

**Neurosurgery** is a demanding surgical discipline that requires at least 6 years of **residency training** in **Canada** and, often, additional years of **fellowship** training. Because of the complexity of surgical **procedures**, there has been increasing **subspecialization** within neurosurgery, with subspecialty fields including open cerebrovascular, skull base, endovascular, surgical neurooncology, trauma, functional neurosurgery, epilepsy, pediatric neurosurgery, complex spine, and peripheral nerve.

The Canadian Neurosurgery Research Collaborative (CNRC) is a newly formed resident-led research network involving 13 neurosurgery residency programs across Canada ([www.neuronetwork.ca](http://www.neuronetwork.ca)).

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

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.

They 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.

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.

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 <sup>1)</sup>.

<sup>1)</sup>

Tso MK, Dakson A, Ahmed SU, Bigder M, Elliott C, Guha D, Iorio-Morin C, Kameda-Smith M, Lavergne P, Makarenko S, Taccone MS, Wang B, Winkler-Schwartz A, Sankar T, Christie SD. Operative Landscape at Canadian Neurosurgery Residency Programs. Can J Neurol Sci. 2017 Jul;44(4):415-419. doi: 10.1017/cjn.2017.30. Epub 2017 Mar 21. PubMed PMID: 28322180.

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