

7.19 New Non-Invasive Ventilation Protocol for Acute Hypercapnic Respiratory Failure in COPD.

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Acute hypercapnic respiratory failure (AHRF) in patients with chronic obstructive pulmonary disease (COPD) carries a high mortality. Non-invasive ventilation in conjunction with standard medical treatment has been shown to significantly reduce this mortality. One in five patients presenting to hospital with an acute exacerbation of COPD will develop AHRF. A quality improvement project was undertaken to create a protocol for patients receiving non-invasive ventilation for AHRF presenting to the hospital. The protocol was developed in conjunction with the respiratory, emergency and critical care departments using best available evidence. A pilot protocol was initially trialed before the final protocol was implemented. The aim was to create a user-friendly document to improve outcomes as measured by the British Thoracic Society Audit toolkit. Audit data from pre-final protocol (2019 to 2021 n= 30) to post protocol implementation (n =7) demonstrated a relative improvement in outcomes of target oxygen saturations, early post NIV arterial blood gas measurement and overall success of NIV of 80%, 43% and 20% respectively. These are encouraging early results and the focus will be on continued audit and training of hospital clinical staff in use of the protocol.

Conflict of Interest: None to declare