Syndicate of Pakistani International Neurosurgeons (SPIN) Workshop

SPIN2025

Organized by Pakistan Academy of Neurological Surgery (PANS)

Thursday to Sunday, April 10 – 13, 2025





THE AGA KHAN UNIVERSITY











Contact us: info@pans.org.pk

Committee Members

Patron: Dr. Ghaus Malik

International Faculty:

- Mr. Amjad Shad
- Mr. Shafqat Bukhari
- Dr. Omar Chohan
- Dr. Aqueel Pabaney
- Mr. Zubair Tahir

National Faculty:

- Dr. Rashid Jooma
- Dr. Salman Sharif
- Dr. Ahmed Ali Shah
- Dr. Syed Shahzad Hussain Shah
- Dr. Naqib Ullah Achakzai
- Dr. Fauzia Sajjad

Director: Dr. Syed Ather Enam

Coordinating Faculty:

- Dr. Saqib Bakshi
- Dr. Saad Akhtar Khan
- Dr. Ahsan Ali Khan
- Dr. Zaeem Sultan
- Dr. Naveed Zaman
- Dr. Muhammad Osama
- Dr. Mohammad Yousuf ul Islam

Organizers:

- Dr. Ummey Hani
- Dr. Shahier Paracha
- Mr. Sohail Malik
- Mr. Shariff Charania
- Mr. Syed Emad Uddin
- Mr. Shafeen Gulamani
- Ms. Sonia Ahmed

Objectives

- 1. Equip workshop participants with fundamental principles and international evidence-based practice standards in neurosurgery.
- 2. Provide immersive, hands-on experience to reinforce learning and application of neurosurgical techniques.
- 3. Facilitate networking with visiting faculty for mentorship opportunities extending beyond the workshop.

<u>Format</u>

• A comprehensive didactic, case-based, and hands-on neurosurgery workshop covering general neurosurgery and subspecialties (pediatric, spine, neuro-oncology, cerebrovascular, skull base, and adult neurotrauma) designed and conducted by the international faculty of Pakistani origin in collaboration with the Pakistan Academy of Neurological Surgery (PANS) and annual sessions held at the Aga Khan University, Karachi, Pakistan.

Target Participants

• The workshop is designed for senior residents and neurosurgeons who have graduated within the past five years.

Patron of Workshop



Dr. Ghaus MALIK is a distinguished alumnus of King Edward Medical College, Lahore, graduating in 1968. Following his initial internship at Mayo Hospital in Lahore in 1969, he embarked on an internship at St. John Queens Hospital in Elmhurst, New York. This marked the beginning of his journey in the United States, where he pursued a General Surgery Residency at Henry Ford Hospital in Detroit in 1970, subsequently specializing in Neurosurgery. In 1975, Dr. Malik became a valued member of the Henry Ford

Medical Group's neurosurgery staff, achieving board certification in neurosurgery by 1978.

To further enhance neurosurgery's collaborative efforts, in 2001, Dr. Malik split his time between the Henry Ford Health System and William Beaumont Hospital, contributing significantly to the development of their neurosurgery program. His expertise lies in cerebrovascular neurosurgery, focusing on arteriovenous malformations (AVMs), aneurysms, and the treatment of complex brain and spinal cord tumors. Dr. Malik's research has been pivotal in understanding vasospasm, clinical outcomes of AVM treatments, and the genetic underpinnings of familial AVMs, leading to his prolific contribution of over 100 published articles and chapters.

Nationally and internationally recognized, Dr. Malik has been invited as a lecturer to numerous esteemed institutions and countries, including but not limited to Argentina, India, Italy, Japan, and Turkey. His global reputation was further solidified in 2004, when he was honored with the John R. Davis Chair in Neurological Surgery at Henry Ford Health System.

A passionate educator, Dr. Malik has significantly influenced resident education at Henry Ford Hospital since 1975, mentoring over 100 residents through the Henry Ford Neurosurgery Residency Program. Beyond his professional accomplishments, Dr. Malik has dedicated over 40 years to the Islamic Association of Greater Detroit (IAGD), serving as its president for a decade and currently as the Chairman of their Board of Trustees. His leadership extended to the Pakistan Association of America, earning him the Distinguished Community Service Award.

Dr. Malik's commitment to advancing neurosurgery and his community engagement is evident in his involvement with the World Federation of Neurosurgical Societies (WFNS) and his active participation in numerous professional associations. His governance contributions to Henry Ford Health System, particularly in developing the medical group's governance structure and finance committee, highlight his multifaceted role. Serving on the Henry Ford Medical Group Board of Governors and Board of Trustees, Dr. Malik continues to leave a lasting impact on the field of neurosurgery and beyond.

International Faculty



Mr. Amjad SHAD is a well-known Consultant Neurosurgeon since 2004, at the University Hospital Coventry and Warwickshire NHS Trust. In 2012, he established the Coventry Brain and Spine Service which offers comprehensive spinal care services to patients suffering from back, leg, and neck pain. During his training in Edinburgh, Oxford, and the USA, Professor Shad gained extensive experience in spinal conditions, including complex spinal problems and pain relief.

His research led him to develop a new technique to treat various cervical disc problems. Throughout his career, Professor Shad has been at the forefront of embracing new techniques within neurosurgery and has been involved in some ground-breaking surgeries. He is also a member of the Royal College of Surgeons (RCS) and the Medical Defence Union (MDU). His clinical interests include all cervical and lumbar spine pathologies and brain tumors. His surgical interest lies in complex spinal surgery, skull base surgery, pituitary tumors, and endoscopic neurosurgery.



Mr. Shafqat BUKHARI is a distinguished consultant neurosurgeon specializing in adult and pediatric neurosurgery. He completed his higher surgical training in neurosurgery through the Manchester Deanery, with specialized training in spinal neurosurgery, followed by subspecialty fellowships in functional neurosurgery at the University of Toronto and pediatric neurosurgery at the University of British Columbia,

Vancouver. He began his consultant role at the University Hospital of Wales in 2007 before moving to Manchester in 2012, where he now serves at Salford Royal Hospital and the Royal Manchester Children's Hospital. With expertise in minimally invasive spinal surgery and artificial disc replacement, he routinely performs complex spinal and neurosurgical procedures, including lumbar microdiscectomy, laminectomy, spinal instrumentation, anterior cervical discectomy and fusion, and spinal tumor surgeries. He also regularly performs cranial surgeries for brain tumors, hydrocephalus, and other neurological conditions. His work in pediatric neurosurgery includes managing congenital spinal anomalies, Chiari malformation, myelomeningocele, cranio-cervical anomalies, endoscopic neurosurgery, and pediatric brain tumors. Beyond his clinical practice, he is actively involved in teaching and research, contributing to advancements in neurosurgery.



Dr. M. Omar CHOHAN is a US board-certified Neurosurgeon with expertise in Neurosurgical Oncology and Epilepsy surgery. He graduated from the Aga Khan University Medical School in Karachi, Pakistan in 2002. He received the prestigious World Association of Alzheimer Disease Scientists (WAADS) Award in 2005. He completed Neurosurgery training at the University of New Mexico, where he was awarded "outstanding resident leadership" award, given to one graduating resident or fellow. He completed fellowship

training in Neurosurgical Oncology at the Memorial Sloan Kettering Cancer Center in New York in 2015. Thereafter, he served as Director of Neurosurgical Oncology at UNM Comprehensive Cancer Center from 2015-2020 and was appointed Surgical Director of UNM Comprehensive Epilepsy Program in 2019. He is currently an Associate Professor in Neurosurgery at the University of Mississippi Medical Center with additional appointments in Neurology and Radiation Oncology. He has a broad experience in surgical management of complex intracranial tumors. His research focus is in various pre- and intra-operative mapping techniques including functional mapping, florescence and image guidance, and how these can be utilized for better functional outcomes. He has published widely in peer reviewed journals, written book chapters and presented at various conferences locally and internationally. His current leadership roles include program



Dr. Aqueel PABANEY is an Assistant Professor of Neurosurgery at the Emory University School of Medicine and a board-certified neurological surgeon. He attended Aga Khan University for his MBBS followed by residency training in neurological surgery at Henry Ford Hospital/Wayne State University in Detroit, Michigan. He did his fellowships in Skull Base Surgery from Louisiana State University in Shreveport, LA, and Cerebrovascular and Endovascular

Neurosurgery from Emory University School of Medicine, Atlanta. He is an active member of the AANS, CNS, and the North American Skull Base Society. Dr. Pabaney has been involved in research activities at Johns Hopkins University and Stanford University. He has an active interest in intrinsic brain tumors, surgical and endovascular management of intracranial aneurysms, arteriovenous malformations, cerebral revascularization, cranial nerve compression syndromes, and endoscopic and minimally invasive cranial approaches. With more than 28 research articles in prestigious international journals, Dr. Pabaney is an active academic clinician with a strong focus on treatment modalities and new approaches to surgical issues



Mr. Zubair TAHIR is a distinguished pediatric neurosurgeon dedicated to advancing neurosurgical care for children. Currently serving as a Consultant at Great Ormond Street Hospital (GOSH), London, and an Honorary Associate Professor at UCL Institute of Child Health, Mr. Tahir has an extensive background in pediatric neurosurgery, epilepsy surgery, and complex spinal pathologies. A graduate of the University of Punjab, he completed his neurosurgery training at

Aga Khan University, earning both FCPS and FRCS qualifications. His expertise spans prenatal and postnatal spina bifida repair, Chiari malformation, tethered cord, and epilepsy surgeries, including SEEG implantation and hemispherotomy. A dedicated educator, examiner, and recipient of multiple international accolades, Mr. Tahir continues to shape the field through clinical excellence and academic contributions.

National Faculty



Dr. Rashid JOOMA is a visiting Professor of Neurosurgery in the Department of Surgery at the Aga Khan University, Karachi. He completed his MBBS from Dow Medical College, Karachi, and after his residency in Neurosurgery from Atkinson Morley's Hospital, London, UK, pursued an FRCS in Surgical Neurology from the Royal College of Surgeons Edinburgh, UK. Dr. Jooma did a Fellowship in Epilepsy Surgery from the University of Cincinnati Hospital,

USA. He is the former Director-General of Health of Pakistan. Presently, he is performing his duties as the National Co-ordinator of the Primary Trauma Care Program and is actively involved in many research projects pertaining to traumatic brain injuries.



Dr. Salman SHARIF is a Professor of Neurosurgery, and is a UK-trained neurosurgeon and got his F.R.C.S General Head of Department at Liaquat National Hospital, Karachi. He Surgery England in February 1993 and F.R.C.S Neurosurgery in April 1999. He is also an executive committee member of world-renowned societies that includes the Middle East Spine Society, the Asian Congress of Neurological Surgeons, the Asia Pacific Cervical Spine Society, the South Asian

Neurological Surgeons, and the World Federation of Neurological Surgeons. Dr. Salman has also served as a President of the Pakistan Society of Neurosurgeons.



Dr. Ahmed Ali SHAH is a visiting Professor at the Aga Khan University, Karachi. He graduated from Dow Medical College and trained as a Neurosurgeon at the Guys, Maudsley, and Kings College Hospitals in London. Dr. Shah returned to Pakistan in 1986 and established a Neurosurgery Department at the Dow Medical College, where he diligently served for 18 years. He has also served as the President of the Pakistan Society of Neurosurgeons. Presently, he is working as a

Consultant Neurosurgeon at the Aga Khan University Hospital and Dean, Faculty of Neurosurgery at the College of Physicians & Surgeons of Pakistan. Dr. Ahmed is also a Fellow of the Royal Society of Medicine, England.



Dr. Syed Shahzad Hussain SHAH is a Professor and Head of Neurosurgery Unit-II at Punjab Institute of Neurosciences, Lahore. He completed his M.B.B.S from Quaid-e Azam Medical College, Bahawalpur and got FCPS Neurosurgery training at Lahore General Hospital and Jinnah Hospital, Lahore where he later served as Assistant Professor and Associate Professor for almost 9 years. He also served as Vice Principal and Professor of Neurosurgery at Gujranwala Medical College, Gujranwala till May, 2023. He possesses

advanced expertise in his field with special interest in endoscopic and vascular brain surgeries.



Dr. Naqib Ullah ACHAKZAI is currently a consultant neurosurgeon and CEO at Midtown Hospital – Neurospinal and Trauma Center in Quetta, Pakistan. Dr. Achakzai received his basic education from Karachi. He graduated with MBBS from Bolan Medical College, Quetta in 1993 securing 1st position. He did fellowship and FCPS (Neurosurgery) in 1999. His professional accolades include FRCS from Royal College of Physicians and Surgeons Glasgow-UK, as well as IFAANS and FACS (Neurosurgery). He has served as a

Professor and the Head of the Department of Neurosurgery, Bolan Medical College, Quetta, a Consultant Neurosurgeon, at Sandeman (Prov.) Teaching Hospital, Quetta, and as a past President of the Pakistan Society of Neurosurgeons (PSN).



Dr. Fauzia SAJJAD is currently the head of the neurosurgery department at Jinnah Hospital Lahore. She is the first female neurosurgeon of Pakistan, making her a pioneer and a role model for female neurosurgeons. She is a highly qualified and experienced neurosurgeon, with FCPS, MRCS, and FRCSEd degrees. She specializes in neuro-oncology, functional neurosurgery, and spinal fixations and has successfully performed numerous complex and challenging surgeries for brain and spinal tumors, epilepsy,

movement disorders, spinal injuries, and congenital malformations. She has a special interest in endoscopic pituitary tumors and aneurysm clipping. Professor Dr. Fauzia has received several awards and honors for her outstanding contributions to neurosurgery. She is also actively involved in teaching and research and has published many papers in national and international journals. Dr Fauzia is chairman of the specialist committee for MS Neurosurgery and the Convenor of the Synopsis review committee of the University of Health Sciences. She is both supervisor and examiner of FCPS and MS at CPSP and UHS respectively.

Coordinating Faculty



Dr. Syed Ather ENAM is a U.S. Board-certified Neurosurgeon, Professor of Neurosurgery, Director of the Center of Oncological Research in Surgery, and Scientific Director of Juma Research Laboratories at the Aga Khan University, Karachi, Pakistan. He has a Specialist Certification in Neurosurgery from Canada, an FRCS from Canada, an FRCS from Ireland, an FRCS from Glasgow (U.K.), and a Fellowship of American College of Surgeons.

He was Chair, Dept of Surgery at AKU for more than 7 years, and before that led the Section of Neurosurgery for 7 years. He has been awarded several accolades and honors for his work in the USA and Pakistan, including the Physician of the year medallion, Master Surgeon Award, Excellence in Neurosurgery Award, and the presidential award, Sitara-e-Imtiaz. Dr. Enam has a strong interest in basic science research with a Ph.D. in Neuroscience from Northwestern University Institute of Neuroscience, USA. He is a life member of Sigma Xi, a scientific research honor society, as well as the Founding President of the Pakistan Society of Basic and Applied Neuroscience, the Founding President of the Pakistan Society of Neuro-Oncology, Founder of the Pakistan Academy of Neurological Surgery, a member of the Executive Committee of AANS-CNS Section of Brain Tumors (USA). He has been editor of several international scientific journals and has delivered numerous lectures globally on Neurosurgery, Neuro-Oncology, and Neuroscience topics. He is currently an examiner and an advisory faculty member of the College of Physicians and Surgeons of Pakistan and a Ph.D. supervisor for the Higher Education Commission of Pakistan. He has authored over 300 manuscripts, chapters, abstracts, editorials, and articles.



Dr. Naveed Zaman AKHUNZADA graduated from Ayub Medical College, Abbottabad in 2009. After clearing his FCPS (Surgery) in 2011 he received general surgery training from MMC Mardan, Khyber Teaching hospital Peshawar, HMC Hayatabad, and AMC Abbottabad. He started a neurosurgery residency at the Aga Khan University Hospital in 2013 and graduated in 2017. He remained an instructor at the AKUH till July 2019 and joined Rehman Medical Institute as an Assistant Professor and consultant

neurosurgeon in August 2019. Dr. Akhunzada is an avid researcher and teacher interested in multiinstitute outcomes and capacity building across Pakistan.



Dr. Saqib BAKHSHI is an Assistant Neurosurgery Professor at the Aga Khan University. He graduated from Dow Medical College in 2013 and then completed his residency training in Neurosurgery at the Aga Khan University (AKU). He graduated from the residency program in 2020 as the best graduate and best researcher across all specialties. He has more than 40 research publications and has presented his work at national and international conferences. His clinical interests

include pediatric neurosurgery and epilepsy surgery. He focuses his research on clinical neurosurgery, medical education, and gender diversity in medicine. He is currently working as an assistant professor and consultant neurosurgeon at AKU.



Dr. Ahsan Ali KHAN is working as an Assistant Professor of Neurosurgery at the Aga Khan University. He attended medical school and completed his neurosurgical training at the Southeast University, Nanjing, China. He pursued advanced training by completing the Global Neurotrauma Fellowship in affiliation with the Barrow Neurological Institute, Phoenix, Arizona, the Meditech Foundation, Colombia, and the University of Cambridge, United Kingdom. Furthermore, he completed a

Spine Fellowship at the National Institute of Traumatology and Orthopedics, Rio de Janeiro, Brazil in 2020. He joined Aga Khan University in 2021 as a surgical neuro-oncology fellow and now serves as an assistant professor and consultant neurosurgeon. His area of interest includes neuro-oncology (brain and spine), innovations in neurosurgery, and capacity building in limited resource settings.



Dr. Saad Akhtar KHAN is working as an Assistant Professor of Neurosurgery at Liaquat National Hospital and a Consultant Neurosurgeon at Aga Khan University Hospital, Karachi. He completed his neurosurgery training at Aga Khan University Hospital in 2015. He was awarded the best resident award, the second-best research scholar by the Department of Postgraduate Medical Education at Aga Khan University, and the Most Outstanding Resident Award by the Department of Surgery. He

has 35 research publications along with a book chapter. His area of interest includes surgical neuro-oncology, especially awake brain tumors surgeries and endoscopic skull base surgeries. He also has a keen interest in medical education and is currently an MHPE scholar as well.



Dr. Zaeem SULTAN, currently the District Neurosurgeon for Jhang (Punjab), graduated from Allama Iqbal Medical College in 2012, and later trained as a neurosurgeon at Jinnah Hospital Lahore. After residency, he joined Neurosurgery Department at Queen Elizabeth Hospital Birmingham as a fellow, and subsequently worked as a registrar and a senior registrar. To further his co-curricular interests, he also completed a Diploma in Neurotrauma Care (GN), and Artificial Intelligence Professional Certificate (IBM). Dr. Zaeem was

awarded "Distinguished International Fellow – Neurosurgery" by the Neurosurgery Department at Queen Elizabeth Hospital Birmingham. He also served as the Virtual Teaching Lead, at QEHB. Dr. Zaeem holds honorary fellowship of the Royal Society of Medicine (UK), and honorary membership of the Royal College of Physicians and Surgeons, Glasgow (UK). His interests include spine and neuro- oncology.



clinical fellow.

Dr. Muhammad OSAMA is currently working as a clinical fellow in Surgical Neuro-Oncology at Aga Khan University. He completed his Neurosurgery training from Trauma Centre, Dow University of Health Sciences, Karachi. He passed his FCPS exam in Neurosurgery as a Gold Medalist. He worked as a post-doc fellow at the University of Arizona. He has 20 publications in reputed journals. His areas of interest include skull base surgery and neuro-oncology. Next year, he will join the distinguished Barrow Neurological Institute as a



Dr. Mohammad YOUSUF-UL-ISLAM completed his MBBS at Dow Medical College, followed by a six-year residency in neurosurgery at Aga Khan University Hospital, earning his FCPS in Neurosurgery. Currently, he is serving as a Surgical Neuro-Oncology Fellow at the same institution. With a strong passion for advancing neurosurgical care, he has authored multiple research papers. His primary interest lies in neuro-oncology and spine surgery, where he strives to contribute to cutting-edge developments and patient care.

Scientific Program

Day-1, Thursday, April 10, 2025

	Sessions						
	Th	ursday, April 10	, 2025, 8:00 - 1	17:00 (Pakistan Time	; GMT +5)		
Time	Duration	Specialty	Faculty	Coordinator	Торіс		
8:00 - 8:10	10 mins			Arrival + Registra	tion		
8:10 - 8:30	20 mins	General	Dr. Salman Sharif	Dr. Saqib Bakhshi	From Resident to Role Model: Professionalism in Neurosurgery		
8:30 – 11:00	150 mins	Skull Base	Dr. Omar Chohan, Dr. Farhan Mirza (online), Dr. Ghaus Malik (online)	Dr. Ahsan Ali Khan	 Principles of Cranial Surgery Case of Sphenoid Wing/ Clinoidal Meningioma Case of Olfactory Groove Meningioma Case of Foramen Magnum Meningioma Case of Convexity and Parasagittal Meningioma 		
11:00 - 11:30	30 mins			Tea-Break			
11:30 - 13:45	135 mins	Cerebrovascular	Dr. Aqueel Pabaney, Dr. Ghaus Malik (online)	Dr. Saad Akhtar Khan	 Intracranial Aneurysms AVMs DAVFs / CCFs / Cavernomas Strokes (Malignant MCA Infarction) 		
13:45 - 14:30	45 mins			Lunch Break			
14:30 - 14:45	15 mins	General	Dr. Shahzad Shah	Dr. Zaeem Sultan	Ethical Practice in Neurosurgery		
14:45 – 17:00	135 mins	Spine	Dr. Amjad Shad, Dr Shafqat Bukhari	Dr. Zaeem Sultan	 Case of Multilevel Stenosis Case of Translation Injury at D12-L1 Case of Adjacent Segment Disease Case of Synovial Cyst Case of Far Lateral Disc Bulge 		
18:00 - 20:00	120 mins			Dinner at Kolachi Do	Darya		

Day-2, Friday, April 11, 2025

	Sessions					
		Friday, April 1	1, 2025, 8:00 - 1	18:30 (Pakistan Ti	me; GMT +5)	
Time	Duration	Specialty	Faculty	Coordinator	Торіс	
8:00 - 8:15	15 mins	General	Dr. Fawzia Sajjad	Dr. Naveed Zaman Akhunzada	Building Networks to Enhance Personal Capacity	
8:15 - 9:45	90 mins	Pediatric Neurosurgery	Dr. Zubair Tahir	Dr. Saqib Bakhshi	 Congenital Hydrocephalus (HCP) due to Aqueductal Stenosis Case of Complex Septated HCP + HCP due to Immaturity Case of Post Tuberculous HCP Shunt Troubleshooting 	
9:45 - 10:00	15 mins			Tea Bre	ak	
10:00 - 11:00	60 mins	Pediatric Neurosurgery	Dr. Zubair Tahir	Dr. Saqib Bakhshi	 Case of Coronal and Sagittal Craniosynostosis Case of Multi-Sutural Synostosis 	
11:00 - 13:00	120 mins	Pediatric Neurosurgery	Dr. Zubair Tahir	Dr. Saqib Bakhshi	 Case of Chiari Malformation Case of 4th Ventricular Tumor Case of Intramedullary Spinal Cord Tumor 	
13:00 - 14:20	80 mins		l	Juma Namaz and	Lunch Break	
14:20 - 14:30	10 mins	General	Dr. Ahmed Ali Shah	Dr. Saqib Bakhshi	From Western Roots to Eastern Horizons: Neurosurgery Around the Globe	
14:30 - 16:00	90 mins	Pediatric Neurosurgery	Dr. Rabia Qaiser (online), Dr. Zubair Tahir	Dr. Saqib Bakhshi	 Case of MMC + Intra-uterine Repair of MMC Case of Split Cord Malformation Case of Tethered Cord due to Lipomyelomeningocele Case of Myelocystocele Case of Dermal Sinus Tract 	
16:00 – 18:30	150 mins	Spine	Dr. Shafqat Bukhari, Dr. Amjad Shad	Dr. Zaeem Sultan	 Case of Os-odontoidum + Klippel Feil Deformity Case of Congenital Scoliosis Case of Mulit-Level Cervical Stenosis Case of Odontoid Fracture Type 2 	
19:00 - 21:00	Dinner at Marriot Hotel					

Day-3, Saturday, April 12, 2025

	Sessions						
		Saturday, April 12	, 2025, 8:00- 19:00	0 (Pakistan Time	; GMT +5)		
Time	Duration	Specialty	Faculty	Coordinator	Торіс		
8:00 - 8:15	15 mins	General	Dr. Tariq Khan	Dr. Saad Akhter Khan	Dynamics of Neurosurgery: A Global Perspective vs. Pakistan's Landscape		
8:15 – 10: 30	135 mins	Spine	Dr. Amjad Shad, Dr. Shafqat Bukhari	Dr. Zaeem Sultan	 Case of Dorsal Central Disc Case of TB Spine Case of Extra-medullary Spinal Cord Tumor 		
10:30 - 11:00	30 mins		-	Tea Break			
11:00 - 13:30	150 mins	Neuro-Oncology	Dr. M. Omar Chohan	Dr. Ahsan Ali Khan	Primary Brain Tumors (Intra-axial Lesion) • Rolandic and Peri-Rolandic • Parietal & Periatrial • Insular • Language • Thalamic		
13:30 - 14:20	50 mins			Lunch Break			
14:20 - 14:30	10 mins	General	Dr. Naqibullah Achakzai	Dr. Naveed Zaman Akhunzada	Building standard neurosurgical facility in a resource constrained setting		
14:30 – 15:45	75 mins	Epilepsy	Dr. Farhan Mirza (online), Dr. Zubair Tahir	Dr. Naveed Zaman Akhunzada	Surgical Treatment of Refractory Epilepsy (Basics of Epilepsy Surgery + Clinical Judgement)		
15:45 - 16:00	15 mins			Tea Break			
16:00 – 17:45	105 mins	Epilepsy	Dr. Omar Chohan	Dr. Naveed Zaman Akhunzada	 Temporal Lobe Epilepsy Focal Cortical Dysplasia, LEAT, Cavernoma Generalized Epilepsy Extra-Temporal 'Non-Lesional' Hemispheric Disease How to Perform Temporal Lobectomy 		
17:45 - 18:00	15 mins	Functional	Dr. Omar Chohan	Dr. Naveed Zaman Akhunzada	Case of Trigeminal Neuralgia (Decision Making)		
18:00 - 18:30	30 mins	Skull Base	Dr. Aqueel Pabaney, Dr. Ghaus Malik (online)	Dr. Ahsan Ali Khan	Chordoma and Clival Pathology		
19:00 - 21:30			Dinner at Dr.	Ather Enam's Hous	e		

Day-4, Sunday, April 13, 2025

	Sessions						
	S	unday, April 13,	2025, 7:30 - 17:0	00 (Pakistan Time; 0	SMT +5)		
Time	Duration	Specialty	Faculty	Coordinator	Торіс		
7:45 – 9:45	120 mins	Skull Base	Dr. Farhan Mirza (online), Dr. Omar Chohan, Dr. Ghaus Malik (online) Dr. Rabia Qaiser (online), Dr. Ghaus	Dr. Ahsan Ali Khan Dr. Ahsan Ali Khan	Case of Cerebellopontine Angle Tumor. Pituitary Tumors: Microadenoma Macroadenoma Case of Giant Pituitary Adenoma		
9:45 - 10:00	15 mins			Tea Break			
10:00 - 12:00	120 mins 30 mins	Neuro- oncology	Dr. M. Omar Chohan Dr. Rabia Qaiser	Dr. Naveed Zaman Akhunzada Dr. Saqib Bakhshi	 Case of Metastatic Tumors to the Brain Case of Intraventricular Tumor Involving the Lateral Ventricle Case of Colloid cyst 		
			(online)				
12:30 - 13:00	30 mins		-	Lunch Break			
13:00 - 13:15	15 mins	General	Dr. Ras	sheed Jooma	TBD		
13:15 – 16:15	180 mins	Cerebrovascular	Dr. Aqueel Pabaney, Dr. Ghaus Malik (online)	Dr. Saad Akhtar Khan	 Positioning, incision, marking, and craniotomy on 3D skull model. Microvascular techniques on chicken wings. Endovascular techniques on flow model. 		
16:15 – 17:00	45 mins	Closing	remarks by Prof.	Rashid Jooma and I	Distribution of Certificates		

Neuro-oncology Section (Dr. Omar Chohan, Dr. Rabia Qaiser, Dr. Ahsan Ali Khan, Dr. Saqib Bakshi)					
	Session	Topics	Areas Covered	Duration	
Day 3 Day 4	Case based intra axial tumors Case based	Case of primary brain tumors (intra-axial lesion involving): Rolandic & peri rolandic Parietal & periatrial Insular Language Thalamic region Intraventricular tumour	 Brain mapping Awake craniotomy Navigating language networks in glioma surgery Subpial technique Sulcus to sulcus resection (supramarginal) Marking on 3D skull Advancements 	150 mins 60 min	
			 Pre-op workup and counsening Differential diagnosis of intraventricular tumour Nuances of surgical resection How to approach the lesion through transcortical vs endoscopic approach 		
		Colloid cyst	 Surgical anatomy of the 3rd ventricle Differential diagnosis of 3rd ventricular tumour Nuances of surgical resection Transcallosal approach to anterior 3rd Ventricle vs Trans-cortical approach When colloid cyst can be observed? 	60 mins	
		Case of metastatic tumor to the brain	 Pre-op planning Minimally invasive approaches (BrainPath, SRS, LITT) Decision making (When not to intervene vs absolute indications for intervention) 	30 mins	

	Skull Base Section						
((Dr. Omar Chohan, Dr. Aqueel Pabaney, Dr. Rabia Qaiser, Dr. Ahsan Ali Khan)						
	Session	Topics	Areas Covered	Duration			
Day 1	Principles of Cranial Surgery		Anesthesia considerations, neuromonitoring, neuronavigation, positioning, pinning	10 mins			
		Case of Sphenoid wing/ clinoidal meningioma	 Indications, surgical technique of pterional craniotomy (subfascial & interfascial techniques) + FTOZ + extradural/ intradural clinoidectomy What to look for in the pre-op planning Operative adjuncts Surgical nuances during tumour resection (when to stop) Pterional & FTOZ craniotomy on 3d skull 	40 mins			
		Case of olfactory groove meningioma	 Indications, surgical technique of bifrontal and eyebrow craniotomy (including pinning & positioning) What to look for in the pre-op planning Operative adjuncts Surgical nuances during tumour resection (when to stop) Bifrontal & eyebrow craniotomy on 3d skull 	30 mins			
		Case of convexity and parasagittal meningioma.	 Nuances in managing dural and bony involvement What to do with grade II lesions What to do when the pial plane is invaded When to operate When to observe Sinus involvement 	30 mins			
		Case of Foramen magnum meningioma	 Indications, surgical technique of far lateral & sub-occipital craniotomy (positioning, pinning, preservation of vertebral artery, monitoring) What to look for in the pre-op planning Operative adjuncts Surgical nuances during tumour resection Performing sub-occipital & far-lateral arguitations on 2d printed module 	40 mins			
Day 3		Chordoma and Clival Pathology	 Surgical anatomy of clivus Pre-op workup and counselling Differential diagnosis Nuances of surgical resection How to approach the lesion through endoscopic approach 	30 min			

Day 4	Case of cerebellopontine angle tumor extending into middle fossa	 Indications, surgical technique of retrosigmoid craniotomy What to look for in the pre-op planning When to do surgery, indications of SRS Operative adjuncts Surgical nuances during tumour resection (when to stop) How to maximize facial nerve preservation if this was an acoustic neuroma Lumbar drain or not? / CSF aspiration from cisterna magna Performing retrosigmoid craniotomy on 3d printed models 	60 mins
	Case of Giant pituitary adenoma (non-functioning)	 Pre-op planning Handling of endoscope Hands on session on Upsurgeons's model How to navigate through the nose Raising of naso-septal flap How to ensure maximal safe debulking Management of post-op DI What is different in surgical management + anesthesia related complications than macroadenoma 	40 mins
	Case of functioning microadenoma	 What is different in surgical management + anesthesia related complications than macroadenoma? How to localize the tumour intra-operatively? What if tumour can't be localized Post-op management from endocrinology view point 	20 mins

	Cerebrovascular Section					
		(Dr. Aqu	eel Pabaney, Dr. Saad Akhtar)			
	Session	Topics	Areas Covered	Duration		
Day 1 Case Based		Intracranial Aneurysms	When to treat unruptured aneurysms To clip or to coil Discuss data, trials, scores Surgical Approaches for: • MCA • Acom • Pcom • PICA • DACA • Basilar Apex (including clinoidectomy) What can be done with Endovascular tools? Basics of DSA Management of aneurysms Endovascular route Pre- and post-operative Management of SAH patients: • Vasospasm	35 mins		
		AVMs DAVFs /	Hydrocephalus Understanding anatomy of AVMs Decoding DSA of AVMs When to treat and when to observe Endovascular Approaches to AVMs Surgical Approaches to AVM Spinal AVMs – quick primer Understanding Angiographic Anatomy of DAVFs and CCFs	35 mins 35 mins 35 mins		
		CCFs / Cavernomas	Making sense of Grading Systems When and how to treat DAVFs / CCFs? Endovascular treatment Surgical treatment Cavernomas – quick primer			
		Stroke	Discuss etiologies Endovascular treatment of strokes Role of NS in strokes	30 mins		
Day 4	Hands-on	3D skull model	Positioning, incision, marking, and craniotomy	3 hrs		
		Chicken Wings	Microvascular techniques			
		Flow Model	Endovascular techniques			
		Aneurysm Box/Blocks				

	Pediatric Section						
	(Dr. Zubair Tahir, Dr. Rabia Qaiser, Dr. Saqib Bakhshi)						
	Session	Topics	Areas Covered	Duration			
Day 2	Pediatric Neurosurgery	Hydrocephalus	Case of obstructive HCP due to aqueductal stenosis	15 min			
		<u> </u>	Case of complex septated multi-compartmentalized Hydrocephalus	15 min			
			Case of hemorrhagic hydrocephalus due to prematurity	15 min			
			Case of post-tuberculous hydrocephalus	15 min			
			Shunt troubleshooting	30 min			
		Craniosynostosis	Case of coronal + sagittal craniosynostosis	30 min			
			Case of multi-sutural synostosis	30 min			
		Craniovertebral Junction	Case of chiari malformation	40 min			
		Neuro-oncology	Case of 4 th Ventricular tumor	40 min			
			Case of intra-medullary tumor	40 min			
		Neural Tube Defects	Case of MMC+ Intra-uterine repair of MMC	30 min			
			Case of split cord malformation	15 min			
			Case of Tethered cord due to lipomyelomeningocele	15 min			
			Case of myelocystocele	15 min			
			Case of dermal sinus tract	15 min			

		Spine	Section				
	(Dr. Amjad Shad, Dr. Shafqat Bukhari, Dr. Zaeem Sultan)						
	Session	Topics	Areas Covered	Duration			
Day 1	Lumbar Spine		Anesthesia considerations, intra operative neuro monitoring, position	5 mins			
	Case of multi-level stenosis & case of lumbar pars fracture	 Indications for surgery in degenerative spine (Clinical + radiographic) Surgical approaches When to Fuse + Fix vs When to decompress only Extent of fixation Goal of surgery Pedicle screw fixation (Open vs MIS) Post-op complication 	40 mins				
		Case of dorso-lumbar spine injury	 Indications of surgery in traumatic spine injury Timing of surgery in traumatic spine Goal of surgery How to achieve perfect alignment Post-op management in quadriplegic patient 	30 mins			
		Case of far lateral disc bulge	 Management of sciatica Decision making for disc surgery Positioning Surgical nuances Landmarks of laminectomy, hemilaminectomy, foraminotomy, basics of microdiscectomy Identifying landmarks on model 	30 mins			
		Case of adjacent segment disease and case of synovial cyst	 Radiographic and clinical indications of surgery Prevention of adjacent segment disease 	30 mins			
Day 2	Cervical spine & congenital spine	Case of multi-level cervical stenosis	 Clinical and radiographic indications of surgery Cervical spine approaches How to maintain natural C-spine curvature How to prevent post op kyphotic deformity in long run Hands on: ACDF & lateral mass screws landmarks 	45 min			
		Case of odontoid fracture	 Indications for surgery in traumatic cervical spine & traumatic CVJ injury Surgical approaches to odontoid fracture Hands on: odontoid screw placement landmark on C-spine model 	45 mins			
		Case of congenital scoliosis, Kippel Feil deformity & os- odontoidum	 Overview of various congenital spine malformations Management of Kippel Feil and congenital scoliosis Surgical indication of scoliosis 	60 mins			

			 Timing of surgery in congenital scoliosis Pre-operative planning and intra operative adjuncts in congenital scoliosis surgery Post op complications 	
Day 3	Dorsal spine, infectious spine & neoplastic spine	Case of dorsal spine disc	 Clinical and radiographic indications of surgery Various surgical approaches to dorsal spine disc Operative adjuncts Overview of various surgical techniques with their associated post op complications 	45 mins
		Case of intra-dural extra medullary tumor	 Indications of surgery Surgical techniques of spine tumor excision Operative adjuncts Role of intra operative neuro-monitoring Post op complications and prevention of complication 	45 mins
		Case of TB spine	 Indications of surgery Timing of surgery Goal of surgery When to choose which approach Hands on: costotranversectomy landmark 	45 mins

	Functional Section						
	(Dr. Omar Chohan, Dr. Farhan Mirza, Dr. Zubair Tahir, Dr. Naveed Zaman)						
	Session	Topics	Areas Covered	Duration			
Day 3	Epilepsy Surgery	Surgical treatment of refractory epilepsy	 Basics of epilepsy surgery Radiological interpretation Developing clinical judgement to determine patients who will respond favorably to surgery Setting up a level 4 epilepsy center in Pakistan: Reflections from USA 	60 mins			
		Case of mesial temporal sclerosis & case of temporal lobe cavernoma	 Indications for surgery in temporal lobe epilepsy Lesionectomy Amygdalohippectomy Pre-operative planning Intra-operative adjuncts Post-operative complications 	40 mins			
		Case of generalized epilepsy	 Surgical management of refractory generalized epilepsy Misuse of VNS Surgical technique Post op complications 	40 mins			
		Case of Sturge Weber syndrome	 Surgical management of extra temporal 'non- lesional' epilepsy and Hemispheric disease Introduction to LEAT 	40 mins			
	Trigeminal Neuralgia	Case of trigeminal neuralgia	 Radiographic and clinical indications of surgery Choosing a surgical candidate 	15 mins			

SPIN2025 WORKSHOP

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