Medical toxicologists are physicians who are involved in the comprehensive care of patients who come into contact with drugs, substances or other agents that pose a threat to their well being. This includes unintentional and intentional overdoses, exposures to industrial chemical products and environmental hazards, and exposures to natural toxins.

A Calgary based outpatient Medical Toxicology Clinic was started in September 2013 by the Poison and Drug Information Service (PADIS) where patients are seen in consultation by a Medical Toxicologist.

Inclusion criteria

The Medical Toxicology clinic is a monthly clinic designed to provide evaluation, diagnosis, and management of adult (18 years of age and older) patients in Alberta with any of the following:

- Exposures (both occupational and environmental) to potentially toxic substances such as metals (e.g. lead, arsenic, mercury, cobalt, chromium), pesticides, gases (e.g. carbon monoxide), vapors, fumes, particulate matter, and other hazardous materials
- Adverse events resulting from exposures to pharmaceuticals, herbal preparations, and complementary/alternative medicine therapies
- Follow up care after hospitalizations for toxic effects from pharmaceuticals, drugs of abuse, occupational and environmental toxins, and natural exposures (e.g. rattlesnake envenomations)
- Those requiring interpretation of toxicologic tests already performed (e.g. trace element screens) or opinions regarding therapy (e.g. chelation)

Please also see “Exclusions” below for a list of exclusion criteria.

Address to receive referrals
PADIS Medical Toxicology Clinic
North Tower, Foothills Medical Centre
1403 - 29th St NW
Calgary AB T2N 2T9
Phone: 403-944-6950
Fax: 403-944-6987

Address to see patients
Holy Cross Ambulatory Care Centre
Rockyview General Hospital
7007 14th St. SW
Calgary, Alberta T2V 1P9

Referrals are accepted by fax or mail.

Frequency
The clinic will occur monthly (either two half days or one full day depending on the month)

Referrals
Referrals are accepted from all physicians from anywhere in Alberta. It is essential that the following be included in the referral:

- Clinic referral form
- Relevant laboratory tests and diagnostic imaging results (see below)
- Relevant consultation letters (e.g. neurology, pulmonary, internal medicine)
- Material Safety Data Sheets for chemical exposures (if available)

Once the referral is received, we will contact the patient for an appointment and notify the referring physician’s office.
Triage categories

**Urgent (approximate time to be seen = 1 month)**
1. Symptomatic patients with elevated blood or urinary metal concentrations (e.g. elevated blood lead concentration with peripheral neuropathy).
2. Hospitalized patients requiring toxicologic follow up after discharge for poisoning.
3. Evaluation of adverse drug events from pharmaceuticals and complementary/alternative medicine therapies.

**Semi-urgent (approximate time to be seen = 1-2 months)**
1. Opinions regarding chelation therapy.
2. Interpretation of toxicology tests already performed.

**Routine (approximate time to be seen = 3 months)**
Patients with non specific symptoms where a toxicologic etiology is suspected.

Testing

In order to help assist with the referral process, patients being referred for the following conditions must have testing completed prior to initiating referral:

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Mercury (e.g. from seafood)</td>
<td>Erythrocyte mercury</td>
</tr>
<tr>
<td>Inorganic mercury (e.g. from antiseptics, photography)</td>
<td>24 hour urine for mercury</td>
</tr>
<tr>
<td>Lead</td>
<td>CBC, Whole blood lead</td>
</tr>
<tr>
<td>Arsenic</td>
<td>24 hour urine for arsenic</td>
</tr>
<tr>
<td>Metal on metal hip replacement assessment</td>
<td>Blood cobalt, blood chromium</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Venous carboxyhemoglobin</td>
</tr>
<tr>
<td>Rattlesnake envenomation follow up</td>
<td>CBC, INR, PTT, fibrinogen</td>
</tr>
<tr>
<td>General follow up after hospital discharge for poisoning</td>
<td>Provide all considered relevant as per referring physician</td>
</tr>
</tbody>
</table>

Additional Notes:

1. You may wish to discuss a patient with an Information Specialist or Medical Toxicologist prior to or instead of initiating a referral. Please contact PADIS at 1-800-332-1414 to speak with an Information Specialist. The Medical Toxicologist on call can be paged for you as necessary.

2. The clinic is unable to see acutely ill/emergent patients. For management of acute exposures, please call PADIS at 1-800-332-1414.

3. Referrals are accepted from physicians only. We do not accept self-referrals from patients. WCB cases are acceptable.

4. Please provide a list of current medications and allergies, any history of MRSA, VRE, C. Difficile, and any language barrier requiring interpreter (and what language).
5. For children ages 0-17 requiring evaluation and recommendations for environmentally-related health conditions and consultation for environment/health questions should be referred to the Children's Environmental Health Clinic, Misericordia Community Hospital, Edmonton at 780-735-2731, fax 780-735-2794, email ChEHC@albertahealthservices.ca.

6. Exclusions: referrals for these situations will not be accepted:

- management of substance abuse/dependence/addiction (refer to Alberta Health Services Addictions and Mental Health service in your area)

- multiple chemical sensitivity/environmental illness/environmental sensitivity (please refer to https://www.osha.gov/SLTC/multiplechemicalsensitivities/index.html for more information)

- mold exposures (refer to Alberta Health Services Environmental Public Health service in your area)

- evaluation for drug allergy (refer to CPSA website for specialists in Clinical Immunology and Allergy)