Acute Respiratory Distress Syndrome (ARDS) [5183]

Criteria for ARDS

Within 1 week of a known clinical insult or new or worsening respiratory symptoms
PaO2/Fio2 ?300 mmHg and PEEP >=5 mmHg
Bilateral opacities not fully explained by effusions, lobar/lung collapse or nodules by chest radiograph or CT
Respiratory failure not fully explained by cardiac failure or fluid overload

ARDS Guideline	URL: "\\appt1\epicappprod\Restricted\OrderSets\ARDS Guideline.pdf"
Nomogram	URL: "\\appt1\epicappprod\Restricted\OrderSets\Nomogram.pdf "

General

ARDS Tier (Single Response) (Selection Required)
Mild: 200 < PAO2/FIO2 ratio < 300
Moderate: 100 < PAO2/FIO2 ratio < 200
Severe: PAO2/FIO2 ratio < 100

( ) Mild ARDS (Selection Required)
200 < PAO2/FIO2 ratio < 300

[ ] Mechanical ventilation	STAT Mechanical Ventilation: Invasive Type of Ventilation: Vent Management Strategies: ARDS Protocol Perform the following: Check P Plat (0.5 second inspiratory pause), at least q 4hrs and after each change in PEEP or VT,Inform ICU MD if P plateau GREATER than 30 cm H2O in spite of following ARDS Vent protocol,Inform ICU MD if Driving Pressure (Plateau pressure - PEEP) is GREATER than 15 cm H2O,Inform ICU MD when making vent changes and pH GREATER than 7.2,Titrate FIO2 to keep SAO2 88-95% or PAO2 55-80 mmHg unless specified by MD,Plateau Pressure Goal LESS than 30 cm H2O Vent Management Strategies: Vent Management Strategies: Vent Management Strategies: Vent Management Strategies:

( ) Moderate ARDS (Selection Required)
100 < PAO2/FIO2 ratio < 200

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[ ] RASS score must be -4 before neuromuscular blockade	Routine, Until discontinued, Starting S

[ ] Neuromuscular Blockade (Single Response)

( ) Bolus Medications (Single Response)

( ) vecuronium (NORCURON) injection	intravenous, once, For 1 Doses
( ) rocuronium (ZEMURON) injection	intravenous, once, For 1 Doses
( ) cisatracurium (NIMbex) injection	intravenous, once, For 1 Doses

[ ] ICU Proning Intervention Orders Panel

Indications for Proning Intervention:

Moderate to severe ARDS with PaO2/ FiO2 (P/F ratio) < 150 mmHg
Early onset of ARDS < 36 hours
FiO2 requirement > 60% and PEEP requirement > 5 mmHg
No Contraindications exist for prone positioning

Please use reference link below (ICU Proning Algorithm) for more information:

[ ] ICU proning interventions	Routine, Until discontinued, Starting S Indications for Proning: BIS score 40 to 60 OR RASS - 4?
[ ] Maintain prone protocol for 16 hours	Routine, Until discontinued, Starting S
[ ] Maintain extended prone protocol for 20 hours	Routine, Until discontinued, Starting S
[ ] Supinate after 16-20 hours	Routine, Until discontinued, Starting S
[ ] Arterial blood gas 1 (one) hour BEFORE proning	Once For 1 Occurrences Draw (1) one hour BEFORE proning.
[ ] Arterial blood gas 1 (one) hour AFTER proning	Once For 1 Occurrences Draw (1) one hour AFTER proning.
[ ] Arterial blood gas 6 (six) hours AFTER proning	Once For 1 Occurrences Draw 6 (six) hours AFTER proning.
[ ] Consult to Wound Ostomy Care Nurse	Reason for consult: PUPP Assessment/Evaluation Reason for consult: Reason for consult: Reason for consult: Consult for NPWT: Reason for consult: Reason for consult: PUPP Assessment/Evaluation
[ ] Consult to Nutrition Services	Reason For Consult? Other (Specify) Specify: Prone nutrition protocol Purpose/Topic: nutrition support during prone therapy
[ ] Consult to PT eval and treat	Reasons for referral to Physical Therapy (mark all applicable): Other Specify: evaluate for pre-positioning guidance Are there any restrictions for positioning or mobility? Please provide safe ranges for HR, BP, O2 saturation(if values are very abnormal): Weight Bearing Status:
[ ] Consult Cardiovascular Surgery	Reason for Consult? for ECMO WATCH Patient/Clinical information communicated? Patient/clinical information communicated?

( ) Severe ARDS (Selection Required)

PAO2/FIO2 ratio < 100
VV ECMO Criteria

[ ] Mechanical ventilation	Routine Mechanical Ventilation: Invasive Type of Ventilation: Vent Management Strategies: ARDS Protocol PEEP Strategy: Perform the following: Inform ICU MD if P plateau GREATER than 30 cm H2O in spite of following ARDS Vent protocol,Check P Plat (0.5 second inspiratory pause), at least q 4hrs and after each change in PEEP or VT,Inform ICU MD if Driving Pressure (Plateau pressure - PEEP) is GREATER than 15 cm H2O,Inform ICU MD when making vent changes and pH GREATER than 7.2,Titrate FIO2 to keep SAO2 88-95% or PAO2 55-80 mmHg unless specified by MD Vent Management Strategies: Vent Management Strategies: Vent Management Strategies: Vent Management Strategies:

[ ] Neuromuscular Blocker Infusion (Selection Required)

[ ] Neuromuscular Blocker (Selection Required)

Dose based on Ideal body weight (IBW), unless actual body weight LESS than ideal body weight.

[ ] Nursing (Selection Required)	**"And" Linked Panel**
[ ] RASS score must be -4 before neuromuscular blockade	Routine, Until discontinued, Starting S
[ ] Assess	Routine, Once Assess: Critical Care Pain Observation Tool (CPOT) LESS than 2 prior to initiation of neuromuscular blockade
[ ] Obtain baseline Train of Four (TOF) prior to neuromuscular blocking agent initiation (bolus & drip). Label site and use the same site every time TOF performed.	Routine, Until discontinued, Starting S Obtain baseline Train of Four (TOF) prior to neuromuscular blocking agent initiation (bolus & drip). Label site and use the same site every time TOF performed.
[ ] Nursing communication	Routine, Until discontinued, Starting S Obtain Train of Four (TOF) monitoring every 1 hour to achieve and maintain 2 of 4 TOF, then obtain a TOF every 4 hours. Use TOF monitoring in conjunction with clinical assessment.
[ ] Nursing communication	Routine, Until discontinued, Starting S BIS Monitoring Goal of 40 to 60 for sedation.
[ ] Nursing communication	Routine, Until discontinued, Starting S Do not hold sedation or perform spontaneous awaken trial while patient on continuous neuromuscular blocking agent.
[ ] Patient position:	Routine, Until discontinued, Starting S Position: Additional instructions: Reposition patient every 2 hours to prevent pressure ulcer.
[ ] Nursing communication	Routine, Until discontinued, Starting S Change IV line infusion neuromuscular blocker (cisatracurium or vecuronium) prior to extubation to ensure complete medication elimination/removal.

[ ] Neuromuscular Blocker (Single Response) (Selection Required)

( ) cisatracurium (NIMbex) Continuous Infusion	**"Followed by" Linked Panel**

Recommended for patients with renal or hepatic failure.

[ ]	cisatracurium (NIMbex) infusion	1-10 mcg/kg/min, intravenous, continuous **PROGRAM INFUSION PUMP WITH WEIGHT NOTED IN ORDER MEDICATION DOSED BY IDEAL BODY WEIGHT** Initiate infusion at 1mcg/kg/min. Titrate by 0.5 mcg/kg/min every hour to achieve 2 of 4 Train of Four (TOF). Once at 2 of 4 TOF, repeat TOF in four hours. IF TOF GREATER than 2 of 4, INCREASE infusion rate by 0.5 mcg/kg/min. Monitor TOF every hour to achieve and maintain 2 of 4 TOF. Once at 2 of 4 TOF, repeat TOF in four hours. IF TOF 2 of 4, CONTINUE the same infusion rate, then repeat TOF in 4 hours. IF TOF LESS than 2 of 4, DECREASE infusion rate by 0.5 mcg/kg/min. Monitor TOF every hour to achieve and maintain 2 of 4 TOF. Once at 2 of 4 TOF, repeat TOF in four hours. Max dose 10mcg/kg/min.

( ) cisatracurium (NIMbex) IV Bolus and Continuous Infusion **"Followed by" Linked Panel**

Recommended for patients with renal or hepatic failure.

[ ]	cisatracurium (NIMbex) injection	0.15 mg/kg, intravenous, once, For 1 Doses
[ ]	cisatracurium (NIMbex) infusion	1-10 mcg/kg/min, intravenous, continuous **PROGRAM INFUSION PUMP WITH WEIGHT NOTED IN ORDER MEDICATION DOSED BY IDEAL BODY WEIGHT** Initiate infusion at 1mcg/kg/min. Titrate by 0.5 mcg/kg/min every hour to achieve 2 of 4 Train of Four (TOF). Once at 2 of 4 TOF, repeat TOF in four hours. IF TOF GREATER than 2 of 4, INCREASE infusion rate by 0.5 mcg/kg/min. Monitor TOF every hour to achieve and maintain 2 of 4 TOF. Once at 2 of 4 TOF, repeat TOF in four hours. IF TOF 2 of 4, CONTINUE the same infusion rate, then repeat TOF in 4 hours. IF TOF LESS than 2 of 4, DECREASE infusion rate by 0.5 mcg/kg/min. Monitor TOF every hour to achieve and maintain 2 of 4 TOF. Once at 2 of 4 TOF, repeat TOF in four hours. Max dose 10mcg/kg/min.

( ) vercuronium (NORCURON) Continuous Infusion **"Followed by" Linked Panel**

Use caution in patients with renal or hepatic dysfunction

[ ]	vecuronium (NORCURON) 1 mg/mL in sodium chloride 0.9% 100 mL infusion	0.8-1.5 mcg/kg/min, intravenous, continuous **PROGRAM INFUSION PUMP WITH WEIGHT NOTED IN ORDER MEDICATION DOSED BY IDEAL BODY WEIGHT** Initiate infusion at 0.8mcg/kg/min. Titrate by 0.1 mcg/kg/min every hour to achieve 2 of 4 Train of Four (TOF). Once at 2 of 4 TOF, repeat TOF in four hours. IF TOF GREATER than 2/4, INCREASE infusion rate by 0.1 mcg/kg/min. Monitor TOF every hour to achieve and maintain 2 of 4 TOF. Once at 2 of 4 TOF, repeat TOF in four hours. IF TOF 2 of 4, CONTINUE the same infusion rate, then repeat TOF in 4 hours. IF TOF LESS than 2 of 4, DECREASE infusion rate by 0.1 mcg/kg/min. Monitor TOF every hour to achieve and maintain 2 of 4 TOF. Once at 2 of 4 TOF, repeat TOF in four hours. Max dose 1.5mcg/kg/min.

( ) vecuronium (NORCURON) IV Bolus and Continuous Infusion **"Followed by" Linked Panel**

Use caution in patients with renal or hepatic dysfunction

[ ]	vecuronium (NORCURON) in SWFI injection 1 mg/mL	0.1 mg/kg, intravenous, once, For 1 Doses

[ ]	vecuronium (NORCURON) 1 mg/mL in sodium chloride 0.9% 100 mL infusion	0.8-1.5 mcg/kg/min, intravenous, continuous **PROGRAM INFUSION PUMP WITH WEIGHT NOTED IN ORDER MEDICATION DOSED BY IDEAL BODY WEIGHT** Initiate infusion at 0.8mcg/kg/min. Titrate by 0.1 mcg/kg/min every hour to achieve 2 of 4 Train of Four (TOF). Once at 2 of 4 TOF, repeat TOF in four hours. IF TOF GREATER than 2/4, INCREASE infusion rate by 0.1 mcg/kg/min. Monitor TOF every hour to achieve and maintain 2 of 4 TOF. Once at 2 of 4 TOF, repeat TOF in four hours. IF TOF 2 of 4, CONTINUE the same infusion rate, then repeat TOF in 4 hours. IF TOF LESS than 2 of 4, DECREASE infusion rate by 0.1 mcg/kg/min. Monitor TOF every hour to achieve and maintain 2 of 4 TOF. Once at 2 of 4 TOF, repeat TOF in four hours. Max dose 1.5mcg/kg/min.

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[ ]	Consult to Wound Ostomy Care Nurse	Reason for consult: PUPP Assessment/Evaluation Reason for consult: Reason for consult: Reason for consult: Consult for NPWT: Reason for consult: Reason for consult: PUPP Assessment/Evaluation
[ ]	Consult to Nutrition Services	Reason For Consult? Other (Specify) Specify: Prone nutrition protocol Purpose/Topic: nutrition support during prone therapy
[ ]	Consult to PT eval and treat	Reasons for referral to Physical Therapy (mark all applicable): Other Specify: evaluate for pre-positioning guidance Are there any restrictions for positioning or mobility? Please provide safe ranges for HR, BP, O2 saturation(if values are very abnormal): Weight Bearing Status:
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[ ] epoprostenol (FLOLAN) inhalation (Single Response)

( )	AEROGEN epoprostenol (FLOLAN) quad strength inhalation	160 mcg/hr, nebulization, Respiratory Therapy - every 6 hours
( )	AEROGEN epoprostenol (FLOLAN) double strength inhalation	80 mcg/hr, nebulization, Respiratory Therapy - every 6 hours

Nursing

Nursing

[ ]	CVP monitoring	Routine, Continuous CVP GREATER than *** mm Hg, please inform ICU MD

Medications

Steroids (Single Response)

( )	methylPREDNISolone sodium succinate (Solu-MEDROL) injection	intravenous
( )	dexamethasone (DECADRON) IV	intravenous

Diuresis (Single Response)

( )	Lasix - Intermittent and Continuous (Single Response)	
	( ) furosemide (LASIX) injection	intravenous
	( ) furosemide (LASIX) in sodium chloride 0.9% 100 mL infusion	intravenous, continuous
( )	Bumex- Intermittent and Continuous (Single Response)	
	( ) BUMETanide (BUMEX) injection	intravenous
	( ) BUMETanide (BUMEX) in sodium chloride 0.9% 100 mL infusion	0.5 mg/hr, intravenous, continuous

Labs

Labs

[ ]	Arterial blood gas	STAT For 1 Occurrences 30 mins after Intubation
[ ]	Arterial blood gas	Conditional Frequency For 3 Occurrences 1 hour after ventilator changes of Tidal Volume and Rate for 3 days

Consults

For Physician Consult orders use sidebar

Pharmacy Consult

[X]	Pharmacy consult to change IV medications to concentrate fluids maximally	STAT, Until discontinued, Starting S