Oxygen use is becoming more conservative on intensive care units in the UK

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Background There is controversy about the optimal level of oxygenation for patients in intensive care units (ICU) and several recent publications have raised the possibility of harm from hyperoxaemia amongst ICU patients. Most recent ICU publications have reported that hyperoxaemia is common. The aim of this project was to audit blood gas data at two hospitals to determine if there is evidence of changing practice in recent years.

Methods We audited all available ICU blood gas datasets for Hospital A for 2005 (n = 16,734), 2010 (n = 12,714) and 2015 (n = 17,292) and data from Hospital B from 2012–2013 (n = 11,006) and for 2015 (n = 22,223).

Results At Hospital A, the percent of ICU blood gas samples with hyperoxaemia (SaO2 > 98%) fell from 57.4% in 2005 to 45.1% in 2010 and 29.0% in 2015. Mean SaO2 fell from 97% in 2005 to 96% in 2015. The mean PaO2 also fell from 15.1 Kpa in 2005 to 13.5 in 2015 (The reference range for PaO2 is 12.0 to 60 L/min). In non-ICU patients, 65 L/min. In non-ICU patients, 65 L/min had an 86% mortality rate (p = 0.0001).

Conclusion Mortality rates were higher in patients managed on NHF in a non-critical care setting. A negative correlation was present between flow rates and survival outside of ICU. This may be explained by an older patient cohort, associated comorbidities and premorbid performance status. However this information could help guide clinical decision making in acutely unwell patients with limited escalation options.

REFERENCE
Conclusion In our TB population, the requirement for ICU care was infrequent, with respiratory failure being the most common indication. ICU and overall hospital length of stay was prolonged, but with a majority of patients surviving to discharge. Possible markers of a poor outcome include age, and a requirement for cardiovascular/renal support. These markers and TB-related factors now need to be explored in a larger cohort.

Discussion The use of remote monitoring within the LSCLTVS has reduced the carbon footprint of the service on average 6.6 kg CO₂e per patient. Patients also reported improved satisfaction and compliance.

Abstract P192 Figure 1 Data comparison: documentation and mortality before and after introduction of NIV proforma