Guideline 9.2.8 - First Aid Management of Rapid Breathing (including Panic Attack)

Summary

To whom does this guideline apply?

This guideline applies to adults, and children.

Who is the audience for this guideline?

This guideline is for bystanders, first aiders and first aid providers.

Summary of Recommendations

The Australian and New Zealand Committee on Resuscitation (ANZCOR) makes the following recommendations for bystanders, first aiders and first aid providers. They should:

1. Undertake an assessment in accordance with ANZCOR Guideline 2 – Managing an Emergency. If the situation appears to be an emergency send for an ambulance.
2. Assess whether the person is breathing normally and measure the respiratory rate.
3. Seek advice or assessment from a health professional for any person with an elevated respiratory rate that does not fully recover or relapses within 30 minutes. Send for an ambulance immediately if the person deteriorates during treatment.
4. Provide empathy and emotional support to all patients with hyperventilation whilst continually monitoring for deterioration and considering other causes of rapid breathing.
5. The Australian and New Zealand Committee on Resuscitation (ANZCOR) **strongly recommends against** using any form of rebreathing (e.g. paper bag) for the management of hyperventilation.[1]

1.0 | Introduction

1.1 | Abnormal breathing

Assessment of breathing is an important principle in first aid. This includes an initial determination of whether or not the person is breathing normally. An elevated respiratory rate can be a normal (physiological) response to day-to-day activities (e.g. exercise), an appropriate response to illness or injury, or at times, it is breathing more than the body's metabolic requirements (e.g. anxiety / panic attack).[1.]

The term hyperventilation is often thought to mean over-breathing due to anxiety, which is common in specific groups of people. However, rather than having a single cause, abnormal breathing may be due to several conditions, many of which are dangerous. Serious conditions that cause breathing difficulties can also make people feel anxious. Insufficient recognition of dangerous conditions is more dangerous than overtreating a panic attack.

This guideline aims to provide guidance on treating panic attacks, whilst ensuring that serious causes of hyperventilation are not missed. It acknowledges that a presumed diagnosis of panic attack is incorrect at least some of the time, and that many of potential causes of hyperventilation cannot be diagnosed in a first aid context.[2]

In short, if there is any doubt at all about whether the person's abnormal breathing is caused by hyperventilation or another problem, send for an ambulance.

1.2 | Panic attacks

Anxiety is a normal and healthy response to danger and threats and is useful when there is a life-threatening situation. Anxiety has physical effects, and effects on thinking and behaviour. A panic attack is an abrupt surge of intense fear or discomfort that reaches a peak within minutes. The person often feels that they have to do something urgently (e.g. escape to a safer place).[5] Panic attacks are common with more than 1 in 10 people experiencing a panic attack at some time in their life. They may occur more commonly in people who have an anxiety disorder, a common mental health condition in both Australia and New Zealand. However, panic attacks can occur in people with no previous history of anxiety disorder. Panic attacks are only one cause of abnormal breathing and should not be assumed to be the cause of abnormal breathing when other possibilities exist as noted above.

2.0 | Causes

An elevated respiratory rate has many causes including:

- disease or injury to the lungs or heart with faster breathing to make oxygen available e.g.

infections, asthma, clots, heart attack
- abnormalities of the blood chemistry e.g. increased acid levels due to diabetes, kidney failure, drug overdoses
- shock with decreased oxygen delivery to body organs e.g. trauma, sepsis
- psychological distress / problems e.g. anxiety / panic attack
- pain
- strenuous exercise.

Determining the cause of hyperventilation is not always easy. First aiders and first aid providers should not assume that all hyperventilation has a psychological cause.[3,4]

3.0 | Recognition

3.1 | Recognising abnormal breathing

First aiders and first aid providers should routinely assess respiratory function in people requiring first aid. This may be a global assessment of whether or not the person is breathing normally.

Breathing that is abnormal may be:

- absent
- ineffective
- too slow or too fast
- too shallow or too deep

The measurement of respiratory rate (per minute) is an important first aid assessment. It is most accurately undertaken by counting the number of times the person's chest rises and falls over 60 seconds. The person is usually at rest, not talking and ideally, unaware that their breathing is being observed.[4]

Table 1. Respiratory rate by age

Age	Normal range (per minute)	Significantly elevated (per minute)
Infant at 6 months	25-55	>55
Child 1-4 years	20-40	>40
Child 6-10 years	20-40	>40
Adolescent 12-17	14-26	>30

Adult	10-15	>30

3.2 | Consideration of serious causes of abnormal breathing

Many of the symptoms and signs of panic attacks (e.g. rapid and/or difficulty breathing, chest pain, dizziness) can be signs of more serious medical conditions. Any person with a suspected panic attack that does not fully recover within 30 minutes needs further assessment by a health professional. In general, if a person has no identified reason to have a panic attack, it should be presumed that they are suffering a different problem that may be life threatening, and an ambulance should be sent for.

First aiders should consider that any of the following indicates a high respiratory rate is more likely to be caused by a life-threatening disorder than panic attacks:

- occurring in a young child or a person aged more than 65 years
- associated with chest pain or palpitations
- clamminess
- paleness or change in colour.

Examples of life-threatening conditions that can be mistaken for a panic attack include:

- severe asthma
- anaphylaxis
- heart attack
- severe infection or sepsis
- pneumothorax (“punctured lung”)
- heart problems.

If any of these are suspected, send for an ambulance.

3.3 | Recognition of panic attacks

Panic attacks are intense, overwhelming and often uncontrollable feelings of anxiety combined with a range of physical symptoms and signs including:

- a sense of overwhelming panic or fear
- thinking you are dying, ‘losing control’ or ‘going mad’
- increased heart rate
- chest pain
- rapid breathing, difficulty breathing (feeling that there is not enough air)
- feeling choked

- excessive perspiration
- dizziness, light-headedness or feeling faint.

The most common age at which people suffer panic attacks is from mid-adolescence to young adulthood. People aged over 65 years are more likely to suffer a serious illness than to have a new panic attack.

Rapid breathing can lower calcium levels available for normal nerve and muscle function. This may lead to numbness on the face, hands and feet as well as muscle spasms of the fingers and/or hands. The fingers and wrists may become claw-like with the thumb held stiffly across the palm.

Other risk factors for panic attacks include the use of alcohol or drugs, and psychological stressors including isolation, fearful or traumatic experiences, low self-esteem and conflict with friends or family members.[6,7] The person may have experienced panic attacks previously.

Features that make panic attack more likely compared to other diagnoses include:

- Symptoms do not interrupt or wake the person from sleep.
- Symptoms occurring suddenly or “out of the blue”.
- The absence of a trigger (e.g. medication or exercise) for the symptoms.
- The person can speak freely, without problems.

Panic attacks reach a peak usually within 10 minutes and usually last for up to 30 minutes.

4.0 | Management

- Manage the emergency in accordance with ANZCOR Guideline 2. If the person is not breathing normally, give resuscitation following the Basic Life Support Flowchart (Refer to ANZCOR Guideline 8).
- If the person later becomes unresponsive or not breathing normally, give resuscitation following the Basic Life Support Flowchart (Refer to ANZCOR Guideline 8).
- If the situation appears to be an emergency send for an ambulance.
- Treat any identified causes. Send for an ambulance where recommended.
- Provide reassurance.
- If hyperventilation persists for more than 30 minutes or relapses, seek advice or assessment from a health care professional. If the person deteriorates with treatment, send for an ambulance immediately.
- If a panic attack is the most likely cause, manage with psychological support including:
    - Establish rapport, empathise and listen actively.
    - Acknowledge that the terror feels very real, reassure them that a panic attack, while very frightening, is not life threatening or dangerous.
    - Ensure that the person feels safe or protected from the perceived threat or actual danger. Seek appropriate support and assistance, reassure them once the threat or danger has passed.

- Ask the person if they have had these symptoms before and what they think might help.
- Encourage the person to establish slow and regular breathing.
- If symptoms and signs of a panic attack have fully resolved, referral for further immediate care is not routinely required. Advise the person to see or seek advice from a health professional or support service.

5.0 | Rebreathing as a treatment for anxiety / panic attacks

ANZCOR strongly recommends against using rebreathing techniques for the first aid management of hyperventilation. Rebreathing (e.g. paper bag) can result in critically low oxygen levels and may cause harm.[1]

6.0 | Further Reading

- ANZCOR Guideline 2 - Managing an emergency
- ANZCOR Guideline 8 - Cardiopulmonary Resuscitation
- ANZCOR Guideline 9.1.1- First aid management of bleeding
- ANZCOR Guideline 9.2.7 – First aid management of anaphylaxis
- ANZCOR Guideline 9.2.1 - Recognition and management of heart attack
- ANZCOR Guideline 9.2.3 - Shock
- ANZCOR Guideline 9.2.5 - First aid for asthma
- ANZCOR Guideline 9.5.1 - Emergency management of a person who has been poisoned

References

1. Callaham M. Hypoxic hazards of traditional paper bag rebreathing in hyperventilating patients. Annals of Emergency Medicine. 1989;18(6):622-8.
2. Wilson, C, Harley, C and Steels, S. (2017).Pre-hospital diagnostic accuracy for hyperventilation syndrome. 2017 Emergency Medicine Journal; 34(10):e3-e3.
3. Dean R, Mulligan J. First aid provision in nightclubs and other entertainment venues. Nursing standard (Royal College of Nursing (Great Britain) : 1987). 2009;24(9):35-40.
4. Pearn J. The sea, stingers, and surgeons: The surgeon's role in prevention, first aid, and management of marine envenomations. Journal of Pediatric Surgery. 1995;30(1):105-10.
5. Andrews G, Bell, C, Boyce P, Gale C, Lampe L, Marwat O, Rapee R, Wilkins G.
6. Niggemann B. How to diagnose psychogenic and functional breathing disorders in children and adolescent. Pediatric Allergy and Immunology. 2010; 21 (6):895-899
7. Robinson, PD, Greene, JW and Walker, LS. Functional somatic complaints in adolescents: Relationship to negative life events, self-concept, and family characteristics. Journal of

Pediatrics. 1988; 113(3):588-593

About this Guideline

Search date/s	2019
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