

S40 SURVIVAL IN DOMICILIARY NIV. AN OBSERVATIONAL COHORT STUDY OVER A 9-YEAR PERIOD

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Introduction Long-term domiciliary NIV is increasingly used for patients with chronic respiratory failure, typically due to neuro-muscular disease, sleep-disordered breathing/obesity hypoventilation, obstructive lung disease (COPD) and restrictive lung disease. The benefit of domiciliary NIV in patients with neuro-muscular disease is well established, and recent evidence of the prognostic benefit in COPD may lead to increased use of home NIV in this group. Here, we intended to analyse and compare the indications for NIV, patient demographics, mode of NIV initiation (elective or emergency admission) and mortality in a cohort of patients newly-started on NIV over a 9 year period.

Methods A retrospective observational cohort study was performed using data collected between 2007 and 2015 in a single-centre teaching hospital. Patients newly started on domiciliary NIV were screened using electronic patient records and departmental NIV databases. Patients commenced on NIV for chronic respiratory failure were included, whilst cases under 18 years of age and in whom NIV was supplied for other indications (e.g., sputum clearance) were excluded. SPSS was used for analysis.

Results 311 cases were included, of which there was a slight majority of males (56.3%). 50.2% of patients were diagnosed with a neuro-muscular disorder (mean age of 61.6 years); 35.7% of as sleep-disordered breathing/obesity hypoventilation (mean age 56.4 years), 12.2% as COPD (mean age 62.7 years) and 1.9% of cases were established as restrictive lung disease (mean age 54 years). We found that 76.3% of COPD patients were set up acutely, whereas 73.7% of patients with neuromuscular disorders were established electively on NIV. In total, 58.1% of cases were elective starters; 49.4% patients commenced electively died within 12 months. Regression analysis indicated a significant effect of year on mortality ($p=0.002$). Chi-square testing showed no association between initiation mode and gender ($p=0.405$).

Conclusions We demonstrate that domiciliary NIV use is particular high amongst neuro-muscular patients. Survival of patients on domiciliary NIV has improved in this single centre, and is associated with year of initiation, but mortality at 12 months is unchanged.

S41 TRACHEOSTOMY VENTILATION IN MOTOR NEURONE DISEASE: A MULTI-CENTRE REVIEW

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Introduction and Objectives Little data exists regarding use of tracheostomy ventilation (TV) in patients with motor neurone disease (PwMND). NICE 2016 does not provide guidance for use of TV. Some centres offer TV as a treatment option. Data suggest TV in PwMND can prolong life and is more readily accepted by young males. It is hypothesised that starting TV

in PwMND is intrusive to quality of life and leads to unacceptably, long hospital stays.

Methods 4 HMV centres obtained data by retrospective case-note review of patients set-up on TV as a consequence of MND between January 1998 and December 2016.

Results 38 patients (26 male) were included. Average age at tracheostomy was 59.3 (range 26–78). 79% ($n=30$) of patients had emergency tracheostomy v 21% elective. 76% ($n=23$) of emergencies were related to acute illness requiring intubation. 75% ($n=6$) of those who elected for TV wanted to live as long as possible or were struggling with continuous use of non-invasive interfaces, all of these lived with a partner or parent. 41% were managed on respiratory wards for the majority of the inpatient stay. After commencing TV, mean length of stay was 7 weeks for those admitted electively v 18 weeks as an emergency. 2 patients died in hospital. 71% were discharged to their own home. Majority of home care was undertaken by skilled carers (22 hrs/day) rather than Registered Professional (1.8 hrs/day). 3 patients were weaned, 1 successfully. Mean length of life post TV was 3.7 years (range 0–15 years), with longer life expectancy in the elective group (5.1 years). A total of 52% patients died during the time-frame. 45% of deaths were unexpected the rest expected or planned withdrawal.

Conclusion TV in PwMND could be associated with increased length of life. In keeping with published data there appears to be a high incidence of unexpected death. PwMND and TV tend to be discharged to their own home with skilled carers. Length of hospital stay for planned admission is not long as is anecdotally suggested. Further work, including detailed nationwide audit, national ventilation registry and national guidance may be helpful.

New insights in bronchiectasis

S42 SEX DIFFERENCES IN REPORTED QUALITY OF LIFE IN BRONCHIECTASIS: AN ANALYSIS OF THE EMBARC REGISTRY

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Introduction Bronchiectasis is a chronic disease with a major impact on Quality of Life (QoL). As part of the EMBARC European Bronchiectasis Registry patients complete a Quality of Life-Bronchiectasis (QoL-B) questionnaire annually. The QoL-B has been validated and is widely used to give a comprehensive picture of the QoL across different aspects of patient's lives. Bronchiectasis is more common in females but sex differences in disease impact have not been explored.

Methods The EMBARC registry is a prospective observational study of adult patients with clinically significant bronchiectasis from 27 European countries. Baseline QoL-B questionnaires were analysed cross-sectionally using multiple linear regression to identify independent determinants of QoL across the 8 domains.