

## **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 based at the Foothills Medical Centre (FMC) and is available to all Calgary adult hospitals from 9am-5pm, Monday to Friday. Consultations are done by physicians in person at the FMC or over the telephone 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)
- 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
- 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
- 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 9am-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

Drs. Tim Pollak, Kathryn Watson and Mark Yarema are the current physicians providing call coverage.

Starting in January 2021, our physician group will also be 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 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, option 1.

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

No. Referrals to the FMC Addiction Service can be made Monday to Friday 0800-1600 through SCM. Access to an Addiction Medicine specialist in opioid dependency is also available between 0800-2000 7 days a week through RAAPID North or South. 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?**

At this time, the Clinical Pharmacologist physician on call is only available Monday to Friday from 9am-5pm. Please utilize your regular online and telephone resources outside of those hours.