

Improving Oxygen Prescription Rates By Tailored Intervention on a General Medical Ward

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INTRODUCTION

BTS Emergency Oxygen Guidelines state that all patients started on oxygen therapy should have a prescription of oxygen, which specifies initial rate, target saturations and method of delivery.

HEY NHS Trust has drug card design which incorporates an area specifically for oxygen prescriptions. The prescribing doctor must identify the target oxygen saturations and identify when the levels ought to be reviewed but is not always filled.

PDSA cycle 4 & 5: Despite discussion with new team of doctors on ward 70, every standard dropped slightly on initial audit but numbers were better after

OXYGEN IS A DRUG

It must be:

- Prescribed**
By doctors, with a target range
- Titrated**
By nurses (see overleaf)
- Signed for**
By nurses on every drug round

Check the chart, range and saturations

Titrating oxygen up and down
approximate conversion values

Venturi 24% 2-4 l/min	BLUE mask	Nasal cannulae 1 l/min
Venturi 28% 4-6 l/min	WHITE mask	Nasal cannulae 2 l/min
Venturi 30% 6-10 l/min	YELLOW mask	Nasal cannulae 4 l/min
Venturi 40% 10-12 l/min	RED mask	or simple face mask at 5-6 l/min
Venturi 60% 15 l/min	GREEN mask	or simple face mask at 7-10 l/min
	Reservoir mask at 15 l/min oxygen flow	

If reservoir mask required seek senior medical input immediately
If oxygen required increases seek medical input
For venturi masks, increase flow by 50% if respiratory rate > 30
*V28 recommended starting device in those at risk of type 2 respiratory failure

RAC Dimock et al. Thorax 2013;68:A103-A104

APPENDIX II- INTERVENTION POSTER

OXYGEN IS A DRUG WHICH SHOULD BE PRESCRIBED ON DRUG CHART

OXYGEN is a drug and can harm patient if not required. Please do not give it without prescription except in emergency cases and patients on LTOT.

Please prescribe oxygen on the drug chart

Please re assess after every 12 Hr, if any change in FIO₂ required to help wean off oxygen

Drug- Oxygen	Date
Tick target oxygen saturation (with reference to BTS guidelines)	2
66-92%	6
94-98%	10
Other	14
PRN	16
Print Name and Signature	18
ID number	20
	22

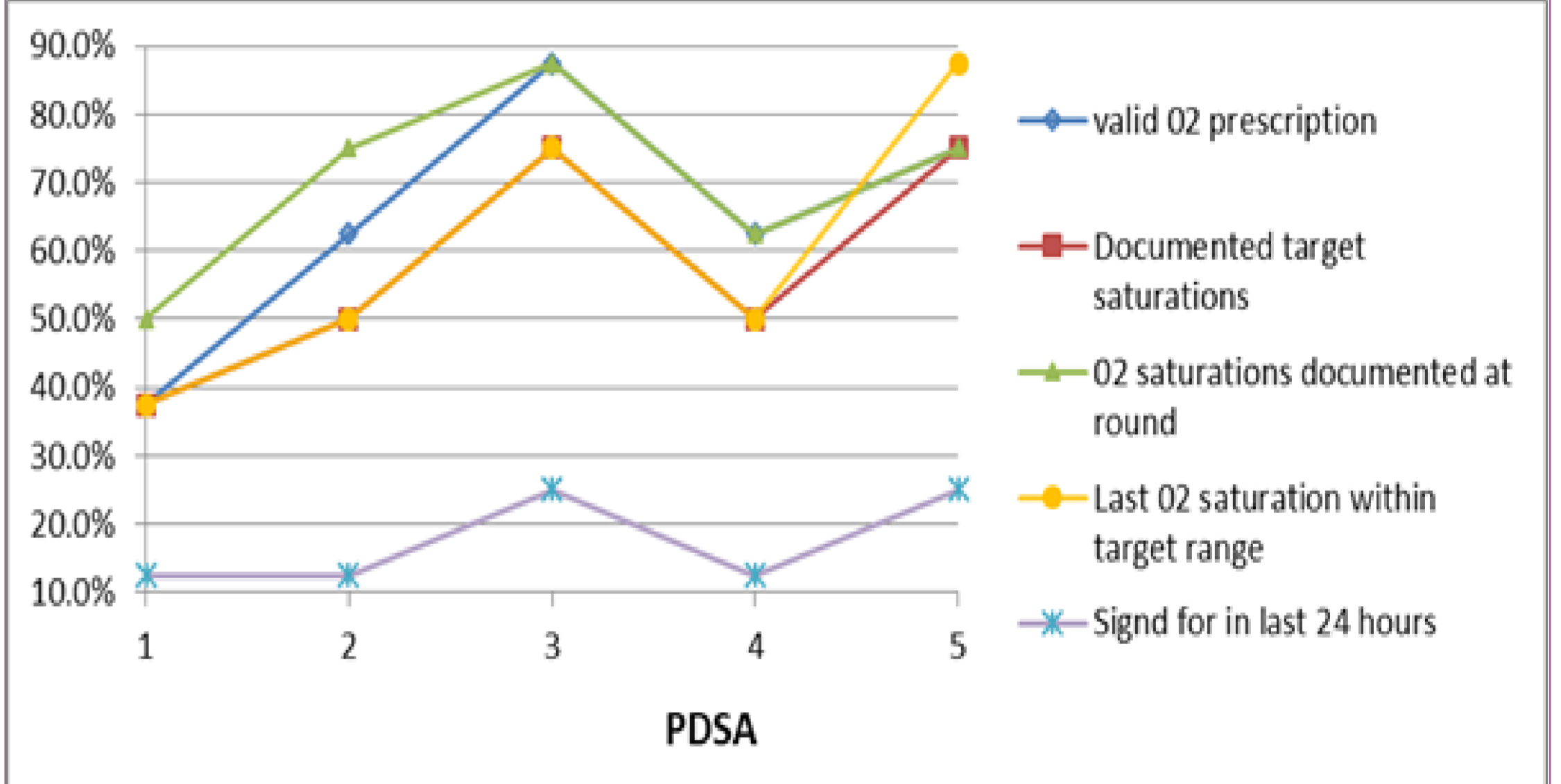
METHODS

PDSA cycle 1: As the first step, a small educational session was conducted among junior doctors on the ward. An audit was undertaken afterwards which showed unsatisfactory baseline of 50% or below for all the standards.

PDSA cycle 2: Recommendations were made to document oxygen prescription during transfer clerk in, on arrival to ward 70, HRI. Oxygen prescription with targeted saturation on drug cards did improve to 62% and 50%, respectively. The highest standard of improvement was documentation of oxygen saturations during morning ward rounds. However, significant number of new admissions were transferred to ward 70 after 17: 00 and clerked in by on-call doctors. This lead to PDSA cycle 3 as below.

PDSA cycle 3: This intervention lead to the best standards throughout the QIP cycles. Due to daily surveillance, junior doctors were naturally more involved in the monitoring process. None of the oxygen delivery was signed for in the last 24 hours after PDSA cycle 3.

RESULTS



DISCUSSION/CONCLUSIONS

- 1- With simple effective measures, junior doctors can bring big improvements in the way healthcare is delivered.
- 2- Inclusion of the educational poster and recommendations of this QIP in the ward induction booklet for sustainability.
- 3- Trust to consider designing and disseminating educational materials and main audit outcome to junior doctors, nurses and auxiliaries across the trust.
- 4- We put forward a suggestion to include the oxygen prescription section on the 1st page of the drug card instead of the last.