



COVID-19 In the Workplace

Trang N. Bodtke, BS, CCP
Chief of Perfusion

University of Washington Medical Center

No Disclosures Related to This Presentation

SAFETY

1. PPE
2. HEALTHCARE WORKERS

CONSERVATION

1. SURGICAL CASES
2. STAFF
3. EQUIPMENT
4. PROGRAMS ON HOLD

COVID ECMO PROTOCOLS

1. PATIENT SELECTION
2. CANNULATION
3. STAFFING
4. ADDITIONAL INFORMATION

UW Medicine

DEPARTMENT OF SURGERY



Safety: PPE

1. Proper Mask

- Mandatory FIT Test
- N95, Duck bill, PAPR

2. Mandatory training

- OR training
- Unit/Floor training



Safety: Healthcare workers

Daily Attestation

1. Once a day at beginning of shift
2. If present with any of symptoms, the supervisor needs to be notified and healthcare worker needs to go home

Daily Attestation:

By signing below, you are attesting that
1.) you are aware of the UW Medicine policy against reporting to work if you have any of the symptoms below and
2.) if you have none of the symptoms:

1. Fever
2. No new cough, muscle aches (myalgias), throat pain (pharyngitis), SOB (dyspnea) not attributable to another medical condition



Safety: Healthcare workers

1. Hand Hygiene
 - Gel in and out
 - Wash hands with Soap – scrubbing at least 20 seconds
2. Masking
 - Masking all in ED, Front Door Screeners, Security, Nutrition and Food services, all units and clinics
3. No more healthcare workers eating or drinking in patient care areas or within 6 feet of another person
4. No visitors
5. Designated unit for COVID patients



Conservation:

Surgical Cases:

- No more elective cases
- No more observers or medical students

Staff:

- Adjust Daily Staffing Schedule

UW Medicine

DEPARTMENT OF SURGERY



Conservation:

Equipment Selection for ECMO

1. “Homegrown circuit” – Centrimag with an oxygenator
- Used for patients failing to wean from CPB
2. Use only Cardiohelp for COVID patient needing ECMO
- Only VV ECMO: 25Fr Biomedicus for femoral and 20 Fem. Flex for the IJ

Conservation

Programs On Hold:

1. Accepting Cardiogenic Shock patients from OSH
2. ECMO Transport
3. No in house meetings
 - Cath Conferences
 - Friday morning Conferences
 - M&M



COVID ECMO PATIENT PROTOCOLS: PATIENT SELECTION:

1. Determined by physician
 - Currently Attending Physician on the cardiogenic shock team
 - Needs approval by ECMO director doctor
 - Team Approach



Indications:

1. Severe reversible hypercarbic respiratory failure (pH<7.2)

2. Severe reversible hypoxemic respiratory failure (PaO₂:FIO₂<100) due to ARDS despite maximal medical therapy to include (unless contraindicated):

- Low Tidal Volumes
- PEEP optimization
- Prone Positioning
- Consideration of inhaled vasodilators
- Consideration of neuromuscular blockades

Welcome

Contraindications:

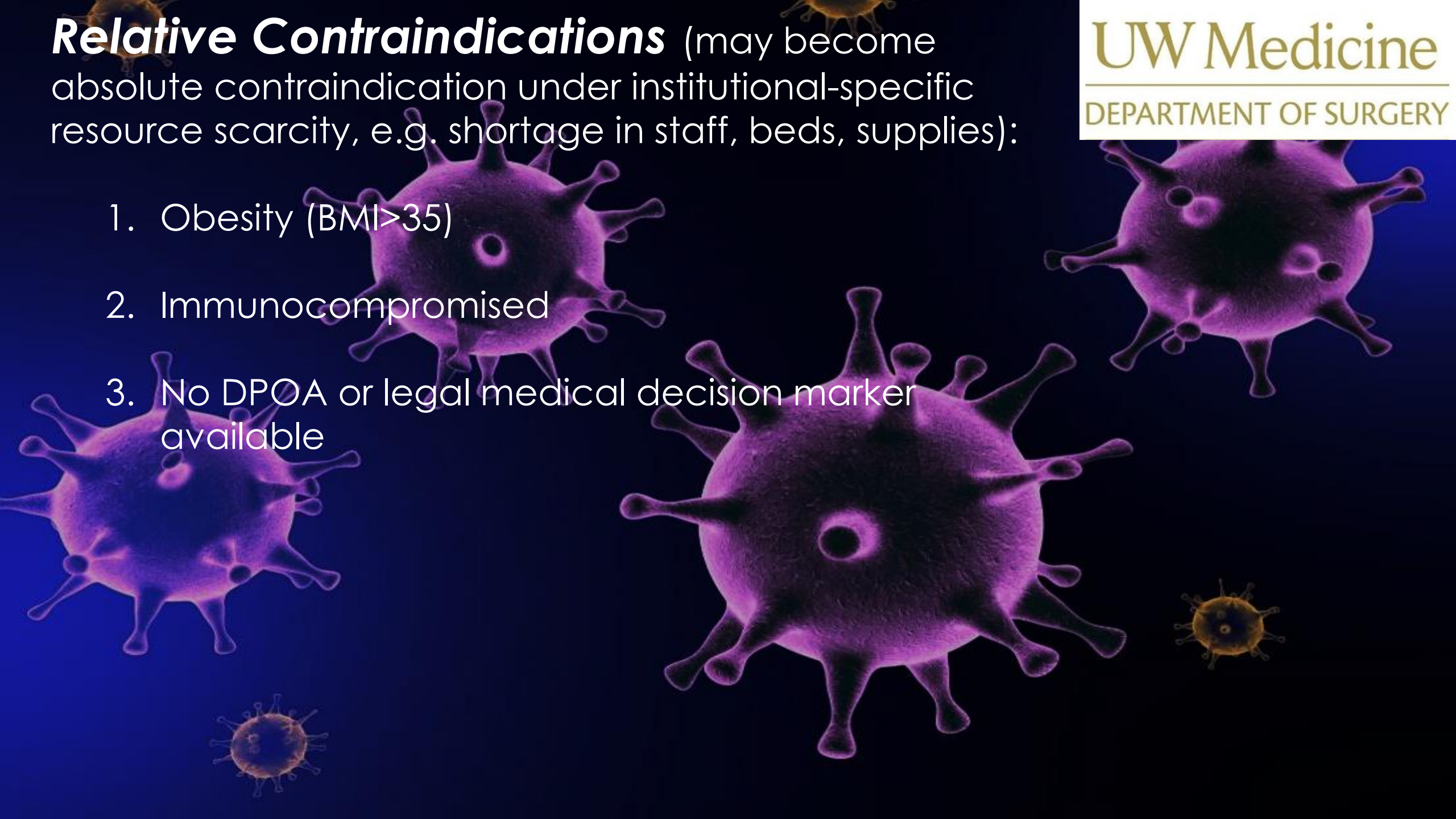
UW Medicine

DEPARTMENT OF SURGERY

1. Age >60yr
2. Prolonged mechanical ventilation >7 days
3. Significant Comorbidities
4. Refractory shock requiring 0.5mcg/kg/min norepinephrine or equivalent
5. Decompensated acute heart failure
6. Acute liver injury with synthetic dysfunction (elevated INR)
7. Acute bleeding and inadequate hemostasis
8. Active intracranial hemorrhage, cerebral vascular accident, poor neurological exam
9. On going CPR/recent cardiac arrest

Relative Contraindications (may become absolute contraindication under institutional-specific resource scarcity, e.g. shortage in staff, beds, supplies):

1. Obesity (BMI>35)
2. Immunocompromised
3. No DPOA or legal medical decision marker available



COVID ECMO PATIENT PROTOCOLS: CANNULATION

1. Only VV ECMO
 - 25Fr Biomedicus/20 Fem. Flex
2. Cannulation takes place on the COVID Unit in patients room
3. Circuit is Primed outside of room
4. Prior to cannulation, Perfusionist talks and walks through cannulation process with specialist and cannulating physician
5. Only cannulating physician and specialist enter the room to cannulate at bedside
6. Perfusionist remains outside of room at all times

COVID ECMO PATIENT PROTOCOLS: STAFFING

1. Once Cannulated, and attending physician deems patient stable and if specialist do not need anything, the on call perfusionist can cover and back the team up off the unit or from home (Call back time of 30min.)
2. Always a perfusionist in house available Monday-Friday, 07:00-1500.
3. Usually a perfusionist in house late in evening due to cases, therefore last perfusionist to leave checks on the ECMO specialist.
4. ECMO specialist is either an RT or RN.
 - RN is first choice as they can manage patient and adjust vent
 - Specialist work in shifts

COVID ECMO PATIENT PROTOCOLS: ADDITIONAL INFORMATION

1. Only use Cardiohelp as it has alarms on it which assist specialist if they have to manage more than one patient.
2. COVID patients are considered DNR
 - No CPR or codes
 - No switching COVID patients from VV to VA or VAV ECMO
3. Have 1 reserved set up cardiohelp as backup on Unit
4. Cleaning Protocols
 - 2 hour wait before anyone can enter the room to start cleaning.
 - Only those cleared to clean will do so in the room
 - Equipment is then cleaned again in anti-room
 - Then equipment is cleaned again by perfusionist in the perfusion room

CONCLUSION:

Important Take Home Message

1. Know the proper PPE
2. Have a game plan in place with back up plans
3. Know the limits
 - Staff
 - Equipment
4. Take care of your team
 - Flexible and understanding
 - Communicate



**WHERE'S
WALDO?**
SOCIAL DISTANCING EDITION

Thank you!
Stay safe!

