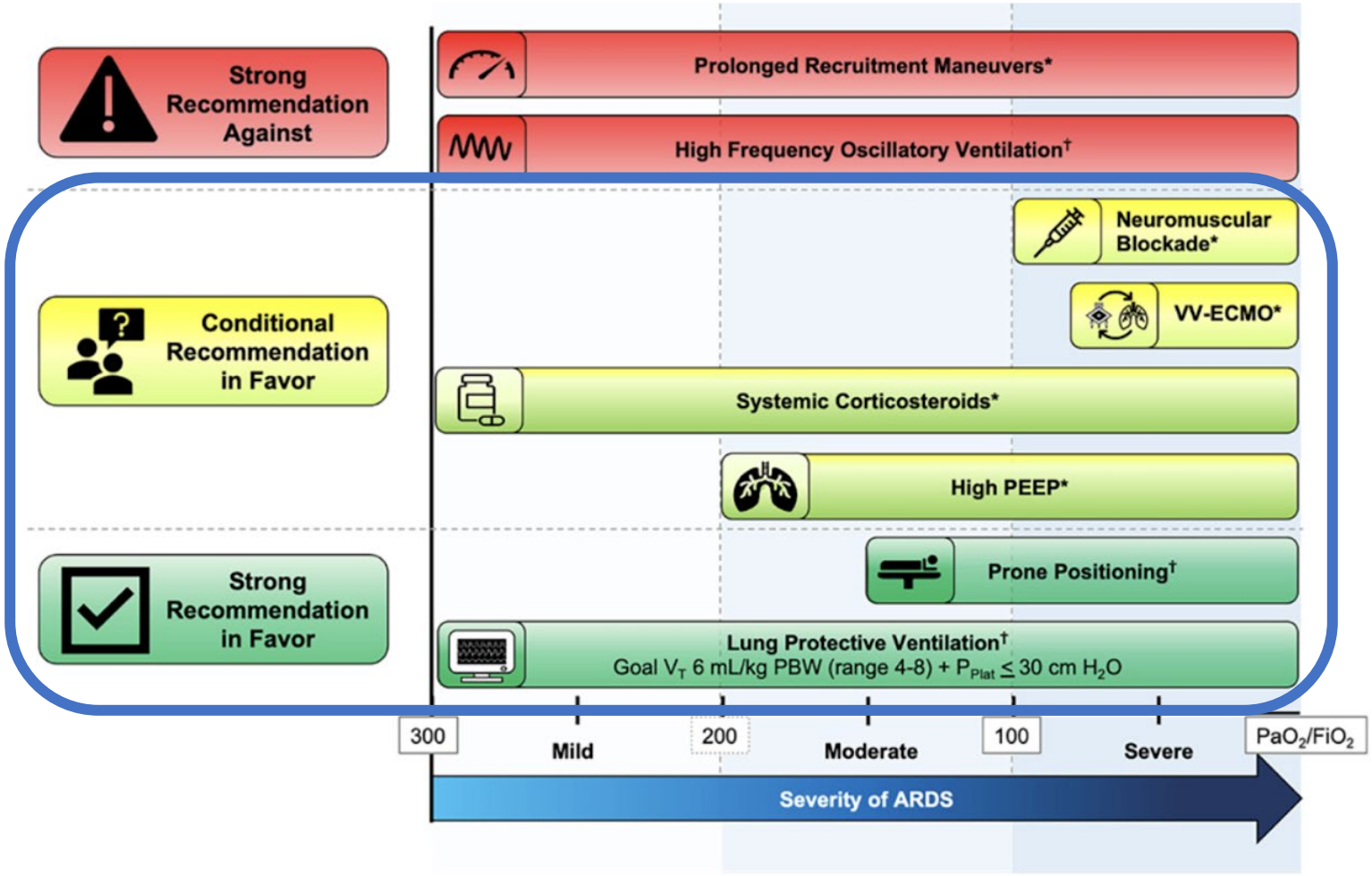


Medical management should be optimized before consideration of ECMO

ARDS Clinical Practice Guidelines



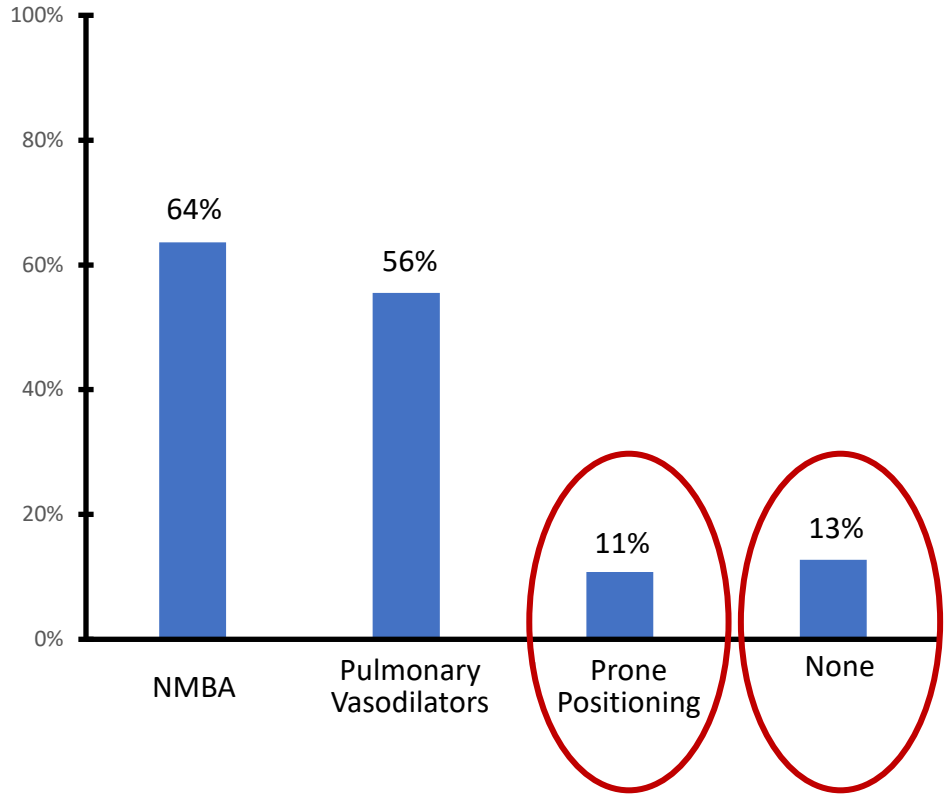
Qadir et al. Am J Respir Crit Care Med. 2024 Jan 1;209(1):24-36.

Real-World ARDS Management in ECMO patients

- Ventilator management
  - Median P/F = 88
  - 44% w/ VT > 6.5 ml/kg PBW
  - Median PEEP = 10 cm H2O

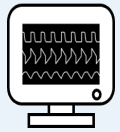
ECMO was the initial adjunctive therapy used in 39% of patients

- Non-ECMO adjunctive therapy use:



Qadir et al. Chest. 2021 Oct;160(4):1304-1315

Optimal Medical Management Pre-ECMO



Lung Protective Ventilation: goal $V_T \leq 6$ ml/kg PBW (range 4-8) $+P_{PLAT} \leq 30$ cm H_2O
Strong recommendation for all patients with ARDS

Prone Positioning
Strong recommendation for patients with $PaO_2/FiO_2 < 150$

Higher PEEP
Conditional recommendation for moderate-severe ARDS ($PaO_2/FiO_2 < 200$)

Neuromuscular Blockade
Conditional recommendation for early (<48 hours of MV) severe ($PaO_2/FiO_2 < 100$) ARDS

Systemic Corticosteroids
Conditional recommendation for patients with ARDS

Qadir et al. Am J Respir Crit Care Med. 2024 Jan 1;209(1):24-36.

Our patient

- ✓ Severe hypoxia and/or acidosis?
  - P/F 58, pH 7.17
- X Appropriate medical management?
  - Needs trial of proning
- ✓ Reversible etiology of respiratory failure?
  - Influenza A
- ✓ <7 days of mechanical ventilation?
  - Day 1 of intubation
- ✓ Minimal risk factors for futility?
  - No contraindications, single organ failure, minimal PMH

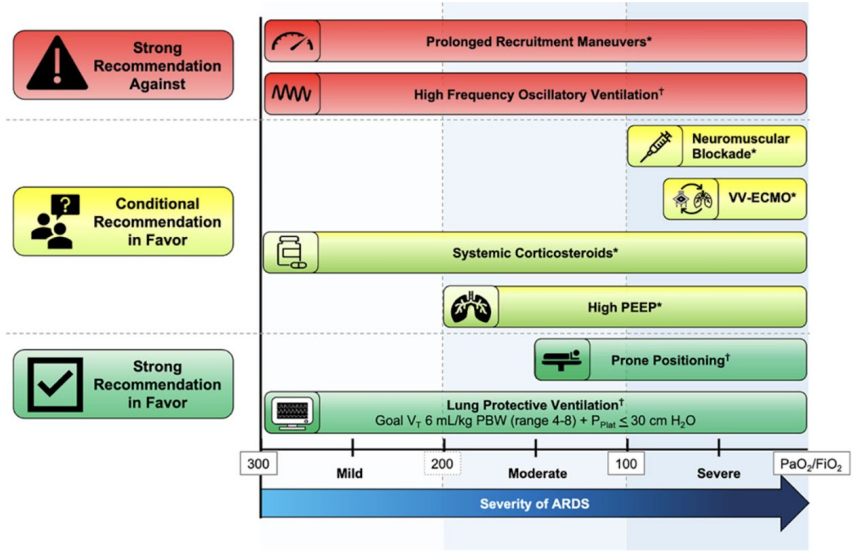
What if you don't have ECMO at your center?

- Early referral
- Consider stability for transport

UCLA MATTEL Children's Hospital

UCLA Health

2024 ARDS Guidelines



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Pre-ECMO Medical Management

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Conditional recommendation for patients with ARDS

Thank you!