Methods Retrospective analysis of a cohort of patients with completed PPS in a national tertiary referral centre who completed the PPS self-management programme from 2006 to 2019. Physical symptoms were assessed via the Index of Post-Polio Sequelae (IPPS) questionnaire. Multi-nominal logistic regression was used to assess IPPS sub-domains of pain, atrophy, bulbar and temperature changes in relation to SDB diagnoses (no treatment; OSA; HRF) using HRF as reference group. Age and symptom score presented with mean and range.

Results 168 participants (108 female) were included: 136 required no treatment for SDB (age: 62.8; 34–85), 20 (11.9%) with OSA (60.0; 43–73), 12 (7.1%) with HRF (64.7; 47–79). HRF suffered greater bulbar symptoms (score out of 10) compared to no treatment group (4.5(2–8) vs 2.7(0–10)) but was no different to OSA (4.5 vs 4.3(0–8)). No significant relationship was found between pain, atrophy and temperature sub-domains to SDB diagnoses in multi-nominal regression analysis (table 1).

Conclusion Bulbar symptom domain in IPPS (including respiratory symptoms) predicted diagnosis of SDB independent of other symptom domains including general muscle atrophy. However, it does not differentiate between OSA and HRF. Patients with any bulbar or respiratory symptoms should be referred for SDB assessment with particular focus on hypercapnic respiratory failure.

REFERENCE

Poster sessions

THE ROLE OF A VENTILATION MULTIDISCIPLINARY TEAM MEETING (VMDT) IN OPTIMISING CRITICAL CARE RESOURCE-USE

1A Balu, 2A Watson, 3L Linhartova, 4P Ellis, 1A Cartwright, 1R Mukherjee. 1University Hospitals Birmingham, Birmingham, UK; 2Birmingham Medical School, University of Birmingham, Birmingham, UK

Abstract P14 Table 1 The 2001 Department of Health (UK) definitions of critical care levels

| Level 0       | Normal ward-based care in an acute hospital |
| Level 1       | Patients at risk of deteriorating or those relocated from a higher level of care. |
| Level 2 (also known as ‘High Dependency Units’ (HDUs)) | Patients that may need more detailed frequent observation or intervention, including support for single failing organ support. |
| Level 3 (also known as ‘Intensive Care Units’ (ICUs) or ‘Intensive Therapy Units’ (ITUs)) | Patients that require advanced respiratory support alone or a multiorgan support. |


Introduction Critical care beds are a scarce, valuable resource needing optimisation. Discharge delays result in high occupancy rates, reduced service efficiency and responsiveness, reduced bed availability and increased costs. Number/proportion of critical care level 1 bed days (table 1) were, therefore, highlighted as an NHS quality indicator. Discharge strategies are required to prevent transfer delay of patients without level 2/3 bed day needs. We previously reported a reduction in level 1 bed days and discharge delay following introduction of a weekly physician-led Ventilation Multidisciplinary team meeting (VMDT) (April 2014). Organisational changes have since lead to VMDT cessation (August 2017). We aimed to investigate the impact of VMDT cessation on level 1 bed-days.

Methods Local ICNARC data was analysed before and after VMDT cessation, (1/8/2014–31/8/2016; Period 1) and (1/8/2017–31/07/2019; Period 2), respectively. Delay in discharge was defined as critical care patients with level 1 needs remaining in critical care >24 hours.

Results There was an increase in number of level 1 bed days in critical care after VMDT cessation from 45/767 discharges (5.9%) in period 1, to 75/818 discharges (9.2%) in period 2 (p < 0.002). This corresponded with an increase in delayed discharges from 33 (4.3%) in period 1, to 96 (11.7%) in period 2 (p < 0.001).

Conclusions A reduction in Level 1 bed-days following VMDT introduction was previously demonstrated, without similar contemporaneous reduction in the similarly sized sister hospital, under same hospital management with identical policies, but no VMDT. Our present results, demonstrating increased level 1 bed days following VMDT cessation, add further support to its importance in facilitating timely discharge and suggest adoption of a Physician-led MDT approach would be advisable for general critical care units. We see this as one of many tools in facilitating flow across critical care units and the wider hospital.

REFERENCES

THE IMPACT OF COVID-19 ON RESPONSE TIMES FOR ACUTE NON-INVASIVE VENTILATION SET-UPS

A Watson, H Barnard, P Antoine-Pitterson, B Jones, A Turner, R Mukherjee. University Hospitals Birmingham, Birmingham, UK

Introduction Acute non-invasive ventilation (NIV) is a life-saving treatment and early therapy improves physiological outcomes, reduces intubation rates and shortens length of stay in hypercapnic exacerbations of chronic obstructive pulmonary disease (COPD). A new 2018 BTS quality standard indicates that patients meeting evidence-based criteria should be started on NIV treatment within 60 mins of their decision-making arterial blood gas (ABG). The National Improvement Objective is >60% of patients meeting this target. We aimed to audit the local NIV set up times before and after COVID-19 to generate insights for ongoing quality improvement.

Methods Data was extracted from our NIV unit’s quality database for two time periods before and after the start of the COVID-19 pandemic, 1st April – 1st September 2019 and 2020, respectively. Continuous variables were compared using a Mann-Whitney U test and categorical variables using Chi-Squared test.