



ADVANCED RESPIRATORY CARE CENTRE SPECIALISES IN THE USE OF HFOT AND CPAP TO TREAT HYPOXIC PATIENTS

AquaVENT® FD140i Dual Therapy Gas Flow Driver

BACKGROUND

The Mater Misericordiae University Hospital is a level 4 teaching hospital in North Dublin. In addition to the local services for the catchment area, the Mater Hospital provides a range of frontline and specialist services on a regional and national level. It has over 700 beds and in 2022 treated almost 25,000 in-patients. The Critical Care Unit, consisting of ICU and HDU, treats 2,800 patients each year. One of the hospital's specialty clinical areas is ECMO and they are also a centre for patients in respiratory failure, receiving referrals from other units, with expertise in treating this patient type and the specialist weaning they require. The Mater has been using Armstrong Medical breathing circuits for almost 30 years due to the company's ability to deliver products in formats specific to their needs.

PROBLEM OR CHALLENGE

The ICU functions as an Advanced Respiratory Failure centre. They frequently use High Flow Oxygen Therapy (HFOT) but also have the need to provide Continuous Positive Airway Pressure (CPAP) as they see many patients where the issue is 'failure to oxygenate' with CPAP being a proven effective therapy for Hypoxia. They needed a system that was easy for nurses to use, provided both HFOT and CPAP allowing quick and easy transition between the therapies.

SOLUTION

The Mater introduced the AquaVENT® FD140 in 2016 as it was specifically designed to deliver HFOT and CPAP. AquaVENT® Flowkit circuits are used with the device. This makes it simple for nurses to transition between therapies without having to change devices or get a different circuit. They are used on hypoxic patients providing appropriate support while they recover sufficiently to satisfy their own oxygen requirements without support.

The hospital is now in the process of upgrading to the AquaVENT® FD140i which offers single increment precision for both oxygen percentage and flow rates, giving the clinicians complete control. It has an easy to see real time wave form graph of the patient's breathing which allows the clinical team to respond to their precise requirements. Combining a device designed to deliver HFOT and CPAP with circuitry that transitions easily between therapies provides control without complexity. It allows nurses to start the prescribed therapy quickly, monitor its effectiveness and focus more of their time and expertise on the patient.

BENEFITS AND OUTCOMES

The Mater Misericordiae now has 30 AquaVENT® FD140i devices and they 'use every one of them'. The nurses find the AquaVENT® FD140i highly effective in the delivery of HFOT and CPAP. The feedback from the nursing team has been very positive in respect to the device's ease of use. The aim of the hospital is to have an AquaVENT® FD140i available at every bedspace within the Critical Care Unit.



PROFILE

THE MATER MISERICORDIAE UNIVERSITY HOSPITAL

Dr Colman O'Loughlin
Consultant in Intensive Care
Medicine and Anaesthesia
**DEPARTMENT OF
CRITICAL CARE MEDICINE**

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It is hard to remember when a new piece of equipment was so readily adopted by a large body of staff.

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