

## Aim

To raise awareness about the importance of oxygen prescribing amongst healthcare staff and improve the oxygen prescription rate on Kardex by 50% in 3 weeks at both surgical and medical wards.

## Background

Oxygen is considered a type of drug<sup>1</sup>. It should be prescribed on the Kardex like any other medication.

According to the BTS oxygen use guidelines, unwell patients that are not at risk of hypercapnic respiratory failure should be getting a target saturation of range of 94% - 98%, whereas for those at risk of hypercapnic respiratory failure should have a target saturation range of 88%-92%, while waiting for the blood gas results<sup>2</sup>.

The administration of inappropriate oxygen concentration can have fatal consequences such as prolonged hypoxaemia or hyperoxia.

It is good practice to prescribe oxygen on the Kardex, specify the target range and whether patient is at risk of hypercapnic respiratory failure<sup>1</sup>.

This allows appropriate oxygen therapy to be started promptly and safely if patient deteriorates with hypoxaemia.

It provides nurses a clinically safe reason to adjust the oxygen flow to meet the target saturation and document the NEWS score appropriately.

## Method

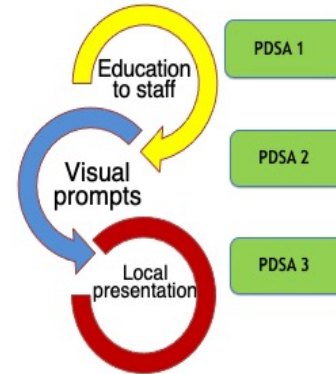
Data was collected from 25 patients from a medical multi-specialty ward and a surgical ward.

Source of information were:

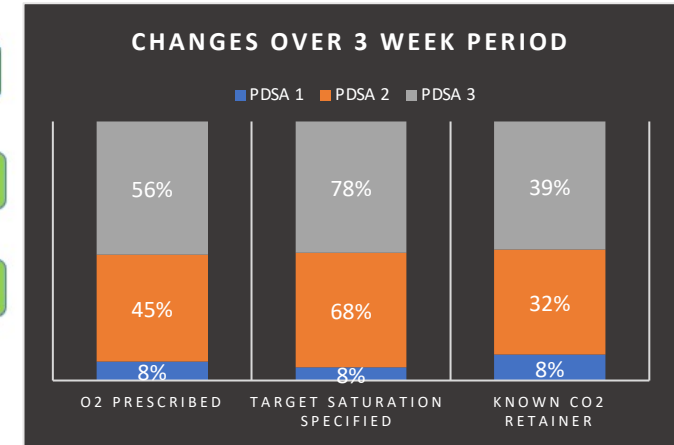
1. Kardex
2. NEWS observation chart
3. direct observation of oxygen delivery and flow rate at patient's bedside
4. ward round documentation

The reason a multi-specialty ward was selected was to showcase just how prevalent the use of oxygen is in the hospital regardless of the underlying diagnosis the patient was admitted with.

## Process Change



## Results



## Conclusions

Through 3 PDSA cycles, the main aim of the project, which is to improve the oxygen prescription on the kardex by 50%, was achieved.

Education is pivotal to counter the lack of awareness of oxygen as a drug. Type 2 respiratory failure and hyperoxia can be easily prevented by appropriate oxygen prescription.

There is still room for improvement in sustaining this good practice.

## Next steps

To expand this project to the entire hospital, and eventually regionally.

Electronic reminders through trust email to maintain this best practice.

## Reference

1. Choudhury, A., Young, G., Reyad, B., Shah, N. and Rahman, R., 2018. Can we improve the prescribing and delivery of oxygen on a respiratory ward in accordance with new British Thoracic Society oxygen guidelines?. *BMJ Open Quality*, [online] 7(4), p.e000371
2. O'Driscoll, B., Howard, L., Earis, J. and Mak, V., 2017. BTS guideline for oxygen use in adults in healthcare and emergency settings. *Thorax*, [online] 72(Suppl 1), pp.ii1-ii90.