

Perfusion Support in ECLS Staffing & Equipment



November 20-21, 2021
The Ritz-Carlton Hotel, St. Louis, Missouri

Amela Mustafic, MS CCP LCP

I have no relevant financial relationships



Responsibilities of the Perfusionist

- Equipment Management
 - Hardware setup
 - Calibration
 - Maintenance
 - Back-ups



Responsibilities of the Perfusionist

- Disposables
 - Centrifugal pump
 - Oxygenator, heat exchanger
 - Tubing
 - Cannulas
 - Monitoring accessories
 - Procedural disposables
 - Prep, drapes, gowns, gloves, insertion kits, wires, dilators



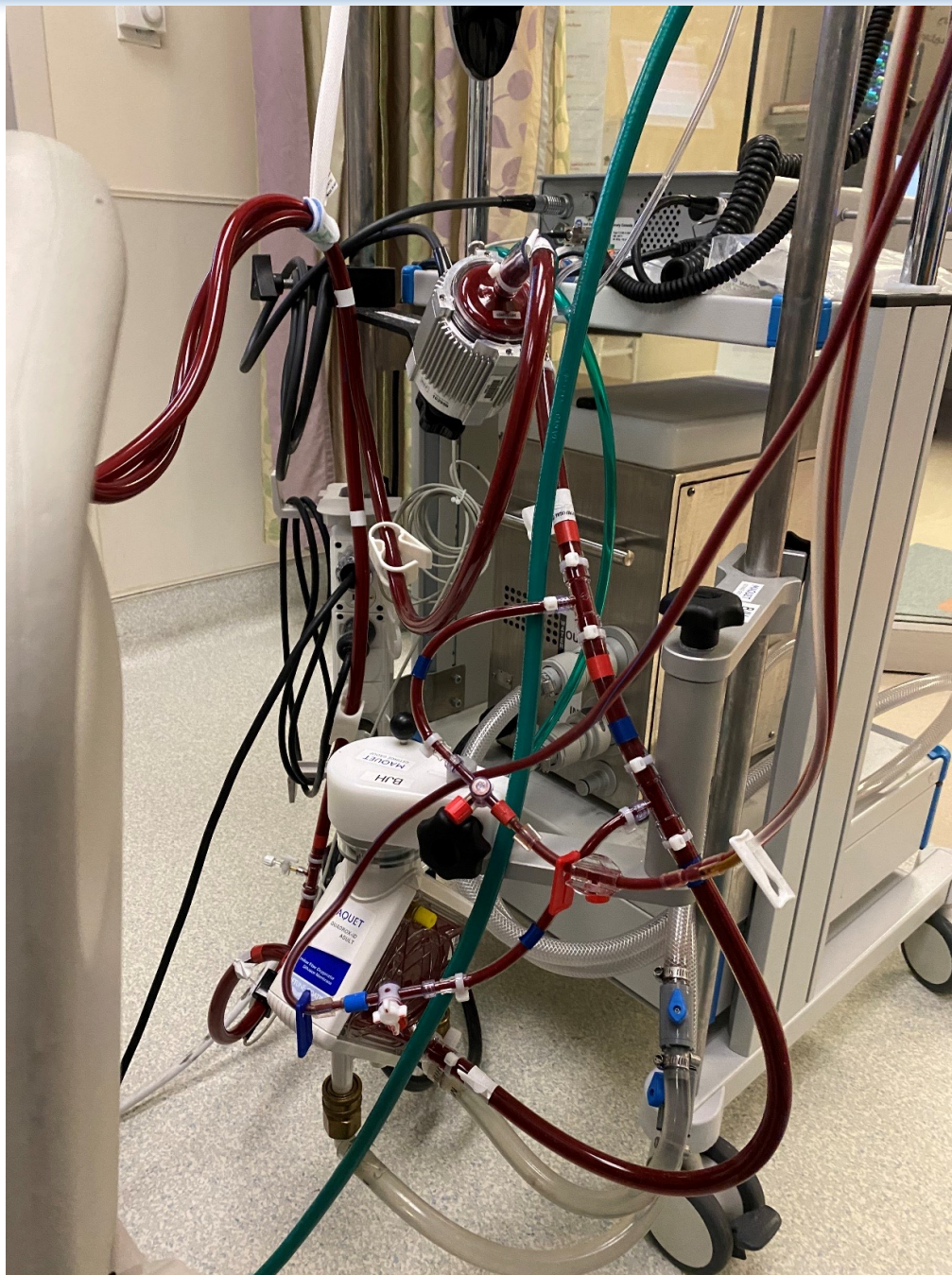
Responsibilities of the Perfusionist

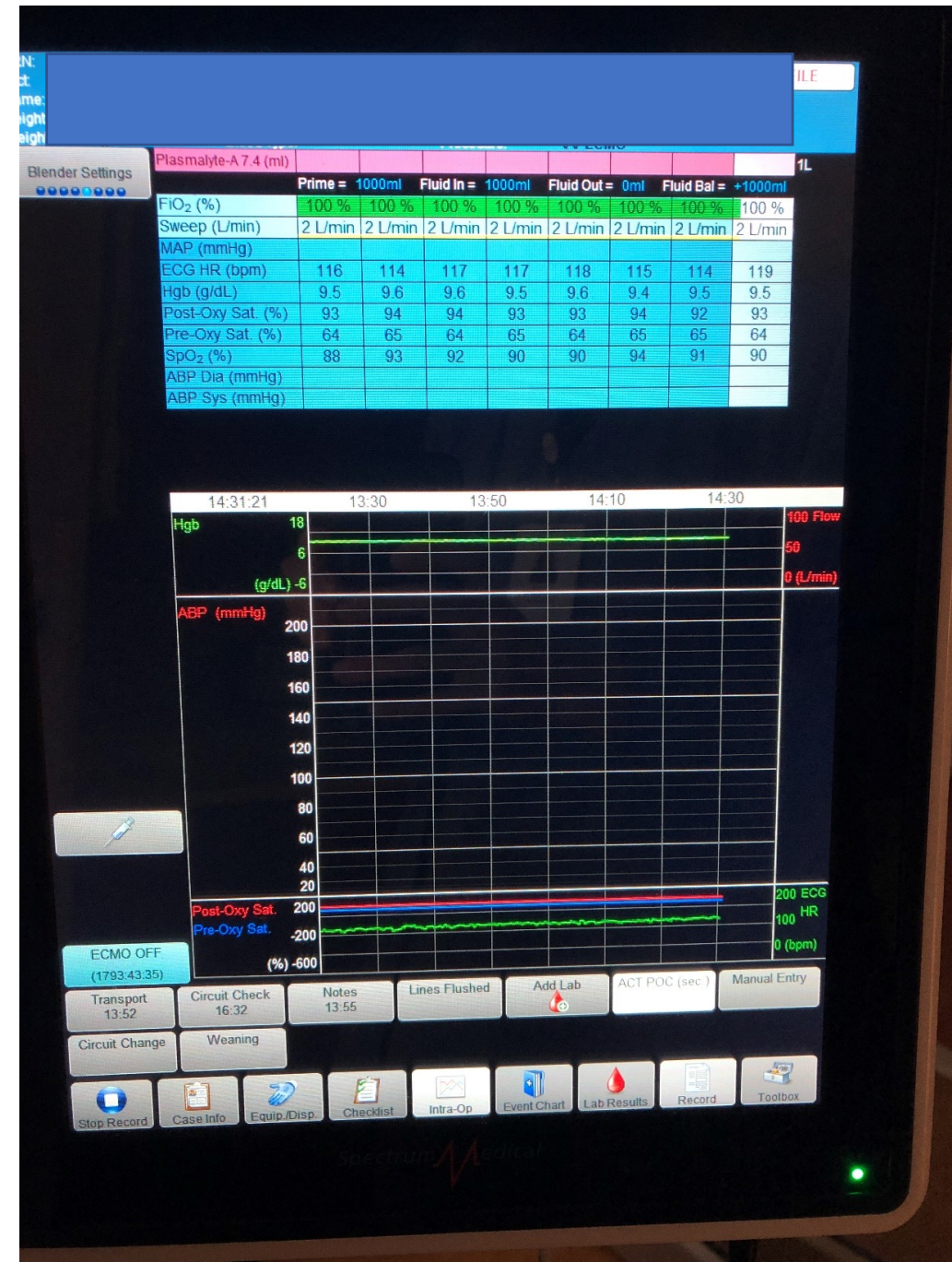
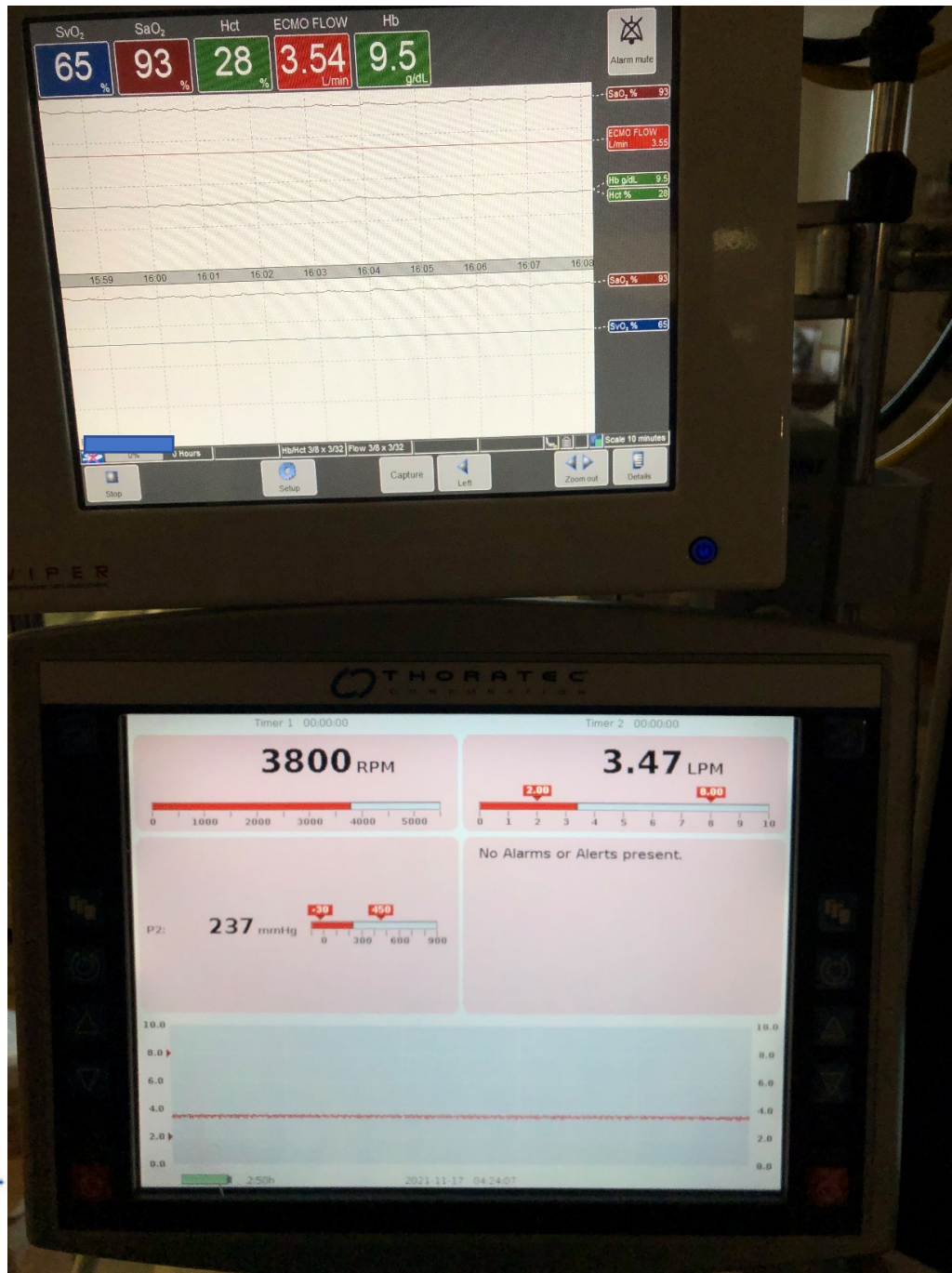
- Initiation
 - Assist in prepping, opening disposables, charting times, Heparin management
 - Initiate ECMO, adequate flows, pressures, oxygenation, ventilation
 - Secure circuit, tubing and cannula
 - Safety alarms

Responsibilities of the Perfusionist

- Monitoring
 - Daily ECMO rounds
 - Attending, RN/ECMO specialist
 - Trends- RPM, flow, gas exchange, temperatures, pressures
 - Cannula sites- sutures, zip ties, bleeding









Responsibilities of the Perfusionist

- Problems Solving
 - Alarms, flushing, gases
- Interventions
 - Transport- CT trip, OR, room changes
 - Ambulating
 - Circuit change outs

Responsibilities of the Perfusionist

- Termination

Staffing



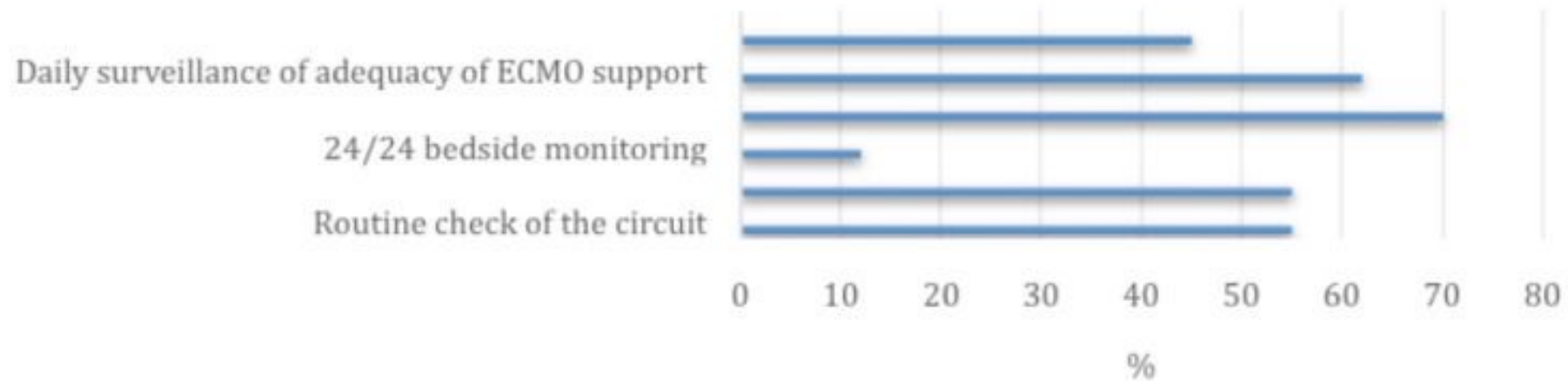


Figure 6. What is the role of the perfusionists in the daily care of a patient on ECMO?

Vercaemst, L. (2016). European Perfusionists in ECLS/ECMO: Roles & Responsibilities. *ICU Management & Practice*, 16(1). Retrieved 2021, from <https://healthmanagement.org/c/icu/issuearticle/european-perfusionists-in-ecls-ecmo-roles-responsibilities>.

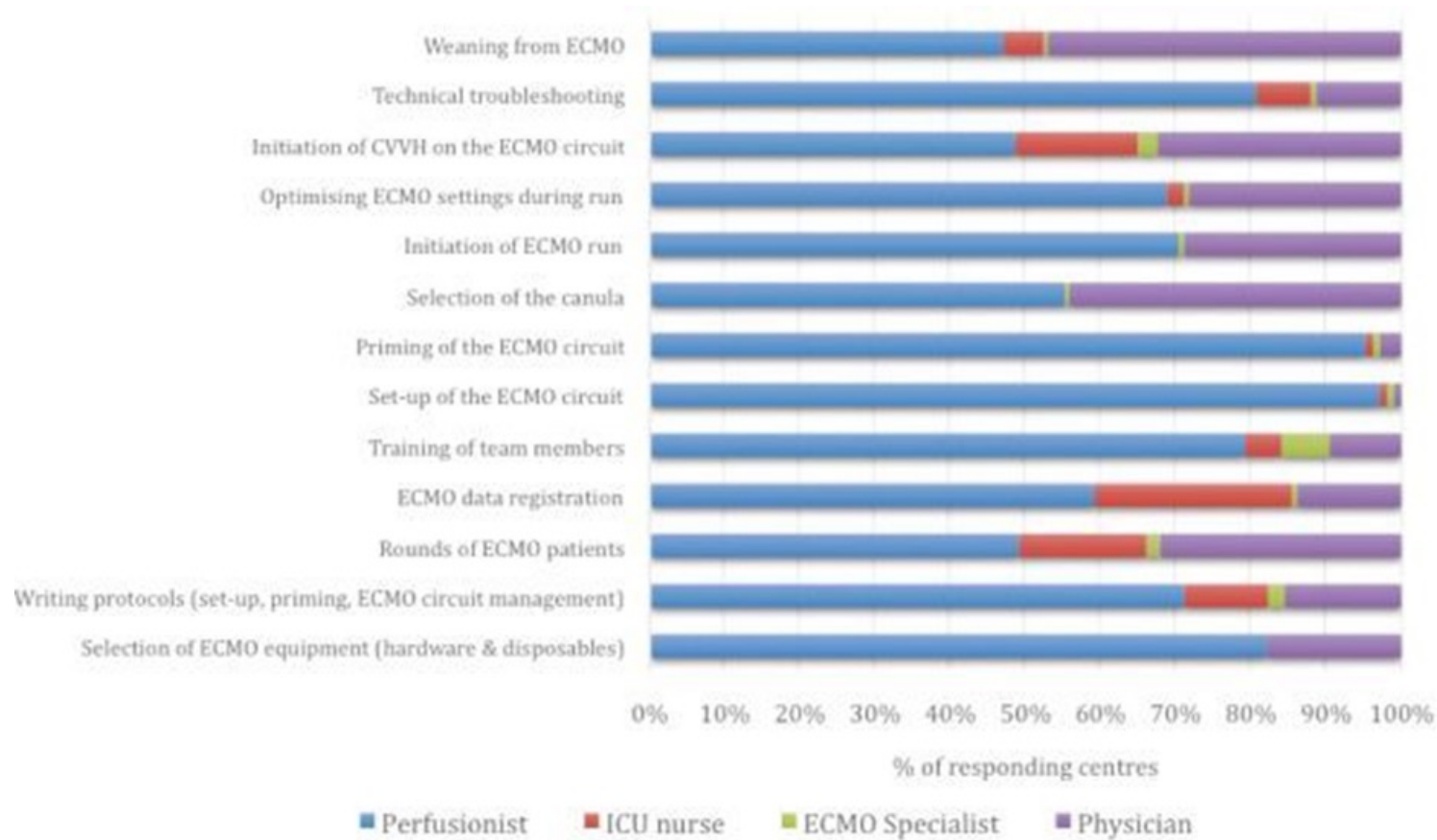


Figure 7. Who is responsible for the following ECMO related tasks in our centre?

Vercaemst, L. (2016). European Perfusionists in ECLS/ECMO: Roles & Responsibilities. *ICU Management & Practice*, 16(1). Retrieved 2021, from <https://healthmanagement.org/c/icu/issuearticle/european-perfusionists-in-ecls-ecmo-roles-responsibilities>.

Shared ECMO Management

- Safe and efficient multi disciplinary management of ECMO
- ECMO Specialists
 - Trained RN, RT, CCP
 - Perfusion should be involved in all training processes
 - Emergency training with simulation
 - Monitoring the ECMO patient and circuit 24/7
 - Calling in Perfusionist for emergencies and interventions
- Potential problem: Too many specialists decreases the necessary exposure needed for safety

100% Perfusion

- Perfusionist bedside 24/7
- Problems
 - Financial
 - Staffing
- Ideal for small ECMO & cardiac centers
 - Lack of exposure for ECMO specialists

0% Perfusion Support

- VV ECMO in non cardiac centers

Conclusion

Collaboration between ECMO center Perfusion teams

- Successes, failures, ideas, equipment