patients often reside outside of formal health-care environments. Tracheostomy tubes generally need to be changed monthly. Our unit undertakes the majority of tube changes in the patient's home. There are little data evaluating the safety of this procedure outside of the hospital.

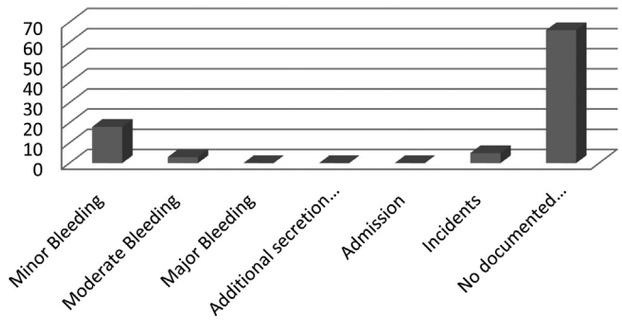
Method We conducted a retrospective review of domiciliary tracheostomy tube changes on ventilator dependent patients. Concurrently all HMV-UK network centres were sent a basic electronic survey. Data collection took place during December 2014.

Results E-Surveys were sent to 37 centres. Responses were received from 12 (32%). 75% (n = 9) of those responding undertake the majority of tracheostomy changes in the community, 1 centre brings patients into hospital. 2 others do not routinely manage T-HMV patients. Tube changes undertaken at home, are frequently but not exclusively completed by trained professionals including care support workers. 5 areas reported that family members undertake some domiciliary tube changes.

The notes of 11 ventilator dependent T-HMV patients were reviewed. Each patient had a mean 9.2 domiciliary tube changes undertaken by the respiratory outreach team. 72% (n = 66) of changes took place without complication or incident. Of the 26 changes which had documented complications, 69% related to minor bleeding only, 3 described moderate bleeding. 5 changes were associated with incidents. 3 of these related to difficulty inserting a new tube with 1 patient requiring a smaller diameter replacement tube. 1 patient, erroneously, had a wrong diameter tube inserted, this was not replaced as the patient found it more comfortable and continued to ventilate effectively. 1 change was associated with loss of speech for 24-hours post procedure. Nobody was admitted or harmed as a direct result of a tube changed at home.

The notes of a further patient were reviewed. Approximately 50 domiciliary tube changes were undertaken by her brother without supervision or involvement of health care workers. There were no documented complications or admissions as a result of these changes.

Conclusion Domiciliary tracheostomy tube change by trained personnel on ventilator dependent patients is safe and effective.



Abstract P193 Figure 1 Chart detailing the outcome of 92 domiciliary tracheostomy changes on ventilator dependent patients

P194 INPATIENT ADJUSTMENT OF SUB-OPTIMAL HOME MECHANICAL VENTILATION (HMV) – AN EFFECTIVE USE OF RESOURCES?

F Frost, B Al-Hakim, S Wordingham-Baker, V Ford, H Ashcroft, K Ward, R Parker, B Chakrabarti, R Angus, N Duffy. *Ventilation Inpatient Centre, Aintree University Hospital, Liverpool, UK*

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Introduction HMV can be initiated and monitored as either inpatient or outpatient. There is little evidence for best practice in this field and inpatient ventilation beds are a scarce resource. We evaluated patients, with sub-optimal HMV, admitted to our tertiary unit for adjustments to consider whether these admissions were successful, and hence an effective use of resources.

Methods Patients were identified from our ventilation unit's database. Notes, oximetry and ventilator download from pre-admission, pre-discharge and post-discharge were retrospectively analysed.

Results In a 6-month period (June–December 2013) 30 patients were admitted to our unit for adjustments of HMV. 43% were female. Obesity related sleep disorder formed the majority of underlying conditions (53%), with musculoskeletal deformities (20%) and neuromuscular conditions (10%) also frequently seen. Median length of stay was 2 days. HMV was discontinued during admission in 2 cases in line with patient wishes.

19 (63%) were deemed to have had successful admissions, defined as normalisation of at least one abnormal ventilation parameter (pCO_2 >6.0, desaturations >14/hr, time below 90% of >30 min, mean saturations of <88%, usage >6 hrs, leak <50 L/min). Of the 19 successful admissions, 6 showed sustained improvement post-discharge. 11 (37%) admissions were deemed unsuccessful, poor baseline usage and missed outpatient appointments were observed in this group. Noteworthy improvements were made to oximetry parameters during admission, although not all of these were maintained post-discharge (Table 1).

Abstract P194 Table 1

N = 30	Oximetry		
	Desaturations >14/hr	>30 mins <90%	Mean saturations <88%
Pre admission	8 (27%)	23 (77%)	9 (30%)
Pre discharge	2 (7%)	6 (20%)	3 (10%)
Post discharge	4 (13%)	18 (60%)	2 (7%)

Ventilator leak and usage information was available for 22 (73%) patients. Excess leak (50 >L/min) was seen in 10 patients pre-admission, only 1 patient had excess leak post-discharge. Pre-admission usage of <2 h/night was seen in 6 patients, only 1 showed sustained improvement in usage. 8 patients were admitted with usage of 2–4 h, 4 improved post discharge usage to >6 h and only 1 showed deterioration in usage.

Conclusion Admitting patients for adjustments to HMV can improve ventilation parameters yet only some of these improvements are maintained after discharge. There appears to be a subset of patients who do not benefit from inpatient admissions, particularly patients with poor baseline usage. We suggest careful selection of patients to ensure effective use of limited resources.

P195 DEMOGRAPHICS AND OUTCOMES OF NIV IN MND: A FRONTLINE PERSPECTIVE

K Ward, V Ford, H Ashcroft, S Wordingham-Baker, B Chakrabarti, N Duffy, R Angus, R Parker. *Liverpool Centre for Sleep and Ventilation, Liverpool, UK*

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