

# CanMEDS Rotation Objectives – Toxicology

## RCPS Emergency Medicine Residency Program

### Department of Emergency Medicine

### University of Alberta

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*\*While all objectives may not be accomplished in a single rotation, the aim is for the resident to actively seek learning opportunities to fulfill these objectives while on a particular rotation. Many of these objectives will overlap with other rotations. By the end of the residency program, all objectives should be covered.*

## Medical Expert

The learner should:

- Develop clinical assessment skills of the poisoned patient
- Develop appropriate differential diagnoses of patient presentations (ie fever or delirium):
  - Toxicologic
  - Non-toxicologic
- Develop knowledge of issues unique to toxicology:
  - Major toxidromes
  - Principles of pharmacokinetics
  - Principles of pharmacopathophysiology
  - Principles of elimination and decontamination
  - Principles of pharmacology of common antidotes
- Develop an understanding of the specific indications for and limitations of:
  - Gastric lavage
  - Whole bowel irrigation
  - Activated charcoal (including multi-dose charcoal)
  - Hemodialysis and hemoperfusion
  - Hyperbaric oxygen
- Develop knowledge of specific poisonings relevant to emergency medicine:
  - Cardiotoxic drugs (digoxin, beta blockers, calcium channel blockers)
  - Ethanol intoxication and withdrawal
  - Methanol, ethylene glycol and isopropyl alcohol
  - Narcotic intoxication and withdrawal
  - Salicylates
  - Acetaminophen
  - Iron
  - Environmental toxins (cyanide, carbon monoxide, organophosphates)
  - Sedative hypnotics and psychotropics (including TCA's)
  - Methemoglobinemia

## Communicator

The learner should develop communication skills to:

- Communicate effectively with patients and families
- Keep accurate and efficient records

## **Collaborator**

The learner should strive to:

- Demonstrate proficiency while interacting with referring physicians
- Recognize the roles of and interact effectively with other physicians and health care workers

## **Leader**

The learner should strive to:

- Develop awareness of indications for diagnostic imaging and laboratory investigations
- Recognize indications for hospital admission
- Understand the role of the Poison Control Centre and how to access it
- Develop awareness of appropriate use of health care resources

## **Health Advocate**

The learner should strive to:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

## **Scholar**

The learner should develop:

- Proficiency in critical appraisal of the toxicology literature
- The ability to apply current literature into daily practice

## **Professional**

The learner should:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate