



## Service Priorities and Programmes Electronic Presentations

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### **A Discharge Bundle Approach to Improve Process of Care in Acute Exacerbation of COPD in Caritas Medical Centre**

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#### **Keywords:**

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#### **Introduction**

A bundle is a straight forward set of evidence based clinical interventions or actions, which when performed reliably improves the process of care and patient outcomes. It is a cohesive unit where all elements must be completed to achieve the best outcomes. A bundle for management of acute exacerbation of COPD (AECOPD) at discharge was developed by the British Thoracic Society and NHS. It includes 5 elements of quality care: 1. Inhaler technique had been checked by respiratory nurse and medications reviewed by respiratory specialist. 2. Rescue drug pack, if appropriate, was in place. 3. Smoking status and assistance to quit where appropriate. 4. Suitability for pulmonary rehabilitation program (PRP) had been assessed and PRP offered, if appropriate. 5. Arrangement of respiratory specialist follow-up or phone follow-up within 72 hours of discharge. This COPD discharge bundle was firstly implemented in WS 13 A, an acute medical ward (bundle ward) in Caritas Medical Centre (CMC) in mid-September 2015.

#### **Objectives**

To see if COPD discharge bundle can improve process of care.

#### **Methodology**

It is a retrospective study comparing the likelihood of receiving COPD discharge bundle elements and the whole bundle in patients admitted for AECOPD to the bundle ward to those admitted to a control acute medical ward without COPD discharge bundle (non-bundle ward). Patients in the non-bundle ward would only receive enhanced respiratory nursing support including inhaler technique assessment & teaching, smoking status assessment and PRP introduction if appropriate.

#### **Result**

From September 16, 2015 to October 17, 2015, 26 admission episodes for AECOPD were identified in the bundle ward while 32 admission episodes were identified in the control non-bundle ward. The patients in the bundle ward were more likely to receive individual bundle elements including medication review by respiratory specialists (92% vs. 19%,  $p < 0.001$ ); rescue drug pack assessment (100% vs. 0%,  $p < 0.001$ ) and respiratory specialist follow up or phone follow up (92% vs. 47%,  $p < 0.05$ ). The

completion rate of the whole bundle in the bundle ward and non-bundle ward were 88% and 0% respectively. In addition, more patients in the bundle ward were newly arranged follow up in respiratory clinic (42% vs. 0 %,  $P < 0.01$ ) Conclusion: Implementation of COPD discharge bundle improves the process of care in acute exacerbation of COPD.