

NEUROLOGY

GENERAL INFORMATION

(Source: RCPSC)

Neurology is the branch of medicine concerned with the study of the nervous system in health and disease. Neurologists diagnose and treat nervous system disorders involving the brain and spinal cord and other nerve and muscular conditions. Many neurological problems are characterized by pain and are chronic, debilitating and untreatable. Neurologists are increasingly involved in rehabilitation and in the psychological and social aspects of patient care. A large portion of neurology practice is consultative.

Neurology requires that a physician be able to demonstrate diagnostic and therapeutic skills for ethical and effective patient care, access and apply relevant information to clinical practice. Neurologists are required to provide effective consultation services with respect to patient care, education and legal opinions.

A competent neurologist must be able to do the following:

- provide scientifically-based, comprehensive and effective diagnosis and management for patients with neurological disorders
- communicate effectively with patients, their families and medical colleagues (particularly referring physicians), and other health care professionals
- counsel patients and others on aspects of prevention of neurological disorders, including risk factors, and genetic and environmental concerns
- maintain complete and accurate medical records
- effectively coordinate the work of the health care team
- be an effective teacher of other physicians (including medical students and house officers), other health care personnel and patients
- be proficient in professional and technical skills related to the specialty
- demonstrate personal and professional attitudes consistent with a consultant physician role
- be willing and able to appraise accurately his or her own professional performance
- be able to critically assess the neurological literature as it relates to patient diagnosis, investigation and management
- be able to participate in clinical or basic science studies as a member of a research team

Once undergraduate medical school is completed, a resident may choose to become certified as either an adult or pediatric neurologist. To become certified as an **adult** neurologist requires 5 years of approved residency training. This period must include: 1 year of basic clinical training; a minimum of 1 year of RCPSC-approved residency training in internal medicine (2 years are preferable); and a minimum of 3 years of RCPSC-approved residency training in neurology.

To become certified as a **pediatric** neurologist requires 5 years of RCPSC-approved residency training. This period must include: 1 year of basic clinical training; a minimum of 1 year of RCPSC-approved residency training in pediatrics (2 years are preferable); and a minimum of 3 years of RCPSC-approved residency training in neurology.

The Royal College of Physicians and Surgeons of Canada (RCPSC) have created a reciprocity program that accepts the credentials of applicants to each other's examinations. For further details on training requirements go to:

http://rcpsc.medical.org/residency/certification/training/neuro_e.html#special

There are currently 854 neurologists practicing in Canada. Of these, 6% are under the age of 35, 49% are 35-54 and 44% are age 55 and older. A total of 73% of practicing neurologists are male and 27% are female. (Source: 2012 CMA Masterfile).

DETAILED INFORMATION

The remainder of the data contained in this specialty profile has been extracted from the 2010 National Physician Survey (NPS), unless otherwise stated. All percentages are for respondents only. A total of 144 neurologists responded (for a response rate of 18%).

Complete data tables for neurology from the 2010 NPS are available at:

http://www.nationalphysiciansurvey.ca/nps/2010_Survey/Results/physician-med-e.asp

For an index to all specialties, go to:

http://www.nationalphysiciansurvey.ca/nps/2010_Survey/2010results-e.asp

In Training

According to the Canadian Resident Matching Service (CaRMS), there were 42 neurology and 9 pediatric neurology residency spots available to Canadian medical graduates in 2011.

Results produced from Ontario's Population Needs-Based Physician Simulation Model indicate that there currently is and there will continue to be a small shortage of neurologists to meet the province's needs. Please note that this projection is for Ontario only. Similar projections for the rest of Canada are not available.

Residents of neurology most frequently cited intellectual stimulation/challenge as a reason for choosing this specialty (95%), followed by the doctor-patient relationship (72%) and teaching opportunities (54%).

Practice Setting

Two-thirds of neurologists (66%) work in an academic health sciences centre (AHSC), almost half (48%) work in a private office/clinic and 38% work in a university. Neurologists see patients in a variety of settings, with the AHSC being the main patient care setting for almost half (49%), followed by the private office/clinic (32%).

The 2007 NPS showed that the opportunity for affiliation with a university (55%) was the major influence on a neurologist's selection of their current practice location, but the availability of a medical support system/resources (50%), liking the location (50%), the availability of a practice

opportunity and the community needs were a good match to their career (both at 31%), were also cited as important factors.

Practice Profile

The most prevalent practice setting for neurologists is solo practice (37%). An equal proportion (25%) work in a group practice where on-call duties, equipment, office space and/or staff may be shared amongst the physicians, and in an interprofessional practice setting where physicians and other health professionals have their own caseloads.

In 2007, during a *typical* week, neurologists reported seeing an average of 49 patients. The majority of neurologists (80%) serve an urban/suburban population including inner city.

Neurologists work an average of 58 hours per week on professional activities (excluding on-call). The majority of this time (30 hours per week) is devoted to direct patient care, with or without a teaching component. An additional 8 hours per week is spent doing research and 6 hours per week is spent on indirect patient care, such as making appointments with specialists, charting, meeting a patient's family, etc. The remainder of the time is spent on CME/CPD and teaching.

Nearly three-quarters of neurologists (71%) report that they make themselves available to their patients (i.e., on-call) outside of their regularly scheduled hours. The vast majority (88%) report doing on-call for hospital in-patients, while 79% do emergency room on-call, and 59% do on-call for non-hospitalized patients either by telephone or seeing the patient if required. Of those who do on-call, the majority (61%) spends up to 120 hours per month on-call, 25% put in between 121 and 180 hours per month and 14% spend more than 180 hours per month on-call. While on-call, they spend an average of 37 hours on direct patient care and see an average of 35 patients.

Income

Forty percent of neurologists receive 90+% of their income through a blended source (i.e., made up of a combination of 2 or more payment methods like fee-for-service, salary, capitation, sessional, contract, benefits/pensions, on-call remuneration or some other form), while 37% receive 90+% of their income from fee-for-service.

According to the Canadian Institute for Health Information's National Physician Database 2009-2010, the average gross fee-for-service payment per neurologist (who received at least \$60,000 in payments) in 2009-10 was \$271,482. Note that this is gross billings and does not take into account deductions for overhead expenses, taxes, etc.

Satisfaction

More than three-quarters of neurologists (76%) report that they are very or somewhat satisfied with their current professional life.

Most neurologists (78%) are very or somewhat satisfied with their relationship with their patients and with their relationship with specialist physicians (78%).

Neurologists are less likely to be very or somewhat satisfied with finding a balance between personal and professional commitments (59%), and in 2007, with their net revenue per hour compared to other specialties (59%) and with their net revenue per hour compared with other neurologists (41%).

ADDITIONAL INFORMATION

Additional information on this specialty can be found from the:

Canadian Neurological Society: <http://www.cnsfederation.org/>