Clinical Practice Guidelines: Environmental/CBRIE

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Date
February, 2015

Purpose
To ensure consistent management of CBRIE incidents.

Scope
Applies to all QAS clinical staff.

Author
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Review date
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A chemical, biological, radiological, incendiary or explosive (CBRIE) incident involves chemical, biological, radiological, incendiary or explosive materials with potential to cause widespread damage, injury, illness or death. CBRIE incidents may be unintentional as in an industrial incident or intentional as in a terrorist attack.

**CBRIE materials can be classified into five (5) distinct categories:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Chemical:</strong></td>
<td>Substances including military chemical warfare agents or legitimate but harmful household or industrial chemicals.</td>
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<tr>
<td><strong>Biological:</strong></td>
<td>Dangerous bacteria, virus, fungi or biological toxins.</td>
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<td><strong>Radiological:</strong></td>
<td>Radioactive material.</td>
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<tr>
<td><strong>Incendiary:</strong></td>
<td>Any device capable of causing fire.</td>
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<tr>
<td><strong>Explosive:</strong></td>
<td>Reactive substances capable of generating an explosion.</td>
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</tbody>
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### Clinical features

- If suspecting a chemical, biological, or radiological (CBR) incident, use the STEP 1–2–3 (safety triggers for emergency personnel) approach which is the basis of the CBRIE management flowchart.

### Risk Assessment

- Remember that at all times paramedics will only enter a contaminated zone on authority and under the supervision of the lead agency.
- Paramedics are not expected to make decisions about the appropriate level of PPE that is required in the environment.
- Paramedics must always follow the instructions and directions of the lead agency incident commander.
- If you come into contact with affected or contaminated casualties, you must consider yourself contaminated and therefore a casualty. Remain at scene, commence self-decontamination and isolate yourself until given further instructions.
Is there only one collapsed casualty?

- **Y** Approach using normal procedures
  - If possible: withdraw, contain and report
  - Transmit METHANE information
  - Request specialist help
  - Do not compromise your safety or that of your colleagues or the public
  - If contaminated, isolate yourself and commence self-decontamination

- **N** If contaminated, isolate yourself and commence self-decontamination

Are there only two collapsed casualties?

- **Y** Approach with caution
  - Consider all options

- **N** METHANE:
  - Major incident confirmation
  - Exact location
  - Type of incident
  - Hazards identified
  - Access via
  - Number of patients (adult/paediatric), nature and priority of injured
  - Emergency services/resources required

Are there three or more collapsed casualties?

- **Y** CBR likely?
  - Y CBR contamination possible:
    - Approach with caution
    - Consider all options
  - N CBR contamination unlikely:
    - Approach using normal procedures

Consider:
- **DO NOT** approach the scene
- If possible: withdraw, contain and report
- Transmit METHANE information
- Request specialist help
- Do not compromise your safety or that of your colleagues or the public
- If contaminated, isolate yourself and commence self-decontamination

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