WFNS-NNI "Decision Making in Neurosurgery" Course
15th – 17th August 2025

Presented by:
Department of Neurosurgery, National Neuroscience Institute, Singapore

Course chairpersons:
Ramez Wadie Kirollos
Chen Min Wei

Organizing committee:
Julian Han Xinguang
Lim Jia Xu
Cheong Tien Meng
Jensen Ang
Damian Lee
Liang Sai
APN Cher Lim

Course description

This course reflects the real-world situations facing clinicians in Neurosurgery. Despite the advent of technology and improvement in healthcare delivery that has driven innovation in treatment options, it has become harder for clinicians to decide the most suitable course of action forward for their patients.

We propose this course as a platform to air out doubts and uncertainties, debate and consolidate opinions amongst clinicians. Guided by world-class experts in their respective fields, we hope that course participants would emerge enlightened in their awareness of these controversial topics. With a cadaveric dissection workshop aimed at sharpening the candidates' hand in fundamental and advanced cranial approaches, we hope that residents and junior neurosurgeons in the region would find this course helpful in providing them with solid fundamentals in the main neurosurgical approaches.

With an aim for continuity, we envisage conducting this course on a 2-yearly basis. In time, we hope that there would be continued demand in understanding the trends, controversy and contentious topics within our discipline. It is our hope that this course would contribute towards a growing collaboration and engagement from the SEA region with NNI and WFNS.

Course Details

Target number of participants: 50 participants
Continuity plan: repeated every 1-2 years

2025 Course Dates

16th – 17th August 2025	Main Course
15th August 2025	Pre-Course Cadaveric Dissection Workshop

Venues

Cadaveric dissection	Surgical Dissection Lab, Academia, Singapore General Hospital
Main course	Seminar Room (capacity 50 pax), Academia

Main Course Faculty/Content Experts

Jai Prashanth Rao – trauma/general (session 1)
Yeo Tseng Tsai – general (session 1)
Julian Han – vascular (sessions 2 and 6)
Ivan Ng (backup Vincent Ng) – vascular (sessions 2 and 6)
Teo Kejia – oncology (sessions 3 and 8)
Justin Ker – oncology (session 3 and 8)
Seow Wan Tew – pediatrics (session 4)
Vincent Nga – pediatrics (session 4)
Bengt Karlsson – radiosurgery (session 3)
Luis Borba – skull base (session 5)
Ramez Kirollos – skull base (session 5)
Ling Ji Min – spine (session 7)
Dinesh Shree Kumar – spine (session 7)

Workshop Faculty

Ramez Kirollos
Jai Prashanth Rao
Chen Min Wei
Lim Jia Xu
Jensen Ang
Cheong Tien Meng

Main Course (16th – 17th August 2025)

Programme outline

Day 1 (clinical management focus)

08.30	Registration
09.00	Welcome address by Course Chairman
09.15	Session 1: Trauma/General
	DC versus barb coma
	Borderline sized deep-seated ICH with symptoms
	Postoperative empyemas – remove or keep the bone flap?
10.45	Break
11.00	Session 2: Vascular
	Unruptured aneurysms of borderline size
	Mechanical thrombectomy for ischaemic stroke
12.30	Lunch
	Exhibits with surgical VR simulation and BrainPath (MiPS)
	Sponsor booths
1.30	Session 3: Oncology
	SRS of multiple metastases
	WHO grade 2 meningiomas of the skull base
3.00	Break
3.15	Session 4: Paediatrics/Hydrocephalus
	Fibrofatty filum terminale management
	ETV for adult communicating hydrocephalus
4.45	Closing summary and group photo
7.00	Course Dinner for Faculty and Participants

Day 2 (surgical focus)

9.00	Session 5: Skull Base
	Translabyrinthine versus retrosigmoid approaches
	AIA versus Pterional approach for tuberculum sella meningiomas
10.30	Break
10.45	Session 6: Vascular
	Coiling versus clipping for MCA aneurysms
	Rupture point near neck
12.15	Lunch
	Exhibits with surgical VR simulation and BrainPath (MiPS)
	Sponsor booths
1.15	Session 7: Spine
	ACDF versus ADR
	Endoscopic versus MIS versus open for instrumented fusion
2.45	Break
3.00	Session 8: General/Oncology
	Techniques of Chiari malformation decompression
	Awake versus asleep mapping for insular gliomas

4.30 Closing Address and Certificate Collection

Session coordinators

Damian – Paeds/Spine (sessions 4 and 7)
Jia Xu – Skull Base (sessions 3 and 5)
Jensen – General (sessions 1 and 8)
Tien Meng – Vascular (sessions 2 and 6)

Potential topics

General/trauma
1. Mannitol versus hypertonic saline in ICP control
2. Hypothermia in severe TBI management
3. Use of drains and/or MMA embolization in chronic subdural hematomas
4. Shunting versus ETV/CPC for hydrocephalus
5. Use of ETVSS in adult hydrocephalus
6. Surgical aspiration of intracerebral abscesses in the thalamus/brainstem

Oncology
1. Navigating different treatment options (surgery, SRT/SRS, WBRT) for brain metastases
2. Application of upfront RT after different degrees of resection of WHO grade 2 meningiomas
3. Awake craniotomy for resection of high-grade gliomas or lesions involving eloquent areas (versus intraoperative MRI or asleep mapping)
4. Resection versus laser ablation (LITT) for recurrent glioblastomas
5. The use of tubular retractor systems for deep seated tumours
6. Management of small metastases on the motor strip

Spine
1. ACDF versus cervical arthroplasty/ADR
2. ACDF with or without anterior cervical plating
3. MIS versus endoscopic versus open spinal fusion
4. Lumbar fusion for back pain or low-grade spondylolisthesis
5. MIS versus endoscopic lumbar microdiscectomy
6. Calculating sagittal balance in presence of transitional anatomy (lumbarized S1 or sacralized L5)
7. Management of Tarlov cysts

Vascular
1. Flow diversion for aneurysms
2. Follow-up for incidental aneurysms/AVMs
3. Current trends in endovascular techniques
4. Mechanical thrombectomy for ischaemic stroke – time frame
5. Revascularization techniques and indications for Moyamoya disease

Functional

1. RNS versus DBS for epilepsy
2. Trigeminal neuralgia without evidence of neurovascular conflict: management
3. Failed back syndrome: revision surgery or neuromodulation

Skull Base

1. Endoscopic versus open removal of olfactory groove meningiomas (or tuberculum sellae meningiomas)
2. Conservative versus SRS versus surgery for small VS with intact hearing
3. Craniopharyngiomas: extent of resection and approaches
4. Utility of endoscopic transorbital techniques for spheno-orbital meningiomas
5. Case for/against and selection for pre-operative embolization in meningioma surgery
6. Parasagittal meningiomas involving lateral SSS wall: partial removal and SRT versus total removal and SSS repair

Format of each session

10 mins case presentation (by resident)
5 mins online poll
20 – 30 mins debate
5 mins questions/counterarguments from the floor
15 mins follow-up on events transpired (by resident)
15 – 20 mins literature review (by resident)
5 mins concluding statement and questions
Total 80 – 90 minutes

Pre-Course Cadaveric Dissection Workshop (15th August 2025)

Programme outline

8.00	Registration
8.25	Opening address by Workshop Chairperson
8.30	3D Lecture: Anterior cranial fossa and ICA – anatomy
9.00	Lecture: Pterional and FTOZ approaches
9.05	Lecture: Inter-fascial and sub-fascial dissection
9.10	Lecture: Bi-coronal sub-frontal/anterior interhemispheric approach
9.15	Practice on cadavers
12.15	Lunch *Exhibits with sponsor booths, surgical VR simulation, BrainPath (MiPS)*
1.15	3D Lecture: Posterior cranial fossa – anatomy
1.45	Lecture: Retro-sigmoid and far lateral approaches
1.55	Lecture: Midline supratentorial interhemispheric and suboccipital approaches
2.00	Practice on cadavers
4.50	Photo-taking, giving out certificates, feedback form
5.00	Workshop end

Description and objectives

This 1-day pre-course workshop aims to impart proper technical steps and key anatomical considerations in the workhorses of the neurosurgical armamentarium – the pterional, retrosigmoid, and midline craniotomies (i.e., bifrontal, supratentorial interhemispheric and suboccipital). An introduction to more advanced approaches (orbitozygomatic, far lateral) would also be covered, with description of clear technical nuances and key anatomical landmarks.

At the end of this course, participants should be able reproduce these craniotomies in their own surgical practice, understand the technical nuances and relevant anatomy, and anticipate possible complications intraoperatively.

Methodology

20 participants grouped into pairs
Pairing: in terms of seniority and/or participants' request
Supervision provided, faculty/participant ratio (1:2 stations)