Safety in Perfusion at Mayo Clinic Rochester

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Perfusion Service Work Group

Disclosure

I have no disclosures

Safety at MCR: Presentation Outline

1. Mayo Clinic Mission / Vision
   a. Perfusion Senior Work Group Mission / Vision; Division of Cardiovascular Surgery; Mayo Clinic Enterprise
2. Team Behavior; Our "Norms" [Bronson, 2010]
3. Mayo Clinic Five Safe Behaviors; Culture of Safety
   a. Frequent satisfaction and safety surveys
   b. Information flows; Weekly team meetings
   c. Volunteerism; The "pump room experience"
   d. TeamSTEPPS™, multidisciplinary team simulations [White, Riley 2015]
   e. WHO and Team Briefing checklists [Sundt 2013]
   f. Perfusionist Second Checks; Procedure checklists and job aids
4. Mayo Clinic Intranet
   b. Adult and Pediatric Cardiovascular, Thoracic Cardiac Educator
   c. PSMS Staffing Plan, Organizational Chart; Published call, PTO, and work schedules
   d. EHR training Management System [Blackboard, AmSECT University]
5. Electronic Environment and Variance reporting; Team to Improve Processes (TIPS)
   a. OR suite Wall of Knowledge; Electronic Perfusion Record [Riley 2015]
   b. Process improvement
   c. Quality indicators; Dash boards [Groom 2009]
6. Annual competency Check-off and Proficiency Labs
Mayo Clinic Culture of Safety

Our Culture of Safety

AHRQ.gov Satisfaction/Safety surveys

TeamSTEPPS™ projects

Continuous process improvement

Talent education via Mayo LMS

Student and New Employee Orientation

Student Handbook

- Assign students to clinical faculty
- Student evaluations after each procedure

New CCP Orientation

- MCR NEO Program
- MCR Intranet LMS
### Annual Education Plan

#### 2016 Education Plan

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<th>Quarter</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
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#### Additional Topics

- Device presentations
- Check-offs
- Simulations

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#### Device Presentations

- Centrimag VAD
- TandemHeart
- Sorin S5
- Ultrafiltration
- Luker Locker
- iStat

#### Simulations

- March: Simulation 1
- April: Simulation 2
- Pediatric Simulations
- Thrombus Location Tour
- Spectrum Medical Oxygenator underperformance
- TroubleShooting
- Vasopressors
- Transport of ECLS
- Air in arterial line
- Pt Baseline/Trends
- Retrograde Auto Priming
- Berlin Heart separation of arterial line
- Heater Cooler cleaning
- CRRT
- Excessive ALP
- Anticoagulants
- Reverse cannulation

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#### Other Activities

- Mayo Clinic Intranet
- Organization chart
- Clinical practice committees
- Policies and procedures; Clinical Procedure Guidelines
- Liaison with surgeons and anesthesia
- Job aids
- Second checks

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#### Online Learning Environment

- OnLine Classroom: Blackboard and MCR LMS

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#### Knowledge

"Knowledge will bring you the opportunity to make a difference."
S 1. Apply standards through CPGs
   • G 1.1 Track deviations from CPGs
   • S 9.1 Minimize hemodilution and avoid blood transfusions
   • S 9.2 Minimize CPB circuit size to reduce prime volume
   • S 9.3 Calculate and communicate predicted PD HCT
   • G 10.2 Use VO2 and DO2 calculations

S 11.1 Determine patient target BF prior to CPB
S 13.1 Participate in department QA and QI projects

Perfusion Circuit Safety Systems

- Access®, Excel® databases
- Avecor OnCourse®
- Sorin DMS®
- LivaNova Connect®
- Epic
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   f. Perfusionist Second Check; Procedure checklists and job aids
4. Mayo Clinic Intranet
   b. Adult and pediatric Heart Failure Committees, Perfusion Educational Coordinators
   c. PSWG Staffing Plan; Organizational Chart; Published call-PTO master work schedules
   d. MCR Learning Management System; Blackboard; AmSECT University
5. Electronic Environment and Variance reporting; Team to Improve Processes (TIPS)
   a. OR suite Wall of Knowledge; Electronic Perfusion Record [Riley 2015]
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