

Using Silicone Mesh to Mitigate Forehead Pulse Oximeter-Related Pressure Injuries

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Background

- Pulse oximeter probes on the forehead are used to obtain O2 saturation readings
- Silicone mesh is used beneath wet-to-moist dressings and negative pressure wound therapy sponges to prevent adherence of the product to the wound bed
- Medical device-related pressure injuries (MDRPI) were occurring on the forehead despite rotating the probe *more* frequently than manufacturer guidelines

Methods

- Implemented application of silicone mesh under the forehead probe
- Monitored accuracy of pulse oxygenation readings before and after placement of mesh
- Continued to rotate pulse oximeter probe with mesh every 2 hours per unit protocol

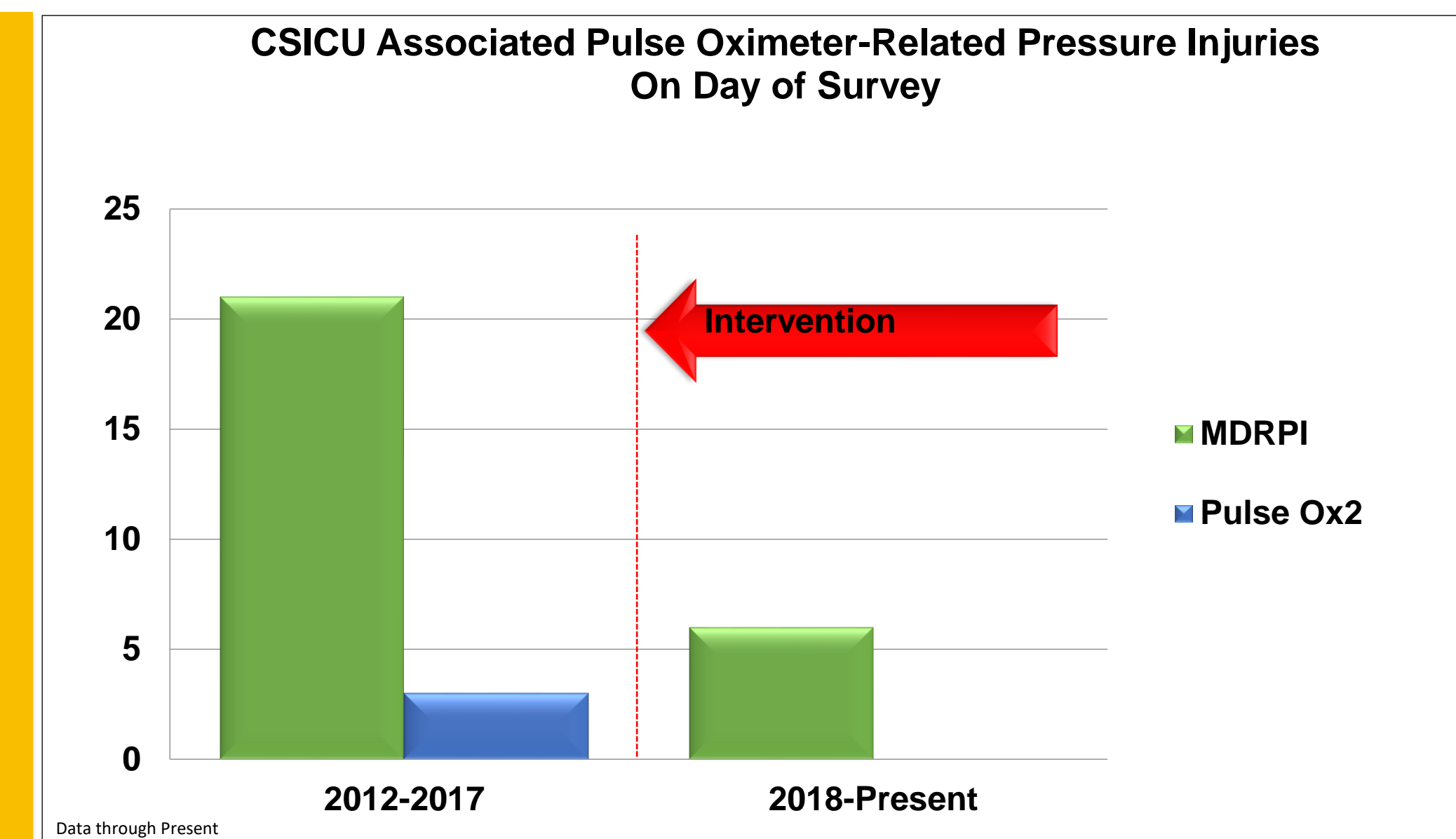
Results

- Application of silicone mesh under the forehead pulse oximeter probe eliminated this medical device-related pressure injury in the Cardiac Surgery Intensive Care Unit (CSICU)
- Pulse oximeter medical device-related pressure injuries were reduced from **11%** (2012-2017) to **0%** (2018- present) in the CSICU

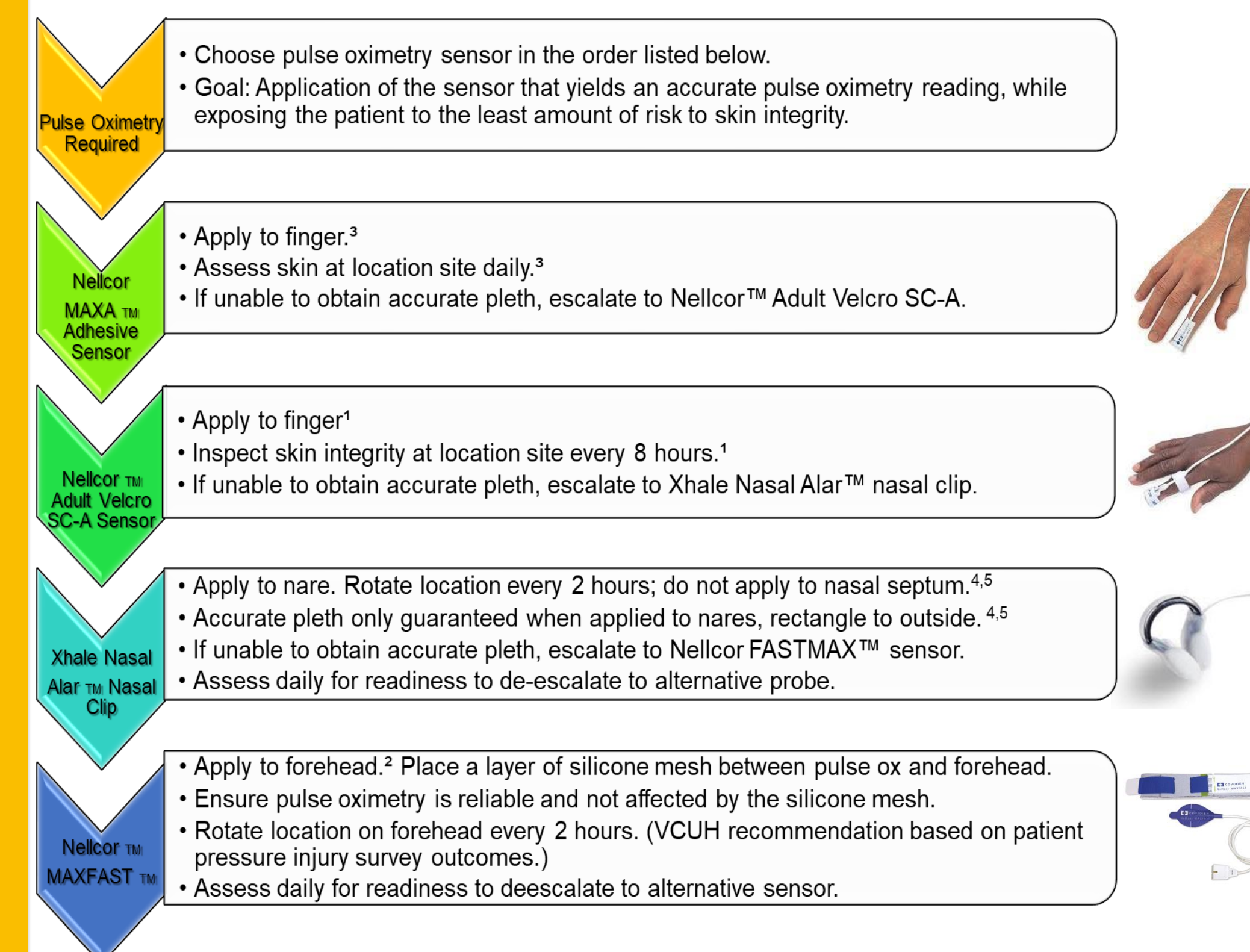
Silicone mesh barrier led to 100% reduction in forehead pulse oximeter related pressure injuries



Scholars Compass Link to Poster & Supplemental Material



VCU Pulse Oximetry Sensor Decision Tree*



* Above image is a portion of an internal reference document utilized by our ICUs which describes the process and product use at VCU Medical Center. No endorsement of these products is given..

