Course Location – The Marconi Centre – 1026 Baseline Road, Ottawa

Saturday February 4th

07:00 - 07:40	Registration and Breakfast	
07:40 - 08:00	Introductory Remarks	Dr. Charles Agbi
	Q&A	Dr Safraz Mohammed
		Dr. Fahad Alkherayf
08:00 - 08:40	Minimally Invasive Approaches in Spine Surgery: General	Dr. Safraz Mohammed
	Principles	
	Describe the indications and contraindications for minimally	
	invasive techniques in spinal surgery	
	Discuss the role of technology in minimally invasive spine surgery	
	Be able to describe the planning and placement of thoracolumbar and tale consumption of the planning and placement of thoracolumbar and tale consumption of the planning and placement of thoracolumbar and tale consumption of the planning and placement of thoracolumbar and tale consumption of the planning and placement of thoracolumbar and tale consumption of the planning and placement of thoracolumbar and tale consumption of the planning and placement of thoracolumbar and tale consumption of the planning and placement of thoracolumbar and tale consumption of the planning and placement of thoracolumbar and tale consumption of the planning and placement of the planning and	
08:50 - 09:30	pedicle screws using minimally invasive techniques	Dy Fahad Allahayayaf
08:50 - 09:30	Pineal Tumours	Dr. Fahad Alkherayf
	To be familiar with different pathologies affecting the pineal	
	region • Identify the different diagnostic approaches for pineal	
	tumours	
	Discuses different surgical approaches to pineal region	
09:40 – 10:20	Epidemiology, Genetics, Molecular Biology of Intracranial	Dr. Alim Mitha
09.40 - 10.20	1	Dr. Allin Witha
	Aneurysms. Management of Unruptured Intracranial	
	Aneurysms.	
	 List three genetic syndromes associated with the development of brain aneurysms 	
	List three molecules involved in the pathogenesis of aneurysms	
	List three histological features of aneurysm formation	
10:20 10:20	Name three aneurysm features that can influence risk of rupture	
10:20 - 10:30	BREAK	5 411 4411
10:30 – 11:10	Surgical Management of Ruptured Intracranial Aneurysms	Dr. Alim Mitha
	To describe the rationale for the treatment of ruptured and unruptured aneurysms	
	Select the appropriate therapeutic strategy(ies) for the treatment	
	of an aneurysm	
	To describe the risks associated with the treatment and therapeutic	
	measures to minimize such risks	
	Describe the rationale for a multidisciplinary approach to the	
11:10- 11:50	management of aneurysms	Dr. Idara Edem
11.10-11.50	Chordomas and Chondrosarcomas: Current Management	Dr. Idara Edelli
	Describe the pathological differences between chordomas and chondrosarcomas	
	Describe the role of multi-disciplinary care in the treatment of	
	chordomas and chondrosarcomas	
	Discuss the oncologic surgical principles for resection of chordomas	
	and chondrosarcomas	
	Outline the options for surgical management of skull base And arrangement of skull base	
11:50- 12:30	chordomas and chondrosarcomas Case discussions	Dr. Idara Edem
12:30-13:40		
12.50-15.40	LUNCH – Presentation by Stryker	Stephanie Synnott, Product Mgr, CMF &
		Conor Denvir Product Mgr,
		Neurosurgical
i		
13:40- 15:00	HOT SEAT Sessions	Dr. Alim Mitha

15:00 – 15:20	BREAK	
15:20 – 16:00	Lecture on exam preparation, the written exam, OSCE	Dr. Safraz Mohammed
15:20 – 16:00 16:00 – 16:40	Endovascular Treatment Options for Ruptured Intracranial Aneurysms Discuss the scientific basis for choosing treatment options for ruptured aneurysms List three different endovascular techniques for ruptured aneurysms Discuss commonly used adjuvant techniques for dealing with complex aneurysms Describe a grading system for measuring treatment outcomes and the implications	Dr. Safraz Mohammed Dr. Gwynedd Pickett
16:40 – 17:30	Pathophysiology, Diagnosis and Management of Cerebral Vasospasm Following this lecture, learners will be able to: Select and correctly interpret appropriate investigations in the management of delayed neurological deterioration post-SAH. List risk factors for cerebral vasospasm and describe epidemiology and outcomes. Describe current understanding of pathophysiology of vasospasm post-SAH. Choose appropriate therapy for management of cerebral vasospasm.	Dr. Gwynedd Pickett
17:30- 17:40	BREAK	
17:40 – 18:20	Stroke Update: Acute Medical and Interventional Neuroradiology Management Examine a case study of a stroke patient and determine treatment options. Relate the importance of neurological examination in hyperacute stroke management.	Dr. Robert Fahed

stryker

stryker



Visit our booth on **Feb. 4th** to learn more about **Stryker technology**

Course Location – The Marconi Centre – 1026 Baseline Road, Ottawa

Sunday February 5th

07:20 - 08:00	Breakfast	
08:00 - 08:40	Pathology of Non-Glial Tumours of the CNS	Dr. Gerald Jansen
	Recognize the key macroscopical and histological features of the	
	most frequent extra-axial tumor, peripheral nervous system tumors	
	and pituitary tumors.	
	Identify the key morphological elements supporting the WHO	
	classification and grading of the entities presented	
08:50 – 09:30	Pathology of Intrinsic Primary Tumours of the CNS	Dr. Gerald Jansen
	Gain knowledge of the new integrated diagnosis in use	
	for Astrocytic and Oligodendroglial tumours.	
	 To be able to identify the role ATRX, and IDH mutation results play in classification of gliomas 	
09:40 – 10:20		Dr. David Fortin
09.40 - 10.20	Molecular Biology and Genetics of Brain Tumours:	Dr. David Fortiii
	Current Concepts and Therapeutic Implications	
	Identify the new WHO classification Parlies the group state impact for the grade sules classification of	
	Realize the prognostic impact for the molecular classification of gliomas	
	Discuss the rationale for the superiority of the molecular	
	classification over the morphological classification in the current	
	WHO schema	
	Anticipate how this will eventually impact clinical practice	
10:20 - 10:30	BREAK	
10:30 - 11:10	Surgery for Malignant Primary Brain Tumours	Dr. David Fortin
	Describe dynamics of glial tumour growths and infiltration, and the	
	role of surgery in negating these phenomenon's	
	To better define the role of surgery in assisting adjuvant treatment	
	and impacting clinical surrogates in relation to molecular subtyping	
	To clarify the role and impact of technological advancements in	
	assisting gross total resection, and their impact on clinical surrogates.	
11:10- 11:50	Imaging Techniques for Intra-Axial Brain Tumours	Dr. Thanh Nguyen
		8-7-
	Review advanced imaging techniques for intra-axial tumours	
	Brief primer on MRI sequences	
	Recognize imaging patterns of CNS neoplasms and mimicking diseases	
	Recognize the radiological features of radiation necrosis and tumor recurrence	
11:50- 12:30	Imaging Techniques for Extra-Axial Brain Tumours	Dr. Thanh Nguyen
		and the state of t
	Review advanced imaging techniques for extra-axial tumours	
	Be able to identify different extra-axial tumours on radiological	
12.20 12:40	images	
12:30-13:40	LUNCH	Do David Faut /D
13:40- 15:00	HOT SEAT SESSION	Dr. David Fortin/Dr. Joe Megyesi
15:00 – 15:20	BREAK	-01
15:20 – 16:00	Case Presentations	Dr Paul Kongkham
16:00 – 16:40	Management Options for Low Grade Gliomas: What's	Dr. Joe Megyesi
	New?	
		<u> </u>

	 Be able to explain the pathology and basic molecular biology of low- grade gliomas and what distinguishes them from high grade gliomas. Be able to describe the typical presentation of patients with low grade glioma. Be able to interpret the neuro-imaging of patients with low grade glioma. Be able to discuss the controversies surrounding the management of patients with a low- grade glioma including the early surgery approach versus the watchful waiting approach. 	
16:40 – 17:30	Brain Metastases Enumerate the currently available treatment options for metastatic brain tumours Discuss the relative advantages and disadvantages of each treatment option/combination Discuss the available evidence supporting currently employed the treatment option Discuss the current guidelines for treatment of these lesions	Dr Paul Kongkham
17:40 – 18:20	Stereotactic Radiosurgery Primer for Neurosurgeons Define the concept of stereotactic radiosurgery Explain basic radiobiology principles related to radiosurgery Identify the role of radiosurgery in the management of common neurosurgical conditions: 1. brain metastases 2. meningiomas 3. vestibular schwannomas 4. AVMs 5. trigeminal neuralgia	Dr Paul Kongkham

Medtronic



11th Annual Ottawa Neurosurgery Review Course Schedule February 4 – 11, 2023 Course Location – The Marconi Centre , 1026 Baseline Road, Ottawa

Monday February 6th

07:20 - 08:00	Breakfast	
08:00 - 08:40	Imaging of Spine and Spinal Tumors	Dr. Nader Zakhari
	maging or opine and opinar ramors	
	Review the key imaging features of common and infrequent	
	intramedullary tumors.	
	Discuss the role of conventional and advanced imaging	
	techniques in the diagnosis and management of these tumors	
	 Assess the most common intradural – extramedullary tumors 	
08:50 - 09:30	Imaging of the spine II	Dr Nader Zakhari
09:40 - 10:20	Movement Disorders: Pathophysiology and Surgical	Dr. Suneil Kalia
	Management with DBS	
	List the pathological and molecular differences between	
	neurodegenerative diseases including movement disorders, motor	
	neuron disorders and cognitive disorders	
	Explain the importance of non-motor features of Parkinson's	
	Disease and provide examples of each	
	Review the targets for neuromodulation (eg. DBS) in the basal	
	ganglia for the treatment of movement disorders	
10.00 10.00	Describe the technical steps and surgical nuances of DBS	
10:20 - 10:30	BREAK	
10:30 – 11:10	Classification and Management of lumbar Spondylolisthesis	Dr Carlo Santaguida
	Classification of lumbar spondylolisthesis in relation to treatment	
	options and outcomes	
	Decision making in the management of thoracolumbar injuries	
	Enumerate treatment options	
11.10 11.50	Describe the elements of surgical treatment	Do Kaith Man David
11:10- 11:50	Neuromodulation for Pain	Dr. Keith MacDougall
	At the end of this session, participants should be able to Describe and draw the pain pathways, Discuss the role of surgery in	
	pain modulation	
	List the currently available techniques for pain modulation including	
	their indications and limitation	
	Discuss the physiological basis for the common pain modulation techniques utilized by neurosurgeons	
11:50- 12:30	Case discussions	Dr. Keith MacDougall
12:30-13:40	LUNCH	Dr. Keitii Widebougaii
		Dr. Allan Lovi / Dr. Carla
13:40- 15:00	HOT SEAT SESSION	Dr. Allan Levi / Dr Carlo
15:00 15:20	DDEAK	Santaguida
15:00 – 15:20	BREAK	Du Fahad Allibar C
15:20 – 16:00	Craniopharyngiomas	Dr. Fahad Alkherayf
	Be able to describe the embryology and epidemiology of	
	craniopharyngioma	
	List the common symptoms and signs, and imaging features	
	List the surgical approaches and be able to describe the details	
	of two (2) common approaches	
	Discuss the prognosis and outcome of this condition	

16:00 – 16:40	Case Presentations	Dr. Fahad Alkherayf
16:40 – 17:30	Carotid Endarterectomy: What You Should Know	Dr. Howard J Lesiuk
17:30- 17:40	BREAK	
17:40 – 18:20	Demonstrate competency in the classification, imaging characteristics, surgical extirpation and differential diagnosis of intramedullary spinal cord tumors Demonstrate competency in the classification, imaging characteristics, surgical removal of peripheral nerve sheath tumors	Dr. Dr. Allan Levi
	 Develop a standardized protocol for answering neurosurgical oral board questions 	

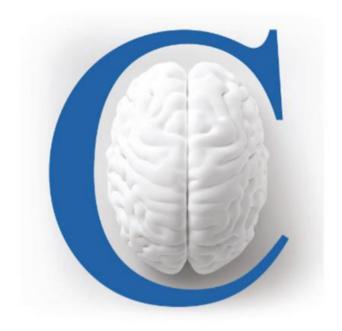


11th Annual Ottawa Neurosurgery Review Course Schedule February 4 – 11, 2023 Course Location – The Marconi Centre, 1026 Baseline Road, Ottawa

Tuesday February 7th

07:20 - 08:00	Breakfast	
08:00 - 08:40	Pituitary tumours: The Endocrinologist's Perspective on	Dr Mary-Ann Doyle
	Diagnosis and Management	, ,
	To identify the clinical and laboratory findings important in the	
	initial work-up and follow-up of patients with pituitary	
	adenomas	
	Interactive Case-based Seminar	
08:50 – 09:30	Neuro-ophthalmology Case discussion	Dr. Danah Al-Breiki
09:40 - 10:20	Critical Care Management of TBI: What Should We	Dr. Shane English
	Measure, When and Why	
	Describe the patient population that may benefit from	
	monitoring	
	Demonstrate the physiologic processes we can measure	
	Review the role and key measures of monitoring in ICU	
	management of TBI o ICP monitoring	
	o CPP	
	Cerebrovascular Autoregulation	
10:20 - 10:30	BREAK	
10:30 - 11:10	Skull Base and Posterior Fossa Meningiomas	Dr. Kesh Reddy
	Be able to identify the key anatomical structures in the	,
	posterior cranial fossa and along the anterior and middle skull	
	base	
	Be able to decide which surgical approach is optimal for the	
	 presenting lesion Be able to express the safety measure to undertake for 	
	surgical procedures in the posterior cranial fossa	
11:10- 11:50	Surgical Management of Pituitary Tumours/	Dr. Charles Agbi
	Sellar/Suprasellar Lesions	
	Identify the indications for surgery in pituitary tumours	
	Enumerate the surgical options and their rationales	
	Describe the transnasal endoscopic removal of pituitary	
	lesions	
	Discuss the outcomes including challenges and complications	
11:50- 12:30	Cranial Nerves: Review I	Dr. Charles Agbi
	Describe the central connections of cranial nerves I, III, IV, V and VI	
	Discuss the clinical aspects of the neurophysiology	
	Discuss the surgical significance of their course and	
	distribution	
12:30-13:40	List surgical Lesions associated with these nerves LUNCH	
13:40- 15:00		Dr Kesh Reddy/ Dr. Fahad
13.40- 13.00	HOT SEAT SESSION	Alkherayf
15:00 – 15:20	BREAK	
15:20 – 16:00	Spontaneous Intracerebral Haemorrhage: What's New	Dr. Dar Dowlatshahi
	Describe the pathophysiology of hematoma expansion,	
	hemodynamics & hemostasis List and discuss the indications for ICH surgery	
	List and discuss the indications for ICH surgery List the steps utilized in preventing complications of ICH	
	- List the steps utilized in preventing complications of icit	1

16:00 – 16:40	Radiotherapy for CNS Tumours – Current Concepts	Dr. Vimoj Nair
	 discuss when radiation therapy is indicated for various benign and malignant tumors describe radiation therapy approaches for malignant gliomas define the current radiation therapy techniques list the indications of stereotactic radiation/radiosurgery 	
16:40 – 17:30	Chemotherapy for CNS Tumours — Current Concepts Attendees will be able to apply existing literature to decisions about systemic therapy for patients with primary brain tumours.	Dr. Garth Nicholas
17:30- 18:00	BREAK	
18:00	Resident Social - Dinner	



Codman's got you covered.

The global leader in neurosurgery is your one-stop, comprehensive source for proven, market-leading neurosurgical solutions.







Course Location – The Marconi Centre, 1026 Baseline Road, Ottawa

Wednesday February 8th

07:20 - 08:00	Breakfast	
08:00 - 08:40	Case Presentations I – Cranial and Spinal Angiogram	Dr Lissa Peeling
	anatomy (normal and pathological) with Cases	(Virtual)
08:50 - 09:30	Case Presentations II – Cranial and Spinal Angiogram anatomy	Dr Lissa Peeling
	(normal and pathological) with Cases	(Virtual)
09:40 - 10:20	Diagnosis, Classification and Management of Subaxial	Dr. Khaled AlMusrea
	Cervical Spine Injuries	
	Be able to accurately diagnose subaxial cervical spine injuries.	
	Recognize importance and use of different classification systems	
	for subaxial cervical spine injuries	
	Select appropriate management options for subaxial cervical spine injuries	
10:20 - 10:30	BREAK	
10:30 - 11:10	Vascular Malformations of the Brain and Spinal Cord:	Dr. Julian Spears
10.30 - 11.10	AVM's and DAVF's I	Dr. Julian Spears
	Discuss the epidemiology and clinical features of AVIM's	
	Discuss the epider mology and diffical reactives of AVVVIS Describe the surgical treatments of a ruptured AVM	
	Describe the classification and treatment options for AVM's	
11:10 – 11:50	Vascular Malformations of the Brain and Spinal Cord:	Dr. Julian Spears
	AVM's and DAVF's II	·
	Discuss the epidemiology and clinical features of AVM's	
	Describe the surgical treatments of a ruptured AVM	
	Describe the classification and treatment options for AVM's	
11:50 – 12:30	A screw at every level of the spine	Dr Safraz
		Mohammed
12:30 - 13:40	LUNCH	D 6 14 :
13:40 – 14:20	Intraoperative Neurophysiological Monitoring I	Dr. Susan Morris
	 Describe intraoperative neurophysiological monitoring ((IONM) techniques and their usefulness 	
	Describe neurophysiological mapping techniques and their	
	usefulness	
	Describe the limitations of IONM and neurophysiological	
	mapping	
14:20 – 15:00	Intraoperative Neurophysiological Monitoring II	Dr. Susan Morris
	Compare and contrast the strengths, weaknesses and overall	
	usefulness of the two primary modalities used in intraoperative	
	neurophysiological monitoring (IONM): 1. Somatosensory Evoked Potentials (SSEPs) and 2. Transcranial Motor Evoked	
	Potentials (TcMEPs).	
	, otonidas (1011 <u>-</u> 13),	
	Compare and contrast TcMEPs and D-wave potentials with	
	specific reference to spinal cord tumour resection surgery.	
	Choose the intraoperative	
	neurophysiological <i>monitoring</i> and/or <i>mapping</i> modalities you	
	would employ during the below listed procedures and clearly	
	state the rationale for your choice(s):	
	o Spine deformity correction	
ĺ		I

15:00 - 15:20	BREAK	
15:20 – 16:40	HOT SEAT SESSION	Dr. Safraz Mohammed and Dr. Charles Agbi
16:40 – 17:30	Cranial Nerves: Review II Describe the central connections of cranial nerves VII, VIIII, IX,X, XI and XII Discuss the clinical aspects of the neurophysiology Discuss the surgical significance of their course and distribution List surgical lesions associated with these nerves	Dr. Charles Agbi
17:40 – 18:20	Neuroanesthesia Be able to decide the technique of anesthesia for brain mapping procedures and those requiring intraoperative neurophysiological monitoring. Be able to discuss the options available for postoperative pain management. List the common anaesthetic agents utilized in neurosurgery and their indications and relative merits.	Dr. Adele Budiansky



Course Location – The Marconi Centre, 1026 Baseline Road, Ottawa

Thursday February 9th

07:20 - 08:00	Breakfast	
08:00 - 08:40	Spinal Biomechanics, Decision Making and surgical	Dr. Sean Christie
00.00 00.40	Options in Degenerative Spine Disease	Dr. Scarr emissic
	Define the concept of spinal stability and sagittal balance	
	Describe "pelvic parameters" in clinical practice	
	Describe surgical techniques for correcting deformity	
08:50 - 09:30	Cervical Spondylosis: Diagnosis and Management	Dr Sean Christie
	Define cervical spondylotic myelopathy, including anatomical	
	changes and pathophysiology	
	Describe the indications for surgery	
	Describe surgical options and provide relative indications for each	
09:40 – 10:20	Surgery for Epilepsy: What You Should Know	Dr. David Clarke
	Explain indications for the surgical treatment of epilepsy	
	Review surgical anatomy relevant to temporal lobe epilepsy	
	Know the definition of medically refractory epilepsy Review basic work-up of epilepsy patients, including	
	neuropsychology evaluations	
10:20 - 10:30	BREAK	
10:30 – 11:10	Management of Peripheral Nerve Injuries	Dr. Line Jacques / Dr
10.50 11.10	Describe the pathophysiology of peripheral nerve injuries	Andrew jack
	Classify these injuries	, ,
	Describe the causes, clinical features and epidemiology	
11.10 11.50	Discuss a logical approach to their management	Dr. Line January / Dr.
11:10- 11:50	Management of Peripheral Nerve Entrapment	Dr. Line Jacques / Dr Andrew Jack
	Peripheral Nerve Entrapment Syndrome	Allulew Jack
	 Have a basic understanding of and be able to describe the clinical features and pathophysiology of non-surgical peripheral 	
	nerve and muscle diseases involved in the differential diagnosis	
	of neurosurgical conditions or requiring nerve and/or muscle	
	biopsy.	
11:50- 12:30	Describe the pathology and pathophysiology of peripheral nerve Case discussions Describeral period tumors approaches	Dr. Line Jacques / Dr
11.30-12.30	Case discussions – Peripheral nerve tumors, approaches,	Andrew Jack
12:20 12:40	work up and management	Andrew suck
12:30-13:40	LUNCH	2 1: 1 /2
13:40- 15:00	HOT SEAT SESSION	Dr. Line Jacques / Dr
15:00 15:20	DDEAK	Andrew Jack
15:00 – 15:20	BREAK	5.5
15:20- 16:00	O-C1-C2	Dr. Eugene Wai
	To be able to identify the various types of C1/C2 injuries and	
	describe the management options for each type	
	Identify common pitfalls in the written and oral exams	
46.00 15.15	and how to avoid them, using clinical examples	D 6 11 5 11
16:00 – 16:40	Classification and Management of Thoracolumbar Injuries	Dr. Scott Paquette
	Practical classification of thoracolumbar injuries in relation to treatment options and outcomes	
	Decision making in the management of thoracolumbar injuries	
	Enumerate treatment options	
	Describe the elements of surgical treatment	
	3	

16:40 – 17:30	Pediatric Brain Tumors I Discuss the presenting signs of a brain tumor- different childhood age groups; diagnostic workup Identify/ classify more common brain tumors found in children; develop an appropriate Dx for a newly presenting pediatric brain tumor-WHO Classification has been updated in 2016 Describe differences between adults and children in terms of types of tumors and planning surgery Feel Confident at the Royal College Exam, if you get a question	Dr. Adrianna Ranger (Virtual)
17:30- 17:40	BREAK	
17:40 – 18:20	Pediatric Brain Tumors II	Dr. Adrianna Ranger (Virtual)



Seeing beyond

Course Location – The Marconi Centre, 1026 Baseline Road, Ottawa

Friday February 10th

07:20 - 08:00	Breakfast	
08:00 - 08:40	Spinal Cord Injury: Clinical considerations	Dr. John Hurlbert
	Be familiar with the cornerstones for the treatment of acute	
	spinal cord injury	
	Explain the evidence behind therapeutic strategies for spinal	
	cord injury	
	Outline priorities of spinal cord injury in the emergency setting	
08:50 - 09:30	Case Presentations	Dr. Osaama Khan
09:40 - 10:20	Vestibular and other schwannomas Glomus tumors. What	Dr. Osaama Khan
	you should know	
	Describe the epidemiology and molecular biology of vestibular schwannomas and glomus tumours (including latest thinking)	
	Enumerate the preop investigations and treatment options for these lesions	
	Describe the surgical approaches to the treatment of these lesions and	
	their outcomes.	
10:20 - 10:30	BREAK	
10:30 – 11:10	Childhood Hydrocephalus: Contemporary Management	Dr. Femi Ajani
	Objectives:	
	At the end of the presentation, participants will be able to	
	Apply pathophysiological principles to determine the appropriate	
	options for the management of hydrocephalus in the pediatric age	
	group Utilize the results of clinical trials and registries to guide decision	
	making	
	Recognize the various clinical presentation of treatment failure	
11:10- 11:50	Spinal Dysraphism and Tethered Cord Syndrome	Dr. Albert Tu
	 To recognize and identify the following pediatric spine 	
	malformations	
	Spinal Dysraphism	
	Tethered Cord Syndrome	
	Split Cord Syndrome To explain the surgical management for the above	
11:50- 12:30	To explain the surgical management for the above. Case discussions	Dr. Femi Ajani/Dr. Albert
		Tu
12:30-13:40	LUNCH	D 41: 2 /2
13:40- 15:00	HOT SEAT SESSION	Dr. Adrianna Ranger/Dr.
		David McAuley/Dr. Albert Tu
15:00 – 15:20	BREAK	Tu
15:20 – 16:00	Case Presentations – Pediatric Spine and Other cases	Dr George Ibrahim
16:00 – 16:40	Craniosynostosis and Craniofacial Anomalies	Dr. David McAuley
	Be able to list the main categories of craniosynostosis	,
	Be able to list the common syndromic types of congenital	
	craniofacial anomalies and their distinguishing features	
	Be able to discuss timing and surgical decision making in the	
	management of craniofacial anomalies and craniosynostosis	
	Be able to describe an operation for craniosynostosis	

16:40 – 17:30	Chiari malformation and syringomyelia	Dr George Ibrahim
	Describe the definition and classification of "Chiari Malformations"	
	Describe Syringomyelia	
	 Explain the association of Chiari I malformation and Syringomyelia and the pathophysiological theories explaining this 	
	Choose appropriate therapy of Chiari I malformation with or without	
	syringomyelia	
17:30- 17:40	BREAK	
17:40 – 18:20	Pediatric Functional Neurosurgery	Dr George Ibrahim
	Epilepsy	
	Spasticity	
	Pain	
18:20	Closing remarks and wrap up	Dr. Charles Agbi
		Dr. Fahad Alkherayf
		Dr Safraz Mohammed



The Canadian Neurosurgical Society Société canadienne de neurochirurgie



Baxter







Medtronic

stryker



Seeing beyond