P199 DOES AVERAGE VOLUME ASSURED PRESSURE SUPPORT (AVAPS) VENTILATION IMPROVE SAFETY IN MOTOR NEURONE DISEASE?

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Average volume-assured pressure support (AVAPS) is a novel way to deliver NIV. In this mode, a target tidal volume is set, and the device adjusts the pressure support to reach that volume. A particular potential benefit is that it may adapt to disease progression, as in patients with progressive Motor Neurone Disease. NICE guidance (2010) recommend follow up every 3 months. We propose to investigate if this new technology improves safety during the initial period of ventilator support.

Aim

1. To identify the trend in pressure support and hours of use of AVAPS ventilation in patients with ventilatory failure due to MND.
2. Look at compliance and tolerability on patients with AVAPS.

Methods Retrospective review of case notes and downloads from the ventilators of 6 patients identified to have started on AVAPS due to ventilatory failure secondary to MND. Average AHI, IPAP, EPAP, hours of use, compliance during first three months were reviewed.

Results There was no significant change in IPAP (Mean 14.78 at 1 month, 14.98 at 3 months) or EPAP (5.91 at 1 month, 6.57 at 3 months). Average use (6 hrs 44 min at one month rising to 8 hrs 48 min at three months) and compliance (percent greater than 4 h 77.6% at 1 month to 89.5% at 3 months) did show positive trends but did not reach significance.

Abstract P199 Table 1 Summary of NIV usage

	Month 1	Month 3
N	6	6
AHI	6.98	4.8
IPAP	14.78	14.98
EPAP	5.91	6.57
Avg use	06:44	08:30
Avg hrs when using	06:44	08:48
% >4hrs	77.6	89.5

Conclusions This study shows an increase in average hours of use and compliance in the first 3 months of use. Tidal volumes and pressure support remain preserved. This initial data would suggest no benefit in providing the more expensive AVAPS machine compared to standard BiPAP S/T mode. Larger prospective studies looking at disease progression and ventilation usage in MND are warranted.

P200 DOMICILIARY NOCTURNAL NIV IN COPD – STILL CONTROVERSIAL?

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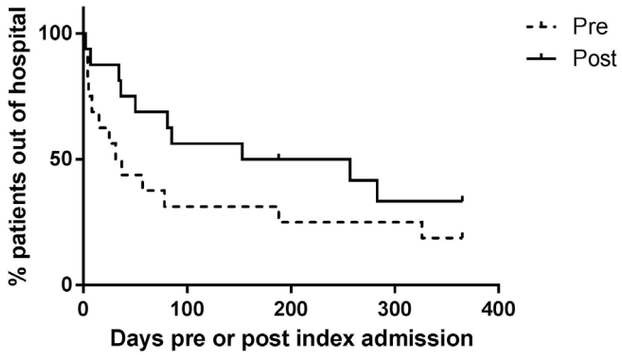
Introduction Despite strong evidence for the use of Non-invasive ventilation (NIV) in acute exacerbations of COPD resulting in decompensated type 2 respiratory failure (T2RF), the evidence for the long-term use of nocturnal NIV to prevent readmission or improve survival is controversial and has often been contradictory. Therefore clinicians are faced with the difficult question of what to do with COPD patients who are admitted with severe exacerbations requiring NIV and are considered at high risk of future decompensation. We hypothesised that domiciliary nocturnal NIV, established following an acute admission with decompensated T2RF delayed readmission.

Methods We performed a retrospective case note analysis of patients started on domiciliary NIV following acute admission to a busy central London acute trust. Indication for NIV and success of treatment were assessed. Time between admissions prior to establishing domiciliary NIV and time to 1st readmission were compared.

Results 18 patients were identified from our database. (2 were excluded: 1 returned their machine immediately, the other never attended for any follow-up at our hospital.) To our knowledge the patients were not admitted to other hospitals in the year pre or post the index admission – the admission at which NIV was initiated. The mean age of the 16 remaining patients was 70 ± 12 years; 9 were female, 8 male. Indication for NIV in 13 patients was COPD with resistant or recurrent T2RF, 1 had COPD plus sarcoidosis and the remaining 2 had COPD plus obesity hypoventilation. NIV was shown to be successful in reducing pCO_2 between discharge and first follow up (mean reduction 0.84 ± 1.17 kPa p = 0.01). There was a trend towards delayed 1st readmission following initiation of NIV, when compared to the time between previous admission (Kaplan-meier survival analysis. p = 0.09 Figure 1).



Abstract P200 Figure 1 Kaplan-meier curves of time pre or post index admission for patients (n = 16) started on domiciliary. Non-invasive ventilation (NIV) following acute admission with decompensated type 2 respiratory failure secondary to COPD. Difference between the curves suggests a trend towards delayed admission with initiation domiciliary NIV p = 0.09

Conclusion Domiciliary NIV for high risk patients with decompensated T2RF in COPD is often used because of concerns of leaving the condition untreated when objectively NIV improved the patient's pCO_2 furthermore there are no consistently ratified guidelines. The data presented here suggest that NIV may help to delay readmission to hospital. The results of ongoing randomised trials are eagerly awaited.

Double pneumonia and other infections

P201 LIVING YOUR LIFE WITH BRONCHIECTASIS: AN EXPLORATION OF PATIENTS AND CARERS INFORMATION NEEDS INFORMING DEVELOPMENT OF A NOVEL INFORMATION RESOURCE

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Introduction/background Bronchiectasis is a chronic lung condition, causing breathlessness and chronic productive cough, with intermittent infective exacerbations. Patients often have recurrent hospital admissions, poorer quality of life, and significant fatigue. Treatment concordance can be problematic. There is little patient information currently available, yet information and education could support patients to self-manage, improve understanding and optimise engagement with treatment. Previous exploratory interviews with patients suggested that a lack of credible patient information was available and that having information could help patients learn to live with and manage their condition.

Aims/objectives

1. To further identify, explore and understand the information needs of patients with bronchiectasis and their carers.
2. To co-develop, with the user group, a novel patient information resource.

Methods In-depth interviews were conducted with 17 people who have bronchiectasis and 9 carers. Three focus group style workshops were subsequently held with 11 patients and 3 carers in total. All were recruited from respiratory clinics in the North of England. Interviews and workshops were audio-recorded and transcribed and thematic analysis was undertaken to identify common themes.

Results Ages ranged from 33 to 78 years, including both newly diagnosed and longstanding patients. The focus of the interviews was to identify, explore and understand information needs. A core mediating issue emerged, however: what it means to learn to live your life with bronchiectasis. Embedded in this journey are issues around developing support and coping mechanisms, how people learn to connect with information and how they start to take back control and develop new, active, partnerships with the medical team.

Using these qualitative data in the workshops, we co-developed a novel online and paper-based information resource for patients and their families. This resource is currently being piloted in a feasibility study comparing use of the resource to usual care.

Conclusions Understanding patient and carer experiences of living with bronchiectasis, the biographical disruption (s) that it imposes and the ways in which patients and carers connect with health information over time, has enhanced our understanding of their information needs and how these could be met. The outcomes of the feasibility study are expected in March 2016.

P202 ASSESSMENT OF BRONCHIECTASIS SCORING SYSTEMS: A LONG TERM COHORT STUDY

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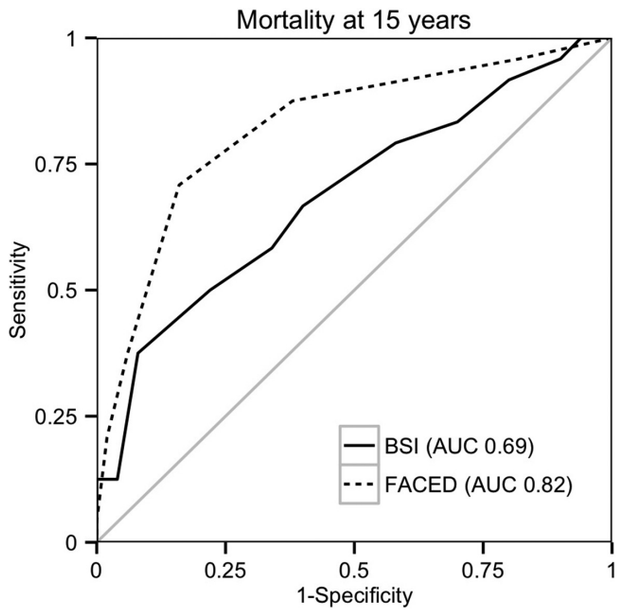
Introduction Bronchiectasis is a chronic, disabling illness with an unpredictable clinical course. Two multidimensional scores have been developed to predict mortality in bronchiectasis: the bronchiectasis severity index (BSI) and the FACED score.[1,2] This study is a retrospective cohort study aiming to compare these scores and test their ability to predict long-term mortality in bronchiectasis.

Methods Data was obtained for 74 subjects with bronchiectasis who had previously taken part in research at our centre. BSI and FACED scores were calculated and outcomes were ascertained after a median of 18.8 years follow-up. Receiver operator characteristic (ROC) curves for mortality were generated and survival between groups compared using univariate Cox proportional hazards analysis.

Results Both scoring systems had similarly excellent predictive power for 5-year mortality, with area under the ROC curve (AUC) 0.79 for BSI and 0.8 for FACED. Both scores were also able to predict 15-year mortality (Figure 1), with the FACED score showing superior predictive power (AUC 0.82 vs 0.69 $P = 0.0495$). For both scores subjects with high scores had an increased risk of death compared to the low scoring group (hazard ratio (HR) for death 3.6 for BSI $P = 0.02$, 12.5 for FACED $P < 0.001$). The intermediate scoring FACED group was also at an increased risk of death (HR 5.9 $P < 0.001$), whereas the intermediate BSI group was not (HR 1.4 $P = 0.58$). The BSI tended to assign higher scores; accordingly the high BSI group was larger (33 vs 6 subjects) with a lower mortality (57% vs 83%) than the equivalent FACED group.



Abstract P202 Figure 1

Conclusion This study demonstrates the ability of the BSI and FACED score to predict mortality in bronchiectasis over a far longer period than previously described. Such tools will be