NEUROSURGERY

Definition	Neurosurgery constitutes a medical discipline and surgical specialty that provides care for adult and pediatric patients in the treatment pathological processes that may modify the function or activity of the central nervous system. For example: (brain, hypophysis and spinal cord), the peripheral nervous system (cranial, spinal and peripheral nerves), the autonomic nervous system, the supporting structures of these systems (meninges, skull and skull base and vertebral column) and their vascular supply (intracranial, extracranial and spinal vasculature). Treatment encompasses both non-operative management (prevention, diagnosis – including image interpretation – and treatments such as, but not limited to neurocritical intensive care and rehabilitation) and operative management with its associated image use and interpretation (endovascular surgery, functional and restorative surgery, stereotactic radiosurgery and spinal fusion) including its instrumentation.
Scope of practice	**1. Neurosurgeon shall understand and demonstrate the appropriate knowledge, skills, and attitudes to assess neurological disease by means of clinical history taking and physical examination, as followings:** 1. General physical examination. 2. Neurological examination including peripheral nerve examination 3. Follow ATLS guidelines for patients presents with trauma. 4. Able to recognize patients that will need close monitoring in neurosurgical floor or ICU. 5. Able to recognize patients with neurological red flags that requires urgent medical attention including diagnostic imaging or life/limb saving procedure. **2. Within their skills, competencies and experience, licensed neurosurgeon shall:** 1. Assure that their medical practice is in adherence with internationally and nationally recognized guidelines for management of neurosurgical conditions including traumatic brain injuries, spine pathologies and neuro oncological tumors. 2. Provide continuing and comprehensive medical care, health maintenance, and preventive services to patients, relatives, and colleagues in a variety of clinical situations. 3. Demonstrate diagnostic and therapeutic skills for effective patient care by using evidence based medical practices. 4. Demonstrate effective consultation with respect to patient care, culture and education. 5. Obtain relevant history from patients and keep accurate and adequate patient records. 6. Recognize their own practice limitations and seek consultation with other healthcare professionals, when necessary, to provide optimal patient care. 7. Demonstrate an understanding of medico-legal issues related to the specialty. 8. Establish appropriate therapeutic relationships with patients/families. 9. Function as a counsellor and advocate to effectively improve health of patients, families and communities. 10. Diagnose, treat, and manage neurological diseases, order and interpret laboratory and diagnostic tests and prescribe medications related to neurosurgery practice. **3. Neurosurgeon should be able to independently insert intra cranial pressure monitor and external ventricular drain whenever it is indicated for the patients.** **4. Neurosurgeon should be able to independently perform Craniotomy or/and cranectomy to relieve severe intra cranial hypertension or hematoma in order to help saving patients` lives whenever it is clinically indicated.**

5. **Neurosurgeons "Specialist & consultant" title can prescribe controlled drugs-CD after they submit a special request to the authorities.**
6. **Understand and abide to the Qatar laws and QCHP regulations related to diagnosis & approach to patients with brain death.**
7. **Demonstrate effective referral services, especially to neuro-oncology, neurology, anesthesia, rehabilitation and pain management service with respect to patient care and effectively contribute to other interdisciplinary team activities.**
8. **Deliver highest quality care with integrity, honesty and compassion.**

Clinical core privileges

Cranial Procedures

1. Surgery for cranial trauma
2. Surgery for convexity/superficial brain tumors
3. Surgery for posterior fossa brain tumors
4. Stereotactic guided surgery for brain lesions including biopsy and microcraniotomy

Spinal Procedures / Surgeries

1. Epidural steroid injections for pain
2. Insertion of subarachnoid or epidural catheter with reservoir or pump for drug infusion
3. Lumbar subarachnoid-peritoneal shunt
4. Radiofrequency ablation
5. Spinal cord surgery for decompression of spinal cord or spinal canal, for intramedullary lesion, intradural extramedullary lesion, rhizotomy, cordotomy, dorsal root entry zone lesion, tethered spinal cord or other congenital anomalies (diastematomyelia)
6. Laminectomies, laminotomies and fixation and reconstructive procedures of spine and its contents including instrumentation.
7. Surgery for intervertebral disc disease
8. Percutaneous vertebroplasty Balloon kyphoplasty

Peripheral Nerve Procedures

1. Peripheral nerve procedures, including decompressive procedures and reconstructive procedures on the peripheral nerves
2. Nerve blocks
3. Nerve biopsy
4. Muscle biopsy

Other Procedures

1. Intra Cranial Pressure insertion
2. Lumbar Drain
3. External Ventricular Drain
4. Lumbar puncture, cisternal puncture, ventricular tap, subdural tap
5. Shunts: ventriculoperitoneal, ventriculoatrial, ventriculopleural, subdural peritoneal, lumbar subarachnoid/peritoneal (or other cavity)

Surgery for Congenital Anomalies

1. Surgery for Chairi malformation
2. Management of congenital anomalies, such as encephalocele, meningocele, myelomeningocele

	Endovascular Procedures 1. Performing and interpreting diagnostic imaging studies related to the vasculature of the Central Nervous System, head, neck, and spine. 2. Participating in short-term and long-term post procedure follow-up care, including neuro-intensive care **Additional Privileges:** 1. craniostomy for chronic subdural haematoma 2. craniotomy for spontaneous intracranial hemorrhage 3. Wound debridement, surgical treatment of post rupture CSF leak (Pseudomeningocele) 4. Surgery for skull lesions (dermoid, osteoma, eosinophilic, granuloma) 5. Trans-sphenoidal surgery for pituitary adenoma 6. Injection for carpal tunnel syndrome 7. All types of pain Management by injection (cervical, dorsal, lumbar
References	**DHP expert committee**