



## Service Priorities and Programmes Electronic Presentations

**Convention ID:** 331

**Submitting author:** Miss Ngar Wan CHU

**Post title:** Advanced Practice Nurse, Prince of Wales Hospital

### **Building a Mobile ECMO Team to Provide Safe Transport and Life-Saving Therapy for Patients with Reversible Cardiac, Pulmonary, or Cardiopulmonary Failure**

*Wong HL C(1), Chu NW(1), Tam BS(1), Poon ST(1), Ho KM(1)*

*(1)Department of Anaesthesiology & Intensive Care Unit, Prince of Wales Hospital*

#### **Keywords:**

Mobile  
ECMO  
Team

#### **Introduction**

Patients with reversible cardiac, pulmonary, or cardiopulmonary failure in our cluster were transferred to our unit for ECMO therapy. These type of high risk inter-hospital transfer were delayed significantly due to hemodynamic instability & hypoxia (Gutsche & Vernick, 2015). In 2015, an Intensivist-led mobile ECMO program was set up and was designed to enable one doctor and two nurses to travel to an outside hospital, to place an unstable patient on veno-venous (V-V) or veno-arterial (V-A) ECMO, and safely transport the patient back to Prince of Wales Hospital. At the same time, our nursing team also established our nursing mobile ECMO team to join this program. In addition, we developed an ECMO Equipment & Consumables Checklist for Retrieval, in order to facilitate the preparation.

#### **Objectives**

1. To stabilize the patients with acute reversible cardiac, pulmonary, or cardiopulmonary failure
2. To implement early ECMO support to these patients
3. To provide safe transport and life-saving therapy for these patients

#### **Methodology**

1. Develop the nursing mobile ECMO retrieval team and set up WhatsApp group to facilitate the communication
2. Create the ECMO Equipment & Consumables Checklist for Retrieval in order to facilitate the efficient and effective preparation
3. During ECMO retrieval:
  - i. Prepare all equipment & consumables according to the checklist and then travel to the referral hospital with the ICU doctor
  - ii. After confirming ECMO therapy for the patient, then prime the ECMO circuit and assist doctor for line insertion
  - iii. Transfer the patient back to PWH ICU after setting up the ECMO therapy

## **Result**

### **Result:**

A total of four ECMO patients have been retrieved from other hospital since Sept. 2015 and these 4 patients benefited from the ECMO support. They can be weaned off ECMO support and be transferred back to their original hospital to continue their care management. Three of the four patients were discharged from hospital.

### **Conclusion:**

Retrieval ECMO service enables early life-saving ECMO therapy for patients with reversible cardiac, pulmonary, or cardiopulmonary failure. It also provides safe transport for these patients.

### **Reference:**

Gutsche J. T. & Vernick W. J. (2015). Building a Mobile ECMO Rescue Service. Society of Cardiovascular Anesthesiologists Bulletin, 14(3).