

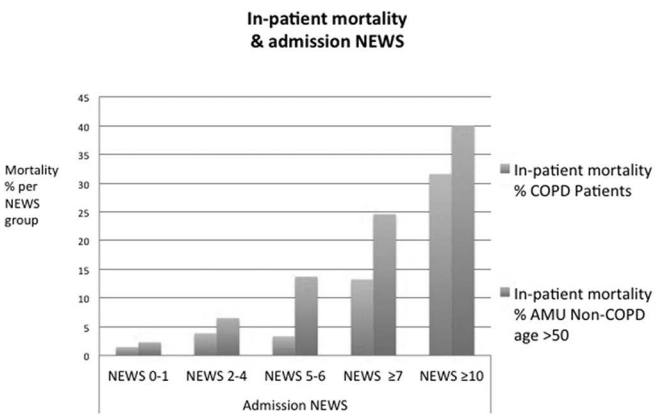
(5.3% & 6.2%), the COPD cohorts admission NEWS was double that of the AMU patients (median 4 vs 2). This difference persisted throughout admission to discharge.

Admission NEWS showed a step-wise increase in mortality amongst the AMU patients. In contrast, the COPD cohort with NEWS of 5 or 6 had lower in-patient mortality compared to COPD patients scoring 2–4. NEWS of ≥ 7 is used to trigger urgent medical attention and 20% of patients with COPD fulfilled this criteria (compared to 6.6% of non-COPD patients). When NEWS score was ≥ 10 , mortality in both groups was high (31.6% in COPD patients, 40% in AMU patients)(graph 1).

In conclusion, we have shown that acute COPD patients have similar mortality to other emergency medical admissions yet persistently higher NEWS. This requires addressing possibly by adjusting the NEWS to take into account lower oxygen saturation targets in selected COPD patients (median 93% compared to 96% in AMU patients) and thus reduce over-alerting of those not necessarily at high risk of death.

REFERENCES

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2. National Early Warning Score (NEWS) Standardising the assessment of acute-illness severity in the NHS - Report of a working party July 2012 <http://www.rcplondon.ac.uk/sites/default/files/documents/national-early-warning-score-standardising-assessment-acute-illness-severity-nhs.pdf>



Abstract S67 Figure 1.

S68 THE NATIONAL EARLY WARNING SCORE (NEWS) & IATROGENIC HARM - COULD THE NEWS FOR COPD PATIENTS BE IMPROVED?

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The National Early Warning Score (NEWS) system is in use throughout NHS Acute Trusts. It reliably picks up the small proportion of patients at high risk of death during their admission. However, during Acute Exacerbation of Chronic Obstructive Pulmonary Disease (AECOPD), where target saturations are 88–92% in selected patients, a high proportion of patients have NEWS ‘alerts’ when their oxygen levels are within the target range set by their clinician. This results in referral for urgent review by medical staff and/or an inappropriate increase of inspired oxygen which could exacerbate hypercapnic respiratory failure.

We therefore propose a simple modification to the NEWS system in patients at risk of hypercapnic respiratory failure.

Three points are added for target saturations of 85% or less and two points are added for target saturations of 86–87%. For target saturations of 88–92%, no additional points will be added. This modification would be at the senior clinicians’ discretion.

We reviewed the observations of 1119 patients admitted with a primary diagnosis of AECOPD and compared them to 15,953 patients aged over 50 admitted to one of two acute medical units. Admission saturations were reviewed and compared with in-patient mortality.

Use of the current NEWS system resulted in 40% of patients with AECOPD scoring 2–3 points on their saturation alone despite most being in the saturation range recommended by the BTS¹. In addition, their risk of mortality was significantly lower than patients without COPD in the same saturation range (See table 1). Our proposed modified NEWS system results in an improved ability to identify the patients at higher risk of mortality, thereby resulting in more efficient utilisation of medical resources and the reduction of inappropriate use of oxygen and risk of hypercapnic respiratory failure.

We have shown that the current NEWS system leads to a significant number of patients with AECOPD alerting when they have nationally recommended target oxygen saturations. A simple adjustment of the alerting threshold in this cohort could improve the system. This could also be applicable to other respiratory patients with or at risk of hypercapnic respiratory failure.

1. BTS guideline for emergency oxygen use.

	NEWS 3 (≤91%)	NEWS 2 (92-93%)	NEWS 1 (94-95%)	NEWS 0 (≥96%)
Current NEWS				
AMU aged ≥50 % (n=)	6.8 (900)	6.6 (879)	16.1 (2133)	70.5 (9347)
AMU ≥50 Mortality %	17%	9.3%	6.2%	4.9%
COPD Patients % (n=)	23.6 (264)	17.1 (191)	21.7 (243)	37.6 (421)
COPD Mortality % (n=)	9.9%	5.2%	3.3%	3.6%

New Adjusted NEWS	≤85% = 3 pts	86-87% = 2 pts	88-92%	93-100%
COPD % (n=)	7.6 (85)	2.8 (31)	20.7 (232)	68.9 (771)
COPD Mortality	15.3% (n=13)	9.7% (n=3)	5.6% (n=13)	3.9% (n=30)

Abstract S68 Figure 1.

S69 IMPLEMENTATION OF A COPD DISCHARGE CARE BUNDLE AND HOSPITAL READMISSIONS IN LONDON

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Background Acute exacerbations of COPD (AECOPD) are a major cause of morbidity, mortality and hospital admissions. Audit data shows significant variation in delivery of evidence-based interventions and readmission rates suggesting that optimising the care process may be beneficial. One approach is the “care bundle” where a series of evidence-based interventions