

TP during MT. 20 patients have died during follow up (none procedure-related) of which 11 still had their IPC *in situ*. Complications—2 blocked drains (not talc group, 1 case needing additional thoracocentesis), 2 leaking caps (replaced).

**Discussion** IPC insertion at MT with or without TP for cases of suspected TL appears to be safe, effective and obviates the need for further pleural intervention at a later date. This potentially has significant benefits to the patient as well as a reduction in overall healthcare costs to the NHS. Using the above criteria predicted TL in 78% of patients. This single centre observation needs to be investigated by a larger multi-centre study in patients with suspected TL at MT.

Abstract S83 Table 1.

Benign diagnosis (No.)	Malignant diagnosis (No.)
Pleuritis (7)	Malignant mesothelioma (4)
Pleural fibrosis (1)	Lung cancer (3)
Benign haemorrhagic (2)	Breast cancer (4)
	GI/renal cancer (5)
	Gynaecological cancer (2)
	Others (8)

Improving long term outcome in chronic respiratory failure

S84 THE EFFECT OF PATIENT VENTILATOR ASYNCHRONY (PVA) ON HEALTH RELATED QUALITY OF LIFE DURING INITIATION OF HOME MECHANICAL VENTILATION (HMV)

<sup>1</sup>MC Ramsay, <sup>1</sup> S Mandal, <sup>1</sup>E- Suh, <sup>2</sup>J Steier, <sup>3</sup>A Simonds, <sup>2</sup>N Hart; <sup>1</sup>Division of Asthma, Allergy and Lung Biology, King's College London, London, United Kingdom; <sup>2</sup>Lane Fox Clinical Respiratory Physiology Research Centre, Guy's & St Thomas' NHS Foundation Trust, London, United Kingdom; <sup>3</sup>NIHR Respiratory Biomedical Research Unit, Royal Brompton Hospital, London, United Kingdom

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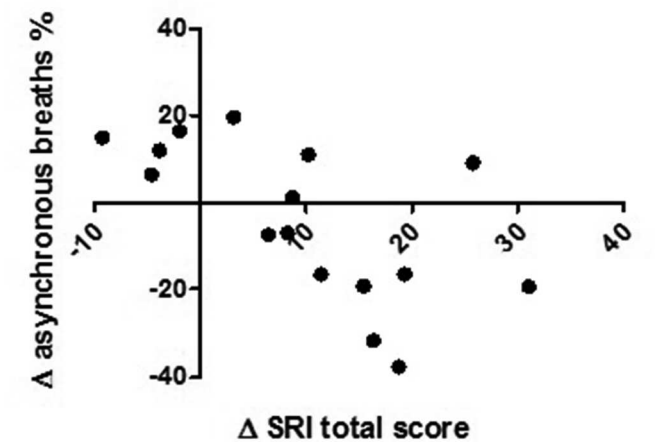
**Introduction** Poor patient-ventilator interaction has been shown to adversely affect respiratory muscle unloading, sleep quality, gas exchange and patient comfort whilst on ventilation. We hypothesised that nocturnal PVA during the first 3 months HMV initiation would have an adverse effect on patient health related quality of life.

**Methods** Recording neural respiratory drive, as assessed by the parasternal intercostal electromyogram, respiratory inductance plethysmography and mask pressure waveform we performed a comprehensive assessment of PVA overnight both on initiation of HMV and at 3 months. Asynchrony levels were recorded as a percentage of the total of number of breaths that were both requested and received by the patient overnight. The severe respiratory insufficiency questionnaire (SRI) was completed by patients at both of these hospital visits. Daytime arterial partial pressure of carbon dioxide (P<sub>a</sub>CO<sub>2</sub>) was also assessed.

**Results** 16 patients (8 male) admitted for initiation of HMV were recruited. 7 with neuromuscular or chest wall disease, 6 with chronic obstructive pulmonary disease and 3 with obesity related respiratory failure. Adherence to ventilation at 3 months was 6h 38m (1h35m-7h32m). There was an overall improvement in SRI scores of 9.5 (-0.7 to 18.2) points with the largest improvement observed in the anxiety component with an increase of 20 (5.6–35) points followed by the sleep component

of 12.5 (3.6–28.6) points over the 3 months. A significant inverse correlation was observed with the change in asynchrony levels and the change in SRI scores over the 3 month assessment period ( $r_s = -0.70$ ;  $p = 0.02$ ; Figure 1). No significant correlation was observed between the change in P<sub>a</sub>CO<sub>2</sub> and change in SRI score.

**Conclusion** Enhancing patient-ventilator interaction, in particular reducing patient-ventilator asynchrony, had a direct correlation with improving health related quality of life of patients receiving HMV. Importantly, the anxiety and sleep components of the SRI were the most improved over the 3 months of treatment indicating the enhancement in perceived sleep quality with the psychological benefit of HMV treatment.



Abstract S90 Figure 1. Change in PVA levels against change in SRI total scores during 3 months of HMV.

S85 INITIATION OF LONG-TERM NON-INVASIVE VENTILATION ENABLES SUCCESSFUL WEANING FROM PROLONGED MECHANICAL VENTILATION

R Parker, G Sunderland, V Ford, K Ward, H Ashcroft, V Molyneux, J Cheney, B Chakrabarti, J O'Reilly, N Duffy, R Angus; Aintree University Hospital NHS Foundation Trust, Liverpool, United Kingdom

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**Introduction** Prolonged mechanical ventilation is an increasing workload for intensive care units (ICU). Units distinct from ICU can provide step-down care for stable slow-to-wean patients and facilitate weaning by the use of long-term non-invasive ventilation (NIV). Development has been limited in the UK despite being recommended by the NHS Modernisation Agency in 2002 and reiterated by the NHS Commissioning Board in 2013. A unit opened at our hospital in September 2010 as part of a comprehensive complex home ventilation service.

**Methods** Review of completed in-patient episodes of transfers for weaning from invasive mechanical ventilation (IMV) from September 2010 to December 2012. Transfers following neurosurgery were compared with allcomers.

**Results** Thirty-nine patients were identified, mean age 54.2 (17.9) years, 24 male. Average length of stay (LOS) on the referring ICU was 49 days. Six had neuromuscular disease, nine COPD, 7 were obese or had chest wall disease, 14 ICU-acquired weakness and 3 used NIV prior to ICU admission. Thirty-five patients survived to hospital discharge.