Information Handbook for Pain Medicine Residents

Pain Medicine Residency Program

Department of Anesthesia, Faculty of Health Sciences, McMaster University
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Welcome to the McMaster University Pain Medicine Residency Program

It is a pleasure to welcome you to the McMaster University Pain Medicine Residency Program. With hard work and dedication, at the end of the two-year residency, you will have developed into a well-rounded pain physician competent in all aspects of pain medicine, and we hope you will take the experience and expertise you’ve gained to become a leader and advocate for pain medicine at the local, provincial, national, and international levels.

This handbook will be an important resource for you during the Residency Program; you will find important contact information, an overview of the Residency Program Committee, recommended references, evaluation protocols, educational objectives for the residency in general and for each specific rotation, an outline of the clinical rotations, and important policies and procedures on resident safety and support services. We hope you will find this handbook useful and informative.

The members of the teaching faculty and I look forward to working with you.

Philip Chan MD, FRCPC (Anesthesiology, Pain Medicine), FIPP
Program Director
Program Contact Information

Program Director: Dr. Philip Chan
Program Assistant: Ms. Tammy Purchase
Chair, Department of Anesthesia: Dr. James Paul
Site Director, M.G.D. Pain Clinic: Dr. Binh Khong
Site Director, S.J.H Pain Clinic: Dr. Mauricio Forero
Director of Research: Dr. Harsha Shanthanna
Academic Curriculum Director: Dr. Sean Curran

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Residency Program Committee

The Pain Medicine Residency Program Committee (PM-RPC) shall assist the Program Director (PD) in all aspects of the management and ongoing development of the Pain Medicine Residency Program. The PD ensures that the standards set by the Royal College of Physicians and Surgeons of Canada (RCPSC) are met by the Program. The PD reports to the Chair, Department of Anesthesia and to the Assistant Dean of Postgraduate Medical Education.

The PM-RPC will meet at least 3 times per year and is composed of:

- Program Director (Chair)
- Site Director – St. Joseph’s Healthcare (SJH) Pain Clinic
- Site Director - Michael G. DeGroote Pain Clinic – McMaster University Medical Centre
- 1 resident representative
- Director of Research
- Academic Curriculum Coordinator
- Chair of Department of Anesthesia
- Program Assistant
- As needed: rotation directors of Psychiatry; Physical Medicine and Rehabilitation; Rheumatology; Sleep Medicine; Neurology; Palliative Care; Paediatrics; and Acute Pain Service

The PM-RPC is responsible for:

1. Ensuring the adequacy of clinical, administrative and faculty resources, as required by the RCPSC.

2. The design and structure of the Program, including the goals and objectives for each rotation, based on:
   a) The CanMEDS competencies;
   b) Specialty Training Requirements of the RCSPC; and
   c) The policies of McMaster University Department of Anesthesia, the affiliated hospitals, and the qualifying bodies: College of Physicians and Surgeons of Ontario (CPSO) and RCPSC.

3. The quality of the educational experience (both the clinical and academic aspects) provided by the Program. This will include regular evaluation of clinical teachers; clinical rotations; academic teachers; academic experiences.

4. The assurance of a safe and collegial environment within which the residents may achieve their educational goals. This includes supporting the social elements of the Program; over-seeing appropriate call and workload for residents; ensuring the provision of adequate call room and library facilities.

5. The determination of the requirements that the Program has for each resident at each level. The PM-RPC must ensure that each resident is advancing and gaining in both medical expert competencies (in experience, ability and responsibility) as well as the non-technical competencies as they progress through the program. Such progress is documented in the promotions portfolios and ITARs and will be formally reviewed by members of the RPC on an annual basis.

6. The appropriate and timely evaluation of each resident in the Program, in multiple domains and by multiple observers, through a well-organized in-training evaluation strategy.

7. The oversight of the development of educational plans, when necessary, in a manner that considers the need for confidentiality.

8. The maintenance of an appeal mechanism in accordance with policies determined by the Faculty Postgraduate Education Committee.

9. The establishment of mechanisms to foster career planning.
Residency Program Committee

10. Facilitating counseling for residents who are dealing with problems such as psychological stress.

11. Ensuring an appropriate process for the selection of residents for the Program, including the determination of the appropriate number of residents.

12. Conducting an annual review of the Program to assess the quality of the educational experience and to review the resources available in order to ensure that maximal benefit is being derived from the integration of the components of the Program. This review must include:

   a) An assessment of each component of the Program to ensure that the educational objectives are being met;

   b) An assessment of resource allocation to ensure that resources and facilities are being utilized with optimal effectiveness; and

   c) An assessment of teaching in the Program, including teaching in areas such as biomedical ethics, medico-legal considerations, and administrative and management issues.

   d) The opinions of the residents must be among the factors considered in this review. Appropriate faculty/resident interaction and communication must take place in an open and collegial atmosphere so that a free discussion of the strengths and weaknesses of the Program can occur without hindrance.

13. Minutes are kept and circulated to all members of the PM-RPC and after approval, to all faculty and residents.
Library Resources and Recommended References

Online Access

McMaster University Health Sciences Library offers online access to a wide range of journals and electronic editions of current textbooks.

To gain access to these resources, residents will require a MAC ID, a unique, common identifier enabling single sign-on for a number of McMaster systems and applications. (Your MAC ID is not your employee or student number).

All existing employees already have a MAC ID. New residents will be assigned a MAC ID, which can be activated at the MAC ID activation tool.

Royal College Recommended Study Materials

Study materials for the Royal College Examination in Pain Medicine include, but are not limited to:

- Self-Assessment Module for Pain Medicine (SAM-PM). SAM-PM is a self-study continuing medical education (CME) program that covers established knowledge in the subspecialty field of pain medicine. With the SAM-PM program you can assess areas of strength and weakness in pain medicine knowledge and target ongoing education in these areas. It is established by the combined efforts of the American Society of Anesthesiologists (ASA) and the American Society of Regional Anesthesia (ASRA). Content includes 100 questions with answers, detailed discussions explaining the rationale for each answer and references for further study. Subscribers complete the program at their own pace and submit the answers online to receive CME credit.


- Bonica’s Management of Pain, 4th edition

Subspecialty

- Cancer Pain. Pharmacologic, Interventional, and Palliative Approaches. Editors: Oscar A. de Leon-Casasola, MD (Elsevier)

Psychiatry

- Medically Unexplained Symptoms, Somatization and Bodily Distress: Developing Better Clinical Services. Editors: Frances Creed, Peter Henningsen and Per Fink. (Cambridge Medicine)

- DSM-5, American Psychiatric Association

Pediatric


Miscellaneous

- Health Canada Medical Marijuana document

- Basbaum AI, Bautista DM, Scherrer G, Julius D. Cellular and molecular

- The 2017 Canadian Guideline for Opioids for Chronic Non-Cancer pain
- 2012 Canadian guidelines for the diagnosis and management of fibromyalgia syndrome

- Quebec Task Force Scientific monograph of the Quebec Task Force on Whiplash-Associated Disorders

Other References That May Be Useful
- Canadian Institute for the Relief of Pain and Disability – Chronic Pain Webinars
- Pain Review Courses offered by the Dannemiller Education Center

Interventional
- Spine Intervention Society (SIS) Practice Guidelines

Sleep Medicine
- Principles and Practice of Sleep Medicine. By Kryger MH, Roth T, and Dement WC. (Elsevier)
Educational Activities

All residents will be required to attend the weekly academic session on Wednesdays. All residents will be excused from clinical duty as of 16:00 to attend the sessions.

A curriculum has been designed to cover the objectives associated with each of the CanMEDS roles (see the section Educational Objectives). The dates, times, and locations of all educational activities are available on the Program’s online calendar, which can be assessed by any calendar product that supports the iCal format.

The first hour of the Academic Half Day (AHD) will consist of a didactic lecture presented by a faculty member or by an invited speaker. On some weeks, there will be sessions conducted via teleconference with residents across the country, and there are also Multidisciplinary Academic Days (MAD) organized by McMaster University; these quarterly events allow for the presentation of non-traditional content common to all residency programs, and for residents from different programs to get to know one another.

The second hour will consist of one of the following activities:

Brief topic review

One resident will give a brief presentation (less than 30 minutes) on a specific topic that is not covered by the didactic lectures. Examples of topics may include: overview of discrete clinical conditions e.g. meralgia paresthetica; in-depth review of a new medication or the novel use of an existing medication; review of the literature on the diagnosis or treatment of a specific clinical condition.

Resident journal club

One resident will select, pre-circulate, and present on a new clinical study or basic science study from the pain medicine literature. The resident will provide an overview of the study methodology, review the results, and summarize the author’s conclusions. Then the resident will provide critical appraisal of the study, and conclude with the applicability of the study’s conclusion(s) on one’s own practice.

Trouble Rounds

One resident will present on an interesting case encountered during clinical work. Examples of cases that may be discussed include: a rare or uncommon presentation of a common clinical problem; a clinical situation that is not usually encountered; an unusual or severe complication from an interventional or pharmacological therapy; the successful application of a new or novel treatment modality; or a complicated clinical scenario. The presenting resident is not expected to prepare a formal lecture, but will be expected to lead or facilitate the discussion amongst the attendees, and thus will need to do a targeted literature review prior to the session.

Research update

One resident will discuss his/her research project. Early in the residency, these sessions may revolve around research topic selection, research question formulation, and methodology. As the resident progresses, the updates will shift in focus to recruitment, data analysis, and trouble-shooting of issues that arises as the study proceeds. A formal presentation is not expected, but the resident will be expected to lead or facilitate the discussion.

Other educational activities

Some objectives will be covered using self-directed learning modules and self-reflective essays.

In addition to the above academic half day curriculum, the resident will be expected to attend the following academic activities:

Pain Grand Rounds

Held on the last Thursday of every month from September to June starting at 17:30 in Room 2232, Michael DeGroote Centre for
Learning and Discovery (MDCL). Lectures are given by local experts as well as invited outside speakers on various topics in pain medicine, ranging from basic science research, new clinical research, and in-depth topic review.

Pain Journal Club

Held every 4 months for a multi-disciplinary audience. One resident and another presenter, along with a staff moderator, will present 2 papers on a new clinical study or basic science study from the pain medicine literature. Each presenter will prepare a formal presentation, which will provide an overview of the study methodology, review the results, and summarize the author’s conclusions. The presenter will provide critical appraisal of the study, and conclude with the applicability of the study’s conclusion(s) on one’s own practice.

Additional ultrasound-guided intervention practice sessions

Other Educational activities

1. Academic Grand Rounds of the resident’s primary specialty (as the schedule allows)
2. Academic half day offered by the residency training program of the resident’s current rotation e.g. paediatric half day during the paediatric pain rotation
3. Annual Research Day of the resident’s primary specialty (as schedule allows)

Conferences

The resident will be expected to attend at least one recognized North American or International pain conference per year (suggested conferences are listed on the online academic calendar).

The Program will provide an academic support allotment per year, which will support residents presenting peer-reviewed abstracts/papers/posters at conferences for the following expenses:

1. Economy air fare (original boarding passes must be presented with airline invoice)
2. Meeting Registration (if not provided)
3. Hotel accommodations (standard) for one or two nights, depending on the distance travelled

Residents will pay for these expenses out of pocket and then submit original invoices/receipts for reimbursement. Maximum reimbursement will be $500 for a poster presentation and up to $1000 for an oral presentation.

To be eligible for academic support, the following criteria must be met: 1) MedSIS To-do’s must be up to date; 2) Residents must meet expectations regarding attendance at academic events.

Residents will be only allowed to submit for reimbursement on the same paper/abstract/project one time during their residency. If the same project results in multiple abstracts being accepted at multiple meetings, then one conference should be chosen for reimbursement.

Funds that are not used by June 30 are not carried over. All receipts must be received within 30 days of travel, with details, supporting documents, and proof of payment and attendance required. We reserve the right to return receipts that do not meet McMaster University and Department guidelines for reimbursement.
Resident Evaluation

Promotion

The program director (PD) will meet with individual residents every 6 months to review their promotion documents. Decisions about promotion will be made during Residency Program Committee (RPC) meetings on an annual basis; the following sources will be considered:

1. **Daily or weekly evaluations from clinical supervisors.** Residents will be evaluated at the completion of each 4-week block using the In-Training Assessment Report (ITAR); a midpoint ITAR will also be done during the multidisciplinary pain clinic rotation (MDPC). The site/rotation director will have an in-person meeting with each resident to review his/her ITAR at the end of the rotation. The PD will receive the ITAR and may review it with the resident during the meeting.

2. Each staff supervisor will perform at least one **Direct Observation of Clinical Skills (DOCS)** evaluation of each resident per rotation. He/she will also review at least one consultation note or follow-up note per clinical day.

3. Each resident will have at least one **Structured Assessment of Clinical Evaluation Report (StACER)** completed per year (during the MDPC rotation).

4. **360 degree evaluations** will be completed once per rotation (3 times during the MDPC rotation) by allied healthcare staff (nursing, physiotherapists, occupational therapists, psychologists, and administrative staff).

5. Review of **resident self-reflection forms and log books.** Reflection forms are completed by the resident on his/her own and will present an opportunity for the resident to reflect on some of her/his clinical experiences and what she/he has learned from those experiences.


7. Evaluations from journal club and grand rounds presentations.

8. Evaluation from junior residents with regards to clinical teaching and didactic sessions.

In addition to the above sources of evaluation, the following will also be reviewed at the semi-annual meeting with the PD:

1. Progress with research project
2. Results of In-training examination

In-training examinations

Three in-training examinations will be held during the pain medicine residency program - one in December of year 1 of training, one in June of year 1 of training, and one in December of year 2 of training. The examination will test the resident’s mastery of materials that are not easily evaluated during the course of clinical activities.

The examination will consist of:

- Multiple choice questions (MCQ)
- Short answer or essays questions
- Objective Structured Clinical Examination (OSCE’s) stations, whereby physical examination skills, diagnostic imaging interpretation skills, counseling skills, interviewing skills, and 12intervene-tional procedures skills may be tested.

Levels of educational plans

Upon learning of a resident’s difficulties during a particular rotation, the PD will meet with the resident to discuss the concerns.

If remediation is required as a result of an “unsatisfactory” or a “provisional satisfactory” evaluation, the Pain Medicine Residency Program Committee (PM-RPC) will meet to discuss the deficiencies noted.
An Enhanced Education Plan (EEP) (level 1) is required to address situations such as (but not limited to):

- Repeated deficiencies noted in one or more competencies across several training experiences, whether or not the assessments of individual training experiences are deemed “Satisfactory”, or where the overall summative assessment in one or more training experience is “Provisional Satisfactory”;
- Less than satisfactory assessment on other non-ITAR forms of assessment e.g. tests for knowledge base;
- Concerns about the professional conduct of the resident.

The written EEP must specify at a minimum:

- Learning objectives based on the identified performance concerns/deficiencies
- Teaching and learning strategies for improvement and correction
- Assessment tools to be used to document performance
- Time-frames for assessment of successful completion
- Parameters of successful completion of EEP
- Consequences of less than satisfactory completion of EEP

**An EEP does not result in an increase in the duration of training** i.e. the performance concerns can be addressed within a subsequent training experience.

The EEP must be reviewed and approved by the RPC and may be forwarded by the PD/RPC to the Education Advisory Board (EAB) for review and/or assistance. The EAB is an arm’s length body that assists the programs and residents on academic matters and acts on behalf of the Postgraduate Medical Education (PGME) office, and may assist in designing education plans.

The EEP must be reviewed and agreed upon with the resident. The resident and PD must both sign the document outlining the EEP and a copy of the plan will be given to all parties.

Moonlighting or applications for Restricted Registration are not permitted for the duration of the EEP.

The assessments from the EEP will be reviewed by the PD and RPC to determine the outcome:

- **Satisfactory**: The resident has completed the learning objectives of the EEP and will continue with the regular training program.
- **Provisional Satisfactory**: Some progress has been made but insufficient to correct all performance concerns, and/or new deficiencies have been identified. The resident will continue training with an EEP (revised as necessary) for an additional period of time. The Program may wish to have the EEP reviewed by the EAB.
- **Unsatisfactory**: No significant progress has been made and a Remediation Plan must be developed (see below). The resident must meet with the PD and be advised of the outcome recommendations within 10 business days of the completion of the assessment period.

A Remediation Plan (level 2) is required to remedy identified ongoing deficiencies such as (but not limited to):

- Unsatisfactory EEP;
- One or more “Provisional Satisfactory” summative assessments, and the, deficiencies are felt to be better addressed by Remediation rather than EEP;
- “Unsatisfactory” summative assessment;
Remediation at a minimum:
The written Remediation Plan specified by the RCPSC requirements
must certify by the RCPSC, as long as training required for credentialing and
Remediation periods can count towards

1. Remediation may extend the duration of training in a program. More than one remediation period is permitted, provided there has been progress demonstrated. Remediation periods can count towards training required for credentialing and certification by the RCPSC, as long as approved by the PD and RPC, and requirements are met for training as specified by the RCPSC.

The written Remediation Plan must specify, at a minimum:

- Learning objectives based on the identified performance concerns/deficiencies
- Teaching and learning strategies for improvement and correction
- Assessment tools to be used to document performance
- Time-frames of assessment for Remediation
- Parameters of successful completion of Remediation
- Consequences of less than satisfactory completion of Remediation
- Any practice restrictions during the Remediation period
- Any extension of training that may be required for successful completion of the program

The Remediation plan must be forwarded to the EAB for approval. This should be done at the onset of the Remediation period. Such requests must be made in writing to the PGME office, outlining the specific concerns. The PGME Office will facilitate a meeting of the EAB, if required.

Extensions of training required for Remediation must be specified in the Remediation Plan, and approved by the EAB and Assistant Dean, PGME. Moonlighting or applications for Restricted Registration are not permitted during the period of Remediation. Active remediation may result in deferral of promotion to the next stage of training. The Resident may appeal the requirement for Remediation.

The assessments from the Remediation period will be reviewed by the RPC to determine the outcome within 5 business days from the completion of the Remediation period. The RPC will advise the Assistant Dean, PGME of their decision. The Resident and the PGME Office must be informed in writing. The Resident must be advised of the Appeals Policy. The PGME Office will inform the EAB of the outcome of Remediation for information.

- **Satisfactory:** The resident has made sufficient progress in addressing the documented deficiencies, and will continue in the program at a level to be determined by the PD and RPC.

- **Provisional Satisfactory:** The resident has made some progress in addressing the documented deficiencies, but more time will be needed for improvement. The PD and RPC may request an extension of Remediation period. A revised Remediation Plan must be submitted to the EAB, requesting approval of the additional Remediation period.

- **Unsatisfactory:** The resident fails to achieve the objectives stated for successful remediation. The Resident will be placed on a second Remediation
Plan or Probation (see below). The EAB and Assistant Dean, PGME will be notified and a copy of the second RemEDIation Plan or Probation Plan will be forwarded to the PGME office.

Triggers for **Probation** (level 3) include, but are not limited to, the following:
- “Unsatisfactory” summative assessment on completion of one or a maximum of two consecutive remediation periods
- Following Suspension (see below)

The probation period is of a defined length to be determined on a case-by-case basis, but should normally not be less than two blocks. **The Probation period will not count towards the training required for certification** by the RCPSC. The probation period can be extended as defined below, but the resident will be restricted to one Probation period for the same issue(s) during the residency program.

The written Probation Plan must specify at a minimum:
- Identified deficiencies requiring improvement/ correction
- Teaching and learning strategies for improvement and correction
- Assessment tools to be used to document performance
- Time-frames of assessment during the Probation period
- Consequences of less than satisfactory Probation
- Any practice restrictions during the Probation period
- Extension of training required for successful completion of the program

The Probation Plan must be reviewed and approved by the RPC, prior to implementation. The PD and the resident, if in agreement, must sign the document outlining the Probation Plan.

The Probation plan must be forwarded to the EAB for review and approval. This should be done prior to the onset of the Probation period, if feasible. The PGME Office will facilitate a meeting of the EAB.

Extensions of training must be specified in the Probation Plan, and approved by the EAB and Assistant Dean, PGME. The resident cannot be promoted while on Probation. A resident who has been on Probation during a program will not be permitted to moonlight or apply for restricted license for the remainder of the program. The resident cannot do electives during the Probation period.

Any vacation or leave of absence request must be approved in writing in advance by the PD. In the event that the PD determines that a leave of absence is appropriate, the Probation will be considered incomplete. In such event, the Probation will be redesigned by the PD, in consultation with the RPC, upon the resident’s return.

The resident may appeal the designation of Probation.

The assessments from the Probation period will be reviewed by the RPC to determine the outcome within 5 business days of completion of the Probation period. The PD will advise the resident and Assistant Dean, PGME within 48 hours of the decision. The resident and the PGME Office must be informed in writing. The resident must be advised of the Appeals Policy. The PGME Office will inform the EAB of the outcome of Probation for information.

- **Satisfactory:** The resident must demonstrate that s/he has made sufficient progress in addressing the documented deficiencies to be permitted to continue in the program, and fully comply with all other academic
Resident Evaluation

expectations as outlined in the
Probation Plan and any other terms and
conditions prescribed by the RPC. S/he
will continue in the postgraduate
program at a level determined by RPC.
The RPC may consider an EEP after
successful completion of Probation if
additional monitoring of performance is
felt to be required.

- **Provisional Satisfactory:** The resident
  has made some progress in addressing
  the documented deficiencies, but more
time and/or supports is required for
correction of identified deficiencies. The
PD/RPC may request an extension of
the period of Probation, up to a
maximum of 3 blocks. A revised
Probation Plan must be submitted to
the EAB, requesting written approval of
the additional Probation period.

- **Unsatisfactory:** The resident fails to
  achieve the objectives outlined in the
Probation Plan with no evidence of
significant improvement of performance.
In the event of an “Unsatisfactory” outcome, the RPC will recom-
mend Dismissal. The recommendation
will be immediately forwarded to the
Assistant Dean, PGME and EAB for
review and decision.

Suspension and Dismissal

A resident can be suspended from their
duties for any of the following reasons,
which are viewed as critical event(s):

- Concerns about patient care and safety
  are considered egregious;
- Substance abuse impacting
  performance;
- Inappropriate patient / physician
  interactions, reflecting Physician/
  Patient boundary violations, as defined
  by CPSO;
- Unprofessional conduct as outlined in
  Professionalism in Practice (PIP);
- Suspension of registration with the
  College of Physicians and Surgeons of
  Ontario (CPSO);
- Loss of hospital privileges;
- Criminal activity, leading to charges
  and/or conviction, that calls into
  question the ability of the resident to
  maintain the integrity of the Profession;
- A finding of an Academic Integrity
  Offence, as determined by University
  policies;
- Any other reasonable factor as
determined by the RPC.

Clinical Supervisor may immediately
remove residents from the training
experience if an event has occurred that
s/he considers egregious. However, the
designation of Suspension may only be
given by the PD, or Assistant Dean, PGME.

The PD must notify the resident within 24
hours, in writing, that s/he is suspended
with pay, pending an investigation. The PD
will also notify the Assistant Dean, PGME,
within 24 hours of the suspension.

The PD must meet with the resident to
review the reasons and the events leading
up to the suspension. Where possible, any
such meeting should be held within 5
business days of issuance of the notice of
suspension. The resident may be
accompanied by a colleague or other
support person. Should the resident plan to
attend the meeting with Counsel, they shall
be entitled to do so but must advise the
university in writing with 72 hours’ notice to
allow the university to facilitate the attend-
dance of their own Counsel at the meeting.

The PD will investigate the situation, which
includes meeting with the Clinical
Supervisor / CTU Director and other
relevant parties, as applicable and gathering
documentation from all parties, including
the resident. The investigation must be
completed within 10 business days of
issuance of the notice of suspension.

A formal review by the RPC must be held
within 5 business days once the investigation is completed. Documentation will be provided to all members of the RPC and the resident prior to the meeting. Individuals on the RPC who may have a conflict of interest must declare this prior to the meeting and withdraw from the committee proceedings.

The resident will be invited to participate at this meeting and may wish to bring a support person or counsel.

There must be a written record of the meeting.

Possible Recommendations from the RPC regarding the Suspension Include (but are not limited to):

- Reinstatement into the Program;
- Reinstatement into the Program with an EEP or Remediation or Probation, with EAB review;
- Dismissal from the Program.

The PD will advise the resident and the Assistant Dean, PGME in writing of the Program Committee’s recommendation within 5 business days.

The Assistant Dean will review the documentation and make a decision as to whether the recommendation is upheld within 3 business days. The PD/RPC has the mandate to make decisions within their own jurisdiction; however, the Assistant Dean will make the ultimate decision regarding the option to seek alternative solutions.

The Assistant Dean may also consult with the Advisor of Professionalism in Clinically Based Education and/or request a meeting of the Appeals Review Board (ARB). The Assistant Dean, PGME, will advise the resident and the PD, in writing, of a decision to convene the ARB, which is a board that adjudicates and investigates Level 2 appeals on behalf of the PGME Office, Residency and Fellowship Program committees, Learners and/or the Assistant Dean, PGME.

The events that may lead to dismissal include but are not limited to:

- Unsuccessful period of Probation;
- Following Suspension;
- Loss of CPSO License;
- Loss of hospital privileges.

The RPC will make a recommendation regarding dismissal of a resident.

The resident must be advised by the PD, in writing, of the recommendation to dismiss him or her from the program and the reasons for this decision. A copy of this letter must be sent to the Assistant Dean, PGME. All notifications must take place within 2 business days of the recommendation of the RPC.

The Assistant Dean will review the documentation surrounding the dismissal within 5 business days and determine whether the recommendation is accepted or declined. The RPC has the mandate to make decisions within their own jurisdiction; however, the Assistant Dean will make the final decision regarding accepting the recommendations or to consider the option to seek alternative solutions.

The Assistant Dean may also consult with the Advisor of Professionalism and/or request a meeting of the ARB. The Assistant Dean, PGME, will advise the resident and the PD, in writing, of a decision to convene the ARB within 5 business days of the notification of dismissal from the PD.

The resident will be notified in writing of the decision of the Assistant Dean, PGME within 10 business days of the notification. PGME Office must advise hospital administration, as appropriate, and the College of Physicians and Surgeon of Ontario when a resident is dismissed. The resident will be advised of his or her right to appeal this decision and the appeals process.
Pain Medicine Faculty

Michael G. DeGroote Pain Clinic

Dr. Elaheh Adly: Dr. Adly is an Assistant Clinical Professor of Anesthesia at Hamilton Health Sciences. She has over ten years training in anesthesia in Iran and Canada. After finishing her anesthesia residency at McMaster University, she completed a chronic pain fellowship at the same institute with a focus on multimodal analgesia, regional techniques and opioid management.

Her current research interests include perioperative identification of patients at high risk of developing persistent post surgical pain. She is also interested in preventing the transition of acute to chronic pain through institution of multimodal analgesia, as well as managing acute on chronic pain.

She is involved pain medicine education through teaching chronic pain core sessions to the senior anesthesia residents and also initiating sessions on chronic pain for undergraduate medical learners at McMaster University.

She is involved in HHS Acute Pain Service committee as well as Transitional Pain Service.

Dr. Ahmed Al Jishi: Dr. Al Jishi graduated from Arabian Gulf Neurosurgery-Bahrain and completed his Neurosurgery training at McGill University in Montreal in 2012. On completion of training, Dr. Al Jishi further completed Fellowships in Pediatric Neurosurgery and Spine Neurosurgery. He is recognized by the Royal College of Physicians and Surgeon in Canada. He is currently a practicing neurosurgeon with Hamilton Heath Sciences Corporation, and he is the surgical director of the Neuromodulation Program for chronic pain and spasticity. He has published many papers in professional journals and is also a peer reviewer in the journal Operative Neurosurgery. Dr. Al Jishi’s particular interests are in neuro-oncology, functional neurosurgery and spine research.

Dr. Alison Blain

Dr. Norman Buckley

Dr. Sean Curran: Dr. Curran practices anesthesia and pain medicine. After completing anesthesia training in 2003, Dr. Curran worked in community practice and returned to full-time academic practice in Hamilton in 2015. His clinical interests include regional anesthesia, thoracic anesthesia, acute and chronic pain.

Following completion of anesthesia training at McMaster University, Dr. Curran underwent formal training in pain medicine at the Royal North Shore Hospital in Sydney, Australia. This included interventional, medical and multidisciplinary pain management. He has also completed certification in cognitive behavioural therapy for chronic pain through the Clinical Behavioural Sciences Program at McMaster University. He successfully completed the Royal College of Physicians and Surgeons of Canada’s examination in pain medicine in 2016.

Dr. Curran currently practices pain medicine at the Michael G. DeGroote Pain Clinic, including medical and interventional pain management. He is the Clinical Teaching Unit Director for the Anesthesia Residency pain medicine rotation, Academic Curriculum Director for the Pain Medicine Residency and the Director of the Pain Medicine Fellowship at McMaster University, Department of Anesthesia.

Dr. Vladimir Djuric: Dr. Djuric graduated from the Medical College of Ohio, and he completed his residency in Physical Medicine and Rehabilitation at Ohio State University, followed by fellowship training in Musculoskeletal and Sports Medicine at...
Since completing fellowship in 1995, his practice has focused on the evaluation and treatment of patients with chronic musculoskeletal pain and spinal disorders.

Dr. Djuric developed an interventional pain practice in Northeastern Ohio, where he worked for 15 years and served as Clinical Assistant Professor at Northeastern Ohio Universities Colleges of Medicine. Since 2012, he has been in practice at a private clinic in Toronto, Ontario and also serves as a Clinical Associate Professor in the Department of Medicine/PM&R at McMaster University.

Dr. Djuric is board-certified in the Specialty of Physical Medicine and Rehabilitation by the American Board of Physical Medicine and Rehabilitation and the sub-specialty of Pain Medicine by the American Board of Medical Specialties. He is a Fellow of the American Academy of PM&R (FAAPM&R).

Dr. Djuric is a certified instructor for the Spine Intervention Society. He is also a certified independent medical examiner by the American Board of Independent Medical Examiners (ABIME) and certified in the evaluation of disability and impairment rating (CEDIR) by the American Academy of Disability Evaluating Physicians (AADEP). In addition to the interventional management of spinal pain, Dr. Djuric’s clinical interests include regenerative medicine.

**Dr. Greg Hariton**

**Dr. Lydia Hatcher:** Dr. Hatcher obtained her MD in 1982 from Memorial University of Newfoundland. In 1984, she received certification with the College of Family Physicians of Canada and in 1994, was certified with the Canadian College of Health Service Executives. In 2016, she became a Diplomate with the Canadian Academy of Pain Management.

She has been doing pain management for over 25 years. She does a significant amount of teaching in chronic pain across the country. Her focus is on a bio-psycho-social approach to pain management. She uses pain-focused psycho-therapy using CBT, ACT Mindfulness and Positive Thinking. She also performs trigger point and myofascial release injections, peripheral nerve blocks that do not require image guidance, and all routine joint injections. She also has a methadone license for pain.

She is also a physician assessor for the College of Physicians and Surgeons of both Ontario and Newfoundland & Labrador. She chairs a subcommittee for the National Opioid Use Guideline Group. She is a member of the Canadian Pain Society and the International Association for the Study of Pain.

Dr. Hatcher is an Associate Clinical Professor of Family Medicine at McMaster University and Chief of Family Medicine at St. Joseph’s Healthcare in Hamilton.

**Dr. Roman Jovey:** Dr. Jovey, a graduate of the University of Toronto, was a general practitioner and emergency physician for almost 20 years. In 1999, he closed his family practice to focus on his twin interests of chronic pain management and addiction medicine. From 1991 – 2014 he was the Physician Director of the Credit Valley Hospital, Addictions and Concurrent Disorders Centre. He has been managing chronic pain on an outpatient basis for over 25 years. He was the President of the Canadian Pain Society from 2005-2006.

Since 2005, he has been the Medical Director at CPM Centres for Pain Management, the largest, outpatient chronic pain management organization in Canada. He joined the staff of the Michael G. DeGroote Pain Clinic in January 2017.
Pain Medicine Faculty

Dr. Binh Khong: Dr. Khong completed his anaesthesia residency training at McMaster University in 2000, and he went on to complete his Chronic Pain Fellowship at Dalhousie University in 2001. He has been on staff at the Michael G. DeGroote Pain Clinic from 2002-present, and he is also a full time anaesthesiologist at the Hamilton Health Sciences Corporation.

The majority of patients seen in his chronic pain practice are those with chronic low back pain who require an interventional procedure. Procedures performed include lumbar epidural steroid injections, SI joint injections, and lumbar medial branch block and radio frequency denervation.

Dr. Khong is the Clinical Teaching Unit (CTU) director of the multidisciplinary pain clinic rotation at the Michael G. DeGroote Pain Clinic.

Dr. Julian Mulcaster

Dr. Meena Nandagopal

Dr. Joseph Park: Dr. Park obtained his MD in 1986 and his CCFP in Family Medicine in 1992 at the University of Toronto. He finished his residency in Anesthesiology in 1995 at McMaster University. He finished his Pain Fellowship Training at Memorial Sloan-Kettering Cancer Center in New York, NY in 1998. He is a consultant in anesthesiology and certified as a Fellow of the Royal College of Physicians and Surgeons of Canada in this specialty. He has been practicing Anesthesia and interventional pain medicine since 1998. He is an active member of the Canadian Anesthesiologists Society (CAS); the American Society of Interventional Pain Physician (ASIPP); and the Spine Intervention Society (SIS). He has been a fellow of Interventional Pain Practice (FIPP) since 2009.

He has been organizing monthly chronic pain rounds since 2002 and annual interventional pain conference since 2007 in Hamilton. He is a peer assessor for pain physicians for the College of Physicians and Surgeons of Ontario. He founded the interventional pain fellowship program at McMaster University in 2005 and was a director until 2012. He is an Associate Clinical Professor in the department of anesthesia.

His clinical and research interests center on fluoroscopic guided interventional pain procedures of the spine. He runs an interventional fluoroscopic guided pain workshop for advanced residents every fall.

Dr. Eldon Tunks: Dr. Tunks completed his undergraduate medical training at the University of Toronto in 1969. He completed residency training in the Department of Psychiatry. He had an academic appointment McMaster University from 1974-2000, and was Emeritus Professor of Psychiatry from 2000-2013.

Dr. Tunks has been a leading figure in pain medicine both here in Hamilton as well as nationally. In 1973, he headed up a group of faculty (Anesthesiology, and Physical Medicine and Rehabilitation) to develop a multidisciplinary pain clinic at McMaster Medical Center. He was Director of Pain Clinic at McMaster Division from 1976 to 1979, then directed the Pain Program at Chedoke Division 1979 until 2000 and continues presently as a Consultant in Pain Management and in Psychiatry, Regional Rehabilitation Center, Hamilton Health Sciences Corp.

Clinical activity includes pain management/pain relief with spinal cord injury, stroke, amputees, back and neck trauma, myalgias, neuralgias, headaches, central sensitization,
arthritis, complex pain syndromes. He has published numerous books, chapters, journal articles in epidemiology of pain, psychological and psychiatric and psychotherapy issues in pain, fibromyalgia and myofascial pain, chronic pain management, evidence based chronic pain management, pain management guidelines. He is President of Canadian Academy of Pain Management, and a diplomate of both the American Academy of Pain Management and the Canadian Academy of Pain Management.

He is the recipient of a Lifetime Achievement Award, by Canadian Pain Society in 2006, as well as the recipient of Outstanding Leadership Award, by M.G. DeGroote Pain Clinic /Hamilton Health Sciences/ McMaster University, November 2013.

**Dr. Ramesh Zacharias:** Dr. Zacharias received his Doctorate of Medicine from the University of Western Ontario and subsequently his Fellowship in General Surgery in 1987. He was a Senior Research Fellow at the University of Washington.

Dr. Zacharias was Founder and CEO of Med-Emerg International Inc, Canada’s largest physician recruiting company, from 1983-2009. He held that position while performing a number of leadership roles in the field of medicine.

From 2001-2007 he served on the Board of Governors of Ryerson University.

He is currently the Medical Director of the Michael G DeGroote Pain Clinic which is one of the largest Academic Interdisciplinary Pain Clinic. He is the Principal Investigator in a Cannabis Registry in Ontario and was recently appointed as the Medical Advisor to the Centre for Medical Cannabis Research at McMaster University.

In 2012, Dr. Zacharias became an investigating coroner for Ontario and he has been a member of the Geriatric Long Term Care Review Committee since 2015.
St. Joseph’s Heathcare Pain Clinic

**Dr. Philip Chan:** Dr. Chan graduated from medical school at Queen’s University and completed his residency in anaesthesiology at McMaster University. He then completed a fellowship in interventional pain management in New York City. He has been a fellow of Interventional Pain Practice (FIPP) since 2001, and he successfully completed the Royal College of Physicians and Surgeons of Canada’s examination in pain medicine in 2016.

He is presently an Associate Clinical Professor (Anaesthesia) at McMaster University and a staff anaesthesiologist and chronic pain specialist at St. Joseph’s Healthcare, Hamilton, Ontario. He is the director of the Chronic Pain Clinic at St. Joseph’s Healthcare, as well as the medical director of the Neuromodulation Program at the Hamilton Sciences Corporation, and the Program Director of the Pain Medicine Residency Program at McMaster University.

He is a member of the Adult Chronic Pain Network Advisory Board, Ministry of Health and Long Term Care, as well as a member of the Specialty Committee in Pain Medicine at the Royal College.

**Dr. Jeff Ennis:** Dr. Ennis is an assistant clinical professor of Medicine, with appointments in the Department of Rehabilitation Medicine and the Department of Psychiatry at McMaster University Medical Centre and the Department of Psychiatry at the University of British Columbia. He was the director of the Chedoke Pain Program and went on to develop a new pain program that was partnered for many years with St. Joseph’s Hospital Centre for Ambulatory Care Services in Hamilton, Ontario. It is now an independent program, called the Ennis Centre for Pain Management. Using cognitive behavioural therapy patients are mobilized in spite of their pain. This program has been designed to provide treatment to patients who are still able to work or who are profoundly disabled. Recent research has demonstrated a positive impact of the treatment program on participants’ mood, self-perception of disability and level of function. Dr. Ennis’ work has been seen on film, heard on radio, and found in the medical literature. Recently he has turned his attention to hypnotherapy for pain control. A book and app on the subject will be published in the fall of 2017. Recently he developed the Ennis Endowment Fund. (see http://ennisendowment.com). The Endowment will help to stimulate residents to learn more about chronic pain management.

**Dr. Mauricio Forero:** Dr. Forero is a Colombian Anesthesiologist who moved to Canada in 2008 and finished his interventional chronic pain fellowship at McMaster University in 2010. He has been practicing at St. Joseph’s Healthcare since 2010 as both an anaesthesiologist and pain medicine specialist. He was promoted to Associate Professor in the Department of Anesthesia at McMaster University in 2015. He is the creator and coordinator of the Ultrasound Guided Regional Anesthesia Curriculum at McMaster University. He has been an invited lecturer and instructor at numerous national and international conferences and workshops on ultrasonography in Pain Medicine and Regional Anesthesia. Dr. Forero is currently associate faculty of the American Regional Anesthesia and Pain Medicine (ASRA). He also plays an important role in the Colombian Association of Study of Pain as both a lecturer as well as organizer of
Colombian National Pain meetings. Dr. Forero is a pioneer in the use of the Erector Spinae Plane Block as a novel technique for thoracic neuropathic pain. His research interests include Chronic Pain, Regional Anesthesia, Acute pain and education.

Dr. Harsha Shanthanna
Clinical Rotations

Multidisciplinary Pain Clinic (13 blocks)

8 blocks at Michael G. DeGroote Pain Clinic (MGDPC)

- One of the largest academic pain clinics in Ontario, the clinic has physicians and healthcare professionals from 9 disciplines available for consultation, intervention, education and training for a multitude of chronic pain conditions. The clinic provides interdisciplinary assessments for complex cases along with team case conferencing and review. Opportunities for collaboration, discussion and further review of complex cases occur during monthly education rounds.

5 blocks at St. Joseph’s Healthcare (SJH) Pain Clinic

- There are three pain physicians who staff 3 days of clinic and 1-2 days of fluoroscopy-guided pain procedures per week. During the SJH rotation, the resident will also spend 1-2 days per week at the Ennis Centre for Pain Management (ECPM), where she/he will receive training in multi-component interventions aimed at improving a patient’s self-management of their chronic pain. The team at the ECPM provides Cognitive Behavioural Therapy (CBT), mindfulness therapies, exercise therapies, as well as medical and lifestyle education to patients.
- The multidisciplinary team includes a nurse, a psychologist, a kinesiologist, social worker, and dietitian.

Interventions

Both the MGDPC and the SJH Pain Clinic offer residents exposure to, and training in, a diverse range of ultrasound and fluoroscopy guided procedures, including:
- Interlaminar and transforaminal epidural steroid injections at cervical, thoracic, and lumbar levels
- Sacroiliac joint procedures
- Medial branch radiofrequency ablations at cervical, thoracic, and lumbar levels
- Techniques for cervicogenic headaches
- Sympathetic blocks
- Peripheral Nerve and joint injections
- Acupuncture
- Intravenous infusion therapy
- Trigger Point injections

Sleep Medicine

This one block rotation will run longitudinally during the MDPC rotation. The Firestone Institute of Respiratory Care Out-Patient Sleep Assessment Program at SJH, which consists of the Sleep Clinic and Sleep Lab, offers diagnostic and treatment services for out-patients with sleep related medical problems. The rotation will offer grounding in the basic theory and practice of interpretation of sleep studies, the assessment process of patients with a sleep disorder, and initiation of therapies to treat common sleep disorders. The resident will work with sleep physicians and technicians in both the clinic and the lab.

Neuromodulation

This one block rotation will run longitudinally during the MDPC rotation. Hamilton has a busy neuromodulation program, consisting a multidisciplinary team (neurosurgery, pain medicine, nursing, psychology, and physiotherapy) that manages patients with spinal cord stimulators (SCS) and intrathecal baclofen pumps (ITB). The service, located at the Neuro-Ambulatory Centre (NAC) of the Hamilton General Hospital, implants approximately 15 spinal cord stimulators and 10 baclofen pumps per year. The resident will gain experience with the assessment, the trialing process, and the implantation of patients for both SCS and ITB. Furthermore, the residents will help manage patients with implanted devices in terms of programming, refilling, and troubleshooting.
Acute Pain Service (1 block)

St. Joseph’s Healthcare is an academic hospital with a busy acute pain service (APS). Exposure to acute pain management for joint replacement surgery, shoulder surgery, thoracic surgery (one of the province’s busiest programs), abdominal surgery, extensive urological surgeries, head & neck surgery, as well as plastic surgery, will be obtained during the rotation.

Multiple modes of acute pain management techniques, including thoracic epidurals, intravenous patient controlled analgesia, peripheral catheter analgesia, intrathecal opioids, as well as peripheral nerve blocks are utilized. The resident will work closely with the APS physician as well as the APS nurse practitioner throughout the day, rounding on existing patients, admitting new patients, and performing consultations on chronic pain patients admitted with acute pain issues. The resident will gain experience initiating a patient- and surgery-appropriate acute pain management regimen, trouble-shooting acute pain management issues, as well as transitioning patients to oral analgesia from intravenous or catheter based analgesic techniques. If desired, the resident may also gain exposure to the performance of peripheral nerve blocks for postoperative analgesia.

Addiction Medicine (1 block)

Pain Medicine residents will gain experience with treatment of patients with addictions and substance use disorders at one of two locations: 1) Concurrent disorders program at St. Joseph’s Healthcare; 2) Homewood Health Centre in Guelph, Ontario.

Concurrent disorders program is a 20-bed inpatient treatment setting for individuals that are experiencing both mental health and addiction issues. The program, staffed by psychiatrists, nurse practitioners, social workers, addiction attendants, registered nurses, occupational and recreational therapists, is designed to provide integrated, holistic care for clients.
Clinical Rotation

- The Outpatient Care Team is an extension of the inpatient service, and provides specialized concurrent disorder services for patients with both high addiction and high mental health needs. The outpatient team works in conjunction with already established outpatient programs and community programs including: Psychiatric Emergency Services and Community Psychiatry Clinic.

Homewood Health Centre is one of the largest mental health and addiction facilities in Canada and is unique in Canadian healthcare serving as a specialized provincial and national resource.

Furthermore, at the MDGPC, on staff is an addiction specialist, and pain medicine residents will gain further experience in treating patients with concurrent pain and substance use issues.

Musculoskeletal Disorders (1 block)

This block consists of two weeks in rheumatology, whereby the resident will gain exposure to a wide variety of patients with rheumatological conditions, both acute and chronic as well as urgent or serious conditions, by working with the 15 rheumatologists affiliated with the rheumatology training program here at McMaster in an ambulatory setting. If desired, the resident may also participate in the City-Wide Service, which provides inpatient consultation service, for part of the block.

The resident will spend the other half of the block gaining outpatient clinic experience with both community-based Physical Medicine and Rehabilitation (PM&R) physicians as well as specialists based in the academic centres.

Neurological Sciences (1 block)

This rotation will consist of outpatient clinic-based experience with neurologists who specialize in peripheral neuropathies, multiple sclerosis, and headaches. The resident will also spend time with an outpatient neurosurgery clinic whereby he/she will gain exposure to the surgical management of patients with radicular symptoms, spinal stenosis, myelopathy, as well as cranial nerve dysfunction.

Palliative Care (1 block)

The Pain Medicine resident will spend the block at the Juravinski Cancer Centre in the out-patient setting, working with, amongst different settings, the Pain and Symptom Management Team, which sees patients for whom cure is no longer the goal of care; the team helps patients learn ways to manage the symptoms caused by cancer and/or treatment.

Currently, anesthesiology services in the form of indwelling epidural and intrathecal catheters are offered for palliative care, but over the next 12-24 months, the pain faculty will be working to develop a more comprehensive interventional service to complete the existing services, allowing the Pain Medicine resident to gain further experience in this treatment modality.

Paediatric Pain Medicine (1 block)

Experience with Paediatric Pain Medicine will be obtained through a number of different clinical opportunities, including:

- **Paediatric acute pain service** at McMaster University Medical Centre (MUMC), spending time with the physician and team of registered nurses

- **Palliative Care Service** at MUMC, which involves both inpatient and outpatient clinical exposure

- **Paediatric chronic pain clinic** at MUMC, which utilizes a multidisciplinary team approach

- **Outpatient pediatric rheumatology and gastroenterology clinics**, obtaining wider exposure to patients who suffer from conditions in which pain is a prominent symptom
Psychiatry (1 block)
The Pain Medicine resident will gain experience with psychiatric consultation services for patients admitted to medical or surgical units across St. Joseph’s Healthcare by joining the Consultation-Liaison (CL) Psychiatry Service during the psychiatry rotation. The CL service will provide an inter-professional model of consultation including psychiatry, nursing, psychology, and medical residents.

The Pain Medicine resident will gain outpatient experience through participation in the Mood Disorders Program (MDP) and the Anxiety Treatment and Research Clinic (ATRC), both located at St. Joseph’s Healthcare. The MDP offers both consultation and multi-disciplinary treatment to about 1,000 patients per year with mood disorders. The team at ATRC offers comprehensive evaluations and treatments (both medications and psychological modalities) for anxiety-related conditions, e.g. Panic Disorder, Agoraphobia, Social Anxiety Disorder, Obsessive Compulsive Disorder, Generalized Anxiety Disorder.

Elective Opportunities (6 blocks)
- **General Anaesthesiology Rotation:** Strongly encouraged for all residents from non-anaesthesiology backgrounds to gain experience in airway assessment and emergency airway management; diagnosis and treatment of local anaesthetic toxicity; procedural sedation; and diagnosis and management of complications related to neuraxial injections.

- Further experience in Neuro-modulation, Palliative Care, or Interventional Pain Medicine (subject to clinical capacity)

- **Community rotation:** Arranged with the approval of the program director.

- **Adolescent medicine:** Arranged through the Division of Adolescent Medicine, Department of Pediatrics.

- **Contemporary Medical Acupuncture Program**

- **Diagnostic Imaging:** Arranged through the department of radiology.

- **Education/curriculum development:** McMaster University has a well-regarded Centre for Simulation-Based Learning in which the resident may participate. Furthermore, there is a great opportunity for residents to engage in education development for didactic lectures for teaching chronic pain management principles to undergraduate and postgraduate medical residents.

- **Gastroenterology:** Arranged through the Division of Gastroenterology, Department of Medicine.

- **Obstetrics and gynecology:** Arranged through the Department of Obstetrics and Gynecology. MGDPC also has specialists with an interest in pelvic pain, and specific experience can be arranged in that regard.

- **Public Health and Preventive medicine:** Arranged through the Department of Public Health and Preventive medicine.

- **Research methodology/ biostatistics; research elective:** The Department of Anesthesia has extensive infrastructure in place to support the resident’s research endeavours. The Michael G. DeGroote Institute for Pain Research and Care offers research opportunities in pain medicine. Furthermore, McMaster University’s Department of Clinical Epidemiology and Biostatistics offers courses and resources that will allow the resident to further pursue research interests.

- **Spine Surgery:** Arranged through the Spinal Surgery Service at the Hamilton General Hospital.
Educational Objectives

Overall Goals

Please refer to the Royal College Objectives of Training in the Subspecialty of Pain Medicine.

Upon completion of training, the pain medicine resident will have acquired the academic and clinical knowledge and skills necessary to become a specialist well versed in all aspects of pain medicine, and capable of assuming a consultant’s role in the subspecialty.

Medical Expert

As Medical Experts, Pain Medicine specialists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care.

Medical Expert is the central role of the Pain Medicine specialist. As Medical Experts, the core skill of the Pain Medicine physician is to synthesize available information in a manner which places the patient’s clinical presentation in a bio-psycho-social framework, and to then advise as to the best method of pain management for that individual.

By the end of residency training, the resident will be able to demonstrate the following key competencies:

Establish and maintain clinical knowledge, skills and attitudes appropriate to Pain Medicine

1. (2.1.1.1, 2.1.1.4) Describe the anatomy and neurophysiology of noceception, as well as the pathophysiological mechanisms that leads to chronic pain including origins, mechanisms, modulation, and associated physiologic consequences

2. (2.1.1.3) Define the disorder of chronic pain utilizing the International Association for the Study of Pain (IASP) Classification of Chronic Pain

3. (2.1.1.6) Describe known genetic influences on pain and pharmacotherapy for pain as well as the role of genomic techniques in investigating pain physiology

4. (2.1.1.5) Describe current concepts of the placebo response and their implications for assessment and therapy

5. (2.1.1.7) Exhibit knowledge of mechanism of action, pharmacodynamics, pharmacokinetics, drug interactions, side effects, and monitoring of agents used in the management of chronic pain:
   - Local anesthetics
   - Opioids
   - NSAID’s and acetaminophen
   - Serotonin/norepinephrine reuptake inhibitors
   - Calcium channel blockers
   - Cannabinoids
   - Corticosteroids
   - N-Methyl D-Aspartic acid (NMDA) receptor antagonists
   - Neurolytic agents

6. (2.1.1.8) Properly administer and interpret validated outcomes measures for pain, mood, function, sleep, quality of life, and health care utilization, cognizant of the clinical utility and limitations of each

The ability to perform a comprehensive Pain Medicine consultation, appropriate for age and level of development

1. (3.1, 3.1.2, 3.2) Assess a patient with a painful condition through history, physical examination skills, use of validated assessment tools, and appropriate ordering and interpretation of investigations, utilizing a bio-psycho-social framework

2. (3.1) Identify and explore issues to be addressed in a patient encounter effectively, including the patient’s context and preferences

3. (3.2.1) Demonstrate appropriate use of at least one validated pain outcome questionnaire chosen from each of the six domains in the Initiatives on Methods, Measurement, and Pain Assessment in Clinical Trials (IMMPACT) guidelines

4. (3.3.1) Perform a directed musculoskeletal and/or neurological physical examination in order to differentiate painful processes arising from bones, joints, soft tissues, peripheral or central nervous system, or other tissues

5. (3.5) Exhibit effective clinical problem-solving and judgment to address patient problems, including evidence-based examination techniques,
educational objectives – overall goals

6. (3.3.3) Perform a directed history and physical examination specific to the assessment of the cancer patient in order to differentiate painful processes arising from cancer, or metastases, a complication from cancer or its treatment, or a preexisting chronic pain condition

The ability to formulate a comprehensive treatment and follow-up plan
1. (3.6) Able to devise an appropriate integrative, interdisciplinary management plan utilizing all appropriate interventions (preventative, psychological, non-pharmacologic, pharmacologic, interventional) based on the individual’s specific pain, co-morbidities, goals and other relevant factors to provide maximal functional restoration

Utilize therapeutic interventions effectively
1. (4.2) Demonstrate appropriate and timely application of preventive and therapeutic interventions relevant to Pain Medicine
2. (4.2.1) Identify treatment and monitoring strategies for patients with emerging aberrant drug-taking behaviours
3. (4.4, 4.9) Able to guide a patient through the informed consent process for procedures, off-label therapies, or opioid management
4. Describe the mechanism of action, pharmacodynamics, pharmacokinetics, appropriate indications, drug interactions, and side effects of agents commonly used in pain management
5. Introduce suitable cognitive and behavioural pain management measures; able to recognize when it is appropriate to refer for the patient for special evaluation and therapy
6. (4.6, 4.7, 4.10) Exhibits knowledge and skills with regards to the effective, appropriate, and timely use of diagnostic and therapeutic injections and procedures commonly performed in pain medicine, including the use of appropriate image guidance, indications, contraindications, risks, and evidence of efficacy

7. Describe and integrate the principles, indications, and limitations of physical treatments and occupational therapy in assisting a patient with regards to functional restoration

The ability to consult effectively with other physicians and health professionals
1. (5.1) Demonstrate insights into one’s own limits of expertise
2. (5.2) Exhibit effective, timely, and appropriate consultation and communication skills when working with referring physicians and services
3. Effectively communicate assessments and plans to referring physicians and services

4. (5.4) Develop follow up plans for patients after consultation and arrange longitudinal coordinated care plan with the primary care physician and/or referring physician
5. (5.3) Adapt the referral request to the individual situation e.g. consider telephone/video consultation

Actively contribute to the continuous improvement of health care quality and patient safety
1. (5.1) Recognize and respond to harm from health care delivery, including patient safety incidents
2. (5.2) Adopt strategies that promote patient safety and address human and system factors

Communicator

As Communicators, Pain Medicine specialists effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

By the end of residency training, the resident will be able to demonstrate the following key competencies:

Develop rapport, trust and ethical therapeutic relationships with patients and families
1. (1.2) Display sensitive, caring, and respectful attitude towards patients and families
2. (1.1) Understand the importance of patient-physician communication on patient care, patient satisfaction, adherence and improved clinical outcomes
3. (1.2, 1.4, 1.5) Exhibit a variety of skills necessary for effective patient-physician communication, including active listening, reflection, and use of non-verbal cues
4. (1.3) Respect patient confidentiality, privacy, and autonomy
5. (1.6) Facilitates a structured clinical encounter effectively

Elicit, synthesize, and convey relevant information and explanations accurately to patients, families, and colleagues
1. (2.1) Able to elicit information about a patient’s beliefs, concerns, expectations and the impact of pain on his/her life
2. (2.2) Seek out and integrate relevant information from other sources appropriately, such as a patient’s family, caregivers and other professionals
3. Communicate effectively within the multidisciplinary care team and with referring physicians and other specialists in order to ensure optimal and consistent care of the patient and their family
Educational Objectives – Overall Goals

4. (3.1) Deliver information to a patient and to colleagues in an understandable and professional manner and which fosters participation in decision-making
5. (4.5) Exhibit skill in addressing challenging communication issues such as anger, confusion, misunderstanding and grief reactions
6. (3.2) Disclose harmful patient safety incidents to patients and their families accurately and appropriately

Develop a shared plan of care based on a common understanding of a patient’s goals of care and communicate these goals to the health care team
1. (4.1) Elicit the patient’s expectations and wishes regarding the management of his/her condition
2. (4.3) Facilitate patient’s participation in decision making to the degree that he/she wishes
3. (4.2) Exhibit respect for diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making
4. (4.7) Able to develop a patient-centred end-of-life care plan with input from patient, family, and caregivers
5. Assist patients and their families to identify, access and make use of information and communication technologies to support their care and manage their health

Convey effective oral and written information about a medical encounter
1. (5.1) Maintain clear, accurate, and appropriate records of clinical encounters and treatment plans, whether it be a written health record, electronic medical record, or other digital technology
2. (4.6) Utilizes appropriate documentation and strategies to deal with behaviours possibly associated with opioid misuse, abuse, diversion, and/or addiction
3. (5.2) Effectively present verbal reports of clinical encounters and plans to all members of the treatment team
4. (5.3) Effectively presents medical information to the public or media about a medical issue
5. Share information with patients and others in a manner that respects patient privacy and confidentiality and enhances understanding

Participate as an effective member of an interprofessional team
1. (1.2) Describe the roles of other professions in the provision of chronic pain management, including but not limited to other physicians, nurses, psychologists, pharmacists, social workers, occupational therapists, and physiotherapists
2. (1.3) Display respect for the diversity of roles, responsibilities, and competencies of other professionals on the team
3. (1.7) Enter into interdependent relationships with other professions for the provision of quality care, including family and team meetings
4. (1.6) Organize and implement a treatment plan through collaboration with team members
5. (1.4) Work effectively with others when reviewing shared initiatives such as research projects, educational work, program review or administrative responsibilities
6. (1.5) Demonstrate respect for team ethics, including confidentiality, resource allocation and professionalism
7. (1.9) Exhibit leadership in a health care team when appropriate

Work with other health professionals to prevent, negotiate, and resolve interprofessional conflict
1. (2.1) Exhibit a respectful attitude towards colleagues and other members of an interprofessional team
2. (2.2) Work with others to prevent conflicts
3. Understand how one’s patient care activities and other professional practices affect other health care professionals, and health care organizations
4. (2.4) Accommodate differences and employ appropriate techniques to address misunderstandings with other team members
5. (2.3) Employ collaborative negotiation to resolve conflicts
6. (2.5) Be aware of how one’s own communication style and limitations may contribute to interprofessional tensions

Facilitate continuity of safe patient care
1. (3.1) Determine when care should be transferred to another physician or health care professional
2. (3.2) Demonstrate safe handover of care, both verbal and written, during a patient transition to a different healthcare professional, setting, or stage of care

Collaborator

As Collaborators, Pain Medicine specialists effectively work within a health care team to achieve optimal patient care.

By the end of residency training, the resident will be able to demonstrate the following key competencies:
Educational Objectives – Overall Goals

Leader

As Leaders, Pain Medicine specialists are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

By the end of residency training, the resident will be able to demonstrate the following key competencies:

1. (1.1) Work collaboratively with others in the organization to promote an interdisciplinary team approach in the management of chronic pain
2. (1.2) Understand the principles behind quality assessment and improvement initiatives
3. Able to describe principles of health care financing with particular emphasis on the interface of private/public healthcare in Canada, drug benefit coverage, and models of physician remuneration
4. (1.4) Use health informatics to improve the quality of patient care and optimize patient safety
5. (1.6) Exhibit knowledge of components of health administration required to establish pain management services, including acute pain service, cancer and symptom management service, and chronic non-cancer pain service
6. Contribute to a culture that promotes patient safety
7. Analyze patient safety incidents to enhance systems of care

The ability to manage one’s own practice and career effectively

1. (2.1) Set and manage competing priorities in the setting of a chronic pain practice, balancing patient care, practice requirements, outside interests, and personal life
2. (2.2) Exhibit knowledge of the management of a pain medicine practice, including finances and human resources
3. (2.3) Implement processes to ensure personal practice improvement
4. (2.4) Employ information technology in an appropriate manner for patient care

Allocate finite health care resources appropriately

1. (3.1) Utilize just allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care
2. (3.2) Apply evidence and management processes for cost-appropriate care

Serve in administration and leadership roles

1. (4.1) Participate effectively in committees and meetings
2. (4.2) Lead or implement change in health care
3. (4.3) Describe the components of a safe, effective and efficient acute pain service, cancer pain and symptom management service, and chronic non-cancer pain service; describe its impact on health resource utilization

Health Advocate

As Health Advocates, Pain Medicine specialists responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

By the end of residency training, the resident will be able to demonstrate the following key competencies:

The ability to assist patients with chronic pain conditions to seek resources in their communities

1. (1.1.1) Assist patients and families with chronic pain in accessing health and social resources in the community, such as patient support groups, home care, occupational and physiotherapy
2. Describe the societal, environmental and resource allocation factors that are relevant to the care of those with painful conditions
3. (1.2) Implement successful strategies for gaining drug coverage for medications required for pain care as well as disability benefits
4. (1.3) Promote patient self-advocacy to improve his/her pain, quality of life, and access to health related resources

5. (1.4, 4.5) Cognizant of the possible conflicting interests between role as an health advocate for an individual and one’s role as a leader for the community at large

The ability to respond to the health needs of the communities that he/she serves

1. (2.1) Able to describe the practice communities that they serve
2. (2.2) Identify opportunities for advocacy, health promotion and disease prevention in the communities that he/she serve, and respond appropriately
3. (2.2.1) Advocate for improvements in service for acute pain, cancer pain and chronic pain within institutions and communities
4. (2.3) Able to balance the competing interests between patients with pain, and other groups of patients seeking health care
5. Assess the current state of pain management in Canada, including barriers to providing better

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Educational Objectives – Overall Goals

care, including geographical, cultural and financial barriers
The ability to identify the determinants of health for the populations that he/she serves
1. (3.1) Promote heightened awareness of the challenges and abilities of persons with disabilities including environmental and attitudinal barriers
2. (3.2) Identify vulnerable or marginalized populations within those served and respond appropriately
The ability to promote the health of individual patients, communities, and populations
1. (4.1) Outline an approach to improving access to care for patients with acute or chronic pain
2. (4.1.1) Advocate for improvements in service for acute pain, cancer pain and chronic pain within populations and political jurisdictions
3. (4.2) Identify opportunities to shape public policy related to access to pain management services
4. (4.4) Identify the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism
5. (4.6) Cognizant of the role of the medical profession in advocating collectively for health and patient safety
6. (4.7) Aware of regional, national and international advocacy groups for persons living with pain

Scholar

As Scholars, Pain Medicine specialists demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

By the end of residency training, the resident will be able to demonstrate the following key competencies:
The ability to incorporate evidence-based clinical decision-making in caring for pain medicine patients
1. (2.1, 2.2, 2.3) Access, critically appraise, and integrate scientific literature and medical information in order to address specific clinical questions and into improving practice
The ability to develop a strategy for life-long learning
1. (1.1) Aware of principles of maintenance of competence
2. (1.2) Implement a personal knowledge management system
3. (1.3) Reflect on learning issues in practice
4. (1.5, 1.6, 1.7, 1.8, 1.9) Able to post an appropriate learning question, access and interpret the relevant evidence, integrate the new information into practice, evaluate the impact of any change in practice, and document the learning process
5. (1.4) Conduct personal practice audits
Facilitate the learning of patients, families, learners, other health care professionals, and the public
1. (3.4) Provide clinical teaching and mentoring for junior trainees
2. Participate in clinical rounds and other academic events
3. (3.7) Facilitate the learning of others by providing guidance, teaching and constructive feedback
4. Participate in patient education regarding disease prevention and management
5. (3.3) Contribute to the education of all health disciplines in the principles and necessity of good pain management
6. (3.5) Deliver an effective lecture or presentation
7. (3.6) Assess and reflect on a teaching encounter
8. (3.8) Cognizant of the principles of ethics with respect to teaching
9. Ensure patient safety is maintained when learners are involved

Contribute to the development, dissemination, and translation of new knowledge and practices
1. (4.1, 4.2) Describe the principles of research and research ethics
2. (4.3, 4.4, 4.5) Select and apply appropriate research methods to address a scholarly question for clinical research study, quality assurance audit, or education project related to pain, and disseminate the findings
3. (4.6) Complete a scholarly project, undertaking primary responsibility for its design, methodology, and dissemination

Professional

As Professionals, Pain Medicine specialists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behavior.

By the end of residency training, the resident will be able to demonstrate the following key competencies:
A commitment to patients, to one’s profession, and to society through ethical practice
1. (1.1) Exhibit appropriate professional behaviour, such as honesty, integrity, commitment, compassion, respect and altruism
2. (1.2) Exhibit a commitment to delivering the highest quality of care
Educational Objectives – Overall Goals

3. (1.7) Exercise initiative within limits of his/her knowledge and training but recognizes his/her own limits and seeks advice when necessary
4. (1.3) Recognize and manage ethical issues in one’s practice
5. (1.4) Appropriately understand and manage conflict of interest
6. (1.6) Maintain appropriate relations with patients and their families
7. Exhibit a non-judgmental attitude to the belief systems of others
8. With regards to personal interactions (learning and clinical environments), exhibit: respect, allowance of different points of view; awareness of impact on needs & feelings of others; effect of stress; attention to personal appearance
9. (1.5) Practice within the principles and limits of patient confidentiality as defined by professional practice standards and the law
10. Exhibit professional behaviours in the use of technology-enabled communication

A commitment to one’s patients, profession, and society through participation in profession-led regulation
1. (2.1) Exhibit knowledge and understanding of appropriate professional, legal and ethical codes of practice
2. (2.2) Fulfill the regulatory and legal obligations required for prescription of opioids, and of medical marijuana
3. (2.3) Exhibit accountability to professional regulatory bodies
4. (2.4) Respond to others’ unprofessional behaviors in practice
5. (2.5) Participate in peer review
6. Exhibits commitment to patient safety and quality improvement

A commitment to physician health & sustainable practice
1. (3.1, 4.2) Balance personal & professional priorities to ensure personal health and a sustainable practice throughout the physician life cycle
2. Discuss methods of managing his or her own stress associated with caring for patients suffering from continuing pain
(4.3) Promote a culture that recognizes, supports and responds effectively to colleagues in need
1. (3.2) Continually seek to heighten one’s personal and professional awareness and insight
2. (4.1) Exhibit self-awareness and manage influences on personal well-being and professional performance

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Educational Objectives – Pain Clinic

Multidisciplinary Pain Clinic Rotation

By the end of the rotation, the resident will be able to demonstrate the following key competencies:

Medical Expert

Assessment

1. Perform a comprehensive assessment of the patient with chronic pain, including:
   - History
   - Common validated tools developed to assess chronic pain syndromes; identify their purpose, scoring, interpretation, limitations
   - Physical examination – able to differentiate painful processes arising from bones, joints, soft tissues, peripheral or central nervous system, or other tissues
   - Relevant investigations – aware of need to select medically appropriate investigative methods in a resource-effective and ethical manner
   - Functional status
   - Psychosocial impacts

2. Utilize validated risk assessment tools and interviewing techniques used when performing an appropriate risk assessment for a patient in whom opioids, benzodiazepines or cannabinoids are being considered

3. Identify patients with co-morbid psychiatric and coping difficulties and select appropriate therapeutic strategies for pain management, including working within a multidisciplinary team

4. Describe the indications for diagnostic imaging (plain films, CT, bone scan, MRI, Ultrasound, PET), identify expected imaging abnormalities for common pain diagnoses, and explain the relationship between imaging findings and pain

Treatment plan formulation

1. Exhibit effective clinical problem solving and judgment to address patient problems, including evidence-based examination techniques, interpreting available data and integrating information to generate differential diagnoses

2. Devise a comprehensive management plan (including pharmacologic, non-pharmacologic approaches, appropriate collaboration with members of the multi-disciplinary team such as physiotherapy, psychology, psychiatry, sleep medicine, etc., and interventional techniques)

3. Appreciate the importance of engaging patients, families, and relevant health professionals in shared decision-making to develop an individualized plan of care

4. Appreciate the importance of using multiple outcome measures for pain when evaluating effectiveness of the prescribed management plan

5. Adjust the initial management plan to reflect patient response to treatment, changes in the patient’s underlying physical and psychological condition

Pharmacotherapy

1. Utilize safe prescribing principles (“universal precautions) with regards to opioids

2. Utilize strategies to reduce opioid diversion, e.g. patient education regarding safe storage, awareness of government regulations regarding surveillances, use of abuse-resistant formulations

3. Describe the scientific principles of, indications for, proper interpretation of, and shortcomings of, immunoassay urine drugs screens and confirmatory toxicological analysis by high pressure liquid chromatography

4. Cognizant of aberrant drug-taking behaviours in patients prescribed opioids, and be able to generate differential diagnoses for these behaviours

5. Aware of the possible pharmacokinetic and pharmacodynamics interactions between analgesic medications with medications being used to treat comorbid illnesses

6. Adjust the dosage and dosing intervals of analgesic medications (both for pain control as required considering changes in physiology imposed by concurrent illness (e.g. renal failure, congestive heart disease, chronic obstructive lung disease, liver disease)

Psychiatric/psychological interventions

1. Skillful in providing psychological education to patients and their families around pain and symptom management

2. Diagnose psychiatric disorders that might present with pain as a symptom as well as psychiatric disorders that might be comorbid with pain

3. Cognizant of the association of pain with a large number of psychiatric and psychological comorbidities including depression, anxiety, drug dependence, somatoform disorders, bipolar disorder

4. Cognizant that patients with diffuse complaints and widespread pain are at greater risk of psychiatric disorder and functional impairment than are patients with specific and/or localized complaints

5. (2.1.2.6) Cognizant that catastrophizing and kinesophobia are predictors of chronic pain treatment outcomes, and describe common assessment tools for detecting each condition, and outline interventions that can be used to reduce the severity of each condition

6. Understand stress management strategies such as progressive muscle relaxation/biofeedback, and mindfulness/acceptance-based strategies

7. Understand the importance of coping strategies for the control of pain
8. Introduce suitable cognitive and behavioral pain management measures; be able to recognize when it is appropriate to refer the patient for special evaluation and therapy

9. Recognize the need to treat comorbid psychiatric and psychological problems that may accompany pain, including but not limited to:
   - Mood and anxiety disorders
   - Substance abuse disorders
   - Axis II disorders: personality traits/disorders that complicate management of a pain condition

10. Explain the interaction between pain, sleep, medications, non-prescribed substances, anxiety and mood disorders

11. Describe appropriate documentation and strategies to deal with behaviors possibly associated with opioid misuse, abuse, diversion or addiction

Interventional therapy

1. Identify the appropriate indications, contraindication, patient selection criteria, outcome data, and complications of the following:
   - Sympathetic blocks (cervical, lumbar, ganglion of impar)
   - Epidural steroid injections (cervical, thoracic, lumbar, and caudal)
   - Facet and sacroiliac joint interventions (steroid injection, medial/ lateral branch blocks, and radiofrequency ablation)
   - Nerve root blocks (cervical, lumbar, & sacral)
   - Musculoskeletal/soft tissue injections
   - Plexus/peripheral nerve blocks

2. Describe the anatomical targets, the appropriate image guidance required, the appropriate medication(s) to be injected for the above listed procedures

3. Engage the patient in the informed consent process for interventional procedures

4. Conduct appropriate follow-up of patients post intervention, including evaluating effectiveness of the intervention, side effects and complications, adjustments of pharmacotherapy, and to prescribe appropriate rehabilitation

Rehabilitation

1. Integrate principles of functional restoration in individuals with pain

2. Describe the principles, indications, and limitations of physical treatments (exercise based treatment, passive physical therapies such as ultrasound, transcutaneous electrical stimulation (TENS), manual therapies, manipulation, massage) in the management of musculoskeletal pain

3. Describe the principles, indications and limitations of occupational therapy management (pacing, ergonomics and work/daily activity modification) in the management of musculoskeletal pain

4. Cite current evidence for the potential role of complementary and alternative medicine in managing musculoskeletal pain

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Educational Objectives – Pain Clinic

Sleep Medicine

*By the end of the rotation, the resident will be able to demonstrate the following key competencies:*

**Medical Expert**
1. (2.1.4.4) Cognizant of the types of sleep disturbances common in chronic pain patients, and identify who may benefit from a referral to a sleep clinic
2. (2.1.4.2) Describe the interactions between pain, sleep, medications, non-prescribed substances, anxiety, and mood disorders
3. Conduct a comprehensive sleep assessment
4. (2.1.4.5) Describe common assessment procedures used in the diagnosis of sleep disorders
5. Interpret clinical and laboratory information and integrate it appropriately to formulate a diagnosis
6. (2.1.4.6) Exhibit familiarity with treatments, both non-pharmacological and pharmacological, available to treat common sleep disturbances that occur in association with chronic pain disorders
7. (2.1.4.3) Describe the basic classification of sleep disorders according to the International Classification of Sleep Disorders (ICSD)

Neuromodulation/ Neurosurgery

*By the end of the rotation, the resident will be able to demonstrate the following key competencies:*

**Medical Expert**
1. Describe surgical approaches to patients with neuropathic pain such as spinal nerve root compression, spinal stenosis, entrapped peripheral nerves, and trigeminal neuralgia
2. Conduct a comprehensive patient assessment for a possible neurosurgical intervention
3. Describe the appropriate patient selection criteria for common neurosurgical spine procedures e.g. discectomy, laminectomy, fusion surgery
4. Describe the complications of spinal surgery performed for neuropathic pain conditions
5. Describe alternative therapies if surgical interventions are not considered appropriate

With regards to spinal cord stimulation (SCS):
1. Understand the mechanisms of action
2. Describe the patient populations in whom SCS is effective
3. Describe the assessment process, including the trial/screening procedure
4. Describe the complications related to SCS
5. Troubleshoot common SCS issues e.g. change in stimulation, loss of stimulation, pain at implant site
6. Cognizant of issues regarding SCS and cardiac pacemakers, defibrillators, and MRI

With regards to intrathecal baclofen (ITB) therapy:
1. Understands the mechanisms of action
2. Describe the patient populations in whom ITB is effective
3. Describe the assessment process, including the trial/screening procedure
4. Describe the complications related to ITB i.e. overdose and withdrawal
5. Troubleshoot common ITB issues e.g. tolerance, pump alarms, pain at implant site
6. Perform maintenance maneuvers on an ITB pump i.e. refills, dosage adjustments
7. Formulate a differential diagnosis for increased spasticity in a patient with an ITB pump
8. Initiate emergency maneuvers when an ITB patient presents with baclofen overdose or under dose
Educational Objectives – Acute Pain Service

Acute Pain Service

By the end of the rotation, the resident will be able to demonstrate the following key competencies:

**Medical Expert**

1. (2.1.8.1) List common acute pain conditions, their epidemiology, pathophysiology, natural history, treatment, prognosis, and physiologic consequences

2. (2.1.8.5) Cognizant of the adverse physiological and psychological effects, both immediate and long term, of inadequate pain management in the acute care setting

3. (2.1.8.2, 2.1.8.3) Carry out the elements of an acute pain assessment

4. Assess patient- and surgery- specific needs and options for perioperative pain control

5. (2.1.8.4) Cognizant of how specific patient characteristics such as culture, age, cognitive impairment, language barrier, level of consciousness might affect acute pain assessment

6. (2.1.8.10) Describe the considerations of acute pain management in patients with chronic pain disorders, opioid tolerance, substance abuse and/or psycho-social factors

7. (2.1.8.7) Describe the indications, contraindications, benefits, risks and complications of opioids, anti-inflammatory medications, antidepressants, cannabinoids, NMDA receptor antagonists, and sedatives used in perioperative pain control

8. (2.1.8.8.1) Describe the following with regards to neuraxial techniques used for perioperative pain control i.e. epidural catheters, intrathecal opioids:
   - Indications, appropriate patient selection criteria
   - Contraindications
   - Benefits
   - Risks and complications

9. (2.1.8.8.2) Describe the following with regards to peripheral nerve blocks used for perioperative pain control e.g. brachial plexus blocks, blocks of the lumbar and sacral plexuses, etc.:
   - Indications, appropriate patient selection criteria
   - Contraindications
   - Benefits
   - Risks and complications

10. Manage a patient on patient-controlled intravenous analgesia pumps (IV PCA), including:
    - Initiation of therapy
    - Titration of therapy
    - Address common issues associated with IV PCA use (e.g. reluctance to use PCA, pruritus, mechanical difficulties with pump, nausea, sedation)

11. Manage a patient with an indwelling epidural, paravertebral or peripheral nerve catheter, including:
    - Initiation of therapy
    - Titration of therapy
    - Address common issues associated with indwelling catheter (e.g. dislodgement, disconnection, motor block, hypotension, pruritus)
    - Discontinuation of indwelling catheter therapy (including issues with regards to concomitant anticoagulation or anti-platelet pharmacotherapy) and ensuring smooth transition from to other forms of analgesia

12. Exhibit an understanding of the rationale, the evidence for, and the risks of multimodal analgesia in the perioperative setting

13. (2.1.8.6) Identify risk factors which predispose patients to developing chronic post-surgical pain (e.g. site of surgery, anxiety, high postoperative pain scores)

14. (2.1.8.6) Describe, analyze, and utilize the latest evidence for interventions and management strategies which reduce the likelihood of developing chronic post-surgical pain syndromes

15. (2.1.8.9) Aware of the potential role for non-pharmacological measures in managing acute post-surgical pain (e.g. TENS, acupuncture, cognitive behavioral therapy)
Educational Objectives – Addiction Medicine

Addiction Medicine

By the end of the rotation, the resident will be able to demonstrate the following key competencies:

Medical Expert
1. (2.1.3.1) Differentiate between the concepts of addiction, tolerance and physical dependence
2. (2.1.3.2) Cognizant of the heterogeneity of opioid users in the population and identify the health consequences of both untreated pain and opioid misuse
3. Cognizant of the possibility that comorbid substance abuse disorders may increase pain disability or impede response to rehabilitation
4. Describe the epidemiology of substance misuse within the chronic pain population, including the issues of abuse, misuse, diversion in pain and non-pain patients

Assessment
1. Assess a patient for possible addiction/medication misuse through history (including aberrant drug-taking behaviours), physical examination skills, use of validated assessment tools, and appropriate ordering and interpretation of investigations
2. (2.1.3.4) Identify patients who should be referred for addiction consultation prior to or during opioid therapy
3. (2.1.3.7) Identify patients with co-morbid psychiatric and coping difficulties and select appropriate therapeutic strategies for pain management
4. (2.1.3.6) Employ validated risk assessment tools, and interviewing techniques to perform an appropriate risk assessment for a patient in whom opioids, benzodiazepines or cannabinoids are being considered (e.g. Opioid Risk Tool, CAGE questionnaire)
5. Describe the indications and proper interpretation of urine drugs screens
6. Cognizant of aberrant drug-taking behaviours in patients prescribed opioids, and be able to generate differential diagnoses for these behaviours

Risk Reduction
1. (2.1.3.5) Cognizant of the concept of "universal precautions"

as it applies to treatment with opioids
2. Identify treatment and monitoring strategies for patients with emerging aberrant drug-taking behaviours
3. (2.1.3.9) Describe a range of treatment strategies for pain management in patients with substance use disorder, either active or in remission
4. Describe the indications, contraindications, risks and benefits of pharmacological approaches used to stabilize a patient with substance misuse disorder
5. (2.1.3.10) Identify strategies to reduce opioid diversion
6. Formulate and implement safe prescribing patterns of controlled substances for patients with painful conditions and concurrent risk for substance misuse
7. Describe the composition and function of multidisciplinary teams for the management of substance use disorders

Opioid weaning
1. (2.1.3.11) Cognizant of different strategies in weaning patients off opioids and benzodiazepines, including options with regards to withdrawal schedules, and measures (both pharmacological and non-pharmacological) in managing withdrawal symptoms
2. Able to treat the spectrum of presentation of withdrawal syndromes in the presence of concomitant medical complications
3. Cognizant of the indications, contraindications, patient selection criteria, evidence for, and complications related to opioid maintenance therapy with methadone and buprenorphine
Neurology

By the end of the rotation, the resident will be able to demonstrate the following key competencies:

Medical Expert

1. (2.1.6.1) Describe the pathophysiological mechanisms responsible for neuropathic pain following injury to the peripheral and central nervous system
2. Describe the central nervous system changes following peripheral nerve injury or disease, including the concept of central sensitization
3. Explain mechanisms of descending modulation of spinal nociceptive processing
4. Describe the epidemiology, pathophysiology, natural history, diagnosis, treatments and prognosis of common conditions causing neuropathic pain
5. (2.1.6.3) Exhibit knowledge of the diagnosis, appropriate investigations and management of common peripheral nervous system disorders, including:
   - Compression and entrapment syndromes
   - Ischemic nerve injuries
   - Infectious lesions including herpes zoster and post-herpetic neuralgia
   - Painful diabetic neuropathy
   - Nerve root avulsions
   - Metabolic or nutritional disorders
   - Drug-induced disorders (e.g. neuropathy due to chemotherapy)
   - Complex regional pain syndrome Types 1 & 2
   - HIV sensory neuropathy
6. (2.1.6.4) (2.1.5.3) Exhibit knowledge of the diagnosis, appropriate investigations and management of common central nervous system disorders, including:
   - Post stroke pain
   - Traumatic brain injury
   - Multiple sclerosis
   - Spinal cord injury
   - Syringomyelia

Assessment

1. (2.1.6.2) Describe the common signs associated with neuropathic pain, including positive (mechanical and thermal allodynia and hyperalgesia, temporal and spatial summation), negative (sensory loss, weakness, and muscle atrophy), and other signs (neuroma signs, referred sensation, swelling, skin discoloration, hyperhidrosis, hypohidrosis, and trophic changes)
2. (2.1.6.7) Implement validated tools and questionnaires that have been developed to differentiate neuropathic pain from non-neuropathic pain
3. (2.1.6.6) Describe the indications for, interpretation of, and limitations of investigations for neuropathic pain including conventional neurophysiological tests, quantitative sensory testing, diagnostic imaging, and metabolic testing/bloodwork testing

Treatment (2.1.6.10)

1. Formulate a step-wise approach to pharmacotherapeutics and pain interventions for a patient with neuropathic pain, applying published consensus guidelines, and taking into consideration the patient’s comorbidities
2. Describe the mechanism of action, pharmacodynamics, pharmacokinetics, drug interactions, and side effects of agents used in managing neuropathic pain
3. Describe the role of topical analgesics and intravenous infusions of medications (e.g. lidocaine, ketamine, bisphosphonates) in managing neuropathic pain
4. Explain the role of non-pharmacological management in neuropathic pain including the use of psychology based interventions and rehabilitation
5. Describe the indications for interventional pain management options for neuropathic pain, including but not limited to injections, surgery and neuromodulation techniques, as well as their conduct and possible complications

Headaches

1. (2.1.6.8) Able to describe the accepted diagnostic criteria for the following headache disorders:
   - Migraine with and without aura
   - Tension-type headache
   - Cluster headache
   - Chronic post-traumatic headache
   - Medication overuse headache
   - Trigeminal neuralgia
2. Conduct a full assessment of a patient presenting with a headache, including the appropriate use of diagnostic imaging
3. (2.1.6.9) Cognizant of the “red flag” signs and symptoms of a life-threatening headache
4. Describe the rationale for use, appropriate dose and route of administration, effects and side effects for the following pharmacological agents:
   - Acetaminophen, acetylsalicylic acid, and other NSAIDS
   - Dihydroergotamine
   - Triptans
   - Pharmacotherapeutic strategies for prophylaxis of migraine and cluster headaches
Paediatric Pain Medicine

By the end of the rotation, the resident will be able to demonstrate the following key competencies:

Medical Expert
1. Describe the anatomical, biologic, physiologic and psychological development of pain in children
2. (2.1.7.7) Discuss the evidence regarding adverse physiologic and psychological effects of inadequate pain management in neonates and infants
3. (2.1.7.1) Describe the common acute and chronic pain syndromes unique to pediatric patients, their epidemiology, pathophysiology, natural history, symptoms, signs, treatment and prognosis

Assessment
1. Assess pediatric patients at different developmental stages with pain through history, physical examination skills, use of validated assessment tools, and appropriate ordering and interpretation of investigations
2. (2.1.7.2) Cognizant of how developmental, psychosocial, family and cultural factors affect the assessment of pain in pediatric patients and be able to use this knowledge when formulating treatment plans
3. (2.1.7.3) Utilize common validated tools to measure pain in neonates, children and adolescents, including children with cognitive impairment

Treatment
1. (2.1.7.4) Describe the differences between adults and children with regards to common analgesic pharmacotherapy, including dosing, titration, routes of administration, side effects, and toxicities relevant to developmental pediatric pharmacology
2. Cognizant of the ethical considerations related to the treatment of children with pain conditions
3. (2.1.7.5) Describe approved strategies for safe prescribing and monitoring of off-label pain therapies in pediatric patients
4. (2.1.7.8) Describe the assessment and management of a child or youth who experiences pain sensitization following repeated or prolonged exposure to acute pain episodes, e.g. pediatric rheumatologic, oncologic or neurologic conditions
5. (2.1.7.6) Describe non-pharmacologic approaches used in pediatrics to reduce procedural pain and to treat pain
6. Recognize barriers to functional recovery in children and youth with complex pain

Paediatric Palliative Care
1. Describe the etiology, pathophysiology classification, and characteristics of pediatric cancer pain
2. Identify unique and comparable issues between pediatric and adult palliative care
3. Identify common and/or distressing symptoms in pediatric palliative care
4. Cognizant of the importance of the multidisciplinary approach to evaluation and management of pediatric pain, including the contributions of non-physician health care providers e.g. psychologists, physical and occupational therapists, child life specialists
5. Exhibit knowledge and skill in assessing and treating pediatric acute pain conditions, including:
   - Knowledge of analgesic pharmacology, classification, dosing, titration, routes of administration, side effects, and toxicities relevant to developmental pediatric pharmacology
   - Strategies for safe prescribing and monitoring of off-label pain therapies in pediatric patients
   - Understanding of the modalities used e.g. PCA, epidural catheters, peripheral nerve blocks
   - Appreciation of the importance of multidisciplinary approach to evaluation and management of acute pediatric pain

McMaster Children’s Hospital, located in the McMaster University Medical Centre
**Educational Objectives – Palliative Care**

**Palliative Care**

*By the end of the rotation, the resident will be able to demonstrate the following key competencies:*

**Medical Expert**

Pathophysiology

1. (2.1.9.1) Describe the epidemiology, pathophysiology, natural history, treatment and prognosis of common cancers
2. Explain the neurophysiology of pain transmission in cancer pain
3. (2.1.9.2) Cognizant of the common pain management problems that are unique to cancers or to their treatment
4. Provide a differential diagnosis of pain in patients with cancer, including conditions related to the tumour itself and conditions related to treatment
5. (2.1.9.3) Cognizant of pain-related complications of chemotherapy, radiotherapy, pharmacotherapy and surgery
6. (2.1.9.4) Explain how cancer cycles of recurrence and remission might affect pain assessment and treatment

**Assessment**

1. Complete a comprehensive pain assessment, including the use of validated assessment tools, appropriate history and physical examination skills, appropriate ordering/interpretation of investigations
2. (2.1.9.8) Identify acute and life threatening complications of cancer including, raised intracranial pressure, spinal cord compression, and hypercalcemia
3. (2.1.9.5) Cognizant of the psychological, social, cultural and spiritual effects of a life threatening disease on pain assessment and treatment

**Treatment**

1. (2.1.9.7) Outline the management principles of pain-related complications of chemotherapy, pharmacotherapy, radiation, & surgery
2. Describe the indications for the following modalities in treating pain related to cancer: radiation therapy, chemotherapy/ hormonal therapy, interventional pain procedures, and surgery
3. Effectively utilize the multi-modal approach to cancer

**Symptom Management**

1. Complete a comprehensive symptom assessment, including the use of validated assessment tools, appropriate history and physical examination skills, appropriate ordering/interpretation of investigations
2. Describe the pathophysiology, differential diagnosis, management strategy of common symptoms observed in cancer patients e.g. nausea and vomiting, dyspnea, delirium
3. Skillfully manage symptoms arising in the last hours to weeks of life, e.g. pain, nausea, vomiting, delirium, agitation, oral secretions
4. Appropriately prescribe common medications at end-of-life including opioids, benzodiazepines, anti-psychotics and anti-secretory medications

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Educational Objectives – Physical Medicine

Physical Medicine and Rehabilitation

By the end of the rotation, the resident will be able to demonstrate the following key competencies:

Medical Expert

1. (2.1.5.1) Describe the basic and clinical sciences that relate to painful musculoskeletal diseases, including epidemiology, pathophysiology, natural history, and prognosis:
   - Fibromyalgia
   - (2.1.5.4) Spinal conditions: mechanical low back pain, spinal stenosis, intervertebral disc disease and radiculopathies, cervical pain syndromes, spondylolisthesis/spondyloysis, whiplash associated disorders
   - Regional musculoskeletal disorders: e.g. bursitis, tendinitis, or enthesitis
   - Conditions involving specific joints: shoulder (e.g. rotator cuff tear, adhesive capsulitis, impingement syndrome); wrist (e.g. ganglions); knee e.g. internal derangements), chest wall (e.g. costochondritis)
   - Biomechanical/anatomic abnormalities associated with regional pain syndromes: scoliosis and kyphosis, leg length discrepancy; amputation
   - Spasticity secondary to spinal cord injuries and post stroke
   - (2.1.5.5) Emergent conditions of the spine, including but not limited to tumour, fracture, myelopathy, and infection

Assessment

1. Elicit an appropriate musculoskeletal history, relevant review of systems, and assessment of functional status of patients
2. (2.1.5.13) Describe the medicolegal concepts impairment, disability, and handicap; able to describe the principles of evaluation with regards to these concepts
3. Perform and interpret the examination of the structure and function of axial and peripheral joints, periarticular structures, peripheral nerves, and skeletal muscles
4. Utilize measures of disease activity, tissue damage and deformity, and quality of life for the purposes of prevention and health promotion, diagnosis and/or management
5. (2.1.5.6) Select medically appropriate investigative methods in a resource-effective and ethical manner to help diagnose and guide management of painful musculoskeletal conditions (e.g., electromyography and nerve conduction studies, diagnostic imaging of joint and skeletal diseases)
6. Describe the indications for diagnostic imaging (plain films, computed tomography, magnetic resonance imaging, ultrasonography and radionuclotide scanning of bones, joints, and periarticular structures), identify expected imaging abnormalities for common pain diagnoses, and explain the relationship between imaging findings and pain
7. (2.1.5.12) Cognizant that outcome measures for pain include functional domains, and be able to summarize the principles of functional restoration in individuals with pain
8. Exhibit effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

Treatment

1. Implement a pharmacologic therapeutic management plan to treat musculoskeletal pain, and describe the pharmacology (pharmacokinetics and dynamics), indications, side effects, complications, and evidence of efficacy of those medications
2. (2.1.5.8) Describe the indications for interventional pain management options for musculoskeletal pain, as well as their conduct and possible complications
3. (2.1.5.9) Describe the principles, indications and limitations of physical treatments (e.g. exercise based treatment, manual therapies, manipulation, massage) in the management of musculoskeletal pain
4. (2.1.5.10) Describe the principles, indications and limitations of occupational therapy management for musculoskeletal pain
5. (2.1.5.11) Able to cite current evidence for the potential role of complementary and alternative medicine commonly used in managing musculoskeletal pain

Regional Rehabilitation Centre, Hamilton General Hospital
Educational Objectives – Psychiatry

Psychiatry

By the end of the rotation, the resident will be able to demonstrate the following key competencies:

Medical Expert
1. (2.1.2.1) Cognizant that pain has an effect on psychiatric conditions through predisposing, precipitating, perpetuating, and protecting factors
2. (2.1.2.2) Cognizant of important psychological mechanisms involved in pain and suffering and of the potential effect of pain treatments on psychiatric comorbidities
3. (2.1.2.4) Identify characteristics of patients with pain who would most benefit from a formal psychological assessment
4. (2.1.2.7) List diagnostic criteria, describe appropriate screening questionnaires, and outline the fundamentals of treatment strategies for the following:
   - Major depressive disorder
   - Bipolar mood disorders
   - Post-traumatic stress disorder
   - Panic disorder
   - Social anxiety disorder
   - Generalized anxiety disorder
   - Substance use disorders
   - Attention deficit disorders
   - Somatoform disorders
   - Personality disorders

Assessment
1. (2.1.2.3) Assess factors that affect pain perception e.g. neuro-biologic predisposition, childhood and early life experiences, cultural and societal environments
2. Assess patients with mood, personality, anxiety, and somatoform disorders through history, physical examination skills, use of validated assessment tools, and appropriate ordering and interpretation of investigations
3. Conduct a mental status examination and assess the potential for suicide and aggression
4. Exhibit knowledge and skills related to the use of the Mental Health Act and the Consent to Treatment Act.

Treatment
1. Implement a pharmacologic therapeutic management plan to treat common psychiatric conditions, and describe the pharmacology (pharmacokinetics and dynamics), indications, side effects, complications, and evidence of efficacy of those medications
2. Aware that comorbid substance abuse disorders may increase pain disability or impede response to rehabilitation
3. (2.1.2.8) Describe the potential effects of pain treatments on psychiatric comorbidities
4. Describe the indications, contraindications, efficacy, drug interactions, and side effects of antidepressants for treating comorbid mood or anxiety disorders in patients with pain
5. Describe the indications, contraindications, efficacy, drug interactions, and side effects of other antidepressants/ mood-stabilizing agents (e.g. Lithium, valproate, and carbamazepine)
6. Describe the indications, contraindications, efficacy, drug interactions, and side effects of antidepressants and anxiolytics (e.g. Benzodiazepines) used to treat generalized anxiety disorder, panic disorder, social phobia, and obsessive-compulsive disorder
7. Describe the pharmacotherapy of psychotic disorders and delirium
8. (2.1.2.5) Describe the pharmacotherapy of psychotic disorders and delirium

   - Biofeedback
   - Cognitive Behavioral Therapy
   - Hypnosis
   - Goal setting
   - Imagery training
   - Mindfulness Based Cognitive Therapy (MBCT)
   - Mindfulness Based Stress Reduction (MBSR)
   - Patient education programs
   - Patient self-management techniques

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Educational Objectives – Rheumatology

Rheumatology

By the end of the rotation, the resident will be able to demonstrate the following key competencies:

Medical Expert

1. (2.1.5.2) Describe the basic and clinical sciences that relate to painful rheumatic diseases, including epidemiology, pathophysiology, natural history, diagnostic criteria, treatments and prognosis:
   - Fibromyalgia
   - Myofascial pain syndromes
   - Rheumatoid arthritis
   - Sero-negative spondyloarthritides
   - Connective tissue diseases
   - Polymyalgia rheumatica
   - Inflammatory myopathy
2. Elicit a comprehensive history, relevant review of systems, and assessment of functional status of patients with rheumatic disease symptoms
3. Perform and interpret the examination of the structure and function of axial and peripheral joints, periarticular structures, peripheral nerves, and skeletal muscles
4. Utilize measures of disease activity, tissue damage and deformity, and quality of life for the purposes of prevention and health promotion, diagnosis and/or management
5. Properly utilize commonly ordered tests in rheumatology in a resource-effective and ethical manner, and recognize the limitations associated with these tests
6. (2.1.5.6) Describe the indications and limitations of imaging – plain radiographs, computed tomography, magnetic resonance imaging, ultrasonography and radionuclide scanning of bones, joints, and periarticular structures
7. Identify expected imaging abnormalities for common rheumatological diagnoses, and explain the relationship between imaging findings and pain
8. Exhibit effective clinical problem solving and judgment to address patient problems, including evidence-based examination techniques, interpreting available data and integrating information to generate differential diagnoses
9. Understand the dosing, pharmacokinetics, metabolism, mechanisms of action, side effects, drug interactions, compliance issues, costs, and use in specific patient populations:
   - Nonsteroidal anti-inflammatory drugs
   - Glucocorticoids: topical, intraarticular, systemic
   - Narcotic and non-narcotic analgesics
   - Pharmacological agents commonly used in treating rheumatological conditions
10. (2.1.5.8) Identify the appropriate indications, contraindication, patient selection criteria, outcome data, and complications of soft tissue injections and joint injections

Teaching in ultrasound-guided pain interventions
Resident Safety

Preamble

The Pain Medicine Residency Program at McMaster University is committed to provide and maintain healthy and safe working and learning environments for all trainees. Consequently, we comply with standards set by the Royal College of Physicians and Surgeons of Canada (RCPSC), the Professional Association of Residents of Ontario (PARO), the College of Physicians and Surgeons of Ontario (CPSO), and the Council of Academic Hospitals of Ontario (CAHO).

Resident education must occur in a physically safe environment (Royal College of Physicians and Surgeons of Canada, standard A.2.5).

The collective agreement between the Professional Association of Residents of Ontario (PARO) and the Council of Academic Hospitals of Ontario (CAHO) states that residents are postgraduate trainees registered in university programs as well as physicians employed by the hospitals. The agreement states that the residents must have secure and private rooms with secure access between call room facilities and the service area; maximum duty hours are defined; uniforms and protective equipment standards; as well as access to and coverage for Occupational Health services.

Please refer to the Office of Postgraduate Medical Education Health and Personal Safety Policy for full details. All residents are provided with the Support Systems for Postgraduate Medical Trainees.

Personal Safety

McMaster University, Faculty of Health Sciences strives for a safe and secure environment for postgraduate trainees to train in its facilities and training sites through maintenance of affiliation agreements. Affiliated hospitals are responsible for ensuring the safety and security of postgraduate trainees who are supervised in their facilities in compliance with their existing employee safety and security policies/procedures as well as the requirements outlined in the PARO-CAHO collective agreement.

It is expected that the Postgraduate Trainee, the Residency Program and the Postgraduate Medical Education (PGME) Office will work together with the affiliated teaching hospitals and community training sites to ensure the personal safety of all trainees.

Responsibility of the Postgraduate Trainee

It is the responsibility of the trainee to participate in required safety sessions, such as Workplace Hazardous Materials Information and Safety (WHMIS), and abide by the Safety codes of the designated area where she or he is training. This includes dress codes, particularly as they relate to safety.

The trainee must report any situation where personal safety is threatened (see below).

Responsibility of the Residency Program and the Postgraduate Medical Education Office

It is a responsibility of each Residency Program and the PGME Office to ensure that appropriate educational safety sessions are available to all Postgraduate Trainees e.g. generic WHMIS and safety training. In additional to WHMIS, the Residency Program must ensure that there is an initial, specialty and site-specific orientation available to the Postgraduate trainee.

Adherence to Resident Safety Policy

It is the expectation of the Pain Medicine Residency Program that all residents, clinical/research fellows, and faculty will provide strict adherence to Pain Medicine Residency Program Safety Policy. In the event of a perceived lack of adherence to this policy and/or any McMaster University
Resident Safety

safety policies, the Site Educational Coordinator and/or the Program Director (PD) shall be notified. Such incidents will be addressed by the Site Educational Director and the PD. If required, involvement of the Residency Program Committee, Departmental Chair (Dr. Norman Buckley) and/or the PGME Office may be requested.

If a Personal Safety or Security Breach is Identified

If a postgraduate Trainee identifies a personal safety or security breach, it must be reported to his/her immediate supervisor and/or the PD to allow resolution of the issue at the local level.

If a Postgraduate Trainee feels that his/her own personal safety is threatened, she/he should seek immediate assistance and remove himself/herself from the situation in a professional manner. The trainee should ensure that her/his immediate supervisor and/or the PD has been notified.

The PGME Office (905-525-9140, ext. 22118) is available for consultation during regular work hours, particularly if the PD is not available. If an issue arises after regular office hours, where the clinical supervisor and/or PD may not be available, contact Security of the institution where the Postgraduate trainee is based.

Safety Concerns On Off-Service Rotations

All off-service rotations should have a residency-specific policy and the residents should refer to such policy while on that service/rotation. Residents should always feel safe and be assured appropriate supervision from senior residents or staff physicians while on off-service rotations. If a resident is unable to obtain support in an emergent situation for which he/she is not sufficiently trained, it is expected that they, like other physicians, will deal with such situations as practicing professionals to the best of their ability.

Travel to and from Work

If, in the resident’s estimation, it would not be safe to travel because of weather, the resident may elect not to attend the academic half day, clinic, etc., but must inform the appropriate people (Residency Program Assistant, Supervisor or Site Educational Coordinator) as soon as possible in a professional manner.

If travel between sites is more than 300 km, the resident may be provided with one day of travel time (post call day not included) between sites. Residents are not to be on call the day before driving a long distance for clinical/academic assignment. Instead, residents can request to be off call on the day prior to travel (up to 4 weeks in advance); if it is not possible to be off call the day prior to travel, then a guaranteed travel day should be provided prior to starting any clinical duties.

Although pain medicine residents provide home call coverage, residents do at times remain in hospital for long periods of time after hours; residents should be guaranteed safety coming from and returning to all McMaster hospital sites and community hospital electives.

Cost should not deter residents from the use of taxis or public transit, if the resident is too fatigued to safely travel home from a hospital after hours or post call. Residents are responsible for the submission of documentation of such expenses for reimbursement to the Pain Medicine Residency Program Assistant or the PD.

When traveling for clinical/academic duties in private vehicles, residents are expected to:

- Maintain their vehicles adequately
- Provide appropriate emergency contact information and an itinerary to the Pain Medicine Residency Program Assistant or a colleague
Resident Safety

Security Related to Hospital Parking
Residents should not walk alone for long or unsafe distances at night or after hours, including in parking facilities and on hospital premises. Residents are expected to request a security escort in such circumstances. Hospital and university security services should be readily available and accessible for such instances.

Residents should also familiarize themselves with the locations of the emergency stations in the major hospital sites and parking facilities.

Training Outside North America
Postgraduate Trainees must complete the Field Trips and Electives Planning and Approval process when planning to do an elective outside of North America to ensure compliance with standards and best practices for the safety of all Postgraduate Trainees.

Needlestick Injuries
Refer to the following policies and resources:

- PGME Policy “Procedures for the Prevention of the Transmission of Blood Borne Pathogens”
- HHS Intranet under “Infection Control”
- Residents may choose to consult Employee Health Services or the Infection Control Practitioner at the site they are working
- CPSO policy “Blood Borne Pathogens”

Should a needlestick injury occur while a resident is working, the supervising staff should excuse the resident as soon as patient safety considerations permit or immediately, if resident safety is compromised, so that appropriate and timely assessment may be sought. If such an incident occurs outside of the hours of their availability, the resident should consider a consultation with the emergency physician at the site.

Personal Protective Equipment (PPE)
Appropriate PPE in reasonable condition will always be available to residents in all patient care areas. Should appropriate PPE not be immediately available, residents should provide care only to the extent that it does not endanger themselves or the patient.

Radiation Safety
All residents will receive appropriate instruction with respect to exposures (e.g., chemicals and radiation) that may be encountered during the course of training.

Of note, if residents have any immediate questions or concerns, radiation safety officers are assigned within each hospital and the Radiation Technologists present at the time of exposure are additional resources for questions and concerns.

Residents should have the opportunity for annual teaching sessions and education should be received early in the residency training program.

Residents working in areas with long term or high exposure to radiation must follow radiation safety policies and minimize exposure according to current guidelines.

Pregnant residents should be aware of specific risks to themselves and their fetus in the training environment; request for low exposure rooms should be accommodated, so long as it does not affect the resident’s academic experience.

Radiation protective equipment (aprons, neck guards, etc.) should be used by all residents when exposed to radiation.

- Appropriately sized protective equipment should be available at all hospital sites.
- Dosimeters should be made available to residents to ensure they are not exposed to excessive amounts of radiation and they should be interpreted on a monthly basis.
Resident Safety

If an injury occurs while working in Hamilton teaching hospitals

During daytime hours, while working at one of the Hamilton teaching hospitals (Hamilton Health Sciences, St. Joseph’s Healthcare), the resident should go to the Employee health Office to seek medical attention and complete an incident report. A copy of the incident report form will be provided to the resident. All trainees are encouraged to submit a copy of the incident form to the Pain Medicine Residency Program Assistant for notification. The Program will send a copy to the PGME Office for University records. Non-Ministry of Health funded trainees (i.e. foreign sponsored Residents and all Clinical Fellows) must submit a copy of the incident form the PGME Office, in order for the PGME Office to notify their sponsor and ensure proper follow-up. The Occupational Health & Safety Office of the University will be notified.

If injury occurs while working at a training site outside of Hamilton area

During evenings, weekends, holidays or if the trainee is working at a training site outside of the Hamilton area, the resident should go to the nearest emergency room and identify himself/herself as a resident and request to be seen on an urgent basis. The resident must complete, within 24 hours, an Injury/Incident Report (forms are available in the local Emergency Room).

In Ontario, the injury / incident form should be submitted to the hospital where the injury took place. That hospital will be responsible for administering the claim.

The Postgraduate Trainee’s employer administers the claim. All Ministry of Health funded Residents are paid through Hamilton Health Sciences. There are a variety of different funding sources for externally funded Residents and Clinical Fellows. In these instances, HHS would not administer the claim or be responsible for follow-up.

Supervision

Please refer to the “McMaster Guidelines for the Supervision of Clinical Activities of Postgraduate Medical Students”.

Please refer to the CPSO Policy “Professional Responsibilities in Postgraduate Medical Education”.

All supervising staff must provide appropriate supervision to trainees. This supervision should be appropriate to the resident’s level of training. The resident should participate in the care of patients as appropriate to his/her competencies, and ensure that appropriate communication with the supervising staff has taken place.

Concerns Regarding Inappropriate Behaviour of Supervising Staff

Please refer to the PGME Policy “Resolution of Resident Disagreement with Attending Physician or Supervisor on an Issue of Patient Care”.

Please refer to the CPSO policy “Physician Behaviour in the Professional Environment”.

If a resident encounters immediate patient safety concerns related to inappropriate attending physician behaviour, the resident should notify the Site Educational Coordinator or the Rotation Educational Director immediately. If these individuals are not readily available, the PD should be notified.

Conflict Resolution

In cases of conflict with staff not related to patient care, residents should attempt to resolve the issue through direct communication with the staff in question. In situations where this approach is not possible, or does not resolve the problem, the Site Educational Coordinator and/or the Program Director should be notified. These individuals may choose to address the issue through direct communication with the staff and resident involved, either individually or in the form of a group meeting. If this does not lead to a satisfactory resolution, the
Residency Program Committee should be informed, and this may lead to involvement of the Chair of Anesthesia (Dr. Norman Buckley) and/or the Assistant Dean of PGME. If required a hospital Clinical Chief may be involved for hospital-related matters. If necessary, an appropriate outside mediator may be requested.

Harassment
Please refer to the PGME policy on Harassment.

Please refer to the McMaster University “Discrimination, Harassment & Sexual Harassment: Prevention and Response.”

The Pain Medicine Residency Program and McMaster University as a whole actively promote an environment where all students, staff and faculty can learn, work and live in equality and respect. The Human Rights and Equity Services Office and the Faculty of Health Sciences Advisor on Professionalism provide consultation and advice on human rights-related issues of all kinds and offer support and assistance on handling complex situations particularly dealing with human rights, harassment, accommodation or discrimination issues. These resources also provide educational opportunities tailored to specific requests, including but not limited to human rights obligations, responsibilities and policy requirements; diversity and inclusivity, and anti-racism/anti-oppression.

Other Policies
Pregnancy & Breastfeeding
If a resident becomes pregnant during residency, the PD should be informed as soon as possible. The PD will liaise with the Residency Program Committee, as appropriate, to ensure appropriate accommodations are made (cessation of work in areas that may be detrimental to the individual, as well as consideration for decreased call requirements during 3rd trimester, etc.).

The Pain Medicine Residency Program supports breastfeeding in the workplace, and, as such, will take steps to accommodate residents who choose to do so, including access to private spaces, a refrigerator and allotment of time, insomuch as it does not interfere with patient safety or resident educational goals.

Storage of Personal Belongings
Residents at all sites should have access to storage space for personal belongings. Lockers are typically available in secure areas. If lockers are not available, then space should be provided for residents to store their belongings in a supervised area, where the belongings will be reasonably safe from damage and theft.

Moonlighting
It is recognized that neither the PGME nor the Pain Medicine Residency Program can restrict residents with an independent practice certificate, however, this activity must not interfere with the training program.

Please refer to the McMaster “Moonlighting Policy” as well as the website “Restricted Registration Program for Ontario Medical Graduates”.

Resources Available
Postgraduate Medical Education (PGME) Office
Phone: 905-525-9140 ext. 22118
Fax: 905-527-2707

Faculty of Health Sciences Safety Office
Phone: 905-525-9140 ext. 24956
Fax: 905-528-8539
Health Sciences Centre, Room 3N1C
1200 Main Street West, Hamilton, L8N 3Z5

Hamilton Health Sciences Human Resources – Employee Health Telus Sourcing Solutions
120 King St. W, Ste 200, Hamilton, L8P 4V2
Phone: 905-387-9495 ext. 63900

St. Joseph’s Healthcare Occupational Health and Safety Services
50 Charlton Ave. East, Hamilton, L8N 4A6
Phone: 905-522-1155 ext. 33344

PARO / CAHO Agreement
PGME policy “Communicable Diseases and Occupational Health”
Support Services

University Resources
The program director (PD) will be the residents’ advocate in situations where residents are experiencing stress related to work, health and/or personal issues. At the start of training, residents will receive a booklet addressing stress management, detailing available support services from the Postgraduate Medical Education (PGME) Office. The same information is also available on the PGME website.

The information will also be provided to returning trainees at the time of Re-registration, to let them know of any updates to the services, as well as to remind them where the information resides. The information is also available on: https://www.medportal.ca

If a resident is feeling stress or has personal issues, the resident is encouraged to contact the PD and/or her/his mentor. The resident will be assured that the PD is available at all times; all Pain Medicine residents will be given the PD’s contact information, including personal telephone number at the beginning of their residency.

The PGME Office offers the following services to residents in need of assistance:

1. A list of local family doctors who will accept residents as patients
2. Ms. Valerie Spironello, MSW, RSW offers a confidential service that residents can access if they feel they need to discuss the many stresses of residency and of work-life balance. Ms. Spironello specializes in dealing with compassion fatigue in individuals in the caring profession. The PGME Office pays for the initial visit to facilitate this service. Further visits can be covered through the Resident’s benefit plan.
3. Dr. John Miller, Director of Resident Affairs, Hamilton Campus.
4. Facilitation of a confidential referral to the Department of Psychiatry.

Other services that are available:

1. The University Office of Human Rights and Equity Services is available to assist with issues surrounding harassment, discrimination, and complaint resolution.
2. Mohawk Shared Services is the Employee & Family Assistance Program available to all residents. The program offers a broad range of services to residents and their dependent families including counseling.
5. Confidential CMA helpline. Resources for the Centre for Physician Health and Well Being are accessible via the CMA website or by calling 1-877-CMA-4-YOU.
6. Canadian Medical Protective Association is available to discuss medico-legal issues.
7. Student Walk Home Attendant Team (SWHAT).
8. Gay and Lesbian Medical Professional and Health Resources.

Semi-Annual Meetings with Program Director
All residents will have two scheduled meetings with the PD each year, to review their progress, career plans, electives, in-training examination results, progress with the scholarly project, personal goals and other relevant issues. Additional meetings will take place at the request of either the PD or the resident. The PD has an open door policy and will be readily accessible to all residents.
Options for exploring interests will be discussed and elective experiences will be planned during these meetings. Residents will be made aware of available resources and expertise at these meetings.

**Mentorship Program**

Each resident will be assigned a faculty mentor, who will be a role model for the resident, as well as be a resource for the resident on a professional and personal level. A successful mentorship relationship will promote resident wellness; support a strong relationship between the faculty and residents; aid in conflict resolution; and foster career planning.

The structure is flexible in order to achieve the best fit for the resident’s needs. There are two requirements of the mentorship program:

1. The mentor and mentee must meet at least twice per year (there is no upper limit on the number of meetings) and those meetings must be documented (details of discussions will remain confidential).

2. The mentee must present to the mentor his/her self-reflection forms and these must be reviewed, discussed and signed off by the mentor. The reflection forms are completed by the resident on his/her own and will present an opportunity for the resident to reflect on some of her/his clinical experiences as residents and what she/he has learned from those experiences. They are part of the CanMEDS component of their portfolios.

If there are issues between a mentor and mentee, arrangements will be made to switch mentors to allow for a positive experience, and the specific issues will be addressed on a case-by-case basis by the Residency Program Committee.
Addresses

Concurrent Disorders Program (Mountain Inpatient unit, level 1)
Anxiety Treatment and Research Clinic (level 1)
Mood Disorders Program (level 1)
St. Joseph’s Healthcare, West 5th Campus
100 West 5th Street
Hamilton, Ontario L8N 3K7
(T) 905-522-1155
Department of Anesthesia
St. Joseph’s Healthcare – Charlton Campus
Rm D149, 50 Charlton Avenue East
Hamilton, Ontario L8N 4A6
(T) 905-522-1155. extension 33853
(F) 905-521-6019
Ennis Centre for Pain Management
1 Young St, Suite 710
Hamilton, Ontario L8N 1T8
(T) 905-627-7300
(F) 905-627-4757
http://enniscentre.com/
Firestone Institute For Respiratory Health Out-Patient Sleep Program
St. Joseph’s Healthcare – Charlton Campus
50 Charlton Avenue East
Hamilton, Ontario L8N 4A6
(T) 905-522-1155. extension 34979
(F) 905-521-6184
Homewood Health Centre
150 Delhi Street Guelph, Ontario N1E 6K9
(T) 519-824-1010

Michael G. DeGroote Centre for Learning and Discovery
1280 Main Street West
Hamilton, Ontario L8S 4K1

Michael G. DeGroote Institute for Pain Research and Care
Michael G. DeGroote National Pain Centre
Room 2101, Michael G. DeGroote Centre for Learning and Discovery
1280 Main Street West
Hamilton, Ontario L8S 4K1
http://fhs.mcmaster.ca/paininstitute/
http://nationalpaincentre.mcmaster.ca/index.html

Michael G. DeGroote Pain Clinic
McMaster University Medical Centre
1200 Main St. West, 4th Floor Yellow Section (4V)
Hamilton, Ontario L8N 3Z5
(T) 905-521-2100, extension 44621
(F) 905-577-8022

Neuro-ambulatory Centre
Level 1 – East Wing
Hamilton General Hospital
237 Barton Street East
Hamilton, Ontario L8L 2X2
(T) 905-527-4322, extension 46755
(F) 577-8016

Paediatric Chronic Pain Program
McMaster Children’s Hospital
1200 Main St. West, 3rd Floor Yellow Section (3Z)
Hamilton, Ontario L8N 3Z5
(T) 905 521 2100, extension 73049

Pain and Symptom Management Clinic
Juravinski Cancer Centre
Clinic E, level 2
699 Concession Street
Hamilton, Ontario L8V 5C2
905-387-9495, extension 64315

St. Joseph’s Healthcare Pain Clinic
St. Joseph’s Healthcare - King Campus
Rm 1311, 2757 King Street East
Hamilton, Ontario L8G 5E4
(T) 905-522-1155, extension 38611
(F) 905-573-4832