

2022 QUALITY IMPROVEMENT INITIATIVE:

[The use of simulation-based experiences designed to meet identified objectives and optimize achievement of expected outcomes to improve patient safety during an unprecedented catastrophic event.]

CRISIS
MANAGEMENT-
OXYGENATOR
CHANGE OUT

2022 Quality Improvement Project: *Simulation Training: Cardiopulmonary Bypass Oxygenator Change Out*

Background: The Michigan Perfusion Society and MSTCVS Quality Collaborative and its members have identified that Perfusion Simulation Training for catastrophic events is a valuable skill to improve and promote patient safety. For 2022, BCBS approved a site-specific Quality Improvement project which supports Perfusion cohorts to gather in-person to perform a change out of a failing cardiopulmonary bypass in-line oxygenator. Simulation-based experiences are purposefully designed to meet identified objectives and optimize the achievement of expected outcomes. BCBS, with the assistance of Perfusionist of the Michigan Perfusion Society, have developed an approved standardized simulation design to provide a framework for developing effective simulation-based experiences. The scenario and protocol created will provide Perfusionists the ability to collaborate with their coworkers to determine efficiency and areas of improvement when changing a circuit oxygenator in the occurrence of a failure due to various reasons. Each perfusionist will demonstrate the ability to change the oxygenator in under four minutes.

Process: The entire clinical perfusion team will gather within nine months (beginning no sooner than January 1st, 2022, and no later than September 30th, 2022) to complete this project. Each site will be implementing a scenario to provide the context for the simulation-based experience (oxygenator change out due to damage of a broken port or connector on the oxygenator). Sites will create the best fidelity using available resources. The scenario will be enacted allowing participants of the simulation to have a hands-on approach to the scenario. Participants will be evaluated by the chief (or Perfusionist designated by the chief) of their program using the 2022 Quality Improvement Project: Simulation Training: Cardiopulmonary Bypass Oxygenator Change Out Rubric. The chief will utilize a senior perfusionist to complete his/her rubric. Each Perfusionist will complete the simulation within a four-minute window. If the Perfusionist is unable to do so, the Chief and Perfusionist will need to make a remediation plan to promote the improvement of the skill. When the Perfusionist has practiced the skill, the simulation will be repeated, until the perfusionist can complete the change out in the four-minute allotment. The goal of this QI Project will be to empower each Perfusionist with a clear and concise plan of action to be implemented in their facility and be prepared for high acuity, low-frequency catastrophic situations.

Documentation: Please provide a rubric completed by the evaluator (either the chief or single Perfusionist designated by the chief) for each participant that partakes in the simulation experience. If a Perfusionist has more than one attempt to complete the task in under four minutes, please include an evaluation for each attempt. An evaluation, filled out by each simulation participant, about the quality and preparation of the scenario, will also be required for completion (on the form provided on page 5) of this QI project. Please be sure to fill out the forms with as much detail as possible. Please also provide a full list of all active Perfusionist at your clinical team, the hospitals they serve, the date that the simulation was performed, if the Perfusionist was able to complete the task in four minutes, and the scenario that was used for simulation (also a provided form on page 2 and 3).

2022 Quality Improvement Project: *Simulation Training: Cardiopulmonary Bypass Oxygenator Change Out*

Evaluation of the Simulation Experience: Simulation

To be completed by each simulation participant regarding the simulation experience:

Name: _____ Date: _____

Clinical Site (s): _____

<i>Please check the corresponding box to the evaluation statements</i>	1- Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5- Strongly Agree
1. Objectives for the simulation were clear before training					
2. I believe that simulation training was well organized					
3. I believe simulation training provided an effective learning environment					
4. I believe that simulation training is a critical learning experience					
5. I believe that simulation training will help me feel less stressed in a critical situation					
6. I was appropriately oriented to the simulator environment before the event					
7. Do you feel your technique improved using simulation					

8. Overall, what grade would you give yourself for your performance in your simulation experience? (0-100%) _____

9. Improvements that you feel that you could decrease your time to change out the oxygenator:

10. Any additional feedback or comments:
