

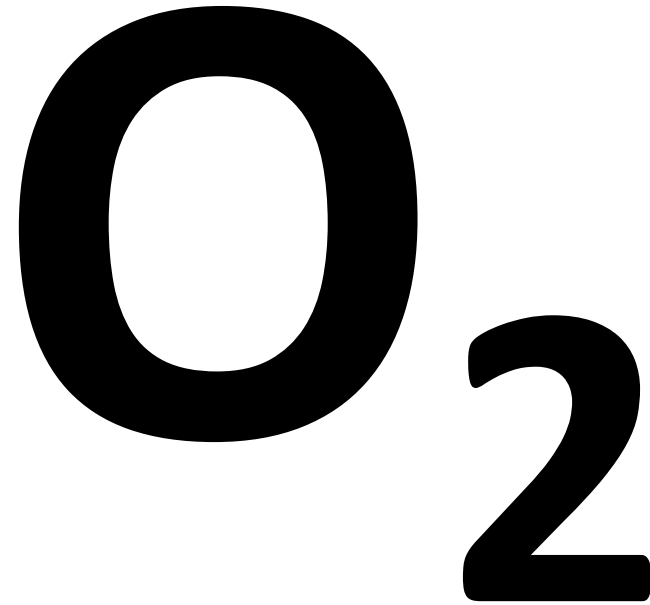
# #02TheFix

## Swimming Between The Flags



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North Shore Hospital, Waitemata DHB*



**OXYGEN**



# Oxygen

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- Medical gas?
- Can help patients?
- Can cause harm?
- Should be monitored?
- Should be targeted to a physiological range?
- Deserves the same respect as a drug?
- Is a medicine?



# Joe



# Which one?



# Confusion

O<sub>2</sub> via  
mask?

FiO<sub>2</sub>?

Controlled  
O<sub>2</sub>?

O<sub>2</sub>  
saturation  
> 96%?

CO<sub>2</sub>  
retainer?



# Evidence

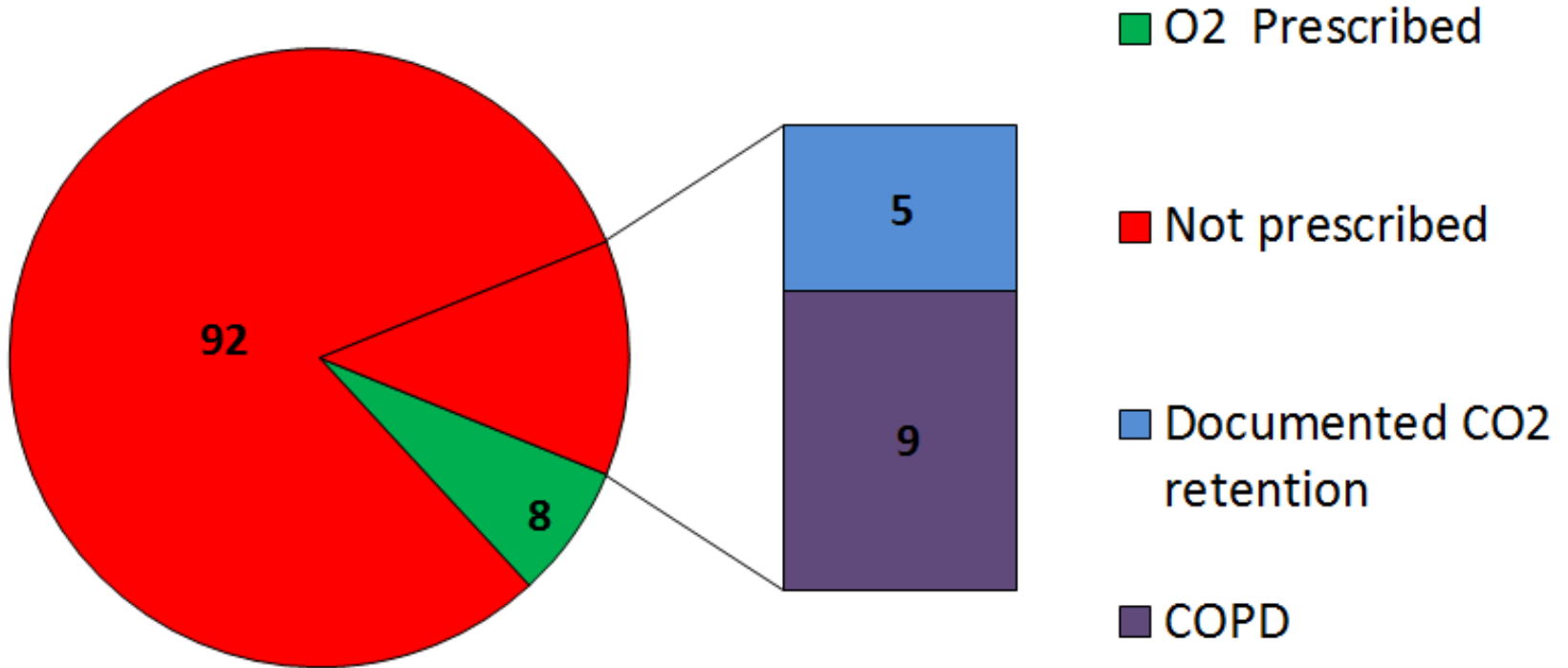
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- Oxygen titrated to a specific target saturation *saves lives*<sup>1</sup>
- TSANZ Guideline “Swimming between the flags”<sup>2</sup>
- BTS Guidelines for Ventilatory Management of Acute Hypercapnic Respiratory Failure 2016



# Waitemata DHB

- Poor rate of prescribing<sup>4</sup>
- Unsafe administration<sup>4</sup>





# Oxygen Steering Group

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- WDH B Medication Safety Committee
- Consultant led multi-disciplinary steering group



*Waitemata*  
District Health Board

Best Care for Everyone

# Aim

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- Improve understanding
- Prescribe appropriately
- Patient safety → “Swimming Between the Flags”



# 1. Baseline audit

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Patients *using* oxygen?

- Prescribed?
- Device?
- Target saturation range?



# 2. e-Prescribing

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# 2. e-Prescribing

MINNIE, MOUSE TEST , NHI: 0005003, DOB:13/07/1

Allergies: Class Allergy to Penicillins - rash , Substance Aller

Name oxygen

Search


## Single Ingredient


 Oxygen

 Oxygen via humidified high flow nasal prongs Continuous

 Oxygen via non-invasive ventilation (NIV) Continuous

 Oxygen via reservoir mask Continuous

 Oxygen via simple face mask (Hudson) Continuous

 Oxygen via standard nasal prongs Continuous

 Oxygen via Venturi mask Continuous



# 2. e-Prescribing

Medication	Details
Oxygen via standard nasal prongs Continuous Inhalation	DOSE: 0.25 to 4 L/min Inhalation PRN minimum dosage interval 1 minute Target SpO2 = 88-92%
	DOSE: 1 to 4 L/min Inhalation PRN minimum dosage interval 1 minute Target SpO2 = 92-96%



# 2. e-Prescribing

## Oxygen via Venturi mask

DOSE: **24 % O2** Inhalation PRN

minimum dosage interval 1 minute

Oxygen flow rate 3 L/min (blue). Increase to 4.5 L/min if RR>30. Target SpO2 = 88-92%

DOSE: **28 % O2** Inhalation PRN

minimum dosage interval 1 minute

Oxygen flow rate 6 L/min (yellow). Increase to 9 L/min if RR>30. Target SpO2 = 88-92%

DOSE: **31 % O2** Inhalation PRN

minimum dosage interval 1 minute

Oxygen flow rate 8 L/min (white). Increase to 12 L/min if RR>30. Target SpO2 = 88-92%

DOSE: **35 % O2** Inhalation PRN

minimum dosage interval 1 minute

Oxygen flow rate 12 L/min (green). Increase to 18 L/min if RR>30. Target SpO2 = 88-92%

DOSE: **40 % O2** Inhalation PRN

minimum dosage interval 1 minute

Oxygen flow rate 15 L/min (pink). Increase to 22.5 L/min if RR>30. Target SpO2 = 88-92%

DOSE: **50 % O2** Inhalation PRN

minimum dosage interval 1 minute

Oxygen flow rate 15 L/min (orange). Increase to 22.5 L/min if RR>30. Target SpO2 = 88-92%



# 2. e-Prescribing

MINNIE, MOUSE TEST , NHI: 0005003, DOB:13/07/1942, Age:74 years, Weight:79.9 kg (01/03/2017)  
(Mosteller)

Allergies: Class Allergy to Penicillins

Meds On Adm    **Scheduled - 5**    Variable Dose    **PRN - 1**    **Stat - 1**    **Infusion - 2**

|  |  |  ||  |  ||  |

	Medication	Date	Time	Dose	Route	
<input type="checkbox"/>	  <b>Oxygen via simple face mask (Hudson)</b> <b>Continuous Inhalation</b> DOSE: 5 to 10 L/min Inhalation PRN (11:54) minimum dosage interval 1 minute Target SpO2 = 92-96%	27/03/2017	11:55			<input type="checkbox"/> If n <input type="checkbox"/> Ne
	27/03/2017 Jessica NAND (Pharmacist)					





# 3. New oxygen policy

## Oxygen Therapy – Inpatient & STOT Ordering

### Contents

1.	Overview .....	1
2.	Key Expectations .....	2
3.	Indications and Assessment .....	2
3.1	Emergency Oxygen .....	3
3.2	Pulse oximetry .....	3
3.3	Arterial blood gases .....	3
4.	Hazards .....	3
5.	Prescription .....	4
5.1	Target saturations range .....	4
5.2	Patients at risk of CO <sub>2</sub> retention .....	4
5.3	Oxygen in end of life care .....	4
5.4	Oxygen Prescription examples .....	5
5.5	E-prescribing medchart .....	6
6.	Administration and Monitoring .....	7
6.1	Supply Point .....	7
6.2	Flow Meter .....	8
6.3	Oxygen tubing .....	8
6.3	Patient consent and education .....	9



# 4. Campaign and launch week

O<sub>2</sub> the fix, aim 92-96  
If high CO<sub>2</sub>, aim 88-92



#O2TheFix





# #O2TheFix



Following

## Waitemata DHB

@WaitemataDHB Follows you

Serving the largest DHB population in New Zealand and operating North Shore Hospital, Waitakere Hospital, Wilson Centre and Mason Clinic.

Takapuna, New Zealand

[waitematadhb.govt.nz](http://waitematadhb.govt.nz)

491 Following 1,943 Followers

Tweets Tweets & replies Media Likes

Waitemata DHB Retweeted



**Jess Nand** @jess\_nand · 14h

It's WDHB Oxygen Awareness Week to promote safe prescribing of O<sub>2</sub> in alignment with TSANZ guidelines  
[@WaitemataDHB](#) [@tsanz\\_thoracic](#)  
[#O2TheFix](#)

## Oxygen Awareness Week

O<sub>2</sub> the fix, aim 92-96  
If high CO<sub>2</sub>, aim 88-92



Oxygen Awareness Week (**October 10-14**) is to promote the changes to oxygen prescribing at Waitemata DHB.

Come see the oxygen team in the main foyer at NSH and WTH. There will be a fun quiz and awesome prizes to give away. Look out for the posters, balloons and our catchy slogan: "O<sub>2</sub> the fix, aim 92-96! If high CO<sub>2</sub>, aim 88-92!"

You can now electronically prescribe oxygen for patients via MedChart. Just type "oxygen" into the medicine name, select the appropriate delivery device and O<sub>2</sub> saturation range from the quick-list.

# 5. Staff education

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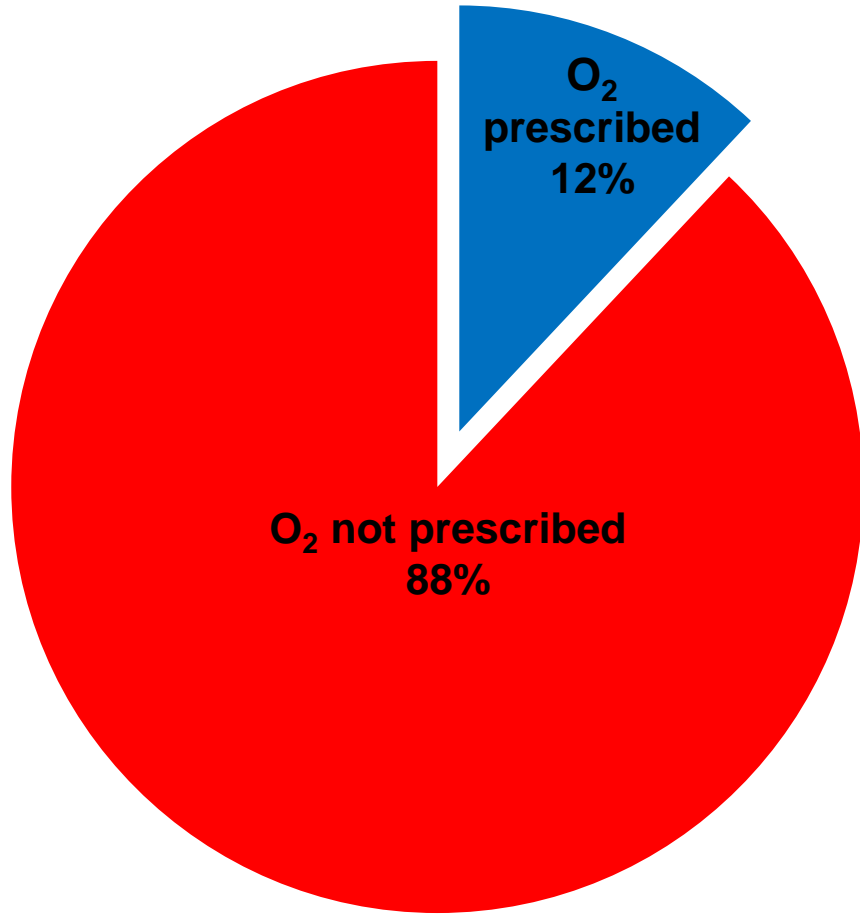


# 6. Post campaign audit

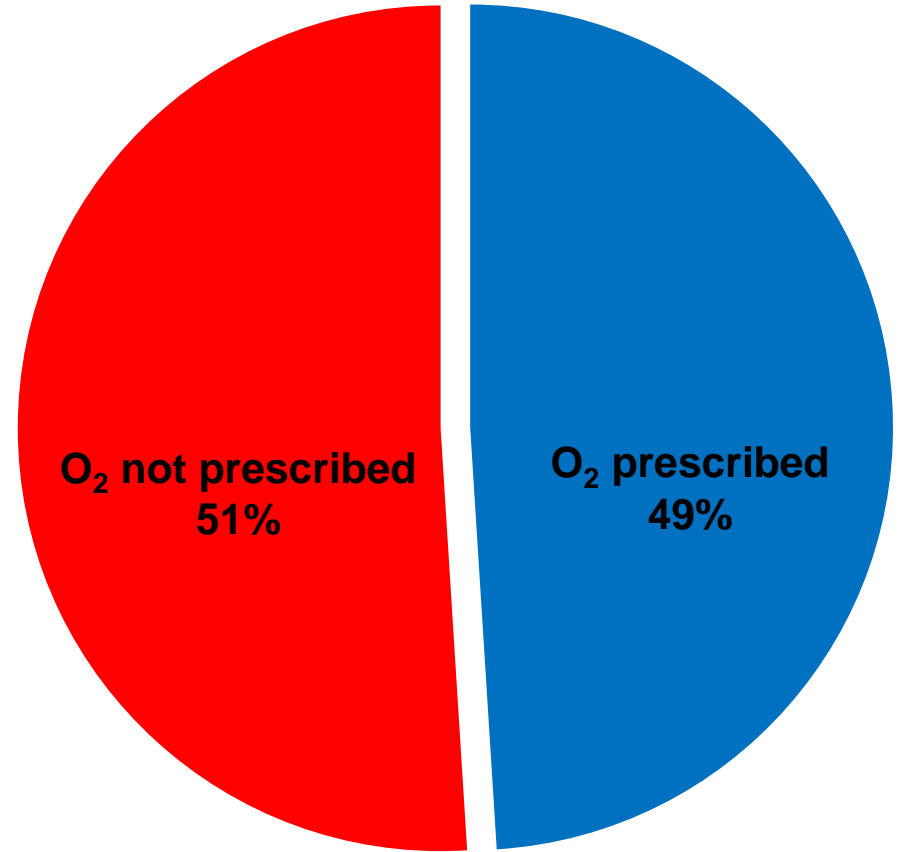
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# Audit of patients using O<sub>2</sub>



Baseline



Post



# Understanding

Target  
saturation  
range ✓

$\text{FiO}_2$ ? ✓

Controlled  
 $\text{O}_2$  devices ✓

$\text{O}_2$  masks  
vs nasal  
prongs ✓

$\text{CO}_2$   
retainer? ✓



# Moving forward

O<sub>2</sub> the fix, aim 92-96  
If high CO<sub>2</sub>, aim 88-92

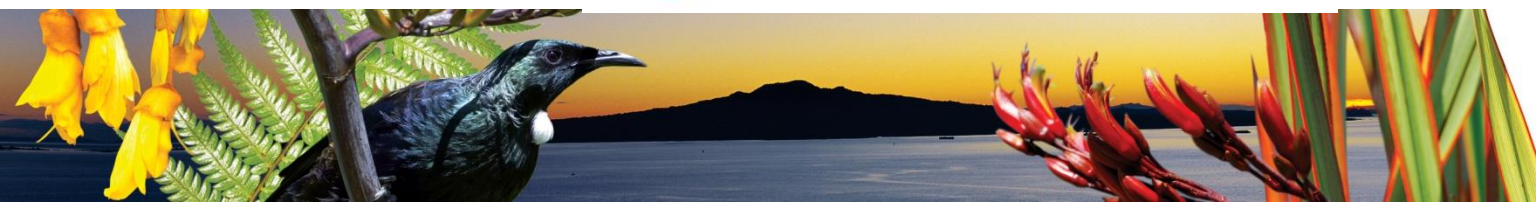
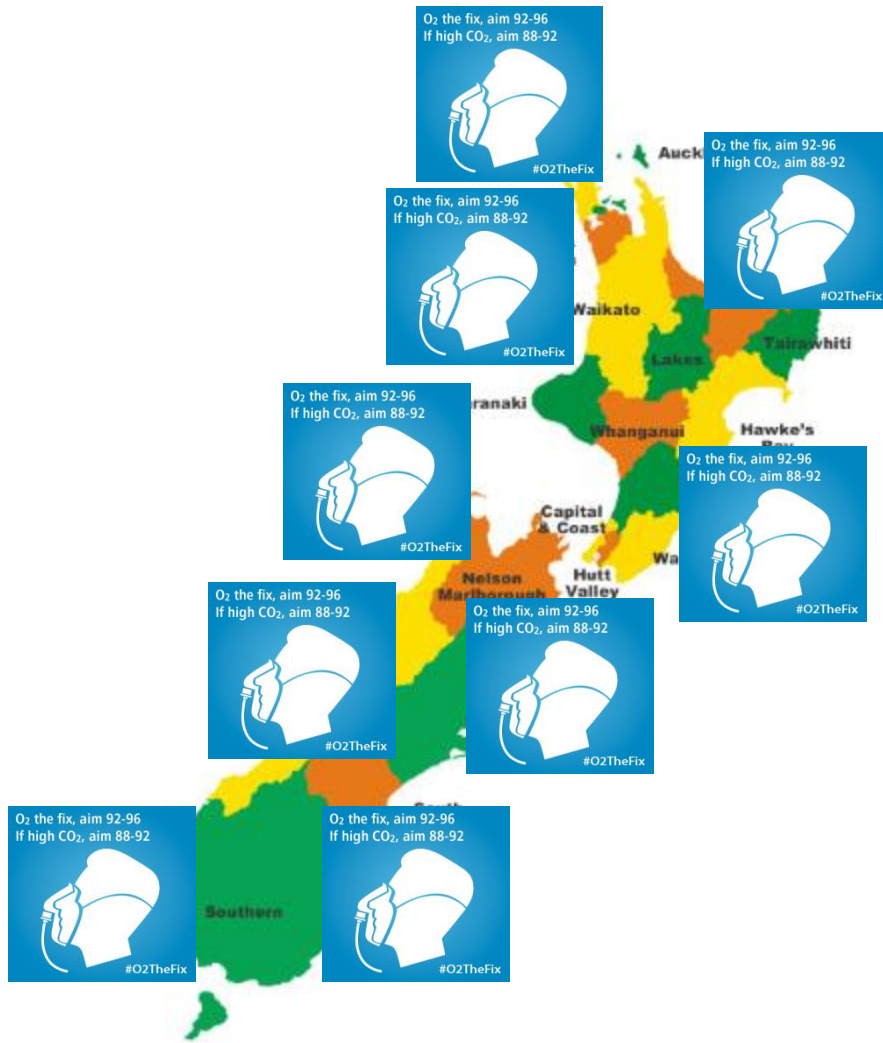


#O2TheFix





# Our vision



# Conclusion

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- Better
- Best
- Brilliant



# References

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4. Boyle M, Wong J. Prescribing oxygen therapy. An audit of oxygen prescribing practices on medical wards at North Shore Hospital, Auckland, New Zealand. *NZ Med J.* 2006;119.



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- Monica McGrath, ICU Outreach Nurse
- Jo Rogers, e-Prescribing Pharmacist
- Dr Jonathan Casement, SMO ICU
- Andrew Watson, ADU Nurse Educator
- Charlotte Chesbrough, Fisher & Paykel Healthcare



# Do the simple things well

## Best care for everyone

O<sub>2</sub> the fix, aim 92-96  
If high CO<sub>2</sub>, aim 88-92



#O2TheFix