

PHC Facility Engagement Final Report

Project No./ Project Name	PHC-0034 – “Development of a high-fidelity mannequin for E-CPR”
Project Results	<p>For the meantime, this mannequin has significantly helped prepare all disciplines involved for code “ECMO” situations.</p>
Unexpected Outcomes	
Lessons Learned	<p>The main purpose of the current work is to making an improved mold that would help make the cartridges to work faster.</p> <p>The mannequin has been tested out with several simulation sessions and consensus by those participating physicians, including ER physicians/ interventional cardiology/residents and nurses</p> <p>The feedback from the health professionals is that the fidelity of the mannequin for performing the procedure is very good [Pictures linked] shows how the mannequin is used during the SIM.</p> <p>Simulations (SIM) using the mannequin have been running once per month in the last year at each SIM, we had:</p> <ul style="list-style-type: none"> - 1 interventional cardiologist or fellow attending - At least 5 nurses who were actively participating along with nursing students watching - 2 ER doctors attended <p><i>Note: 10 simulations done per year with staff above mentioned but also including respiratory therapy and perfusionists at most sessions. Interventional cardiology tries to attend most session but isn't always available. There are always 2 ER docs plus Dr MacLeod (from ER) who also runs oversees each simulation. On many occasions we have paramedics involved as well.</i></p> <p><i>Tanya Campbell, our nurse educator in the ED, also uses the mannequin and other ECMO equipment on other occasions for teaching purposes. We also plan to use it for other cardiac arrest simulations.</i></p>
Recommendations for improvement (to inform future projects and strategic decision-making)	<p>Decision to use or not to use a commercial 3D print that meets the requirements we deemed to be the initial challenge. However, realizing during the outsourcing process the costs are prohibitive, project lead decided to abandon using commercial printer</p> <p>Need more time to determine tweaks applicable to the design</p>



<p>Project Costs</p> <ul style="list-style-type: none">• <i>Please provide a summary of budget & expenses.</i>• <i>Point out any cost variances and rationale for variances.</i>	<p>Approved budget: \$5,000 Budget spent as of Feb 20th, 2019: \$3,947.94</p> <p>Details of expenses:</p> <ul style="list-style-type: none">- 58% of the \$5,000 approved funds (\$2,919.12) are paid to the project lead to plan, prepare, elaborate, test and evaluate the project between March 2018 – November 2018 <p>29% of the approved funds (\$1,031.59) are used to purchase non-medical supporting products, e.g. silicone translucent hose pipe, printer filaments, and 3D modeling service</p>
<p>Signed by Physician Lead</p>	<p>Signed by Subcommittee Lead</p>

**For Summary (Final) Report Only*