

Toxicology – ROTATION DESCRIPTION AND EXPECTATIONS
Pediatric Emergency Medicine Subspecialty Residency - University of Calgary

ROTATION DESCRIPTION

Rotation Structure

The toxicology rotation is a four week experience where residents join the Clinical Pharmacology and Toxicology Residency Program at the University of Calgary, working closely with the multidisciplinary team from the Poison and Drug Information System (PADIS) and toxicologists. Under the guidance of a toxicologist, residents may participate in phone consultations with emergency physicians managing poisoned patients. They will also be involved in toxicology team activities and attend bedside consultations.

The rotation begins with a brief orientation with Amanda Lomboy at 9:00 am in the PADIS room 804A (8th Floor, North Tower). To find the room, take the elevators to the 8th floor, turn left, go through the double doors, and head down the hallway. Amanda's office is the first door on the left.

Teaching sessions are held three times a week, with the schedule available online before the rotation. Every day at 1:00 pm, you'll join the afternoon rounds call, where the poison information specialists review their active cases with the on-call toxicologist and fellows. During the day, you'll be notified of new consults and listen as the toxicology fellow or toxicologist provides advice. You will also participate in 9 home calls, where you'll be notified of consults and listen in on the discussions.

Additionally, you are required to give one 10-minute presentation on a topic of your choice to the other residents and fellows during the rotation.

As an alternative to the Calgary PADIS rotation, residents may choose to complete 2-4 weeks of toxicology training at New York University Bellevue Hospital.

Rotation Length

The toxicology is a four week rotation. Vacation requests will follow the PEM Vacation and Education and Leave Policy

(https://docs.google.com/document/d/1pQddx9VLT74sny263koOMLAg_MWns9Au/edit?usp=sharing&ouid=100114742872973660072&rtpof=true&sd=true).

Assessment

After completion of the rotation, an ITAR is sent to the Toxicology Evaluation Coordinator for completion.

EPAs

The following EPAs have been mapped to this rotation and can be obtained:

FOD	5	Working Effectively with Other Members of the Interprofessional Team
CORE	3	Managing Patients with a Complex Presentation of an Acute Illness
CORE	5	Managing Patients with a Acute Toxic Ingestion or Exposure
CORE	11	Managing Emotionally Charged Interactions with Patients, Families and/or Other Health Care Professionals
CORE	12	Coordinating Care with Other Services

ROTATION EXPECTATIONS (PEM Competencies 2023)

Medical Expert

1.3. Apply knowledge of the clinical and biomedical sciences relevant to Pediatric Emergency Medicine

1.3.10. Toxicology as relevant to clinical presentations in Pediatric Emergency Medicine

1.3.10.1. Drug overdoses

1.3.10.2. Substances of abuse and misuse

1.3.10.3. Other poisonings and ingestions

1.3.10.4. Methods to prevent absorption and enhance elimination

1.3.10.5. Antidotes, including indications, precautions, and dosing

2.4. Establish patient-centred management plans for:

2.4.2. Acute medical and surgical presentations and findings, including

2.4.2.1. Systemic

2.4.2.1.1. Acute intoxication and withdrawal

2.4.2.1.9. Toxidromes

ROTATION SPECIFIC OBJECTIVES (PEM RPC Approved pre-2023)

- Be familiar with the following toxidromes:
 - Sympathomimetic
 - Sedative
 - Hypnotic
 - Opiate
 - Anticholinergic
 - Cholinergic
 - Serotonergic
- Have an understanding of the presenting features, management and natural history of the following ingestions:
 - acetaminophen
 - anticholinergics
 - clonidine
 - caustics
 - carbon monoxide and cyanide
 - cyclic antidepressants and SSRIs
 - cardiovascular agents (beta blockers, digoxin, calcium channel blockers)

- drugs of abuse
- ethanol and the toxic alcohols
- envenomations
- hydrocarbons
- iron and heavy metals
- methemoglobinemia
- opioids
- organophosphates
- oral hypoglycemic agents
- plants
- salicylates
- sympathomimetics

For Communicator, Collaborator, Leader, Health Advocate, Scholar, Professional competencies, please review the appropriate section of the Pediatric Emergency Medicine Competencies document at: <https://www.royalcollege.ca/content/dam/documents/ibd/pediatric-emergency-medicine/pem-competencies-e.pdf>