

Survey S1

Barriers and facilitators to optimal use of acute oxygen therapy in adults

Dear colleague,

This research is being conducted as part of the requirements for a PhD at the University of Newcastle by Joyce Cousins, under the supervision of Professor Vanessa McDonald and Professor Peter Wark. We are investigating the barriers, facilitators and attitudes of health care professionals towards the prescription and delivery of oxygen therapy in the acute care setting.

You are invited to participate in this voluntary online survey, it is expected that this should take no longer than 15 minutes of your time. There are no correct or incorrect responses, this survey is designed to explore your opinions regarding acute oxygen therapy.

As clinicians who work with patients who use oxygen therapy, we understand that your views and opinions are important.

This study has been given ethics approval by Hunter New England Human Research Ethics Committee (Approval number: 16/04/20/5.03) and the University of Newcastle Human Research Ethics Committee (Reference Number: H-2016-0222). For further information, you can view the participant information at

https://docs.google.com/document/d/1o8KrXwQccqTlb5LQpHbKLuDQjrt_yt_dd07T8xmpFA/edit?usp=sharing

You may also wish to review the "Thoracic Society of Australia and New Zealand oxygen guidelines for acute oxygen use in adults" document here:

<http://onlinelibrary.wiley.com/doi/10.1111/resp.12620/epdf>

There are no anticipated risks to you for taking part in this survey. Information that you provide will be anonymous and remain confidential. Only those directly involved in this research have access to any answers that you provide.

Thank you, your time is appreciated. Please answer the questions below if you consent to proceed

Demographic Information

1. Have you participated in this research in the past 6 months?
 Yes
 No
2. Are you Male or Female?
 Male
 Female
3. In which country, did you gain your highest qualification?
 Australia
 Other _____
4. What is your professional title?
 Paramedic
 Extended Care Paramedic
 Intensive Care Paramedic
 Enrolled Nurse
 Registered Nurse
 Nurse Educator/Clinical Nurse Educator
 Clinical Nurse Consultant
 Clinical Nurse Specialist
 Nurse Manager
 Junior Medical Officer
 Specialist Registrar
 Respiratory Physician
 General Physician
 Other _____
5. Years of professional experience.
 < 5 years
 5-10 years
 10-15 years
 15-20 years
 20-30 years
 >30 years

6. What is your main area of clinical practice? (e.g. acute surgical, emergency services, medical)

Part A

As a clinician who regularly provides care to patients who may require oxygen therapy, we are interested in knowing what you think and do in relation to the use of oxygen therapy in the ACUTE CARE setting. There are no wrong or right answers, we are seeking your opinions and views.

1. Which of the following statements most closely represents your ACTIONS when caring for a patient who is short of breath?
 I always give them oxygen to relieve their dyspnoea
 I never give them oxygen to relieve their dyspnoea
 I know it does not help everyone, but it helps most so I always give oxygen
 I only give oxygen to those who require oxygen based on clinical assessment
2. Which of the following statements most closely represent your BELIEFS about oxygen therapy?
 It is a drug and should be treated like other medications
 It is not a drug and should not be treated like other medications
 It is a drug but it should not be treated like other medications
 Other _____

3. What are your thoughts about giving oxygen therapy for dyspnoea?

4. Please indicate below how important you BELIEVE the detailed prescription (route, dose, time written on a medication chart) of the following are. (mark only one box per row)

	Not Important	Somewhat Important	Very Important
Intravenous Fluids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paracetamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salbutamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Please indicate how often you WRITE a detailed prescription (route, dose, time written on a medication chart) for the following. (mark only one box per row)

	Never	Sometimes	Always	I do not have prescribing privileges
Intravenous Fluids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paracetamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salbutamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please indicate how often you ADMINISTER the following when there is NO detailed prescription (route, dose, time written on a medication chart). (mark only one box per row)

	Never	Sometimes	Always
Intravenous Fluids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paracetamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salbutamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. For the following, please indicate what you believe the potential for harm is if administered APPROPRIATELY. (mark only one box per row)

	Highly Likely to Cause Harm	May Cause Harm	Very Unlikely to Cause Harm
Intravenous Fluids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salbutamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen (over patient requirements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen (under patient requirements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paracetamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. For the following, please indicate what you believe the potential for harm is if administered INAPPROPRIATELY. (mark only one box per row)

	Highly Likely to Cause Harm	May Cause Harm	Very Unlikely to Cause Harm
Intravenous Fluids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salbutamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen (over patient requirements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen (under patient requirements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paracetamol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. When deciding how much oxygen therapy to give to a patient, what influences your decision? (mark only one box per row)

	Never	Sometimes	Always
Equipment available (mask type)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Doctor order/prescription	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinical condition of the patient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient's SpO ₂	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arterial Blood Gas Results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit Protocol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. For the following patient scenarios, please indicate the target saturation level for each case. (mark only one box per row)

	SpO ₂ 88-92%	SpO ₂ 90-94%	SpO ₂ >92%	SpO ₂ >94%	SpO ₂ >95%
Mr Riley, a 56-year-old male admitted to hospital with an acute exacerbation of COPD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samantha Hood, a 22-year-old lady admitted with acute asthma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lois Lane, 82-year-old lady who is day 1 post right hip replacement with no other co-morbidities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tom Baker, a 81 year old obese man (BMI 32) who currently smokes. He is day 4 post cholecystectomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part B

Following are statements about working according to the "Oxygen Guidelines for Acute oxygen use in Adults" from the Thoracic Society of Australia and New Zealand (TSANZ). We would like to know whether you agree with the statement or not and in what degree. If you do not have a strong opinion, please try to decide if it is more like 'agree' or more like 'disagree'. If you really do not know, you can select the option 'neither agree nor disagree'

This survey has been amended with permission from: Peters MAJ, Harmsen M, Laurant MGH, Wensing M. Ruimte voor verandering? Knelpunten en mogelijkheden voor verandering in de patiëntenzorg [Room for improvement? Barriers to and facilitators for improvement of patient care]. Nijmegen: Centre for Quality of Care Research (WOK), Radboud University Nijmegen Medical Centre, 2002.

11. How do you think oxygen therapy should be prescribed?
- I do not think oxygen should be prescribed
 - As a written order on a medication chart
 - As a written order in the patient's notes
 - As a written order on the observation chart
 - As a verbal order
12. Whose role is it to prescribe oxygen therapy?
- Doctor
 - Nurse (as nurse initiated medication)
 - Both
 - As per protocol (i.e. as in "Between the flags" or as per organisation protocol)
 - Other _____

1. Are you aware of the TSANZ 'Oxygen Guidelines for Acute oxygen use in Adults'?
 - Yes
 - No
 - Unsure
2. I did not thoroughly read nor remember the TSANZ oxygen guidelines for acute oxygen use in adults' Guideline.
 - Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
3. The 'TSANZ oxygen guidelines for acute use in adults' leaves enough room for me to make my own conclusions/decisions.
 - Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree

4. The 'TSANZ oxygen guidelines for acute use in adults' Guideline leaves enough room to consider the wishes of the patient.
 - Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
5. The 'TSANZ oxygen guidelines for acute use in adults' is a good starting point for my self-study.
 - Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
6. I wish to know more about the 'TSANZ oxygen guidelines for acute use in adults' before I decide to apply it.
 - Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
7. I have difficulty changing my old routines.
 - Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree

8. I think parts of the 'TSANZ oxygen guidelines for acute use in adults' are incorrect.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
9. If you DO NOT believe that the TSANZ guidelines are correct, please briefly outline why.
-
-
-
-
-
10. I have a general resistance to working according to protocols.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
11. Fellow clinicians do not apply the 'TSANZ oxygen guidelines for acute use in adults'
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
12. Managers/directors do not cooperate in applying the 'TSANZ oxygen guidelines for acute use in adults'
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
13. Organisational protocols do not allow me to apply the 'TSANZ oxygen guidelines for acute use in adults' (i.e. standard observation charts).
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
14. If you agree or strongly agree that organisational policies prevent the use of this guideline, please give an example.
-
-
-
15. Patients do not cooperate in applying the 'TSANZ oxygen guidelines for acute use in adults'
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
16. Working with the 'TSANZ oxygen guidelines for acute use in adults' is too time consuming.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
17. The 'TSANZ oxygen guidelines for acute use in adults' does not fit into my ways of working in practice.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
18. The layout of the 'TSANZ oxygen guidelines for acute use in adults' makes it easy to use/follow.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
19. If there are not enough supportive staff, it is difficult to provide evidence based care.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree

20. It is difficult to provide evidence based care when the equipment needed is not available (i.e. correct oxygen equipment)
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
21. It is difficult to provide evidence based care because I am not sufficiently trained.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
22. It is difficult to provide evidence based care because I have not been involved in setting up the practice change.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
23. It is difficult to provide evidence based care to patients who are acutely short of breath and appear to need more oxygen therapy than the guideline recommends.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
24. It is difficult to provide evidence based care to patients who do not know what their diagnosis is.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
25. It is difficult to provide evidence based care to patients who have not had an Arterial Blood Gas (ABG) taken.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
26. It is difficult to provide evidence based care to patients because this differs with basic concepts taught during my training.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
27. It is difficult to provide evidence based care to patients because an SpO₂ level of 92% is too low for most patients.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
28. It is difficult to provide evidence based care to patients because oxygen is not considered or treated with the same care as other drugs.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
29. It is difficult to provide evidence based care to patients because it is difficult to get doctors to consistently and accurately prescribe oxygen therapy.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
30. It is difficult to provide evidence based care to patients because nurses do not administer or monitor oxygen with enough care.
- Strongly Disagree
 - Disagree
 - Neither agree nor disagree
 - Agree
 - Strongly Agree
31. Would you like to add any further comments?
-
-
-

YOUR OPINIONS ARE IMPORTANT AND WE
THANK YOU FOR YOUR VALUABLE TIME.