APSS–UMMC Clinical Attachment Programme 2025

Host Institution: Universiti Malaya Medical Centre (UMMC), Kuala Lumpur, Malaysia
Collaborating Body: Asia Pacific Spine Society (APSS)
Programme Duration: 2nd – 6th December 2025

1. Introduction

The APSS–UMMC clinical attachment programme was conducted successfully at the Universiti Malaya Medical Centre (UMMC) with the aim of providing a comprehensive and enriching training experience, as well as encompassing clinical exposure for the selected fellows from the Asia-Pacific region. The programme reflects the shared commitment of APSS and UMMC in supporting the professional development of spine surgeons across the Asia Pacific region.

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2. Objectives

The key objectives of the programme were:

- To provide advanced clinical exposure in operative and non-operative spine care.

- To enhance surgical skills through observation of live deformity correction surgeries.

- To foster academic exchange, research collaboration, and professional networking among spine surgeons in the Asia-Pacific region

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3. Clinical Attachment Overview

3.1 Fellows

The clinical attachment programme hosted the following fellows:

Name	Institution	Country
Dr Ana Rosario Sta.Ana-Famador Merceditas	Makati Medical Center	Philippines
Dr Guna Pratheep Kalanchiam	Meenakshi Mission Hospital and Research Centre	India
Dr Abdullah Al-Mamun	National Institute of Traumatology and Orthopaedic Rehabilitation (NITOR)	Bangladesh
Dr Chen Chih-Wei	National Taiwan University Hospital	Taiwan

3.2 Programme Structure

The programme structure comprised of:

- Observation of live surgeries

- Participation in outpatient spine and scoliosis clinics

- Case discussions

4. Clinical Activities

4.1 Clinical Exposure

The fellows were actively involved in the management of pediatric spinal deformities.

Exposure included pre-operative assessment, intra-operative observation, and post-operative care under the supervision of UMMC spine consultants.

4.2 Surgical Experience

The fellows have observed 10 spinal deformity correction surgeries.

All clinical activities were conducted in compliance with UMMC policies and patient safety standards.

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5. Conclusion

The APSS–UMMC clinical attachment programme was conducted successfully and met its intended objectives. The programme continues to serve as a valuable platform for advanced spine training and regional collaboration. The Spine Unit, Universiti Malaya Medical Centre remained committed to hosting high-quality clinical attachment programme in partnership with APSS.

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6. Acknowledgement

We would like to express our sincere appreciation to Dr. & Mrs. (Bebe) Lim Eng Cheang and the president of Society to Educate Marginalised Children (SEMC), Dato' Dr. K.S. Sivananthan for their contributions to the successful implementation of this clinical attachment programme.

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7. Attachments

Report 1

Report 2

REPORT 1

Asia Pacific Spine Society (APSS) – Universiti Malaya Medical Centre (UMMC) Clinical Attachment Programme 2025 Fellowship Post Report

Fellow

Ana Rosario Merceditas Sta.Ana Famador, M.D., FPOA, FPSS
Consultant, Department of Orthopaedic Surgery, Makati Medical Center, Philippines

Hosts

Prof. Dato' Dr. Kwan Mun Keong, MBBS (UM), MSOrth (UM), AM (Mal), D.P., M.P.
Prof. Dr. Chris Chan Yin Wei, MD (UNIMAS), MSOrth (UM), AM (Mal)
Assoc. Prof. Dr. Chiu Chee Kidd, MBBS (UM), MSOrth (UM), AM (Mal)

Fellowship Centre

Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

Duration of Fellowship

2 – 6 December 2025

Introduction

My first exposure to the distinguished professors of Universiti Malaya and their invaluable work in the field of scoliosis surgery came through one of my mentors in my department, who had attended their advanced operative course on spinal deformities in 2023. Since then, he encouraged me to pursue a clinical program or operative course with them to learn their techniques and apply them to our own patients. I was fortunate enough to meet Prof. Dato' Kwan and Prof. Chris Chan in person during the 4th Annual PSS-APSS Operative Spine Course at our own center, Makati Medical Center, in August 2024, where I observed their skills firsthand during live surgery. It was at that moment that I resolved to actively seek opportunities to further learn from them, particularly regarding their approaches to scoliosis surgery.

As luck would have it, within less than a year, I received notice that applications for the APSS-UMMC Fellowship Programme were open. I applied rather than wait for another operative course and was fortunate to be accepted. I extend my sincere gratitude to the APSS for this opportunity and eagerly anticipated learning from the professors at UMMC, given the importance of scoliosis surgery in my spine practice.

Over the course of the year, I remained in regular correspondence with the APSS Secretariat and Ms. Siti Mariam Mohamad from the UMMC Spine Research Unit, until the fellowship dates were finalized for 2–6 December 2025. I am deeply grateful to them for their diligent coordination and for ensuring the smooth organization of the fellowship.

Fellowship Experience

The host center for my fellowship was Universiti Malaya Medical Centre (UMMC) in Kuala Lumpur, Malaysia. Due to Prof. Dato' Kwan's notable achievements in scoliosis surgery, UMMC is widely recognized as a premier scoliosis center in Asia. Accordingly, the fellowship program was primarily focused on scoliosis surgery. I was privileged to be one of four fellows representing different regions of Asia, including India, Bangladesh, and Taiwan. As this was a dedicated spine fellowship, our activities were mainly centered within the Spine Unit, including its associated offices, clinics, and operating theatres.

This was our schedule for the week:

UNIVERSITI MALAYA

APSS-UMMC CLINICAL ATTACHMENT PROGRAMME 2025
(2nd - 6th DECEMBER 2025)

	Monday (01/12)	Tuesday (02/12)	Wednesday (03/12)	Thursday (04/12)	Friday (05/12)	Saturday (06/12)	Sunday (07/12)
0700-0800	ARRIVAL	Spine Clinical Teaching					DEPARTURE
0800-0900			Preop Planning + Discussions	Spine Clinical Teaching	Long Case Teaching		
0900-1000		OT	OT	OT	*APSS-UMMC Clinical Fellow Lecture Presentation*	OT	
1000-1130					Scoliosis Clinic		
1130-1230					BioApps Brace Visit		
1230-1300					Visitation to UM UMMC/ NOCERAL		
1300-1400		Lunch	Lunch	Lunch	Lunch	Lunch	
1400-1500		Social Programme at Kuala Selangor	OT	OT	Preop Planning + Discussions	OT	
1500-1600							
1600-1700							
1700-1800				Fellowship Dinner	Free & Easy		
1800-1900							
1900-2000							
2000-2100							
2100-2200							

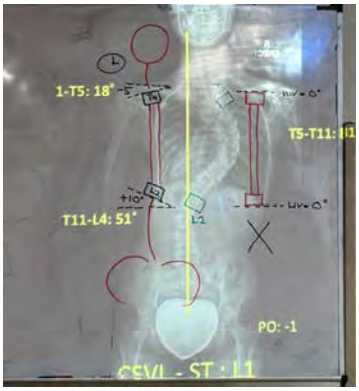
APSS-UMMC Clinical Fellow Lecture Presentation

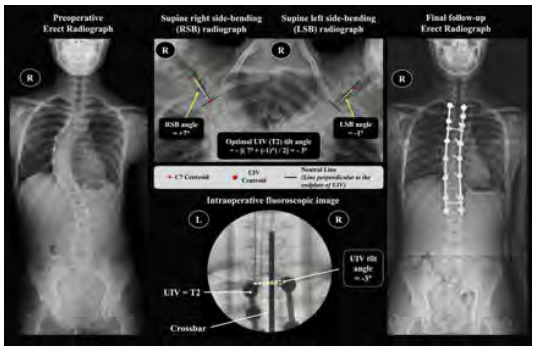
Dr Ana Rosario	0900-0915
Dr Abdullah Al-Maamun	0915-0930
Dr Guna Pratheep	0930-0945
Dr Chen Chih-Wei	0945-1000

Day 1

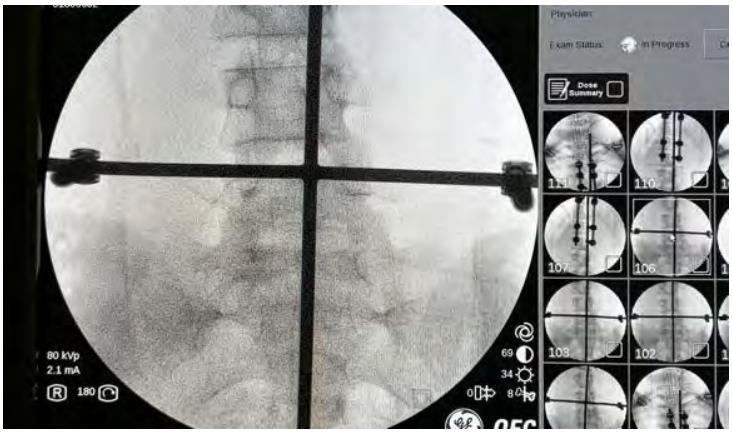
On the first day of the fellowship, we began with a program orientation followed by teaching sessions. Preoperative cases were presented by residents and discussed in detail. The faculty highlighted the importance of achieving patient balance as the foremost goal, with curve correction as secondary. The concept of neck tilt and medial shoulder balance were introduced, emphasizing correction of UIV and LIV tilts to ensure optimal postoperative alignment.

Effective preoperative planning requires obtaining adequate flexibility radiographs. Ideally these are standardized, physician-supervised whole-spine side-bending films, which provide the foundation for selecting the upper and lower instrumented vertebrae (UIV and LIV), determining their respective tilts, and calculating the optimal correction needed to achieve good postoperative neck and shoulder balance. Scannograms are also obtained to evaluate pelvic obliquity and leg length discrepancies, which are factored into both preoperative planning and intraoperative balancing. These preoperative measurements are then meticulously applied during surgery, helping to minimize variability in surgical outcomes.





We were able to participate in surgery on the same day. One key concept demonstrated was the use of an intraoperative crossbar to simulate the CSVL. This enables the surgeons to implement preoperative corrections more accurately, taking into account the effects of general anesthesia, and it also provides a way to evaluate intraoperative spinal balance and the tilt of the upper and lower instrumented vertebrae after correction.

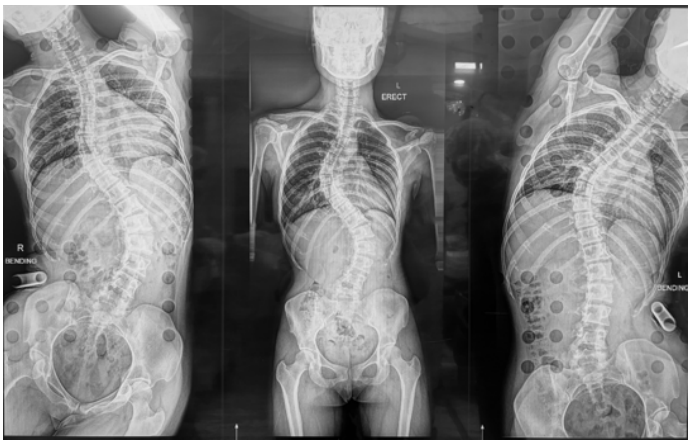


The rest of Day 1 constituted of a relaxing nature tour with my co-fellows in Kuala Selangor.

Day 2

On the second day, we spent the entire day in the operating theatre with Prof. Dato' Kwan and Prof. Chan. We had the opportunity to assist with and observe four scoliosis surgeries, interspersed with preoperative case discussions and theoretical lectures. We closely observed each professor's technique for pedicle screw insertion, receiving guidance on safely palpating the medial pedicle wall. The notable teamwork in OT also highlighted the crucial role of a skilled radiographer operating the image intensifier, whose expertise contributes significantly to team efficiency. Intraoperative balancing using the crossbar was again emphasized, and we learned that rod lengths can be calculated to the millimeter to avoid unnecessary time spent trimming rods after fixation.

The team focused on maximizing safety and efficiency with techniques such as cross-bar utilization, dual-surgeon strategy, and safety measures during freehand pedicle screw and extrapedicular screw insertion, including use of cannulated screws guided by image intensifier for small or dysplastic pedicles. All these in turn lead to a significant reduction in operative time and blood loss, and thus a much shorter hospital stay for the patient. Sterility was also given utmost importance around the operating field.



UPPER 66 DEGREES, LOWER 62 DEGREES

UPPER 29 DEGREES LOWER 24 DEGREES

As there were four fellows, logistical arrangements allowed two fellows to assist at a time while the remaining two observed. Lunch and coffee breaks were filled with lively discussions reviewing the completed case and planning the preoperative evaluation for the subsequent case, during which our mentors generously and comprehensively addressed any questions we raised.

I was extremely impressed by the overall efficiency of the surgical team, encompassing the surgeons, anesthetists, nurses, and radiographer. The operative duration and patient turnover were truly remarkable. Equally outstanding was Prof. Kwan and his team's commitment to clear and continuous communication with patients and their families throughout the preoperative, intraoperative, and postoperative phases. These important lessons from the operating room are practices I hope to emulate at my own center.

Day 3 was spent once again in the operating theatre with Prof. Chan, Prof. Chiu, and Dr. Satur. We assisted and observed two scoliosis cases, gaining insight into the distinct surgical techniques and case-specific approaches of each surgeon. There was more detailed demonstration of extrapedicular screw insertion and the use of cannulated screws with image intensifier guidance, particularly in cases with small or dysplastic pedicles. Emphasis was also placed on precautions to minimize the risk of injury to the spinal cord and surrounding structures, including the aorta, esophagus, and trachea, during screw placement.

Day 3 concluded with a memorable fellowship dinner with the team.

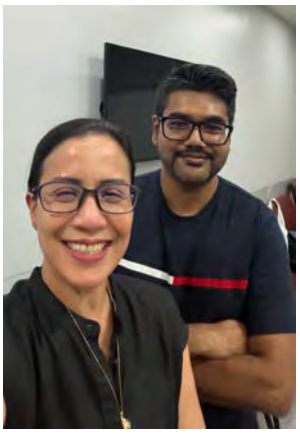
Day 4 focused primarily on academic activities and the refinement of non-surgical skills in the clinical setting. We observed a resident-led case presentation that was reviewed by the professors, and we were encouraged to actively participate in the discussion and contribute our own perspectives. In turn, we also delivered individual lectures to medical students and residents as part of a teaching forum.

We subsequently spent the rest of the day in the outpatient Scoliosis Clinic, where patients were reviewed and assessed in detail. We observed how the professors conducted consultations and counseled patients and their families regarding indications for surgery or bracing. I was particularly impressed by the comprehensive patient information handbooks, which conveyed detailed explanations in clear, accessible language and visual formats, helping patients and parents understand their condition and what to expect from both conservative and surgical treatment options. This experience provided valuable insights into effective patient communication, including how to better explain diagnoses and management strategies. I also gained further exposure to the management of congenital and juvenile scoliosis, which are encountered less frequently at my home institution. In addition, Prof. Dato' Kwan generously shared access to his patient guidebook and other educational materials, which will serve as a useful reference as we work toward developing similar resources tailored to our own clinical settings.

Day 5

On the last day of the fellowship, we returned to the operating theatre to assist and observe three cases. We independently performed preoperative measurements and continued with case discussions and planning, including more in-depth review of complex topics such as pelvic obliquity and sagittal balance. These discussions focused on reinforcing fundamental balancing principles and assessing our understanding. The day concluded with time to tour the hospital grounds and take final group photographs.

At the conclusion of the fellowship, we were presented with meaningful souvenirs to mark the beginning of our own journey in scoliosis surgery, most notably a personal cross-bar that we could incorporate into our own practice in our respective countries. We also received our certificates during a small “graduation” ceremony held in the same room where all our teaching sessions had taken place.



Insights and Acknowledgements

Over the course of just five days, I acquired substantial knowledge in the management of Adolescent Idiopathic Scoliosis. While the volume of information was initially overwhelming, the fellowship duration proved more than sufficient to gain valuable insights and technical skills from an exceptional faculty, which I look forward to incorporating into my future scoliosis cases. Several points of learning insights include:

- Patient safety always comes first
- Prioritize balance over curve correction
- Meticulous preoperative planning will directly affect postoperative results
- Intraoperative balancing using a cross-bar can confirm preoperative target correction
- Patient and family education and communication regarding all points of treatment is a must

I cannot adequately convey how impressed I was by the entire Spine team at UMMC. The faculty—Prof. Dato' Kwan, Prof. Chan, Assoc. Prof. Chiu, and Dr. Satur—demonstrated exceptional expertise and were consistently generous with their time, always willing to address our questions. Their depth of knowledge and mastery in the field are truly remarkable. The Spine Research Unit members, Siti Mariam, Josephine, and Farah, were equally outstanding, providing invaluable support to us fellows throughout the process, from application and program setup to accommodation and overall coordination, as well as day-to-day arrangements. In addition, the in-house radiographer, Mr. Burger, far exceeded my expectations, showcasing an impressive level of skill and capability.

I would like to extend my sincere appreciation to the faculty and staff of the Universiti Malaya Medical Centre Spine Unit for your invaluable mentorship, warm hospitality, generosity, and unwavering dedication to education. Your support has made my fellowship an exceptionally enriching and memorable experience. I am also deeply grateful to the APSS Fellowship Committee and Secretariat for my acceptance into the program and for their excellent coordination. This fellowship has been a defining experience in my development as a spine surgeon, and I will endeavor to apply the knowledge and skills I have gained to enhance the care of my patients.

Case Log

	Date	Age/Sex	Diagnosis	Surgery	Role
1	2/12/25	13/F	Adolescent Idiopathic Scoliosis Lenke 1A	Posterior spinal fusion T4-L2	Assistant
2	3/12/25	23/F	Adult Idiopathic Scoliosis Lenke 3CN	Posterior spinal fusion T3-L3	Observer
3	3/12/25	13/F	Congenital Scoliosis (T4 Hemivertebra)	Posterior spinal fusion T2-T12	Assistant
4	3/12/25	15/F	Adolescent Idiopathic Scoliosis Lenke 1AN Flexible	Posterior spinal fusion T7-L2	Observer
5	3/12/25	13/F	Adolescent Idiopathic Scoliosis Lenke 1CN Flexible	Posterior spinal fusion T3-T12	Assistant
6	4/12/25	25/F	Adult Idiopathic Scoliosis Lenke 5C	Posterior spinal fusion T5-L4	Observer
7	4/12/25	12/F	Adolescent Idiopathic Scoliosis Lenke 1CN	Posterior spinal fusion T3-L3	Assistant
8	6/12/25	15/M	Adolescent Idiopathic Scoliosis Lenke 2AN	Posterior spinal fusion T2-L2	Observer
9	6/12/25	25/F	Adolescent Idiopathic Scoliosis Lenke 2ARN	Posterior spinal fusion T2-L3	Assistant
10	6/12/25	22/F	Adolescent Idiopathic Scoliosis Lenke 1C- Stiff	Posterior spinal fusion T2-T12	Observer

APSS UMMC Spine Fellowship Report 2025

Fellow: Dr. Abdullah Al Mamun Choudhury
MBBS, FCPS (Ortho), FACS, FICS
Associate Professor (Orthopedic Surgery)
National Institute of Traumatology and Orthopedic Rehabilitation, NITOR, Dhaka, Bangladesh

Prof. Chee Kidd Chiu **Prof. Dato' Kwan Mun-Keong** **Prof. Chris Chan**

MENTORS

Fellowship Center:
University of Malaya Medical Centre, KL, Malaysia

Fellowship Duration: 02/12/2025 to 6/12/2025

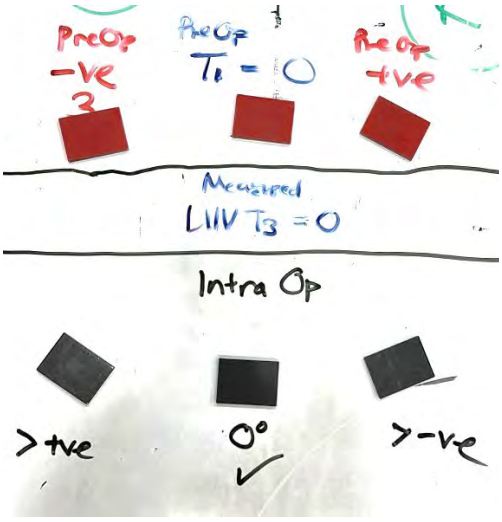
Introduction:

First and foremost, I would like to sincerely thank the Asia Pacific Spine Society (APSS) for the opportunity to participate in this top-tier fellowship program. To make this significant opportunity possible, I therefore wish to do the same for Professor Dato' Kwan Mun-Keong at the University of Malaya Medical Centre, KL, Malaysia. In addition to helping me develop my abilities, this APSS UMMC Fellowship training gave me a rare opportunity to learn about the cutting-edge of global spinal surgery breakthroughs, which significantly expanded my scholarly and professional horizons.

University Malaya Medical Centre (UMMC) is widely recognized as Malaysia's premier teaching hospital and a leading medical institution globally. As the clinical training ground for the Universiti Malaya (UM), which is ranked **#=58 in the world** for 2026 by QS World University Rankings, UMMC's reputation is built on high-impact research, specialized care, and international collaborations. Over 100 researchers from the university are currently recognized among the Top 2% Scientists in the World by Stanford University

In addition to being a top clinical facility, the University of Malaya Medical Centre is a fantastic location for clinical research, where, under the direction of Professor Dato' Kwan Mun-Keong, the team's significant research papers and high surgical volume further underscore its worldwide importance. I gained a profound understanding of the relationship between clinical practice and academic research through my training with this esteemed team.

The orthopedic surgery department at the hospital focuses on evidence-based decision-making through team consultations before and after operations to address challenges and prevent complications. These meetings enhanced my surgical skills and prepared me well for future clinical work.



Pic: Clinical Discussion between Surgery

Training Schedule:

UNIVERSITI MALAYA

APSS-UMMC CLINICAL ATTACHMENT PROGRAMME 2025
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0700-0800	ARRIVAL	Spine Clinical Teaching					DEPARTURE
0800-0900		OT	Preop Planning + Discussions	Spine Clinical Teaching	Long Case Teaching	OT	
0900-1000			OT	OT	*APSS-UMMC Clinical Fellow Lecture Presentation*		
1000-1130					Scoliosis Clinic		
1130-1230					BioApps Brace Visit		
1230-1300					Visitation to UM UMMC/ NOCERAL		
1300-1400		Lunch	Lunch	Lunch	Lunch	Lunch	
1400-1500		Social Programme at Kuala Selangor	OT	OT	Preop Planning + Discussions	OT	
1500-1600							
1600-1700							
1700-1800				Fellowship Dinner	Free & Easy		
1800-1900							
1900-2000							
2000-2100							
2100-2200							

APSS-UMMC Clinical Fellow Lecture Presentation	Dr Ana Rosario	0900-0915
	Dr Abdullah Al-Mamun	0915-0930
	Dr Guna Pratheep	0930-0945
	Dr Chen Chih-Wei	0945-1000

Tuesday: The morning began with a surgery planning conference, followed by two scoliosis surgeries and lunch at a traditional restaurant. Later, we attended a social program in Kuala Selangor, a historic coastal town about 70 km northwest of Kuala Lumpur, known for its natural beauty and heritage.

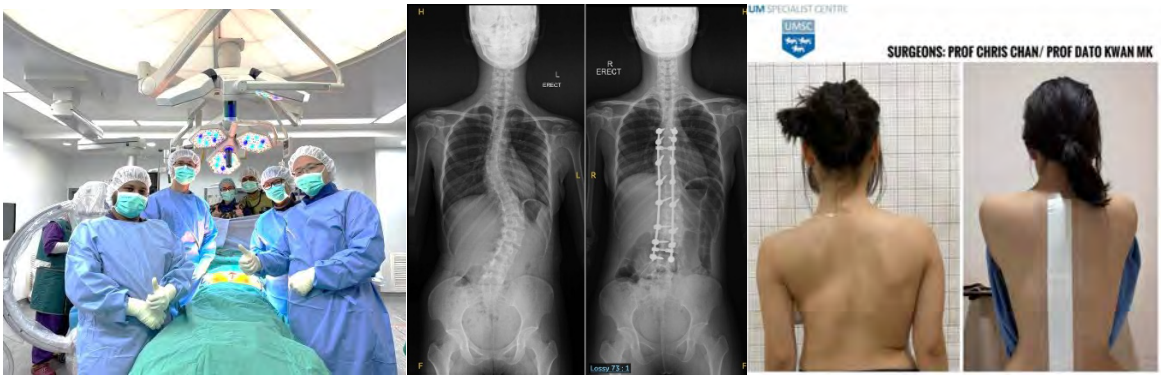


Fig: Double major Curve (Lenke type 3) Pre 7 post op X Ray with Clinical picture

Wednesday: A conference is scheduled from 8:00 to 9:00 AM to discuss surgical techniques. Following the conference, four scoliosis surgeries are performed throughout the day. Between cases, the team convenes to review and evaluate each procedure.

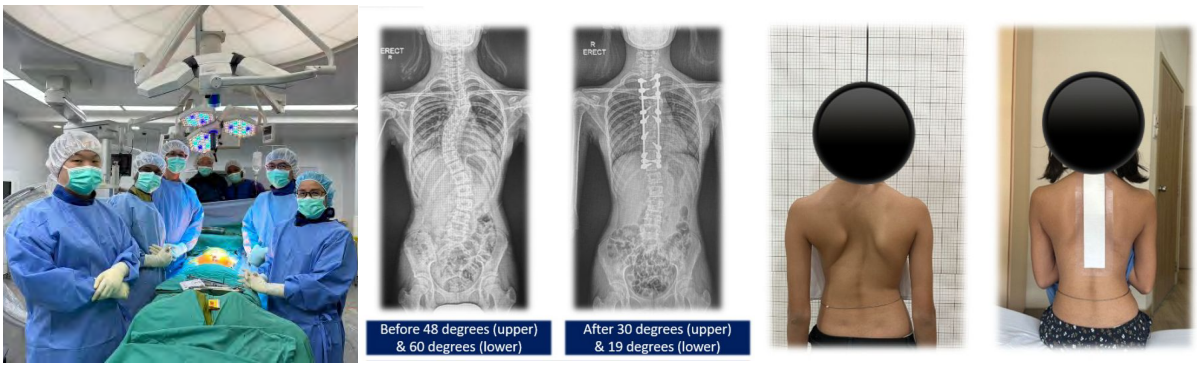


Fig: Congenital Scoliosis (double thoracic Curve pattern): Pre/post x ray & clinical picture

Thursday: The day commenced with a case discussion and a lecture covering topics such as the selection of UIV and LIV for various spinal curves, pelvic obliquity, pedicle screw insertion techniques, among others. We participated in two scoliosis surgeries and concluded the evening with a fellowship dinner.

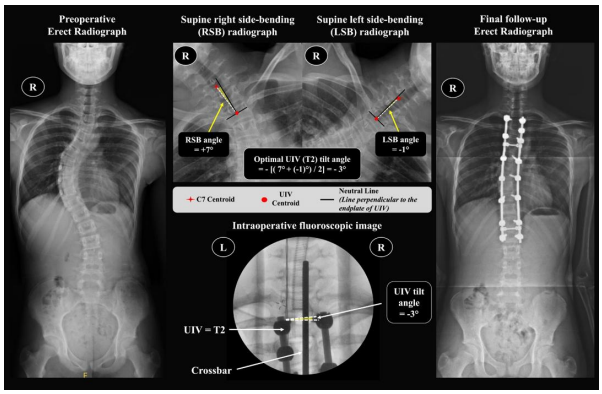


Fig: Measuring UIV tilt and its application during Surgery (Discussion)

Friday commenced with an APSS-UMMC fellow lecture presentation attended by trainee doctors and interns. Each participant delivered a presentation on a designated paper covering various topics. The remainder of the day was unstructured, with no surgical procedures scheduled.

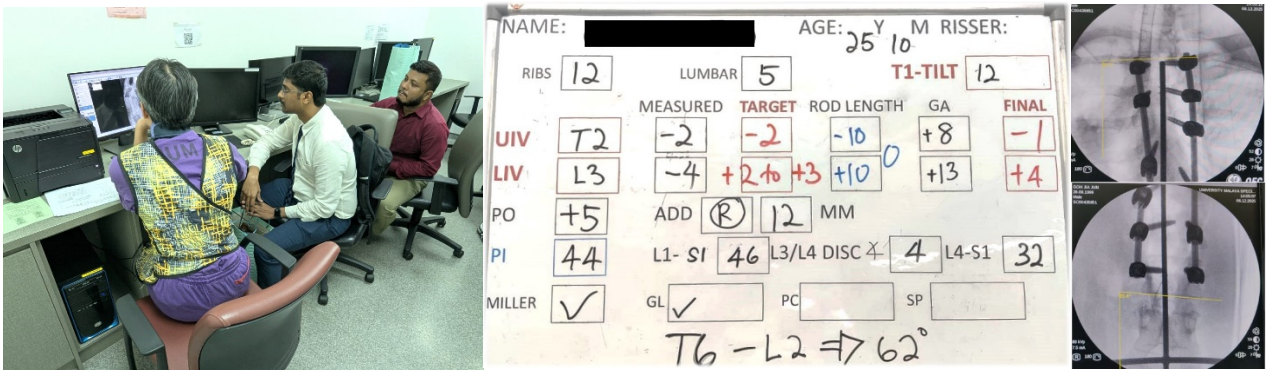


Image:
Pre Op measurement (Prof Chee Kidd Chiu), Measurement under GA & Final Execution
(The Famous Intra-Operative Crossbar Method)

Saturday was our final working day, during which we attended two additional scoliosis surgeries and discussed various methods and techniques between cases.

Fellowship Experience

My time at UMMC has been rewarding. What I initially saw as a limitation—five days—became an intense crucible of learning. It was a period that compressed years of specialized experience into a focused beam of insight. For this lifetime of lessons packed into a single week, for the unparalleled kindness, and for the new standard of excellence I now carry, I am eternally grateful.
My extreme gratitude goes to my mentors—**Professor Dato' kwan Mun-keong, Professor Chris Chan, Professor Chee Kidd Chiu,** and **Dr. Satur**—and to the incredible support team of Siti Mariam, Josephine, and Mr. Burger. You have given me one of the best memories of my surgical career, a cherished spirit I will carry as long as I operate.

Image: Unlimited WhatsApp Support by Dato'

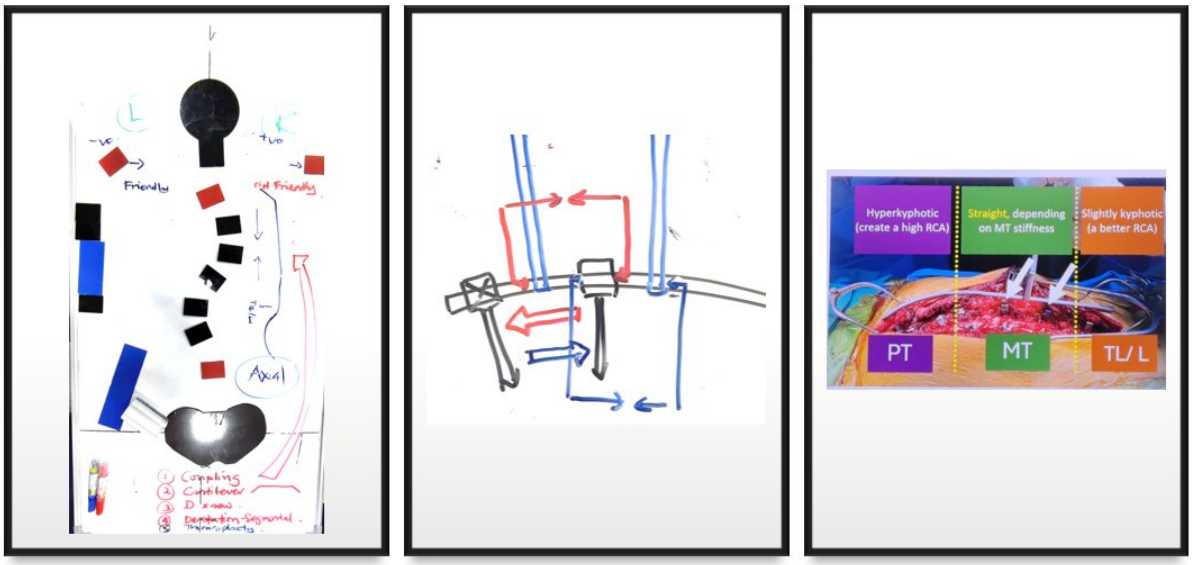


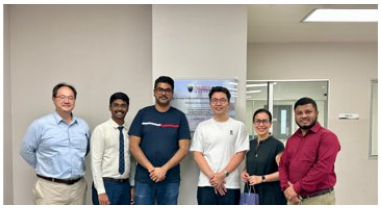
Image: Brain storming During clinical sessions

Image: Per-operative glimpse

Pic: With my Fellow Colleagues & THE CROSSBAR







Pic: With Professor and faculties

Acknowledgment:

I thank the Asia Pacific Spine Society for this great opportunity. I am very grateful to **Professor Dato' Kwan Mun-Keong** and His highly skilled and very generous spine team as the official hosts for this fellowship. Thank you for your kind hospitality and valuable learning experience in spine surgery. Thank you to all the members of the spine division at UMMC. Thank you, everyone, for making my fellowship more enjoyable.

Pic: Certificate of Completion Of my Fellowship

Summary:

In essence, my most unforgettable highlight was a fusion: the shock of witnessing a two-hour scoliosis surgery, performed by harmoniously synchronized experts in a world-class yet deeply welcoming environment. This is a great memory I will cherish and a new benchmark I will carry throughout my career. The specific contrast—between what I expected based on my previous experience and what I witnessed—makes this fellowship uniquely unforgettable for me.

Image: UMMC Premises & Scoliosis clinic

Operative LOGBOOK:

No	Date of operation	Age	Diagnosis	Operation	Status
Case 1	2.12.2025	13	AIS Lenke 1A	PSF T4-L2	Observe
Case 2	2.12.2025	62	CSM C3-5	LMF C3-5	Observe
Case 3	3.12.2025	23	AIS Lenke 3CN	PSF T3-L3	Observe
Case 4	3.12.2025	13	Congenital Scoliosis (T4 Hemi)	PSF T2-T12	Observe
Case 5	3.12.2025	15	AIS Lenke 1AN Flexible	PSF T7-L2	Observe
Case 6	3.12.2025	13	AIS Lenke 1CN Flexible	PSF T3-T12	Observe
Case 7	4.12.2025	25	AdIS Lenke 5C	PSF T5-L4	Observe
Case 8	4.12.2025	12	AIS Lenke 1CN	PSF T3-L3	Observe
Case 9	6.12.2025	15	AIS Lenke 2AN	PSF T2-L2	Observe
Case 10	6.12.2025	25	AIS Lenke 2ARN	PSF T2-L3	Observe
Case 11	6.12.2025	22	AIS Lenke 1C- Stiff	PSF T2-T12	Observe