



## Guideline 9.5.2 - First Aid Management of Opioid Overdose

### Summary

#### Who does this guideline apply to?

This guideline applies to adults and children

#### Who is the audience for this guideline?

This guideline is for people who wish to assist another person who is unwell as a consequence of ingested, injected, transdermal or inhaled opioids, who are not healthcare professionals or trained first aiders, but have participated in overdose-response training (“overdose witnesses”).

This guideline may also be used by members of staff at “medically supervised injecting facilities” where they exist.

This guideline specifically does not apply to healthcare professionals (except staff at medically supervised injection facilities) community first aid providers, workplace first aiders, volunteers, or employees of first aid organisations or those providing first aid on a community bystander basis. These people are supported by [ANZCOR Guideline 9.5.1 - Poisoning](#).

#### Recommendations

The Australian and New Zealand Committee on Resuscitation (ANZCOR) makes the following recommendations:

1. Start CPR without delay for any unconscious person not breathing normally [[ANZCOR Guideline 8](#)] [Good practice statement]
2. Lay rescuers can administer naloxone in suspected opioid related respiratory or circulatory arrest when they are trained in its use.<sup>1</sup> [Good practice statement]
3. People who regain normal consciousness and respiratory function after naloxone rescue should be transported to hospital for observation.<sup>1</sup> [Good practice statement]

#### Abbreviations

<b>Abbreviation</b>	<b>Meaning/Phrase</b>
ANZCOR	Australian and New Zealand Committee on Resuscitation
CPR	Cardiopulmonary Resuscitation
CoSTR	Consensus on Science with Treatment Recommendations (from International Liaison Committee on Resuscitation - ILCOR)

## 1.0 | Introduction

Opioids are a class of drug which are generally used as pain-killing medications, but are also used for recreational drug use. Examples include morphine, codeine, oxycodone, hydrocodone, heroin, and fentanyl. Different preparations of opioids can be ingested, injected, transdermal or inhaled.

Opioid overdose is a common and important type of poisoning in the community. Overdose can lead to unconsciousness, slowing or stopping of breathing, and can potentially cause cardiac arrest.

Naloxone is an antidote to opioid poisoning. Recent advances in availability of naloxone to community members have improved the care of persons affected by opioid overdose. This guideline recommends the prompt provision of CPR to persons who are unconscious and not breathing normally, and the administration of naloxone by community members who have received appropriate training in the context of naloxone availability programs.

## 2.0 | Opioid ingestion and injection

Opioid use is an increasing cause of illness across the world. Australia has observed an increasing incidence of opioid overdose in the community. Opioid use resulting in life-threatening side effects can occur in a variety of circumstances, including deliberate administration, accidental ingestion, iatrogenic error and prescription by healthcare professionals.

### 2.1 | Signs and symptoms

The presence of evidence of opioid use (for example, opioid medications or packets, injecting materials, prescriptions or recent recorded medication administration should raise the possibility of opioid use. This can produce symptoms including:

- reduced conscious state or unconsciousness;
- confusion;
- slow or slurred speech;
- reduced respiratory rate;
- pinpoint pupils.

## 2.2 | General Treatment including CPR

First aid for opioid ingestion or injection has traditionally been managed using standard techniques for managing unconscious person. These principles are still of vital importance.

- If the person is unconscious but is breathing, lay person on their side and ensure airway is clear [Refer to [ANZCOR Guideline 3](#)].
- If the person is unresponsive and not breathing normally, commence resuscitation following the Basic Life Support [Flowchart](#) [Refer to [ANZCOR Guideline 8](#)].

A delay in starting CPR for patients with cardiac or respiratory arrest may be fatal. Sometimes a person may not be breathing normally and have ineffective breaths, they need CPR commenced despite these ineffective breaths [Refer to [ANZCOR Guideline 8](#)]

## 2.3 | Naloxone

Naloxone has been used in pre-hospital (paramedic) and hospital practice for many years as an intramuscular or intravenous injection. It has not traditionally been available to first aiders or bystanders. Recently, the legal requirements around the possession and use of naloxone have changed in some parts of Australia, making naloxone more available in the community.

Naloxone distribution to likely witnesses of opioid overdose has been trialled overseas, with no serious adverse events noted. Naloxone is now available for intra-nasal administration (atomisation) as well as intra-muscular injection. Intra-nasal atomisation is now the preferred route of administration given superior ease of use and safety. Government programs in Australia have started distributing naloxone to likely witnesses of opioid overdose, in conjunction with appropriate training.

ANZCOR believes it is appropriate for witnesses of opioid overdose to administer naloxone where their suspicion of opioid overdose is high, and they are trained to do so, provided this action is not at the expense of providing CPR and calling an ambulance.

## 2.4 | Follow up after successful naloxone rescue

A person who experiences opioid overdose and responds to first aid measures including CPR and naloxone should be referred to the ambulance service.

Where the ingested medication is long-acting (for example, Heroin or long-acting oral opioid preparations), there is a significant risk that the duration of action of the administered naloxone will be shorter than the ingested opioid, and the person may subsequently deteriorate, making referral essential.

Strong consideration should be given to transporting the person to hospital by ambulance, both to ensure that the risk of deterioration can be safely managed, and to allow the person to access further doses of naloxone. The person should be watched closely for evidence of recurrence of the respiratory depression until handed over to the paramedics.

## 3.0 | Training requirements for naloxone use by non-medical responders

Emerging evidence has suggested that many people in the community can successfully deliver the intervention after brief training. Organisations running naloxone-access programs should ensure that training provided is adequate for the purpose and equips participants specifically to safely deliver naloxone. Trainers should ensure that participants are adequately trained, including in CPR, safe management of persons during and after overdose, and safe infection control and injection hygiene practices.

There remains a significant risk that naloxone administration may be prioritised over CPR, or that starting CPR might be delayed, and training programs should address this risk.

## 4.0 | Other implications

### 4.1 | Cost

Naloxone in Schedule 3 preparations in Australia is costly and this may function as a barrier to access for people most likely to benefit from the intervention.

Organisations running naloxone-access programs should ensure that cost does not exclude community members from accessing naloxone treatment.

## References

1 Castren M, Perkins G, Kudenchuk P, Mancini MB, Avis S, Brooks S, Chung S, Considine J, Hatanaka T, Hung K, Nishiyama C, Ristagno G, Semeraro F, Smith C, Smyth M, Morley P, Olasveengen TM -on behalf of the International Liaison Committee on Resuscitation BLS Life Support Task Force. Resuscitation care for suspected opioid-associated emergencies Consensus on Science with Treatment Recommendations [Internet] Brussels, Belgium: International Liaison Committee on Resuscitation (ILCOR) Basic Life Support Task Force, 2020 Feb 11th. Available from: <http://ilcor.org>

## About this Guideline

<b>Search date/s</b>	October 2019
<b>Question/PICO:</b>	<p><b>Population:</b> Adults and children with suspected opioid-associated cardio / respiratory arrest in the pre-hospital setting</p> <p><b>Intervention:</b> Bystander naloxone administration (intramuscular or intranasal), in addition to standard CPR</p> <p><b>Comparators:</b> Conventional CPR only</p> <p><b>Outcomes:</b> Survival to hospital discharge with good neurological outcome and survival to hospital discharge were ranked as critical outcomes. Return of spontaneous circulation (ROSC) was ranked as an important outcome.</p> <p><b>Study Designs:</b> Randomized controlled trials (RCTs) and non-randomized studies (non-randomized controlled trials, interrupted time series, controlled before-and-after studies, cohort studies) are eligible for inclusion.</p> <p><b>Timeframe:</b> All years and all languages were included as long as there was an English abstract; unpublished studies (e.g., conference abstracts, trial protocols) were excluded. Literature search updated to Oct, 2019.</p>
<b>Method:</b>	ILCOR systematic review
<b>Primary reviewers:</b>	Dr Ned Douglas (SLSA)
<b>Other consultation</b>	Finlay Macneil
<b>Worksheet</b>	See <a href="https://www.ilcor.org/">https://www.ilcor.org/</a>

<b>Approved:</b>	April 2021
<b>Guidelines superseded:</b>	N/A