ARDS Management Guide

Patient with ARDS

-Employ lung protective ventilation strategies (box 1)
-Avoid/treat hypervolemia

PaO2/FiO2 < 200

In addition to above:
-High or optimal PEEP
-Optimize sedation
-Administer steroids if no contraindications (Box 2)

PaO2/FiO2 <150?

In addition to above:
-Deep sedation (RASS -4, -5)
-consider neuromuscular blockade if continued vent asynchrony
----trial one time dose vecuronium to assess efficacy
---- if cis drip added, titrate to vent synchrony (not Tof4)
-consider palliative care consult

PaO2/FiO2 still <150 mmHg?

-Prone patient
(Box 3)
-inhaled epoprostenol as temporizing adjunct only and should not replace other interventions

Berlin Criteria:
Onset of worsening hypoxemia within 7 days from insult, defined as PaO2/FiO2 ratio <300 mm Hg on PEEP/CPAP ≥ 5 H20
Chest imaging with bilateral opacities not otherwise explained
Pulmonary edema not fully explained by volume overload or cardiac failure

Risk factors: trauma (blunt, TBI, chest wall injuries, pulmonary contusions), blood transfusion, aspiration, pneumonia, sepsis, burns, inhalation injuries, pancreatitis

Box 1: Lung protective ventilation

Target Tidal volume < 6 mL/Kg IBW
Pplat <30, Ppeak <35
Driving pressure < 15
Minimum PEEP of 5
PEEP chart: Ardsnet.org

Predicted/Ideal body weight (IBW)
Male: 50 +2.3[height(in)-60]
Femail: 45.5 + 2.3[height(in)-60]

Driving pressure: Pplat -PEEP

Box 2: Steroids

Steroids recommended for moderate and severe ARDS.

Dexamethasone 20 mg daily x 5 days followed by 10 mg daily until day 10 or patient extubated.

Box 3: Prone positioning

16 hours/day
Discontinue when PaO2/FiO2 > 150, FiO2<60, PEEP <10

Neuromuscular blockade not required

TBI, spine fracture, pelvic fractures, open abdomen, ex-fix are not absolute contraindications but require additional planning and positioning support

Utilize “ET Module ARDS prone positioning”

Special populations

TBI: monitor ICP with increased PEEP and prone positioning. APRV is safe in TBI patients

Spine fracture: d/w neurosurgery and utilize addition resources for appropriate positioning

Patients in shock: caution with increased PEEP and recruitment maneuvers

ARDS with COVID or CAP: strongest recommendation for steroids

Consultation for ECMO

-Unable to prone
-PaO2/FiO2 < 50 x 3 hours
-PaO2/FiO2 < 80 x 6 hours
-pH <7.25 with PaCO2 >60 x 6 hours

Palliative care should also be consulted

V12024