Physical Medicine and Rehabilitation University of Toronto Rotation Specific Goals and Objectives Research

As part of the RCPSC Physiatry Residency Program requirements, a three month research rotation or equivalent longitudinal experience is required. This rotation however, is part of a larger research exposure and experience, within the program. The overall goal of the experience, as a whole, is to assure that the resident has been introduced to the scope of research and the knowledge, skills and attitudes, as well as the concepts of critical appraisal, all of which would be fundamental to consideration of or embarking upon a career, which involves health research.

General Requirements

- To develop the necessary knowledge and skill required to utilize published research in an evidence-based Physiatry practice
- To demonstrate proficiency of this knowledge and these skills to successfully complete the Royal College Fellowship Examinations

Medical Expert

Definition:

As Medical Experts, Physiatrists 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 physician Role in the CanMEDS framework. The Physiatrist is a medical specialist, expert in the comprehensive diagnosis, management and rehabilitation of people of all ages with neuromusculoskeletal disorders and associated disabilities.

- Demonstrate a working familiarity with the fundamentals of research experimental design such as basic experimental design, clinical trial design, including cohort studies, cross sectional studies, case controlled studies, observational studies, case series and case reports in addition to randomized controlled trials
- Understand and be able to explain the distinction between random allocation and randomization and the implications of each
- Generate research questions having gained experience in hypothesis generation
- Understand the practice of critical appraisal of the literature, including the levels of evidence that is afforded by different types of studies
- Demonstrate a working familiarity with the common biostatistical tests and be able to describe an approach to acquiring knowledge or information about any statistical tests, which are less familiar
- Explain the importance of medical and research ethics.

- Present information in a formal setting and defend such a presentation and discussion
- Understand the components of and develop at least a single research grant application
- Have an understanding of the sources of research funds available
- Write a report, related to research, suitable for publication in a peer reviewed journal
- Demonstrate behaviour consistent with ethical conduct, related to research
- Demonstrate the importance of working in a multi-disciplinary research team, as appropriate
- Demonstrate understanding and behaviour consistent with acceptance of the need for continuing health education

Communicator

Definition:

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

- Establish relationships with research subjects/other researchers
- Listen effectively
- Gather the data necessary for the research project
- Communicate clearly, concisely and effectively to subjects and others on the research team, including the supervisor, or those involved in the research rotation
- Keep complete and informative research records as defined in the research project and ethical submission

Collaborator

Definition:

As *Collaborators,* Physiatrists effectively work within a health care team to achieve optimal patient care.

- Consult effectively with other physicians and health care professionals, related to research pursuits
- Contribute effectively to other interdisciplinary research team activities
- Discuss the principles of interdisciplinary team functioning that are often relevant to the successful completion of a research project in the scope of physiatry
- Assume a leadership role on the research team, should there be one
- Demonstrate understanding and respect for the role of other members of the interdisciplinary team and a willingness to deal with differences of opinion in a professional and sensitive manner

Leader

Definition:

As *Leaders*, Physiatrists 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.

- Utilize personal resources effectively to balance professional and non-professional activities.
- Allocate finite research resources wisely
- Work effectively and efficiently to achieve the end point of a suitable manuscript for publication within a peer related journal
- Utilize information technology to optimize research endeavors and life-long learning
- Prepare and maintain complete and informative records and data bases as necessary to research projects
- Show understanding of basic principles of management related to a research project
- Perform managerial and administrative functions in an efficient and organized fashion
- Acknowledge the increased strains of health care economics, which has also affected research as a domain

Health Advocate

Definition:

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

- Identify the important determinants of health affecting patients
- Contribute effectively to improved health of patients and communities
- Recognize and respond to those issues where advocacy is appropriate
- Demonstrate sensitivity to special issues of gender, culture and social bias in dealing with research subjects
- Discuss the role of national organizations in shaping public policy on care for persons with disabilities, and the prevention of disability and specifically how potential or completed research could influence such organizations
- Promote a heightened awareness of the challenges and abilities of persons with disabilities as demonstrated by completed research or by proposal of research to be undertaken

Scholar

Definition:

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

- Develop, implement and monitor a personal continuing education strategy.
- Critically appraise sources of medical information
- Facilitate learning of patients, housestaff/students and other health professionals.
- Contribute to development of new knowledge
- Demonstrate understanding of critical appraisal as applied to review of the rehabilitation literature and basic research methodology
- Demonstrate basic research skills necessary to develop and evaluate research proposals and complete a research project
- Demonstrate an ability to incorporate gender, cultural and ethnic perspectives in research methodology, data presentation and analysis
- Teach effectively in a variety of settings and to diverse groups of learners such as students, residents, physicians, allied health professionals, patients, families and the lay public
- Accurately assess professional and personal strengths and weaknesses and make changes in behaviour where necessary
- Demonstrate a commitment to life-long self-directed learning and the application of new information to clinical practice using the principles of evidence based medicine

Professional

Definition:

As *Professionals,* Physiatrists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

- Deliver highest quality care with integrity, honesty and compassion
- Exhibit appropriate personal and interpersonal professional behaviours
- Demonstrate a commitment to the application of exemplary bioethical standards to clinical practice and research in such areas as truth-telling, consent, confidentiality, conflict of interest, resource allocation, and research ethics
- Display attitudes commonly accepted as essential to professionalism
- Continually evaluate one's abilities, knowledge and skills, and know the limitations of professional competence
- Recognize the principles and effects of a balanced lifestyle on one's practice and ability to provide optimal care for patients
- Know and understand the professional, legal and ethical codes to which physicians are bound
- Analyze and know how to deal with unprofessional behaviours in clinical practice, taking into account local and provincial regulations