Clinical Practice Guidelines:
Toxicology and toxinology/Carbon monoxide

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<table>
<thead>
<tr>
<th>Date</th>
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<tr>
<td>Purpose</td>
<td>To ensure to consistent approach to the management of Carbon monoxide poisoning.</td>
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<td>Scope</td>
<td>Applies to all QAS clinical staff.</td>
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<tr>
<td>Author</td>
<td>Clinical Quality &amp; Patient Safety Unit, QAS</td>
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<td>Information security</td>
<td>This document has been security classified using the Queensland Government Information Security Classification Framework (QGISCF) as UNCLASSIFIED and will be managed according to the requirements of the QGISF.</td>
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Carbon monoxide (CO) is a colourless, odourless and tasteless gas produced by the incomplete combustion of hydrocarbon fuels e.g. contained fires, car exhaust etc.

Compared to oxygen, CO has over 200 times the affinity for haemoglobin, which will bind preferentially to CO forming carboxyhaemoglobin, thereby decreasing the oxygen-carrying capacity of the blood.[1] CO toxicity leads to hypoxia, but patients will not appear cyanosed, nor are they likely to have a cherry red colouration as this is rarely seen.[2]

If there is any suspicion of CO poisoning, the highest concentration of O2 possible should be applied immediately and continued until the patient is assessed by the receiving facility.[3,4]

In attending this type of incident, paramedics must maintain a high index of suspicion that the area is still contaminated with carbon monoxide and should not enter the scene until the area is declared safe by emergency response services with gas detection capability.

Clinical features

Neurological:
- headache, nausea, confusion
- ataxia, dizziness
- seizures
- coma

Cardiovascular
- tachycardia
- hypotension
- myocardial ischaemia
- arrhythmia

Respiratory
- pulmonary oedema

Other
- rhabdomyolysis
- metabolic acidosis
- disseminated intravascular coagulation

Risk assessment

Everyone is susceptible to carbon monoxide poisoning, however the following are at an even greater risk, such as:
- pregnant women and their unborn children
- infants
- people who smoke
- geriatrics
- people with chronic heart disease, respiratory disease or anaemia.
Transport to hospital
Pre-notify as appropriate

Consider safety issues and remove patient from exposure

Ongoing imminent risk of harm?

Y

Consider:
- IPPV
- IV access
- IV fluid

Manage as per:
- Verbal de-escalation
- QPS assistance
- Physical restraint
- EEA

N

Consider:
- Oxygen

Consider:
- CPG: Sedation – Acute
  behavioural disturbance

Note: Officers are only to perform procedures for which they have received specific training and authorisation by the QAS.