Experience of Oxygen Therapy Clinic (OTC) in North District Hospital

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**Introduction**

Oxygen is a therapeutic treatment for hypoxia. Hence, there is a need for accurate dosage prescription and usage monitoring. Long term oxygen therapy (LTOT) is now widely prescribed for chronic respiratory failure patients in the home setting. Although LTOT is usually initiated in hospital, monitoring of LTOT compliance and patients’ response is insufficient. Recommendations from international guidelines emphasize the importance of reviewing LTOT usage at two to three months after discharge when disease is stabilised. To address this service gap, an Oxygen Therapy Clinic (OTC) was set up by Physiotherapy Department to provide ongoing LTOT usage monitoring.

**Objectives**

1. Monitor LTOT compliance and patients’ response
2. Provide timely professional instructions to patients and caregivers

**Methodology**

Patients with LTOT initiated during hospitalization were reviewed three months after discharge. For those with suspected poor compliance or nocturnal breathing problems, telemonitoring would be arranged. At OTC, exertional oxygen demand during six-minute walk test and ambulatory oxygen device usage would be assessed. Oxygen flow rate was titrated when indicated.

**Result**

From May 2016 to Jan 2017, 38 patients were prescribed LTOT before discharge. Thirteen patients (38%) died before evaluation, 54% of whom were diagnosed to have lung cancer. Two patients defaulted follow-up and one could not be contacted. The remaining 22 (57%) were evaluated in OTC. Average daily oxygen usage was 18.8 hours. Pulse oximetry telemonitoring was performed for four (18%) patients. Three required oxygen flow rate titration for desaturation. Ten (46%) patients did not use ambulatory oxygen device. To enhance their outdoor activity level, six patients
underwent trials with portable oxygen concentrator (POC). Two patients finally received POC while two were awaiting funding application. Caregiver education was given to 11 (50%) patients. Commonest problems encountered were related to ambulatory oxygen device usage. In total, seven (32%) patients required an increase in oxygen flow rate.

Conclusion
A significant number of hospitalized patients prescribed with LTOT had terminal disease. Problems with ambulatory oxygen usage were prevalent. OTC not only served to provide refresher education to patients and caregivers but also facilitated adjustment of oxygen flow rate when patients’ condition changed after discharge.