**PERIPHERAL EXTRACORPOREAL MEMBRANE OYGENATION CANNULA DRESSING AND SECUREMENT PRACTICES ACROSS AUSTRALIA AND NEW ZEALAND**

**Introduction:** Extracorporeal membrane oxygenation (ECMO) is a highly invasive method of cardiac and/or pulmonary support for critically ill patients where less invasive therapies have failed. Along with other factors, ECMO success relies on effective placement and securement of large-bore cannulae used in therapy delivery. Effective dressing and securement of ECMO cannulae and associated circuitry has an important role to play in preventing infection and accidental dislodgement. Limited data exists regarding peripheral ECMO cannula dressing and securement practice across Australia and New Zealand.

**Objectives:** To determine ECMO cannula dressing and securement practices, and adherence to local guidelines.

**Methods:** A prospective cross-sectional study of adult and paediatric patients receiving ECMO in 11 Australian and New Zealand intensive care units.

**Results:** Dressing and securement practices for 102 peripheral cannulae in 55 patients were described. Nearly half (47%) of cannulae were sutured at the insertion site. All cannulae insertion sites were covered with a transparent semi-permeable dressing, however only eight (7%) of these dressings containing chlorhexidine gluconate (CHG) or had a CHG-impregnated disk placed underneath. ECMO circuit tubing was typically secured by either one (19%) or two (59%) fixation points, however two cannulae had no securement along the tubing length. Securement methods for circuit tubing included sutureless securement devices (52%), adhesive bandage or tape (35%), and sutures (30%). The majority of cannulae and circuit tubing (>90%) were dressed and secured in accordance with local hospital policy.

**Conclusion(s):** The use of transparent semi-permeable dressings at ECMO cannula insertion sites is common practice however use of CHG-containing dressings/disks, demonstrated to reduce bloodstream infection rates in central lines, is rare. Further investigation is warranted to determine the role of CHG-impregnated dressings/disks in reducing ECMO cannula-related infections. Cannula and circuit securement practices vary indicating a lack of standardisation due to an evidence gap in this area.