Methods Comparison of the volume of new domiciliary NIV set-ups and the elective NIV set-up rate over three 12-month periods: Apr 2005-Mar 2006 (period 1), Apr 2011-Mar 2012 (period 2) and Apr 2012-Mar 2013 (period 3) in a dedicated 11-bedded ward-based NIV unit (established: Aug 2004) in a 1000-bedded central England teaching hospital trust, providing domiciliary NIV support to over 260 patients with over 392 under surveillance for respiratory failure.
Results The volume more than doubled from 19 new domiciliary NIV set-ups in period 1 to 39 new domiciliary NIV set-ups in period 2; to 64 set- ups in period 3. The elective domiciliary NIV set-up rate increased from 7/19 (36.8%) to 19/39 (48.7%) to 30/64 (46.9%) for periods 1, 2 and 3 respectively [Figure 1].
Discussion We have previously shown that the elective set-up rate for new HMV has gone up in our unit. In this survey we have shown that this increase in 'elective set-up rate' is associated with a consistent increase in volume of HMV set-ups. This is most likely to be due to an increased number of people at risk of respiratory failure coming under the unit's surveillance. HMV is well known to improve quality of life and reduce unscheduled care utilisation when started at the appropriate timepoint in chronic ventilatory failure through surveillance. Comparison of data between centres supervising domiciliary NIV/HMV, e.g 'elective set-up rates', is warranted in this rapidly evolving field.

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P176 INDICATIONS AND DEMOGRAPHICS OF DOMICILIARY NIV SET-UPS IN AN ACUTE HOSPITAL

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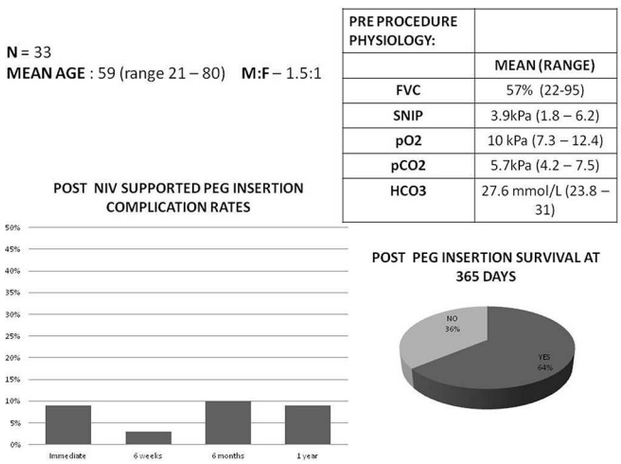
Background Domiciliary NIV is being increasingly used to treat chronic ventilatory failure but there is little site-level data available describing the demographics of patients on domiciliary NIV under centres which have developed over the last decade. At our central England teaching hospital, domiciliary NIV is either set up following an acute admission with hypercapnic acidotic respiratory failure through the dedicated 11-bedded ward-based unit or electively, through the surveillance of patients at risk of ventilatory failure. Currently we have 262 patients on domiciliary NIV. We aimed to analyse the primary diagnosis and demographics of patients started on domiciliary NIV in the last 18 months.
Method A retrospective analysis of all patients started on domiciliary NIV at a 1000-bedded central England teaching hospital from 01 Jan 2012 to 30 June 2013.
Results A total of 90 patients were analysed and there was a slight male predominance (55.5%). The mean age at initiation of domiciliary NIV was 56.3 years (SD 18.9, median 52.5 years). Primary diagnoses (reason for domiciliary NIV) were 1.neuromuscular disorders (35.5%); 2. obesity-related disorders (33.3%); 3. COPD (13.3%); 4. thoracic cage disease other than obesity (15.6%) and 5. central pathology (2.3%). Of the COPD patients, 7/12 (58.33%) were GOLD class 4, 4/12 (33.33%) were GOLD class 3 and 1/12 (8.33%) were GOLD class 2. The mean domiciliary NIV set-up per month was 4.68 (SD 3.16). There was no clear relationship between number of set-ups per month and corresponding calendar month; 22.2% patients (20/90) had long term oxygen therapy prescribed with their NIV.
Discussion The role of domiciliary NIV is expanding with greater numbers of people living with chronic ventilatory failure, and this is set to increase with the rising problem of (a) obesity-related respiratory disorders and (b) improved survival of children with neuromuscular weakness. This study highlights the need for a domiciliary NIV registry for improved resource and workforce planning.



Abstract P177 Figure 1.

P177 ARE NIV SUPPORTED PEG INSERTIONS (NSPI) IN PATIENTS WITH NEUROMUSCULAR DEGENERATIVE DISORDERS (NMD) SAFE AND EFFECTIVE?

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Introduction Patients with NMD's suffer from feeding difficulties and respiratory failure which worsens prognosis. A survival advantage with PEG feeding has been suggested in case reports but there are concerns regarding safety and complications in this high risk group in or at risk of ventilatory failure. We have therefore reviewed the outcomes of NSPIs in our tertiary teaching hospital.
Methods 33 NSPIs were identified upto 2012. Disease background, baseline lung physiology, NIV use, peri-procedure details, complications and survival at 365 days were analysed. A subset analysis examining bulbar vs. non bulbar MND, baseline FVC and NIV use against survival at 365 days was also carried out.
Results 33 patients with NMD (MND 79%, DMD 9%, Myotonic Dystrophy 6%, others 6%) were included. Mean age was 59 (range 21–80). Mean pre-procedure FVC was 57% (22–95), SNIP was 3.9kPa (1.8–6.2kPa). Mean pre-procedure pO_2 was 10kPa (7.3–12.4), pCO_2 5.7kPa (4.2–7.5) and HCO_3 27.6mmol/L (23.8–31). 52% were previously on NIV. Mean pre-procedure NIV settings were IPAP 18cmH20, EPAP 3cmH20. Mean post procedure settings were 19 and 3cmH20 respectively. 11% needed supplemental oxygen for a short period post procedure. Sedation was used in 95% and no medical reversals were needed. Complication rates were 9%, 3%, 10% and 9% (immediate, 6 weeks, 6 months, 1yr) respectively. Of those who were