



SANS NEWSLETTER

Our Reader is our Leader

Inside



18TH ANNUAL MEETING OF
**THE SAUDI ASSOCIATION OF
 NEUROLOGICAL SURGERY**



Promoting Neurosurgery: Taking The Leap

NEUROSURGERY IN SAUDI ARABIA:

Fellowship Preference in Neurosurgery Trainees

NEUROSURGICAL GUIDELINES:

the Management of Patients With ASH

RESIDENT'S CORNER:

To the Neurosurgeons Graduating on 2030

NEUROSURGERY COMMUNITY:

News & Events



WORKSHOP
9th FEB 2024

CONFERENCE
10th - 11th FEB 2024



ISSUE MESSAGE

Editorial Board

Khalid Siddiqui, MD
Editor-in-Chief

Ahmed Ammar, MD
Co-Editor

Abdulhakim Jamjoom, MD
Co-Editor

Yaser Babgi, MD
Co-Editor

Atika Al Sudayri
Copy editor

Sumayah Abunayyan
SANS Administrator

Asma Al Juhani
Health Education Specialist

Dear readers,

It gives us immense pleasure to bring the 4th issue of Volume 2023 of the SANS Newsletter!

In this issue, Professor Abdulhakim Jamjoom and Dr. Abdulhadi Al Gahtani share with us an interesting review of the experiences of the 82 SBNS graduates in fellowship training.

In addition, we provide an updated guidelines on the Management of Patients with ASH.

In this issue also, you will read a beautifully written letter from Dr. Sabbagh to the Neurosurgeons graduating on 2030. We are grateful that he took some time to share his valuable insights in neurosurgery and the profession in general.

We would like to thank our regular contributor Dr. Mohammed Bafaquh, for providing us with clinical challenges.

we also have covered some news from our community to keep you in the loop.

Finally, we would like to thank you for your feedback and comments. We are always looking for ways to improve our content and make our newsletter even more valuable to you.

We look forward to hearing your thoughts!



NEUROSURGERY IN SAUDI ARABIA



Fellowship Preferences for the Saudi Board in Neurosurgery Trainees

By Professor Abdulhakim B. Jamjoom | Dr. Abdulhadi Y Gahtani
Jeddah, Saudi Arabia

It takes a long time to train a neurosurgeon who is capable of practicing independently. It is generally accepted that residency training is not enough and should be supplemented by fellowship training. Among the reasons given are to compensate for the deficiencies of residency training, to allow trainees to develop their surgical and clinical skills, to focus their expertise on the subspecialty of their interest, to strengthen their candidacy for academic positions, to make them more competitive in a difficult job market, and to improve their earning potential.

In a recent publication [1], we examined the attrition and success rates of 115 trainees who started the Saudi Board in Neurosurgery (SBNS) training program between 2001 and 2014. We calculated an attrition rate of 29% (in neurosurgery 14% and in non-neurosurgery 15%). The number of trainees who completed the SBNS training program between 2007 and 2020 (regardless of whether they passed the SBNS final exam or another qualification) was 82. To date, there is no information on the prospects of a fellowship for the SBNS

trainees.

In this short article, we aim to provide an update on the experiences of the 82 SBNS trainees in fellowship training. Saudi neurosurgeons who completed their residency training abroad were not included. Data were updated to August 1, 2023 based on personal knowledge of the candidates and direct contact when necessary.

Table 1 summarizes the distribution of the 82 SBNS trainees by number of fellowship years, number of subspecialties, and number of countries.

We aim to provide an update on the experiences of the 82 SBNS graduates in fellowship training



Fellowship Preferences for the Saudi Board in Neurosurgery Trainees

Table 1: Distribution of 82 SBNS trainees by number of fellowship years, subspecialties and countries

Parameter		No Fellowship (% total 82)	1-Year Fellowship (% total 82)	2-Year Fellowship (% total 82)	3-Years Fellowship (% total 82)	Total Fellowships (% total 82)
Number of trainees (82)		30(37%)	15(18%)	31(38%)	6(7%)	52(63%)
Number of Sub-specialties	1 Subspecialty	0	15(18%)	23(28%)	1(1%)	39(48%)
	2 Subspecialties		0	8(10%)	4(5%)	12(15%)
	3 Subspecialties		0	0	1(1%)	1(1%)
Number of Countries	1 Country	0	15(18%)	27(33%)	5(6%)	47(57%)
	2 Countries		0	4(5%)	0	4(5%)
	3 Countries		0	0	1(1%)	1(1%)

The total number of fellowship years done by the 52 trainees was 95. **Table 2** summarizes the distribution of the 95 fellowship years according to the subspecialties and countries.

Table 2: Distribution of 95 fellowship years (for 52 SBNS trainees) by the subspecialties and countries.

Parameter		1 Year Fellowship (% total 95)	2 Year-Fellowship (% total 95)	3 Years Fellowship (% total 95)	Total Fellowship (% total 95)
Number of Fellows		15	31	6	52
Number of Fellowship Years		15	62 (31x2)	18 (6x3)	95
Sub-specialties	Spine	8(8%)	18(19%)	6(6%)	32(34%)
	Pediatric	5(5%)	18(19%)	1(1%)	24(25%)
	Skull Base	0	10(11%)	7(7%)	17(18%)
	Vascular & Endovasc.	1(1%)	8(8%)	2(2%)	11(12%)
	Functional	0	4(4%)	0	4(4%)
	Epilepsy	0	3(3%)	0	3(3%)
	Oncology	0	1(1%)	1(1%)	2(2%)
	Trauma & Critical Care	1(1%)	0	0	1(1%)
	Peripheral Nerve	0	0	1(1%)	1(1%)
Countries	Canada	11(12%)	32(34%)	16(17%)	59(62%)
	Saudi Arabia	0	23(24%)	0	23(24%)
	France	0	3(3%)	1(1%)	4(4%)
	Korea	2(2%)	0	1(1%)	3(3%)
	USA	0	2(2%)	0	2(2%)
	UK	1(1%)	1(1%)	0	2(2%)
	Italy	0	1(1%)	0	1(1%)
	Australia	1(1%)	0	0	1(1%)

Fellowship Preferences for the Saudi Board in Neurosurgery Trainees

Discussion

1. Fellowship opportunity for all, time to step up!

37% of the 82 SBNS trainees had no fellowship training. This number is high compared to the 20.9% reported for the US [2]. It is no secret that the standards of SBNS training varies across centres [1]. Therefore, it is only fair that all SBNS trainees should have access to fellowship training that includes general neurosurgery. Saudization of peripheral (smaller) neurosurgical units will require many competent Saudi general neurosurgeons.

2. Standardization of the number and duration of fellowships

60% of the 52 SBNS trainees who completed a fellowship studied for 2 years (29% studied for 1 year and 12% studied for 3 years). 75% completed the fellowship in a subspecialty (23% in 2 subspecialties, 2% in 3 subspecialties). For a more equitable distribution of fellowship opportunities, it would be reasonable if every SBNS trainee was given the opportunity to complete a 2-year fellowship in 1 or 2 subspecialties, depending on where the fellowship is completed.

3. Identifying the subspecialties in demand

The most popular subspecialties among the 95 fellowships (completed by the 52 trainees) were spine (34%), pediatrics (25%), skull base (18%), and vascular and endovascular (12%). A recent survey of

1691 academic neurosurgeons in the US about neurosurgical fellowships revealed the following distribution: Spine (16%), vascular and endovascular surgery (16%), pediatrics (11.2%), oncology (8.9%), skull base (8.8%), functional surgery (7.4%), endovascular surgery (6.5%), epilepsy (3.5%), interventional neuroradiology (3.5%), trauma and critical care (2.5%), and peripheral nerve (1.3%) [2]. When we compare the subspecialty choices of our SBNS trainees (2007-2020) to the cross-section of academic neurosurgeons in the US in 2019 [2], we can see that we had higher rates of fellowships in spine (34% vs. 16%), pediatrics (25% vs. 11.2%), and skull base (18% vs. 8.8%). However, fellowship numbers were lower in all other specialties, particularly oncology (2% vs. 8.9%), functional (4% vs. 7.4%), and trauma and critical care (1% vs. 2.5%). Clearly, the availability and accessibility of fellowships in Saudi Arabia in the three subspecialties (spine, pediatrics, and skull base) had a significant impact on the preferences of some trainees. It is worth noting that the data do not include the fellowships of Saudi neurosurgeons who completed their residency abroad, which may also have had an influence on trainee choice. Nevertheless, we believe that the Saudi neurosurgical community and the SANS have an advisory role to play in highlighting the distribution of subspecialties so that the various academic and healthcare institutions can address the shortage.

Fellowship Preferences for the Saudi Board in Neurosurgery Trainees

4. Choice of country, Canada, Saudi Arabia or time to look further afield?

90% of the 52 SBNS trainees who completed a fellowship did so in one country (8% in 2 countries, 2% in 3 countries). Of the 95 fellowships, the two most popular countries were Canada (62%) and Saudi Arabia (24%). Only 14% of fellowships were completed in other countries. As the number of fellowships in Saudi Arabia increases, it is only natural that more trainees choose to do a fellowship locally. It is therefore incumbent upon Saudi neurosurgeons and the SANS to assist the various institutions in maximizing the potential of their local fellowship training. Canada was the obvious well-trying option favored by most trainees. However, the Canadians charge an annual fee of \$100,000 and will not negotiate without an official Saudi sponsorship. Their fellowship positions are limited and can sometimes involve waiting times. Fellowships in the US are highly regarded and considered prestigious. However, they are highly competitive and for most trainees, completing the

USMLE so many years after medical school is a barrier. Only 7% of fellowships were completed in non-English speaking countries (France, Korea and Italy). This is understandable, as the language barrier can also be intimidating. Only 2% of the fellowships were completed in the UK. This underrepresentation is surprising given that many large neurosurgical centers in the UK accept sponsored SBNS trainees for fellowships and exempt them from the licensing examination and training fees. However, they require basic English language skills and affiliation with a center in Saudi Arabia. In addition, the United Kingdom would be an ideal location for those interested in a 2-year fellowship in general neurosurgery. Highly motivated candidates will also be given the opportunity to do the FSCS(SN). We have already received interest from centers in Bristol and St Georges, London. For those interested in fellowship training in the UK, we recommend taking a look at the International Postgraduate Medical Training Scheme (IPGMTS) website [3].

References

- 1) Algahtani A Y, Jamjoom A B, Al Rabie A, et al. (September 24, 2021) Attrition and Success Rates in the Saudi Board of Neurosurgery: Analysis of 115 Consecutive Residents Who Started Training From 2001 to 2014. *Cureus* 13(9): e18235. DOI 10.7759/cureus.18235.
- 2) Gupta A, Reddy V, Barpujari A, Lavadi RS, Agarwal P, Chang YF, Mooney J, Elsayed GA, Agarwal N. Current Trends in Subspecialty Fellowship Training for 1691 Academic Neurological Surgeons. *World Neurosurg.* 2023 Mar;171:e47-e56. doi: 10.1016/j.wneu.2022.11.074.
- 3) The International Postgraduate Medical Training Scheme (IPGMTS) <https://global.hee.nhs.uk/ipgmts> and <https://global.hee.nhs.uk/ipgmts/saudi-arabia>

NEUROSURGICAL GUIDELINES

2023 Updated Guideline for the Management of Patients with Aneurysmal Subarachnoid Hemorrhage: A Guideline from the American Heart Association / American Stroke Association

Prepare By Dr. Turki Alzidani
R1

Supervise by Dr. Yaser Babgi

Aneurysmal subarachnoid hemorrhage (aSAH) is a significant public health risk worldwide, with an overall incidence of ≈ 6.1 per 100,000 person-years. This incidence varies in different regions and ethnic groups. aSAH is associated with significant mortality and morbidity, with pre-hospital mortality at 22-26% and in-hospital mortality at around 13%.

Due to the increase in knowledge and evidence, the guideline writing group decided to update the previous guideline published in 2012 to provide clinicians with clinical, evidence-based recommendations. This guideline is limited to aneurysmal rupture and does not cover the other causes of SAH. This guideline is limited to aneurysmal rupture and does not cover the other causes of SAH. In addition, new sections such as nursing care and recovery have been included in this update.

NATURAL HISTORY AND OUTCOME OF aSAH:

Class 1 recommendation:

In patients with aSAH, the use of clinical scales (e.g. the Hunt and Hess [HH] grade or the World Federation of Neurosurgical Societies [WFNS] grade) is recommended to determine initial clinical severity and predict outcome.

Class 3 recommendation (no benefit):

In patients with aSAH who do not improve after correction of modifiable conditions and who are considered not curable based on evidence of irreversible neurologic damage, treatment of the aneurysm is not beneficial.

CLINICAL MANIFESTATIONS AND DIAGNOSIS OF aSAH:

Class 1 recommendation:

- In patients with acute onset of severe headache who present >6 hours from symptom onset or who have a new neurological deficit, a non-contrast head CT and, if negative for aSAH, lumbar puncture (LP) should be performed to diagnose/exclude aSAH.

Class 2a recommendation:

- In patients with acute onset of severe headache who present <6 hours from symptom onset and without new neurological deficit, a non-contrast head CT performed on a high-quality scanner and interpreted by a board-certified neuroradiologist is reasonable to diagnose/exclude aSAH.

:Class 2b recommendation

- In patients with acute onset of a severe headache without a new neurological deficit, application of the Ottawa SAH Rule may be reasonable to identify those at high risk for aSAH

Neurosurgical Guidelines

EVALUATION OF ASAH**Class 1 recommendation:**

In patients with spontaneous SAH with a high level of concern for aneurysmal source and a negative or inconclusive CT angiography (CTA), digital subtraction angiography (DSA) is indicated to diagnose/exclude cerebral aneurysm(s).

RECOMMENDATIONS FOR HOSPITAL CHARACTERISTICS AND SYSTEMS OF CARE**Class 1 recommendation:**

- For patients with aSAH, timely transfer from hospitals with low case volume to higher-volume centers with multidisciplinary neurointensive care services, comprehensive stroke center capabilities, and experienced cerebrovascular surgeons/ neuroendovascular interventionalists is recommended to improve outcomes.
- For patients with aSAH, care should be provided in a dedicated neurocritical care unit by a multidisciplinary team.

RECOMMENDATIONS FOR MEDICAL MEASURES TO PREVENT REBLEEDING AFTER ASAH**Class 1 recommendation:**

- In patients with aSAH and unsecured aneurysm, frequent blood pressure (BP) monitoring and BP control with short-acting medication(s) is recommended to avoid severe hypotension, hypertension, and BP variability.
- In patients with aSAH who are receiving anticoagulants, emergency anticoagulation reversal with appropriate reversal agents should be performed to prevent rebleeding

Class 3 recommendation (no benefit) :

In patients with aSAH, routine use of antifibrinolytic therapy is not useful in improving functional outcome.

RECOMMENDATIONS FOR SURGICAL AND ENDOVASCULAR METHODS FOR THE TREATMENT OF RUPTURED CEREBRAL ANEURYSMS**Class 1 recommendation:**

- For patients with aSAH, surgical or endovascular treatment of the ruptured aneurysm should be performed as early as feasible after presentation, preferably within 24 hours of onset, to improve the outcome.
- For patients with aSAH from ruptured aneurysms of the posterior circulation that are amenable to coiling, coiling is indicated in preference to clipping to improve outcome.
- For patients with aSAH deemed salvageable and with a depressed level of consciousness due to large intraparenchymal hematoma, emergency clot evacuation should be performed to reduce mortality.
- For patients with good-grade aSAH from ruptured aneurysms of the anterior circulation equally suitable for both primary coiling and clipping, primary coiling is recommended in preference to clipping to improve 1-year functional outcome.

Class 2 a recommendation:

- For patients with aSAH in whom complete obliteration of the ruptured aneurysm by either clipping or primary coiling treatment is not feasible in the acute phase, partial obliteration to secure the rupture site and retreatment in a delayed fashion in those with functional recovery are reasonable to prevent rebleeding.
- For patients with aSAH from ruptured fusiform/blister aneurysms, the use of flow diverters is reasonable to reduce mortality

Class 2 b recommendation:

- For patients >70 years of age with aSAH, the superiority of coiling or clipping to improve outcomes is not well established.
- For patients <40 years of age with aSAH, clipping of the ruptured aneurysm might be considered the preferred mode of treatment to improve the durability of the treatment and outcome.

Class 3 recommendation (harm):

For patients with aSAH from ruptured saccular aneurysms amenable to either primary coiling or clipping, stents or flow diverters should not be used to avoid a higher risk of complications.

RECOMMENDATIONS FOR ANESTHETIC MANAGEMENT OF SURGICAL AND ENDOVASCULAR TREATMENT OF ASAH

Class 2 a recommendation

- In patients with aSAH, the intraoperative use of mannitol or hypertonic saline can be effective in reducing ICP and cerebral edema.
- In patients with aSAH, anesthetic goals should include minimizing postprocedural pain, nausea, and vomiting.

Class 2 b recommendation:

- In patients with aSAH, intraoperative neuromonitoring may be reasonable to guide anesthetic and operative management.
- In patients with aSAH and an -2 uncontrolled intraoperative aneurysmal rupture, adenosine may be considered to facilitate aneurysm clip placement by inducing cardiac standstill and temporary profound pause.

Class 3 (no benefit) recommendation:

In patients with good-grade aSAH, the routine use of induced mild hypothermia during aneurysm surgery is not beneficial

MANAGEMENT OF MEDICAL COMPLICATIONS ASSOCIATED WITH aSAH

Class 1 recommendation:

In patients with aSAH whose ruptured aneurysm has been secured, pharmacological or mechanical venous thromboembolism (VTE) prophylaxis is recommended to reduce the risk for VTE

Class 2 a recommendation:

- In patients with aSAH, close monitoring and goal-directed treatment of volume status are reasonable to maintain euvolemia
- In patients with aSAH, the use of -2 mineralocorticoids is reasonable to treat natriuresis and hyponatremia
- In patients with aSAH, effective -3 glycemic control, strict hyperglycemia management, and avoidance of hypoglycemia are reasonable to improve outcome

Class 2 b recommendation:

In patients with aSAH with fever refractory to antipyretic medications, the effectiveness of therapeutic temperature management (TTM) during the acute phase of aSAH is uncertain

Class 3 (harm) recommendation:

In patients with aSAH, induction of hypervolemia is potentially harmful because of the association with excess morbidity.

NURSING INTERVENTIONS AND ACTIVITIES:

Class 1 recommendation:

- In patients with aSAH, frequent vital sign and neurological monitoring is recommended for the detection of neurological change and prevention of secondary cerebral insults and poor outcomes.
- In patients with aSAH, a validated dysphagia screening protocol should be implemented before initiation of oral intake to reduce the incidence of pneumonia.

Class 2 a recommendation:

- In patients with aSAH, specialised nursing stroke competencies, and certification can be effective in positively affecting outcomes, timeliness of care, and adherence to stroke protocols
- In patients with aSAH and a secured aneurysm, an early, evidence-based mobility algorithm is reasonable to improve the level of function at discharge and global functional outcome at 12 months.

MONITORING AND DETECTION OF CEREBRAL VASOSPASM AND DCI:

Class 2 a recommendation:

- In patients with aSAH with suspected vasospasm or limited neurological examination, CTA or CT perfusion (CTP) can be useful to detect vasospasm and predict DCI.
- In patients with aSAH, transcranial Doppler (TCD) ultrasound monitoring is reasonable for detecting vasospasm and predicting DCI.

- In patients with high-grade aSAH, continuous EEG (cEEG) monitoring can help predict DCI.

Class 2 b recommendation:

In patients with high-grade aSAH, invasive monitoring of brain tissue oxygenation, lactate/pyruvate ratio, and glutamate may be considered to predict DCI.

MANAGEMENT OF CEREBRAL VASOSPASM AND DCI AFTER ASAH

Class 1 recommendation:

- In patients with aSAH, early initiation of enteral nimodipine is beneficial in preventing DCI and improving functional outcomes.

Class 2 a recommendation

- In patients with aSAH, maintaining euvolemia can be beneficial in preventing DCI and improving functional outcomes.

Class 2 b recommendation:

- In patients with aSAH and symptomatic vasospasm, elevating systolic BP values may be reasonable to reduce the progression and severity of DCI
- In patients with aSAH and severe vasospasm, the use of intra-arterial vasodilator therapy may be reasonable to reverse cerebral vasospasm and reduce the progression and severity of DCI
- In patients with aSAH and severe vasospasm, cerebral angioplasty may be reasonable to reverse cerebral vasospasm and reduce the progression and severity of DCI

Class 3 recommendation (no benefit):

In patients with aSAH, routine use of statin therapy to improve outcomes is not recommended

- In patients with aSAH, routine use of intravenous magnesium to improve neurological outcomes is not recommended

Class 3 recommendation (harm):

For patients with aSAH at risk of DCI, prophylactic hemodynamic augmentation should not be performed to reduce iatrogenic patient harm.

MANAGEMENT OF HYDROCEPHALUS ASSOCIATED WITH ASAH:**Class 1 recommendation:**

- In patients with aSAH and acute symptomatic hydrocephalus, urgent CSF diversion (EVD and/or lumbar drainage) should be performed to improve neurological outcome
- In patients with aSAH and hydrocephalus who require an EVD, implementation, and adherence to an EVD bundled protocol that addresses insertion, management, education, and monitoring are recommended to reduce complication and infection rates
- In patients with aSAH and associated chronic symptomatic hydrocephalus, permanent CSF diversion is recommended to improve neurological outcome

Class 3 recommendation (no benefit):

- In patients with aSAH, routine fenestration of the lamina terminalis is not indicated for reducing the rate of shunt dependency.

MANAGEMENT OF SEIZURES ASSOCIATED WITH ASAH:**Class 2 a recommendation:**

- In patients with aSAH and either fluctuating neurological examination, depressed mental state, ruptured MCA aneurysm, high-grade SAH, ICH, hydrocephalus, or cortical infarction, cEEG monitoring is reasonable to detect seizures
- In patients with aSAH who present with seizures, treatment with antiseizure medications for ≤ 7 days is reasonable to reduce seizure-related complications in the perioperative period

Class 2 b recommendation:

- In patients with aSAH and high-seizure-risk features (i.e., ruptured MCA aneurysm, high-grade SAH, ICH, hydrocephalus, and cortical infarction), use of prophylactic antiseizure medication(s) may be reasonable to prevent seizures

Class 3 (no benefit) recommendation:

- In patients with aSAH without high-seizure-risk features (i.e., ruptured MCA aneurysm, high-grade SAH, ICH, hydrocephalus, and cortical infarction), prophylactic treatment with antiseizure medication is not beneficial
- In patients with aSAH without prior epilepsy who present with seizures, treatment with antiseizure medications beyond 7 days is not effective for reducing future SAH-associated seizure risk

Class 3 (harm) recommendation:

In patients with aSAH, phenytoin for seizure prevention and/or antiseizure prophylaxis is associated with excess morbidity and mortality.

ASAH RECOVERY

Class 1 recommendation:

- In patients with aSAH, the use of validated grading scores or patient-reported outcome measures prior to hospital discharge is recommended to screen for physical, cognitive, behavioral, and QOL deficits
- In patients with aSAH, the use of validated screening tools in the post acute period is recommended to identify post-aSAH depression and anxiety

Class 2 a recommendation:

- In patients with aSAH and no other medical or neurological contraindications, early rehabilitation after the ruptured aneurysm is secured is reasonable to improve functional outcomes and reduce LOS.

Class 2 b recommendation:

- In patients with aSAH in a coma, early use of neurostimulants may be reasonable to promote consciousness recovery

Class 3 (no benefit)recommendation:

In patients with aSAH without depression, fluoxetine therapy is not effective in enhancing post-stroke functional status

ASAH LONG-TERM RECOVERY

Class 1 recommendation:

In adult patients with aSAH, screening, and intervention for depression, anxiety, and sexual dysfunction are recommended to improve long-term outcomes

Class 2 a recommendation:

In patients with aSAH, it is reasonable to choose the MoCA over the MMSE to identify cognitive impairment

Class 2 b recommendation:

In patients with aSAH, counseling patients and caregivers on the high long-term risk of cognitive dysfunction can be beneficial to identify long-term needs

RISK FACTORS, PREVENTION, AND SUBSEQUENT MONITORING FOR RECURRENT aSAH:

Class 1 recommendation:

- In patients with aSAH who have undergone aneurysm repair, perioperative cerebrovascular imaging is recommended to identify remnants or recurrence of the aneurysm that may require further treatment
- In patients with aSAH who have undergone aneurysm repair, follow-up cerebrovascular imaging is recommended to identify recurrence or regrowth of the treated aneurysm, changes in another known aneurysm, or development of de novo aneurysm(s) that may require further treatment to reduce the risk of aSAH.

* For further and more information, you can review the complete guideline:

<https://www.ahajournals.org/doi/10.1161/STR.0000000000000436>

CLINICAL CHALLENGE

#2

THE ANSWER

Cerebellopontine angle lesion DDX

Extra-axial

Yes

Enhancing

No

Bone

Paranglioma

Chordoma

Chondrosarcoma

Endolymphatic

fatty marrow

ear effusions

Cholesteroma

Cisterns

Schwannomas

Meningioma

Metastatic

Melanoma

Sarcoidosis

Tuberculosis

Lymphoma

Aneurysm

AVM

Epidermoid cyst

Arachnoid cyst

Neuroentric cyst

Dermoid cyst

Lipoma cyst

Subependymoma

Intra-axial

No

Enhancing

Yes

Hemangioblastomas

Medulloblastoma

Ependymoma

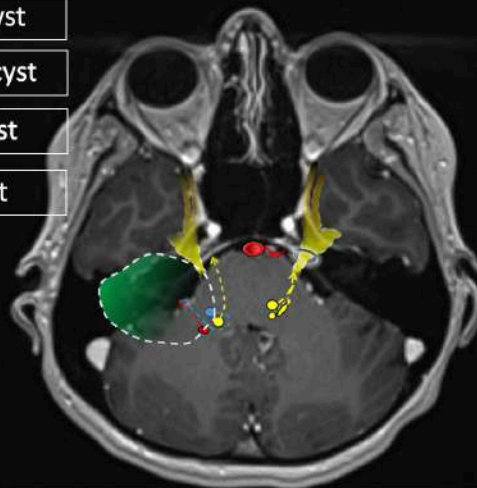
Pilocytic astrocytoma

Glioma

Lymphoma

Papilloma

ATRT




RESIDENT'S CORNER

EMBRACING THE JOURNEY

a Word to the Neurosurgeons Graduating on 2030

By Dr. Abdulrahman Jafar Sabbagh

King Abdulaziz University | KAU
Jeddah, Saudi Arabia



Dear Upcoming Neurosurgery Resident,
When you began your journey into neurosurgery this October, you inherently aligned with the Vision 2030 journey. Strive to be in line with this national goal and become an integral part of Saudi Arabia's blossoming narrative. With clear goals and unwavering commitment, know your rights as well as your responsibilities. Having been in your shoes more than two decades ago and having mentored numerous trainees, I give you this honest advice in the hope of paving your way to a successful career in neurosurgery, both professionally and as a human being.

- **Start with clear goals in mind:** From the beginning of your residency, visualize your short-, medium- and long-term goals. View your residency training as a tool that will shape you into the professional you aspire to

become and lead you to where you envision yourself in ten years and beyond until you retire. Contemplate the impact you want to accomplish throughout your career and use neurosurgery as a means to not only fulfill yourself professionally, but also to grow personally and spiritually. Strive to ensure that your contributions in neurosurgery enrich your life and afterlife by transforming your professional actions into acts of worship that lead to good deeds. Always purify your intentions sincerely for our Creator by working for the betterment of humanity and ensuring that all your deeds in neurosurgery lead to rewards and attainment of paradise in the hereafter.

Also remember that you will be a part of Vision 2030. Align your goals with those of our dynamic nation and do your best to be an important part of that future.

A Word to the Neurosurgeons Graduating on 2030

- **Understand the curriculum:**

Make it a priority to download the curriculum from the Saudi Commission for Health Specialties website. Familiarise yourself with all aspects, including the CANMedRoles Outcomes and Competencies. Make sure you know your rights and responsibilities. This understanding will form the basis of a balanced and informed residency experience. You need to ensure that your learning covers all essential areas of the curriculum. In other words, you should engage in self-directed learning that is aligned with the SCFHS curriculum as well as the learning environment in which you are practicing.

Use the list of procedures, courses and workshops available to you to build and refine your technical skills during your years of training.

- **Mastery of the neurosurgical literature and strategic study planning:**

To become a competent neurosurgeon, you should plan your reading meticulously. You may need to review approximately 10,000 pages or more during your residency, consisting of books, review articles, and various materials to prepare for your presentations. Use different learning strategies to enhance understanding and memorisation. Create diagrams to visualise complex concepts and use various study tips to optimise your learning journey. Stay up to date and make sure you keep up with the latest developments in the field of neurosurgery. In an era characterised by rapid technological advancements, staying up to date is not only beneficial but imperative. In a

country like Saudi Arabia, which harbours grand visions for the future, your commitment to incorporating innovation into your career is crucial. Believe in your ability to make a significant impact, both nationally and internationally by incorporating modern advances into your practice. In the dynamic field of neurosurgery, diverse reading material will form the foundation of your knowledge. It is important to know the different types of resources and how they cover the various facets of your training.

- **Foundation Texts:** These are comprehensive books that cover neurosurgical topics in depth and provide you with a solid foundation to build upon. **Example:** 'Youman's Neurological Surgery' is one such basic text that every resident should read from cover to cover during residency. Its comprehensive content will anchor your fundamental understanding of neurosurgery.

- **Surgical technique books:** these books deal with the nuances of various neurosurgical procedures and ensure that you are equipped with the practical knowledge needed in the OR.

Examples: Schmidek and Sweet: Operative Neurosurgical Techniques 2-Volume Set, 7th Edition, by Alfredo Quinones-Hinojosa, Schmidek and Sweet has been an essential reference for neurosurgery training and practice for nearly 50 years. The latest edition is the 7th edition. Other books include Sekhar and Fessler Atlas of Neurosurgery and Neurosurgery Tricks of the Trade by Nader et al.

A Word to the Neurosurgeons Graduating on 2030

- **Microsurgical Anatomy:** Detailed knowledge of anatomy is crucial for safe and efficient surgery. These texts deal with the intricacies of neural structures and their relationships.
Examples: 'Rhoton Neuroanatomy', 'Seven Aneurysms', 'Seven AVM' and 'Thieme Published books by Yasargil'.
- **Functional neuroanatomy and localization books:** Essential for understanding the functional implications of anatomical structures and as an aid to diagnosis and surgical planning.
Example: Brazis' Clinical Localisation..
- **Neuropathology texts:** Provide insight into the pathologic basis of neurosurgical diseases and aid in diagnosis, treatment, and research. The tumours of the central nervous system. WHO classification of tumours, 2021 edition. a textbook of neuropathology should also be included.
- **Handbooks and review books:** They are essential to streamline your study process. They help outline the reading requirements and are excellent tools to review and reinforce knowledge before exams. While they don't go into as much depth as foundation texts, they provide a summarized version of the extensive content.
Examples: Greenberg Handbook, Citow Review Books, the Neurosurgery Case Review by Nader et al and others.
- **Exam Preparation Materials:** Specifically designed to test your knowledge and application skills. Studying these materials will not only prepare you for your exams, but also sharpen your clinical reasoning skills. They will help you to identify gaps in your knowledge and to read specifically. Make it a habit to regularly read questions of various types and answer them yourself or in study groups and check your answers.
- **Academic journals:** It's imperative to develop a habit to read the most important neurosurgical journals on a monthly basis. Journals such as the 'Journal of Neurosurgery' (White Journal) and 'Neurosurgery' (Red Journal) are goldmines of current advances, surgical techniques and evidence-based practices. Prioritize reading the seminal articles in full and at least skim the titles and abstracts of other articles to keep up to date. Journals such as Neurosurgery Focus and Contemporary Neurosurgery are also very useful to keep up to date. Other journals such as Neurosurgery Focus and Contemporary Neurosurgery are also very useful to keep up to date.
- **Visualisation and consolidation tools:** As you wade through the sea of information, create cards, slides, mind maps and/or diagrams to consolidate intricate details. Imagine you are creating a review book for future neurosurgeons. By capturing key points, golden mnemonics and key takeaways, you not only enhance retention, but also prepare handy revision aids for your colleagues and future self.

A Word to the Neurosurgeons Graduating on 2030

- ***The art of recognising the essential:***

Every reading hour should translate into enhanced clinical reasoning, surgical skills, or patient care. This curated list is a starting point. Over time, you'll discover more invaluable resources that match your interests and needs. Keep the curiosity alive, and let every page turned be a step closer to mastering neurosurgery.

• **Prioritise Family:**

In the midst of your demanding schedule, make sure you seize every moment with your family. They are your anchor, providing emotional stability and unwavering support. Never overlook important moments, whether it's the birth of your children or important milestones in the lives of your siblings. Stay close to your parents, honor and cherish them. As Muslims, we know the profound significance of valuing our parents (بر الوالدين) and recognizing that their need for us and our need for them increases as we grow older. Honor these relationships for the essential role they play in your life and for the good deeds that will be recorded for Judgment Day. And always keep your passion in balance, as a wise man once told me, "Do not love Neurosurgery too much! Because one day it will stop loving you, and those who are supposed to love you will no longer love you." This means that your love for your profession should not come at the expense of your love for your family, because one day, when you get older and retire, you will need them, but you were not there for them when they needed you.

• **Cherish your professional relationships:**

Value your professional colleagues because they will likely become lifelong friends with whom you share both your professional and personal journey. In the world of neurosurgery, where the hospital becomes a second home, you should nurture these relationships. These colleagues will stand by your side and not only share the workload with you, but will also become friends outside of the hospital and offer you support and camaraderie. Foster an environment that encourages mutual progression and learning, and ensure that your influence within the team radiates positivity.

Put disputes aside and commit wholeheartedly to a shared pursuit of excellence in neurosurgery. Given the shared specialty, common interests and the many hours you will spend together – often more than with your own family – it is essential to progress cohesively. Embrace the philosophy of completing each other rather than competing with each other," and support each other every step of the way.

• **Prioritise your health:**

In the field of neurosurgery, time is a scarce commodity. Nevertheless, prioritise your well-being by ensuring you get enough sleep, eat a nutritious diet and cultivate hobbies. These aspects are not luxuries, but necessities that contribute to your overall health and stamina. Your ability to excel in your profession is inherently linked to your physical and mental health. While you dedicate yourself to healing others, you should not neglect your own health.

A Word to the Neurosurgeons Graduating on 2030

• Alignment with Vision 2030:

The pillars of Vision 2030 include creating a vibrant society, a thriving economy and fostering an ambitious nation. As a neurosurgery trainee planning to graduate when Vision 2030 becomes a reality and the next vision begins, keep these in mind:

- Vibrant society: contribute to a healthier community by providing top-notch healthcare services and sharing your expertise in neurosurgery. Engage in community outreach and programs that raise awareness of neurological health, contributing to the overall well-being and vibrancy of the community.
- Thriving Economy: Do your part to strengthen the economy by actively participating in research, innovation and the adoption of cutting-edge technologies in neurosurgery. Your contributions in this area can help attract medical tourism, improve healthcare infrastructure and generate economic growth.
- Ambitious Nation: Embark on a journey of lifelong learning to continuously enhance your skills and knowledge in neurosurgery. Strive for excellence in your field to make Saudi Arabia a globally recognized hub for neurosurgical care and innovation. Your ambition and commitment to growth are in line with the nation's larger vision of progress and development. As we move into the golden era of technology,

we must not forget that the landscape of medicine, particularly neurosurgery, is evolving at an unprecedented pace. The integration of artificial intelligence (AI), digital transformation and cutting-edge technologies has begun to redefine the contours of patient care, surgical techniques and post-operative management. The future is a mosaic of tradition and transformation. As the emerging neurosurgeons of 2030, you have the privilege and responsibility to shape it. Let every innovation be guided by compassion, every technology by ethics, and every leap forward by a better tomorrow for your patients and neurosurgery.

Conclusion

Let every step of your neurosurgical learning journey be an act of worship and a tribute to Allah. Combine your ambitions with the spirit of our national vision and service to humanity to ensure that your steps serve both our world and your book of good deeds. Always seek Allah's guidance to tread a path of excellence and spiritual fulfillment. May your journey be blessed with knowledge, innovation and divine favor.



NEWS

7th Annual Meeting of the Arab Spine Annual Meeting



The Spine Surgery Team of King AbdulAziz Medical City, Ministry of National Guard-Health Affair, organised the 7th Arab Spine Meeting 2023 and the first National Guard Cadaver Course on November 9 and 10, 2023 in Riyadh.

The program consisted of 2 days. The 1st day was held at the college of Medicine, King Saud bin Abdulaziz University for Health Sciences. The cadaver course focused on the surgical approaches and instruments for the cervical junction. The course also included a series of presentations to introduce the candidates to the anatomy, biomechanics and surgical techniques at the CCJ. The hands-on stations included various anterior and posterior surgical approaches and instrumentation techniques. The ratio of stations to participants was 4 to 1 with 2 instructors at each station. Each station was equipped with a C-arm X-ray.

The feedback from the candidates after the course was very satisfactory. On the 2nd day, the 7th Arab Spine Conference was held at Hyatt Regency Olaya, Riyadh, with a rich scientific program from 8:30 am to 6 pm. World-renowned spine surgeons such as Professor David Wong, Professor Zoher Ghogawala and Professor Richard Assaker were among the unique collection of international and national faculty. The meeting was attended by more than 100 delegates. All neurosurgical residents in Riyadh had the opportunity to register for the scientific program free of charge. The meeting also included a social program for our faculty with a visit to the Albujairi district. The guests enjoyed a walk through the beautiful neighbourhood of Albujairi. All our guests left Riyadh quite impressed with what they saw and experienced in our beloved capital. It is worth mentioning that the next Arab Spine meeting will be held in Dubai in 2024.

PHOTOS FROM THE EVENT



NEUROSURGERY NEWS

UPCOMING EVENTS

SAVE THE DATE !





5th ADVANCED OPEN SKULL-BASE DISSECTION WORKSHOP

December 9 -10 , 2023




 The Center for Research, Education & Simulation Enhanced Training, National Neuroscience Institute, King Fahad Medical City, Riyadh, Saudi Arabia

Target Audience

Neurosurgery residents , fellows, and practicing physicians

Registration Fees

Hands-on : 5000 SR

Observer : 3000 SR

* 50% discount for SANS members and SCFHS local program trainees

For Registration



NEUROSURGERY NEWS

UPCOMING EVENTS

SAVE THE DATE !





13th SPINE UPDATE

In collaboration with
Zain Jamjoom Neurosurgery Skills Course

CADAVER WORKSHOP & CASE FORUM

DAY 1: CADAVER WORKSHOP
Thursday, December 21, 2023
Venue: Experimental surgery and Animal laboratory
Simulation center - King Saud University.

REGISTRATION PRICES FOR CADAVER WORKSHOP 3500 SR

DAY 2: CASE FORUM
Friday, December 22, 2023
venue: Crowne Plaza Riyadh
RDC Hotel & Venue.

REGISTRATION PRICES FOR CASE FORUM 350 SR

Audience:
Neurosurgery & Orthopedic surgery

SANS & SSS MEMBER FOR REGISTRATION BEFORE 10TH DECEMBER 2022 50%

Powered by


NEUROSURGERY NEWS

UPCOMING EVENTS



18TH ANNUAL MEETING OF THE SAUDI ASSOCIATION OF NEUROLOGICAL SURGERY



Promoting Neurosurgery: Taking The Leap



جراحتي
GRAND
MILLENNIUM
GIZAN

POWERED BY
CME
ACCREDITED
Kanoz Retail

WORKSHOP
9th FEB 2024

CONFERENCE
10th - 11th FEB 2024



**Dear colleagues and
guests,**

On behalf of the Saudi
Association of
Neurological Surgery
(SANS) and the University

of Jazan and the Organising and Scientific
Committee, it gives me great pleasure to
cordially invite you to the 18th Annual SANS
Meeting. The event will be held from 9 to 11
February 2024 at the Grand Millennium
Hotel in the beautiful city of Jazan, Saudi
Arabia. "Promoting Neurosurgery: Taking the
Leap" is our theme this year to embrace
neurosurgery at its current pivot. In the heart
of Jazan, surrounded by its beauty, charm
and rich cultural heritage, we are inspired to
take the leap, push the boundaries and have

a lasting impact on our patients in all cities
across the Kingdom.

The two-day conference will feature
internationally and nationally renowned
pioneers in neurosurgery. Their presence
guarantees stimulating discussions and
learning from the best in the field. Pre-
conference workshops will be held to
provide hands-on training in neurosurgical
subspecialties. We invite you to enjoy the
culture of Jazan through our exciting social
programmes, while the conference enriches
you academically. This is an opportunity to
make lifelong friendships and memories. I
welcome you to the 18th Annual SANS in
Jazan. In February 2024, we will dare to
dream and take the leap together.

KEYNOTE SPEAKERS



FREDERICK BOOP



AKIO MORITA



JAMES K. LIU



**FREDERICKH-WILHELM N.
THOMALE**

For more information, visit our website

[Click here](#)

WORKSHOPS

18 ANNUAL MEETING OF THE SAUDI ASSOCIATION OF NEUROLOGICAL SURGERY

PRE CONFERENCE WORKSHOP

NEUROLIFE COURSE

COURSE DIRECTOR:
DR. HOSAM ALJEHANI

08:00 - 04:30 P.M.

9TH FEBRUARY 2024

LIMITED SEATS:
30



18 ANNUAL MEETING OF THE SAUDI ASSOCIATION OF NEUROLOGICAL SURGERY

PRE CONFERENCE WORKSHOP

PEDIATRICS NEUROSURGERY REVIEW COURSE




COURSE DIRECTOR:
DR. NABEEL ALSHAFI

08:30 - 04:30 P.M.

9TH FEBRUARY 2024

LIMITED SEATS:
30

FEEs ARE WAIVED FOR SAUDI NEUROLOGICAL TRAINEE SAAG MEMBERS



18 ANNUAL MEETING OF THE SAUDI ASSOCIATION OF NEUROLOGICAL SURGERY

PRE CONFERENCE WORKSHOP

STUDENTS NEUROSURGICAL BOOT CAMP

COURSE DIRECTOR:
DR. WISAM AL ISSAWI

01:30 - 06:30 P.M.

9TH FEBRUARY 2024

LIMITED SEATS:
30



18 ANNUAL MEETING OF THE SAUDI ASSOCIATION OF NEUROLOGICAL SURGERY

PRE CONFERENCE WORKSHOP

FULL ENDOSCOPIC HANDS-ON TRAINING COURSE ON LUMBAR SPINE

COURSE DIRECTOR:
DR. MUSSAM JABRI

08:00 - 04:00 P.M.

9TH FEBRUARY 2024

LIMITED SEATS:
15



18 ANNUAL MEETING OF THE SAUDI ASSOCIATION OF NEUROLOGICAL SURGERY

PRE CONFERENCE WORKSHOP

INTENSIVE NEUROSCIENCE NURSING SKILLS

COURSE DIRECTOR:
DR. IBRAHIM ALHALAL

01:30 - 06:30 P.M.

9TH FEBRUARY 2024

LIMITED SEATS:
30



18 ANNUAL MEETING OF THE SAUDI ASSOCIATION OF NEUROLOGICAL SURGERY

PRE CONFERENCE WORKSHOP


PITUITARY ADENOMA INTENSIVE COURSE

COURSE DIRECTOR:
DR. ABDULRAZAG AJLAN

01:30 - 05:30 P.M.

9TH FEBRUARY 2024

LIMITED SEATS:
**8 HANDS-ON
32 OBSERVERS**



For more information, visit our website

[Click here](#)

NEUROSURGERY NEWS

UPCOMING EVENTS

SAVE THE DATE !

الجمعية العربية للجراحة العصبية
PANARAB NEUROSURGICAL SOCIETY
14th CONFERENCE
١-٤ نوفمبر 2024
Riyadh, Saudi Arabia الرياض

المؤتمر الـ 14 للجمعية العربية للجراحة العصبية
THE 14th CONFERENCE OF THE PANARAB NEUROSURGICAL SOCIETY
الرياض 2024 RIYADH 2024

HOSTED BY

Welcome to Riyadh!
مرحبا بكم في الرياض

Preliminary Invitation
For further information please contact:
Dr. Ahmed Alkhani
alkhani@yahoo.com

NEUROSURGERY NEWS

UPCOMING EVENTS

December
04-08
2023

**The 2023 WFNS World
Congress Of Neurosurgery**
Cape Town

[Learn more](#)

For more information ,you can reach us at:



SANS.newsletter@sans.org.sa



<http://www.sans.org.sa>

NEWSLETTER

Volume 4

Issue 4

SANS

Saudi Arabia