

McMASTER NEUROSURGERY RESIDENCY CURRICULUM

JULY 2017

Core Clinical Skills

- Communications skills (eg., informed consent, charting and dictating, history taking, instructing/educating patients/families, presenting rounds, etc.)
- Health advocacy (smoking, other behaviour modification)
- Infection prevention/treatment
- Cardiovascular dx and management, esp. blood pressure and heart failure and ischemia
- Endo dx and management, esp. pituitary/hypothalamus/adrenal
- Fluids and electrolytes
- Nutrition and feeding
- Thrombosis prevention and management
- Neuropharm esp. steroids and anticonvulsants
- Pain control: meds, injections, operations, etc.
- Neuro and other physical examinations
- Wound management

Basic Neurosciences

- Neuroanatomy
- Neuropathology
- Neurophysiology
- Genetics
- Pharmacology
- Neuropsychology
- Epidemiology

Professional Skills

- Professional behaviours
- Ethics
- Legal responsibilities
- Professional organizations (Royal College, etc.)
- Committee skills
- Administrative skills
- Collaboration skills

Clinical Neurosurgery

- Case analysis and differential diagnosis
- Neuroradiology
- Risk/benefit assessment
- Surgical planning
- Neuroanesthesia basics
- Surgical and other OR tools and their proper use
- Intraoperative monitoring
- Positioning
- Surgical exposures
- Dissection, removal, and insertion techniques
- Assisting techniques
- Recognition of intraoperative risks and complications
- Management of intraoperative bleeding
- Wound closure
- Recovery room management
- Post operative order and dictation

Research & Analysis

- Texts and Journals available
- Information searches
- Information analysis
- Reading skills
- Data evaluation
- Types of research
- Research techniques
- Research design
- Research accomplishment
- Research analysis
- Writing research papers
- Presenting research at meetings
- Funding opportunities and grant writing
- Research fund management
- Advanced degrees
- Research team development and dynamics