there were 11 Grade 2 pressure ulcers from 109 admissions; in period2 there were 5 pressure ulcers from 105 admissions. Benefits of using total face masks for NIV delivery were also noted with those patients who were poorly complaint with the standard NIV full face mask to prevent treatment failure.

Conclusions An early prophylactic pressure-relieving dressing and a reactive change to a pressure-avoidance mask for identified Grade 1 pressure sore, can reduce the chance of developing Grade 2 pressure ulcers for patients using NIV acutely. Further studies including longitudinal data on a proactive prevention approach adjusted for acute NIV duration for NIV-related nasal bridge pressure ulceration are needed to confirm the utility of this approach.

P74 NON-INVASIVE VENTILATION DELIVERED ON A STANDARD RESPIRATORY UNIT COMPARED TO USE IN LEVEL 2 CARE SETTING: IS THERE AN IDEAL SERVICE DELIVERY MODEL?

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Introduction BTS guidelines recommend Non-Invasive Ventilation (NIV) should take place in a clinical environment with enhanced monitoring, predicting 20% of all cases may need level 2 or 3 care.[1] However, current practice varies between and within NHS organisations. A management led service change within our Trust in 2013 enabled us to test the null hypothesis that there is no significant difference in mortality of COPD patients requiring NIV on an open respiratory-led unit (level 1 care), compared to a closed, anaesthetist led Level 2 setting (PCU, Progressive Care Unit).

Methods An electronic search was performed to find patients on PCU whom received NIV between 1st January and 30th November 2014. Inclusion criteria were patients that had received NIV for COPD exacerbations solely. Data from the physician led respiratory unit between Jan–Nov 2011 was prospectively collected, and the two datasets compared.

Results In the respiratory unit 75 patients were admitted for NIV of which 54 met the criteria for inclusion in the analysis. In the PCU group 110 patients were admitted between Jan–Nov 2014. of which 55 were included for analysis.

Samples were matched in gender, with no significant difference between groups. The average age of patients treated in PCU was 69.8 years, and 74.4 years on the respiratory unit, which is statistically significant (Mann-Whitney U Test, $p = 0.012$). The mortality on PCU was 27.2% compared to 20.4% on the respiratory unit, which was not statistically significant. Mean pH on PCU was 7.33 compared to 7.24 on the respiratory Unit, which is statistically significant. Mean pCO_2 was 10.06 on PCU, and 10.5 on the respiratory unit, which is statistically significant. Average length of stay of ward patients was 15 days, compared to 11.4 days on PCU, which was not statistically significant.

Conclusions NIV delivered on a physician-led respiratory unit was not inferior in mortality and length of stay compared with a closed, ITU-led service. Interestingly we found a significant difference in age of patients being treated with NIV, with significantly older patients receiving this on ward with no difference in overall mortality.

REFERENCE

1 BTS Guidelines Management of AHRF 2016. http://www.brit-thoracic.org.uk

P75 PATIENT EXPERIENCE OF NON-INVASIVE VENTILATION: A QUALITATIVE STUDY

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Introduction Non-invasive ventilation (NIV) is an effective treatment for acute type 2 respiratory failure, often avoiding intubation and improving mortality. However many patients struggle to tolerate NIV. There is limited understanding of patients' or their relatives/carers subjective experience of NIV. As good patient experience is increasingly recognised to reflect high-quality care we conducted an in-depth experience-based questionnaire aiming to identify key concerns of patients, and their relatives/carers, treated with NIV, which would reflect potential targets for service improvement.

Method In a qualitative, exploratory study patients started acutely on NIV were identified. Patients and relatives/carers completed a questionnaire with both free text and Likert style responses. Data were analysed using thematic analysis.

Results 20 questionnaires were completed (15 patients, 5 relatives). From the responses we identified key themes. Emotional responses were positive and negative. Positively - all patients and carers felt that NIV had helped. However whilst *all* carers would wish their relatives to have NIV again, 2 of the patients felt they would not. Negative emotional responses were related to fear and anxiety of NIV. A significant theme emerged surrounding the physical discomfort of NIV. Descriptions of NIV are represented in Figure 1. Patients and relatives identified that negative feelings were partly due to lack of understanding. Only 9 patients felt that they were involved in decision making and only 6 felt that NIV had been adequately explained. 11 patients and all relatives felt that written information would be beneficial. Finally a further theme described different levels of competence between staff and across wards and the varying degrees of feeling safe that this created.

Conclusion This study enabled us to identify key areas to address when considering quality improvement for NIV service delivery. Whilst our sample size is small, and biassed towards survivors, the themes are strong and add significantly to the available literature. Some aspects of NIV are non-modifiable however focus on patient involvement and experience to provide high-quality care may facilitate improved experience and outcomes. We aim to address these points by expanding on this work in an experience-based co-designed project, funded by CLAHRC.

Abstract P75 Figure 1 Word-cloud to represent patient experience of NIV (n = 15 patients, 5 relatives). (Size of word is proportional to the frequency of use of word in response to being asked to describe NIV, Black association with negative experience grey with positive).

P76 INITIATION OF LONG-TERM NON-INVASIVE VENTILATION (NIV) IN A SPECIALIST RESPIRATORY FAILURE UNIT IN THE UK

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Introduction and objectives There are currently no guidelines for the provision of long-term NIV and little data into the settings and interfaces employed by different centres. Our aim was to assess long-term NIV provision in a Specialist Respiratory Failure Unit (SRFU).

Methods A retrospective observational study was performed of all patients commenced on long-term NIV by the SRFU. Data was collected from electronic patient records and technician databases on all initiations from August 2014 to January 2015.

Results Data was obtained from 113 patients. Oronasal masks were used in 87% of patients, nasal pillows in 10%, total face masks in 2% and nasal masks in 1%. Oronasal masks were used to deliver higher inspiratory positive airway pressures (IPAP) (mean ± SD 23.3 ± 5.3 cm H_2O). Nasal interface use was associated with lower IPAPs (mean ± SD 12.5 ± 4.5). A relatively higher IPAP was applied at initiation to the study group (mean ± SD 22.3 ± 6.2 cm H_2O) but this varied according to diagnosis; patients with obstructive sleep apnoea (OSA), chronic obstructive pulmonary disease (COPD) and motor neurone disease (MND) received a mean ± SD IPAP of 24.3 ± 5.4 cm H_2O, 23.4 ± 4.2 cm H_2O and 12.4 ± 3.6 cm H_2O respectively.

Conclusions Oronasal masks were predominantly used reflecting the frequent application of IPAPs above 20 cm H_2O as high pressures are poorly tolerated with nasal interfaces. High mean IPAPs were used in OSA and COPD patients, whilst lower IPAPs were administered to MND patients. No guidelines exist for long-term NIV use, with practice on the SRFU differing from the British Thoracic Society's guidelines on acute NIV that recommend a "pressure target" of 20 cm H_2O (Royal College Of Physicians et al. Concise Guidance to Good Practice Series, 11). However, the relevance of these guidelines to long-term NIV provision is unclear, and the lack of data has impeded the development of specific guidance. A database of patients receiving long-term NIV in the UK would facilitate research and the formulation of evidence-based best practice guidelines.

P77 EXPERIENCE OF A JOINT PALLIATIVE AND RESPIRATORY CLINIC ON NIV TREATMENT INITIATION IN MOTOR NEURONE DISEASE

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Introduction Signs and symptoms of ventilatory failure are a proxy for disease progression in Motor Neurone Disease (MND). Recent National Institute for Health and Clinical Excellence (NICE) guidance for MND recommends early referral to specialist palliative care (NICE, 2016) and this may help inform patient decisions around the initiation of non-invasive ventilation (NIV)

A service evaluation was conducted on a new joint palliative and respiratory clinic to determine access to specialist palliative care and the initiation of NIV in MND patients.

Methodology The joint palliative care and respiratory clinic began in September 2015, at Musgrove Park hospital, Taunton and all patients with MND were included. Electronic records were retrospectively accessed, both from the acute hospital electronic document system (EPRO) and also the palliative care database (Crosscare). The joint clinic group were compared with patients discussed in the local MND multi-disciplinary team meeting prior to initiation of the joint clinic, who had respiratory symptoms (standard care group).

Results Data was collected in 35 patients with MND. Of these, 9 did not have any respiratory symptoms and were excluded. The joint clinic group (N = 11), included 5 women (45%), mean age 67.9 (SD 8.9); in the standard care group (N = 15) there were 7 (47%) women, mean age 69.2 (7.6) years. Eighty percent of patients receiving standard care were referred to palliative care compared to 100% in the joint clinic. In the standard care group, 12 (80%) of patients were initiated on NIV compared to 5 (45%) in the joint clinic group. There were only 3 unplanned admissions in both groups and the location of patient deaths were not different.

Conclusion Attending the joint clinic appeared to improve access to palliative care services. Furthermore, patients with MND may benefit from combined palliative and respiratory care input in a joint clinic when making decisions around the initiation of NIV. Further work is needed to evaluate the role of these clinics in informing patient choice for the management of ventilatory failure in this condition.

REFERENCE

1 National Institute for Health and Care Excellence. Motor Neurone Disease: assessment and management. https://www.nice.org.uk/guidance/ng42?unlid=3630474112016629201321 (accessed July 2016).

How can we improve lung cancer pathways?

P78 TACKLING EMERGENCY LUNG CANCER ADMISSIONS

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