Alberta Health Services

PROTOCOL

TITLE
SUSPECTED POISONING

SCOPE
Provincial: Emergency Departments and Urgent Care Centres

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HCS-273-01

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NOTE: The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

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OBJECTIVES

- This protocol is intended for **patients** who present to an Emergency Department (ED) or an Urgent Care Centre (UCC) with suspected poisoning.
- To assist **health care professionals** when implementing specific diagnostics, therapeutics, and interventions for patients, prior to the initial Physician or Nurse Practitioner (NP) assessment.

APPLICABILITY

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

ELEMENTS

1. Points of Emphasis

1.1 The health care professional shall immediately notify the Physician or NP of any patient who:

a) is unstable;

b) presents with a significant altered level of consciousness; or

c) has a history of a potential life-threatening poisoning (examples include but are not limited to methanol, salicylate, acetaminophen, psychoactive substances, calcium channel blocker, etc.).

(i) Consider completing a suicide risk assessment, if appropriate.

1.2 For identified contaminants, the health care professional should refer to the *Workplace Hazardous Materials Information System (WHMIS)* for handling of the patient and their belongings, as appropriate.

1.3 This protocol may be implemented by a health care professional when:

a) there is a delay in Physician or NP initial assessment; and

b) the patient is in an appropriate location to manage ongoing assessment and reassessment.

1.4 When this protocol has been implemented for a patient who subsequently leaves prior to Physician or NP assessment, follow local process, including documentation requirements and patient follow-up of abnormal results.

2. Inclusion Criteria

2.1 A patient who presents with known or suspected poisoning.

3. Exclusion Criteria

3.1 This protocol is not intended for patients with known:

a) carbon monoxide (CO) poisoning. Refer to the AHS *Suspected Carbon Monoxide Exposure* Protocol;

b) opioid poisoning. Refer to the AHS *Naloxone Administration: Suspected Opioid Poisoning (Overdose)* Policy; or

c) button battery or detergent pod (e.g., laundry or dishwasher) ingestion.

(i) Immediate Physician or NP consult is required for patient management.

4. Assessment and Treatment

4.1 A complete nursing assessment is required. Obtain a full set of vital signs including airway patency, blood pressure,temperature, pulse, respiratory rate, oxygen saturation, pupils and Glasgow Coma Scale (GCS). Include Provocation, Quality, Radiation, Severity, and Time (PQRST) assessment of the pain and associated symptoms. (Refer to the AHS *Assessment and Reassessment of Patients* Guideline [ESCN]).

a) Perform a Point of Care Test (POCT) blood glucose measurement. If blood glucose is less than four (4) millimoles per litre (mmol/L) or greater than 18 mmol/L, then notify the Physician or NP and refer to the AHS *Glycemic Management* Policy Suite for appropriate management.

b) If patient is pregnant, then obtain a fetal heart rate (timed for a full 60 seconds) and fetal heart monitoring, if appropriate.

c) Notify the Physician or NP of abnormal assessment findings.

4.2 Complete a focused assessment regarding possible poisoning including but not limited to:

a) assessing for toxidrome(s);

b) medications or substances;

c) timing;

d) amount;

e) intent/plan; and/or

f) emesis and contents.

4.3 The Poison and Drug Information Service (PADIS) should be consulted by the health care professional early to obtain advice on management of all poisoned patients (including diagnostic recommendations) by calling 1-800-332-1414, option 1 (poisoning).

a) Communicate PADIS recommendations for specific treatment and diagnostics to the Physician or NP.

4.4 Oxygen Therapy:

a) Routine administration of oxygen may be harmful. Do not administer supplemental oxygen unless saturation is less than 90%. If oxygen is administered, then titrate to maintain oxygen saturation at 90%.

(i) If the patient states or the health care professional suspects that the patient has chronic hypercapnia (a carbon dioxide [CO_2] retainer), an oxygen saturation of 88% may be reasonable and oxygen therapy may not be required. A Physician or NP **order** for oxygen is required in this patient population.

4.5 Cardiac Monitoring:

a) Apply cardiac monitor leads where clinically indicated; monitor patient in lead II and if available, V1. Interpret the rhythm strip and include in the patient's **health record**.

b) Provide a close level of observation and continued monitoring of the patient's level of consciousness, vital signs, and electrocardiogram (ECG) (including QRS duration and QTc intervals).

4.6 Electrocardiogram:

a) If abnormalities are noted in cardiac monitoring, then the health care professional should:

(i) perform a 12-lead ECG and bring to the attention of a Physician or NP immediately if there are any abnormalities that deviate from normal sinus rhythm (e.g., QRS greater than [>] 0.10 milliseconds [msec], bradycardia, heart block, tachycardia, or prolonged QTc); and

(ii) document on the patient's health record when the ECG is given to the Physician or NP for their evaluation.

4.7 The health care professional shall assess the need for an intravenous (IV) line.

a) If required, start an IV. The IV may be a saline lock or infuse 0.9% sodium chloride (normal saline) at 30 millilitres per hour (mL/h).

5. Reassessment

5.1 The health care professional shall assess and document the patient's neurological vital (NVS) at least hourly. More frequent assessment is required where clinically indicated by the patient's clinical condition and response. Notify the Physician or NP if the patient's:

a) GCS is less than or equal to 13; or

b) GCS decreases by two (2) or more points.

6. Laboratory Tests

6.1 The following laboratory tests shall be drawn and sent:

a) complete blood count (CBC);

b) electrolytes (sodium, potassium, chloride, carbon dioxide);

c) glucose; and

d) creatinine.

6.2 Additional laboratory tests:

a) prothrombin time / international normalized ratio (PT, INR) if patient has ingested a drug known to affect coagulation or liver function, is on anticoagulant therapy, has liver disease or a bleeding disorder; and

b) obtain an order for:

(i) Ethanol Level (ETOH);

(ii) Salicylate Level;

(iii) Acetaminophen Level; and

(iv) other specific drug/toxin levels and serum osmolality, if applicable.

6.3 Local practice guidelines may determine the laboratory tests that are included as part of this protocol.

7. Medications

7.1 Obtain a patient-specific order for an antiemetic if required with consideration of PADIS recommendations.

8. Documentation

8.1 The health care professional shall document on the patient's health record:

a) initiation of this protocol;

b) assessments;

c) reassessments;

d) interventions; and

e) patient's responses to interventions.

DEFINITIONS

Health care professional means an individual who is a member of a regulated health discipline, as defined by the *Health Disciplines Act* (Alberta) or the *Health Professions Act* (Alberta), and who practices within scope or role.

Health record means the collection of all records documenting individually identifying health information in relation to a single person.

Order means a direction given by a regulated health care professional to carry out specific activity(-ies) as part of the diagnostic and/or therapeutic care and treatment to the benefit of a patient. An order may be written (including handwritten and/or electronic), verbal, by telephone, or facsimile.

Patient means an adult or child who receives or has requested health care or services from Alberta Health Services and its health care providers or individuals authorized to act on behalf of Alberta Health Services. This term is inclusive of residents, clients and outpatients.

REFERENCES

- Alberta Health Services Governance Documents:
  - *Assessment and Reassessment of Patients* Guideline (ESCN) (#HCS-181-01)
  - *Consent to Treatment/Procedure(s)* Policy (#PRR-01)
  - *Glycemic Management* Policy Suite (#HCS-206)
  - *Naloxone Administration: Suspected Opioid Poisoning (Overdose)* Policy (#HCS-247)
  - Suspected Carbon Monoxide Exposure Protocol (#TBD)
- Alberta Health Services Resources
  - *Workplace Hazardous Materials Information System (WHMIS)*