Change in ease of:	3.33(1.24)	N/A
•Prescribing	3.26(0.9)	4.26(0.86)
•Administering		
Since new guideline		
(1=Much harder–5=Much easier)		
Desired improvement in drug chart	44.4%	40.7%
Desire for merged drug and observation chart	85.2%	59.3%
Adoption:		
Believe they apply guidelines in their daily practice	3.93 (0.62)	4.44
(1=Never–5=Always)		(0.64)
Adherence:		
Most frequently cited barriers to guideline adherence:	33.3%	16%
•Habit	20.8%	8%
•Too many policies	16.7%	4%
•Used to treat breathlessness	8.3%	0%
•Not my responsibility	4.2%	40%
•Lack of familiarity with guidelines	4.2%	0%
•Guidelines are unclear	4.2%	0%
•Guidelines not enforced	4.2%	0%
•Drug chart confusing	4.2%	0%
•Oxygen is not interesting	0%	8%
•Lack of understanding of rationale behind guidelines	0%	12%
•Lack of training	0%	12%
•Practical/Logistical difficulties		
Suggested measures to improve adherence:	23.4%	33.8%
•Teaching behind rationale	21.3%	22.5%
•General teaching	17%	16.9%
•Reminders	14.9%	16.9%
•Increased monitoring	10.7%	5.6%
•Individual penalties	4.3%	2.8%
•Trust penalties	8.5%	1.4%
•Other		

documentation and training) our performance in the BTS annual Emergency Oxygen Audit has failed to improve, in line with national findings, with only 56% of oxygen prescribed, none signed for and 66.7% outside the target range at the most recent audit. Our aim was to investigate the reasons underlying this.

Methods A link to an online survey was emailed to all junior doctors and nursing staff on hospital mailing lists. The survey was designed to utilise Pathman's four stages of guideline compliance (awareness, agreement, adoption and adherence) (1).

Results Results are summarised in Table 1.

Free text comments focussed on a desire by both doctors and nurses for the prescription chart to be clearer and to be located in a more prominent area of the drug chart, whilst doctors were concerned their prescriptions were not followed, nurses commented that doctors frequently failed to prescribe oxygen correctly, if at all.

Discussion Responders reported good levels of awareness, agreement and adoption, yet adherence, as measured by audit, performance in prescribing and administration scenarios and an inability to locate guidelines on the Trust intranet would suggest that further intervention is required. The high level of belief that their own application of the guidelines, by both medical and nursing staff, is good would suggest that either this self-selected cohort perform better than their less interested peers or that lack of awareness, so called "unconscious incompetence"(2), is a concern. Generally the desire is for yet more training, however, our concern remains that this has limited effect and systems need to be strengthened to improve oxygen prescribing and administration.

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P66 OXYGEN, TOO MUCH OF A GOOD THING - CAN WE SAVE LIVES USING A NOVEL SIMULATION?

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Introduction Delivery of high-flow oxygen therapy (OT) to patients experiencing acute exacerbations of COPD can result in respiratory acidosis and hypercapnic respiratory failure, significantly increasing morbidity and mortality rates. [1] BTS guidelines recommend that severe AECOPD should be managed with OT delivered at 4L/min using a 28% Venturi mask with target oxygen saturations of 88–92%. Literature suggests these guidelines are poorly adhered to due to long-standing routines and desire to rapidly correct hypoxia. [1]

Aim Develop a model of AECOPD using the Human Patient Simulator (HPS) demonstrating the dangers of high-flow OT and the advantages of titrated OT. This could be used in the education of healthcare professionals promoting awareness of the risks and improving adherence to BTS guidelines ultimately reducing unnecessary morbidity and mortality.

Methods Creation of the AECOPD model was achieved through parameter manipulation within the HPS software. Target values for P_aO_2, P_aCO_2, respiratory rate and pH were sourced from average recorded measurements of 405 patients experiencing AECOPD found in the literature. [1] On administration of high-flow oxygen additional parameters were altered to model the resultant hypercapnic respiratory failure.

Results An accurate model of AECOPD was achieved producing values reflective of literature: P_aO_2 53 mmHg, P_aCO_2 54 mmHg, S_pO_2 84% and pH 7.34. Manipulation of additional software parameters on administration of high-flow oxygen demonstrated the rapid onset of hypercapnic respiratory failure, with P_aCO_2 increasing to 102 mmHg and pH falling to 6.98. In comparison, on 28% oxygen administration P_aCO_2 rose only to 50.6 mmHg and pH to 7.39, whilst P_aO_2 increased to levels seen in stable COPD (61 mmHg).

Conclusion These findings demonstrate that the HPS can be used to accurately demonstrate the risks of high flow OT in AECOPD. The model created here has the potential to be an excellent educational tool, which could be used to improve adherence to the evidence based guidelines and potentially reduce patient morbidity and mortality in the future.

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P67 ELECTRONIC PRESCRIBING ALERTS SIGNIFICANTLY INCREASE OXYGEN PRESCRIBING

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Introduction In 2011, the number of patients using oxygen without a prescription within a teaching hospital in the West Midlands was higher than the national average (local 11.3% vs

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