

# OPERATIVE LANDSCAPE AT CANADIAN NEUROSURGERY RESIDENCY PROGRAMS

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## NEUROSURGERY

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**BACKGROUND:** The literature lacks reliable data regarding operative case volumes at Canadian neurosurgery residency programs. Our objective was to provide a snapshot of the operative landscape in Canadian neurosurgical training using the trainee-led Canadian Neurosurgery Research Collaborative.

**METHODS:** Anonymized administrative operative data were gathered from each neurosurgery residency program from January 1, 2014, to December 31, 2014. Procedures were broadly classified into cranial, spine, peripheral nerve, and miscellaneous procedures. A number of prespecified subspecialty procedures were recorded. We defined the resident case index as the ratio of the total number of operations to the total number of neurosurgery residents in that program. Resident number included both Canadian medical and international medical graduates, and included residents on the neurosurgery service, off-service, or on leave for research or other personal reasons.

**RESULTS:** Overall, there was an average of 1845 operative cases per neurosurgery residency program. The mean numbers of cranial, spine, peripheral nerve, and miscellaneous procedures were 725, 466, 48, and 193, respectively. The nationwide mean resident case indices for cranial, spine, peripheral nerve, and total procedures were 90, 58, 5, and 196, respectively. There was some variation in the resident case indices for specific subspecialty procedures, with some training programs not performing carotid endarterectomy or endoscopic transsphenoidal procedures.

**CONCLUSIONS:** This study presents the breadth of neurosurgical training within Canadian neurosurgery residency programs. These results may help inform the implementation of neurosurgery training as the Royal College of Physicians and Surgeons residency training transitions to a competence-by-design curriculum.