

Clinical Pharmacology Physician Consultation Service

Clinical Pharmacology is a physician-based medical subspecialty that translates the basic science of Pharmacology into the clinical practice of Therapeutics, focusing on the application of pharmacological principles and methods in the real world. It is based on in-depth knowledge of human pharmacology, pharmacokinetics, pharmacogenomics, toxicology and familiarity with how to assess the strengths and limitations of randomized trials of pharmaceutical products.

The goals of this service include the following:

- Diagnosis and management of medication-related adverse drug events
- Decreasing adverse drug events in and out of hospital
- Decreasing the use of unnecessary medications
- Decreasing in-hospital drug costs through rational use of medications
- Education of physicians, residents, nurses and allied health on safe and rational medication use

The Clinical Pharmacology Physician Consultation Service in Calgary is available to all Calgary adult hospitals from 8am-5pm, Monday to Friday. Consultations are done by physicians in person at the FMC and virtually for other adult hospitals, supported by a readily accessible and comprehensive electronic health record and in collaboration with other patient care team members.

Physicians are encouraged to call the Clinical Pharmacology physician on call with questions about patients with any of the following issues:

- Suspected adverse drug events of any kind (e.g. prolonged QTc, DRESS syndrome, Stevens-Johnson syndrome, abnormal laboratory results)
- Deprescribing (advice on reducing or stopping medications that are no longer needed), especially when patients are transferred from one unit to another (e.g. ICU to MTU)
- Polypharmacy advice
- Interpretation of pharmacogenomic testing results
- Specific therapeutically complex conditions including uncontrolled hypertension
- Unusual or unpredicted therapeutic responses to medications (unexplained inefficacy or toxic effects)
- New or unusual drug interactions
- Supra or subtherapeutic drug concentrations
- Management of substance withdrawal/drug discontinuation syndromes

Frequently asked questions

How do I contact the Clinical Pharmacology physician on call?

The Clinical Pharmacology physician on call can be reached between 8am-5pm Monday to Friday by pager by selecting the following in the Regional on Call Application (ROCA):

Site = FMC; Area = Internal Medicine; Service = Clinical Pharmacology Consults

Drs. Riley Hartmann, Tim Pollak, Akshatha Raghuveer, Kathryn Watson and Mark Yarema are the physicians on this service

Our physicians are also available for consultation through the Netcare e-referral service and the Calgary Zone Specialist Link.

What are some practical examples of when to consult the Clinical Pharmacologist on call?

- Could this patient's presentation be medication-related?
- Patient with possible adverse drug event. What should we do?
 - Rash
 - Fever
 - Organ involvement
 - Cytopenia
- Questions about restarting medications after an adverse drug event
- Suspected drug-induced organ injury (e.g. lung, liver)
- Suspected drug-induced laboratory abnormalities
- De-intensifying pharmaceutical care for patients transferred out of ICU
- Concerns about polypharmacy, especially in the elderly
- Difficult-to-control hypertension
- Suspected drug or substance withdrawal/discontinuation syndromes
- Questions about/interpretation of pharmacogenomic testing
- Therapeutic drug monitoring questions not normally managed by the Clinical Pharmacist

When would I consult the Unit Pharmacist or Pharmacy Services instead of the Clinical Pharmacologist on call?

- Drug interaction checks
- Questions about common adverse drug reactions
- Safe drug dosing in renal or hepatic dysfunction
- Medication reconciliation completion or questions
- Common therapeutic drug monitoring questions (e.g. vancomycin, gentamicin, digoxin)

When would I consult PADIS instead of the Clinical Pharmacologist on call?

The Poison and Drug Information Service (PADIS) Medical Toxicology consultation service sees acutely poisoned patients throughout the city. Please continue to refer all questions and consultations about such patients to PADIS at 1-800-332-1414.

Does the Clinical Pharmacologist on call manage issues related to addiction such as initiating opioid substitution therapy or arranging outpatient addictions follow up?

No. Access to an Addiction Medicine specialist in opioid dependency is available between 0800-2000 7 days a week. More information is available at <https://www.albertahealthservices.ca/info/page15558.aspx>.

What if I have questions for the Clinical Pharmacologist after 5pm or on weekends?

Currently, the Clinical Pharmacology physician on call is only available Monday to Friday from 8am-5pm, excluding statutory holidays. Please utilize your regular online and telephone resources outside of those hours.

Updated January 24, 2023