



# HOME NON-INVASIVE VENTILATION SERVICE FOR PATIENTS WITH CHRONIC RESPIRATORY FAILURE

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## INTRODUCTION

There is increasing use of Non-Invasive Ventilation (NIV) in the management of patients with chronic respiratory failure such as Chronic Obstructive Pulmonary Disease (COPD). It was estimated that patients requiring home mechanical ventilation was 2.9 per 100,000 populations in 2004 in Hong Kong. Most of them (94.8%) were treated by NIV. These cases usually are relatively high risk for healthcare utilization with complex needs. A Home NIV program has been established in a district hospital to provide transitional and continuous care for these patients from hospital setting to community setting since 2005.



Team members of the Home NIV Service

## OBJECTIVES

To establish a mechanism in place to ensure the coordination and continuity of care for patients requiring home NIV

## METHODOLOGY

The enhancement program provided more structured, proactive and specialized NIV service to meet patients' needs and, empower the patients and their carers on how to self-care with NIV support at home. Qualified Respiratory Nurses were assigned to be the primary nurse and associate primary nurse to coordinate the care and empowerment for self-care management of the patients. The key components of the service include patient registry, primary nurse model, comprehensive assessment with holistic approach, clinical pathway, patient and carer empowerment, accredited respiratory nurse clinic consultation, quality assurance and 24-hour hotline.



## RESULTS

A mechanism has been established in place to ensure coordination and continuity of care for the patients requiring home NIV from hospital to community. There had 145 patients been recruited since 2005. They were severe to very severe COPD patients. The gender ratio was 3.45 to 1 (114, 78.62% of male and 33, 22.75% of female) with mean age of  $72.4 \pm 10.97$ . They were under care of designated qualified respiratory primary nurses according to approved protocol. Individualized empowerment program was provided for each patient and their carer in order to make them competent and confident to care themselves in the community with appropriate support. The average length of stay of the episode, when they received the service, was 11.48. The provision of accredited Respiratory Nurse Clinic and 24-hour hotline since November 2009 could improve their health access.

## CONCLUSION

The home NIV service could provide holistic, continuous and cost-effective care for the patients requiring home NIV support with complex needs from hospital to community. It could reduce avoidable healthcare utilization of these patients.



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