Adult Readiness

What Should you Know?

Disclosure

- AmSECT Member (2012- present)
- International Consortium of Evidence-Based Perfusion
  - Executive Member (2012- present)
- AmSECT Today (2015-present)
- Clinical Instructor (2006-present)
- Perfusionist 16 years
Continuum of Care

- Multidisciplinary Cardiac Surgical Team
- Ensuring our patients are optimally prepared for surgery
- Perfusion team
  - look at how WE prepare to perform our clinical duties
  - highest possible level every case, every day

Objective: To translate the theory of “being prepared” real life adult clinical practice.

Readiness to Perform:
Real life adult clinical practice

1. What is the data showing us?
2. Which Standards & Guidelines help you prepare?
3. Which Standards & Guidelines are a work in progress?
4. Checklists
5. What does it mean to be “ready” for you and your team?
1. The data is showing us…..
Report from AmSECT’s International Consortium for Evidence-Based Perfusion:
American Society of Extracorporeal Technology
Standards and Guidelines for Perfusion Practice: 2013.

- survey sent - perfusionists and cardiac anesthesiologists
- revealed 67% of perfusionists surveyed read all or part
- 26% reported one or more changes in response

No Current Data
Are you making changes in your practice because of AmSECT’s Standards and Guidelines?

2. Which Standards & Guidelines help you prepare?

- [American Society of Extracorporeal Technology](https://www.amsect.org)
  - Standards and Guidelines
    - Practice Guidelines
    - Code of Ethics
    - Perfusion Checklist
    - Pump Templates
    - Scope of Practice
    - Standards and Guidelines
    - Employment
    - Perfusion Without Borders

Questions regarding AmSECT’s Standards and Guidelines for Perfusion Practice can be directed to amsect@amsect.org.
AmSECT’s Standards & Guidelines for Perfusion Practice

- Standard 1: Development of Institutionally-based Protocols
- Standard 2: Qualification, Competency and Support Staff
- Standard 3: Communication
- Standard 4: Perfusion Record
- Standard 5: Checklist
- Standard 6: Safety Devices
- Standard 7: Monitoring
- Standard 8: Anticoagulation
- Standard 9: Gas Exchange
- Standard 10: Blood Management
- Standard 11: Blood Pressure
- Standard 12: Protamine and Cardiotomy Suction
- Standard 13: Blood Management
- Standard 14: Level of Readiness
- Standard 15: Staffing
- Standard 16: Duty Hours
- Standard 17: Quality Assurance and Improvement
- Standard 18: Maintenance

Adult Readiness

**Standard 14.1:**

Procedures identified preoperatively to be at elevated risk of requiring conversion to cardiopulmonary bypass (CPB) shall have a protocol for transition to CPB.

- Lead Extractions
- TAVR
- Off Pump CABG
- Robotic CABG

*Do you have a protocol for each of these procedures?*
Standard 14.2:
One Perfusionist shall be assigned for each procedure.

Standard 14.3:
A heart-lung machine consisting of a sterile extracorporeal set-up and ancillary equipment shall be readily available for the procedure.

- Is the pump...
  - set up?
  - in the room?
  - primed?
    - How long dry?
    - How long primed?
Guideline 15.1: The “n+1” staffing model should be utilized at all times, where “n” equals the number of operating/procedure rooms in use at any given time at a single site. **Ready = Staffed**

Guideline 15.2: An on-call Perfusionist should be present and clinically ready for unscheduled and emergency procedures within 60 minutes of being called. **Ready = On Time**

Standard 16.1: In order for the Perfusionist to ensure proper provision of care, he/she must shall receive an adequate rest period between scheduled work hours. **Ready = Rested**

Guideline 16.1: The Perfusionist should receive a minimum of **8 hours** of rest period for every 16-hour consecutive work period.
3. Which S&G are a work in progress for you?

- **Standard 14.3**: A heart-lung machine consisting of a sterile extracorporeal set-up and ancillary equipment shall be readily available for the procedure.
  - What if the definition of “readily available” isn’t agreed upon?

- **Standard 15**: Staffing and On-call Guideline 15.1: The “n+1” staffing model should be utilized at all times, where “n” equals the number of operating/procedure rooms in use at any given time at a single site.
  - Are you fully staffed to accommodate this?

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AmSECT’s Standards & Guidelines for Perfusion Practice

- **Standard 1**: Development of Institutionally-based Protocols
- **Standard 2**: Qualification, Competency and Support Staff
- **Standard 10**: Blood Flow
- **Standard 11**: Blood Pressure
- **Standard 12**: Protamine and Cardiotomy Suction

This is how S&G, protocols and checklists will keep your team:

- Organized
- Providing a standard of care
- Using evidence based medicine
#4. Why are we STILL talking about, checklist, protocols and standards?

Americans’ Experiences with Medical Errors and Views on Patient Safety
FINAL REPORT

National Patient Safety Foundation
May 12-June 26, 2017

Overall, 2 in 5 Americans say they have personally experienced a medical error or have had a medical error occur in the care of someone close to them.
Have you ever personally been involved in a situation where a medical error was made in your own medical care?

Have you ever been harmed, either physically or emotionally, when you received medical care?

Who has a responsibility for ensuring a patient’s safety?

Did the error have a short-term effect that lasted less than one month, a long-term effect that lasted more than one month, a permanent effect, or did it have no effect?
Did you report the medical error, did someone else report it on [your/their] behalf, or did no one report it?

Over the past five years, do you think that patient safety has...?
Patients are STILL being harmed

- Lack of communication
- During a treatment or procedure
- Lasting impacts

Guide to Good Practice in Clinical Perfusion- UK

- There should be…
  - robust version control of SOP’s…
  - separate (protocol) for each surgeon and procedure
  - separate SOPs for adult and pediatric patients

= ready
There need to be clear SOPs for different procedures:

- Cardiopulmonary bypass (CPB)
  - setting up and priming the equipment pre-bypass
  - initiation of CPB
  - administration of prescribed fluids and drugs during CPB
  - conduct of CPB
  - cardioplegia
  - hemofiltration
  - hypothermic Circulatory Arrest
  - emergency procedures
  - weaning from CPB and resumption of natural circulation

SOPs need to be in place for the following:

- Additional practices
  - off pump surgery conversion to CPB
  - autologous blood salvage
  - limb perfusion
  - left heart bypass
  - minimally invasive (percutaneous) bypass
  - miniaturized extracorporeal circulation (mini-bypass)
  - liver perfusion
  - platelet gels
  - retrograde cerebral perfusion
  - selective antegrade cerebral perfusion
Prolonged Mechanical Circulatory Support

• Additional practices
  • Ventricular Assist Device (VAD)
  • Extra Corporeal Membrane Oxygenation (ECMO)
  • Extra Corporeal Life Support (ECLS)
  • Intra Aortic Balloon Counterpulsation Therapy (IABP)

Guide to Good Practice in Clinical Perfusion - UK

• Guidance on good practice of perfusionists
• It clarifies the roles and responsibilities of all parties and stakeholders
• To ensure the best standards of care
• To minimize risk

These are the things we MUST do
in order to provide a high level of readiness
5. Adult Readiness

- Make (something) ready for use or consideration.
  - make/get ready, put together, draw up, produce, arrange, assemble, construct, compose, formulate

- NSFW

“Being Ready” takes the right tools...

- Tools
  - Checklists
  - Protocols
  - Standards & Guidelines
  - Temperature Management Guideline
“Being Ready” means knowing your roles...

- Roles of a Perfusionist
  - Perfusionist
  - Anesthesiologist
  - Surgeon
  - Scrub Nurse
  - Circulator

“Being ready” means using your resources...

- Resources
  - AmSECT's Standards & Guidelines for Perfusion
  - Temperature Management Guideline
  - AmSECT U
  - Amsect.org
  - PubMed
  - Committee Members
  - Previous Teams
“Being Ready’ means going above & beyond…

- Knowledge Background – procedures, disease, pharm
- Standards & Guidelines
- Temperature Management Guidelines
- Electronic Record Keeping
- Latest Safety Devices
- Quality Improvement Projects

“Ready” for “ON BYPASS”

- What IF something goes wrong during a routine procedure?
- Backup equipment & supplies
- Staffing – (n+1)
- Disaster plans
- Competencies – emergencies, change outs, air embolism,
“Ready for “OFF BYPASS”

- Danger of habit
- EKG - Calm before the storm
- Knowledge base of what’s happening NOW
- Know your role vs anesthesia, surgeon, resident
- Pump ready? Drugs ready? Are YOU ready?

Take Home Checklist - What does it mean to be ready?

1. Protocols –
   a. Surgeon
   b. Procedure
      • complete
      • available
      • current

2. Pre-op Briefing – includes ALL members of the team
Take Home Checklist-

3. H&P
4. Laboratory report, blood
5. Cath/Echo Report
6. Pump Ready
   • Primed
   • Drugs
   • Safety

7. Checklist complete
8. Equipment
   • Cannula
   • Drugs
   • PPE

The right tools to be ready!
AmSECT.org

AmSECT, its volunteers, and Smith Bucklin are DEVOTED to providing US with the tools to succeed when preparing for Adult Readiness.

In this Section

- Perflist
- Practice Guidelines
  - Code of Ethics
  - Perfusion Checklist
- Pump Templates
- Scope of Practice
- Standards and Guidelines
- Employment

**Perfusion Checklist**

This is a guideline, which Perfusionists are encouraged to modify to accommodate difference in circuit design and variations in institutional clinical practice.

- **Perfusion Checklist Patient ID**
  
  Check each item when completed, sign and date. If not applicable, draw line through. **Bold italicized items for expedited set-up.**

- **PATIENT**
  
  Patient identity confirmed
  Procedure confirmed
  Blood type, antibodies confirmed
  Allergies checked
  Blood bank number confirmed
  Medical record number confirmed
What SHOULD be here??

What DO YOU NEED?

Evaluations!

AmSECT Quality & Outcome 2017

Agenda | Poster Submissions | Hotel Information | Employment | Perfusion Without Borders | Registration

AmSECT Practice Guidelines
- Code of Ethics
- Perfusion Checklist
- Pump Templates
- Scope of Practice
- Standards and Guidelines

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Adult Readiness: 
Real life adult clinical practice

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Adult Readiness:

- 95%
- Remind
- Motivation
- Tools
- You KNOW what you need to do

Go Do It!

HAVE FUN!

#amsectx
#makingadifference

References: