

Secretary General
International Pediatric Nephrology Association (IPNA)
C/o UCLA Medical Centre
Division of Pediatric Nephrology
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Dear Sir,

Dr. Lei Wah Lwin has successfully completed my 12 months of clinical fellowship in Pediatric nephrology awarded by the IPNA at the National University Hospital, Singapore. I had great opportunity to learn about Pediatric Nephrology under the supervision of Prof Yap Hui Kim. The professional training I have received under her supervision has been a great initiation in my career as a pediatric nephrologist. Throughout the training she teaches us how to deal with patients, overview thinking, approach and necessary step for patient care. She always delivers her knowledge among us and the fellows. This training gives me opportunity to further develop my clinical skills as well as the procedural skills in general nephrology and especially in dialysis and transplant.

I strongly believe that the training I have received here at NUH, on basic clinical practice in pediatric nephrology, chronic pediatric peritoneal dialysis and hemodialysis, pediatric renal transplantation and critical care nephrology will lead me to be an efficient pediatric nephrologist. It is great pride for me to be trained at NUH and utilize my knowledge for our children with kidney disease in Myanmar.

The highlights of my 12 months training:

1. CLINICAL NEPHROLOGY

1.1. Renal ward

I had great opportunity to learn how to manage both acute and chronic renal problems admitted in the pediatric renal ward (Ward 45). This led me to develop my skills in basic pediatric nephrology. There was enough exposure to patients with common renal problems like nephrotic syndrome especially steroid resistant nephrotic syndrome, urinary tract infection, congenital anomaly of kidney urinary tract, cystic diseases, tubular disorders, systemic diseases with renal involvement, and patients with acute and chronic renal failure, managing the hemodialysis unit under supervision. I also had adequate exposure to patients with anatomic problems such as vesico-ureteric reflux, neurogenic bladder and urinary tract obstruction. There was the opportunity to develop my procedural skills, like renal biopsy. I could also learn how to interpret the results of uro-radiologic imaging such as MCU, MAG3 and DMSA. Beside clinical ward round, we also participated in weekly teaching session, ICU teaching, patient discussions and X-ray rounds along with other doctors of the NUH to upgrade our overall knowledge on general pediatrics.

1.2. Dialysis unit

The Children's Kidney Center at NUH has a well-equipped pediatric dialysis unit.

HEMODIALYSIS

It was a great opportunity to work in Children Kidney Centre. We were placed on rotations and on-call coverage to operate the dialysis unit every 2 months. During 4 months of dialysis posting, I learned the principles of hemodialysis, making HD prescriptions, setting-up the machine, priming, returning blood, monitoring patients during HD and monitoring dialysis adequacy in HD patients. I learned here, how to manage intradialytic complications like, hypotension, muscle cramps, disequilibrium syndrome etc. I also learned about the care and complications of vascular access and doing intradialytic parenteral nutrition.

PERITONEAL DIALYSIS

At the Children's Kidney Centre, I was able to see and learn the different modes of APD such as the NIPD, CCPD, tidal PD and CAPD. I also learned the principles of initiating PD, adjusting PD prescriptions, peritonitis protocol and the importance of educating the patient (especially in the care of the catheter and the exit site), how to set-up the machine, and how to do PD adequacy and PET. I also had the opportunity to go for home visit after PD initiation to check the parent's competency in starting the dialysis.

CRRT

Continuous renal replacement therapy is an expensive form of treatment but it is very useful in critically and hemodynamically unstable patients. It was the great opportunity to learn the principles and indications for using CRRT: CVVHDF, CVVHD with ECMO. Children's Kidney Centre has four machines for CRRT, Prismaflex and Aquarius machines. I also had the great chance to learn plasmapheresis and MARS liver dialysis.

1.3 Renal Transplant

Renal transplantation is considered the treatment of choice in children with end stage renal disease. I had no exposure in pediatric transplantation in my country. During my training at the Children's Kidney Centre NUH, I have seen 2 cases of kidney transplantations. I am once again thankful to IPNA and National University Hospital, Singapore, for the opportunity afforded to me to manage pediatric kidney transplant patients, from pre-transplant work-up, pre-operative preparation, intra-operative management, postoperative care and out-patient follow-up. We fellows are specifically allocated as a dialysis, transplant or ward fellow. During my transplant fellow period, I was able to learn the different immunosuppressive protocols, anticipate and manage complications and other post-operative problems such as hypertension, electrolyte problems and post-transplant infections. Long-term follow-up of patients who had been transplanted before, gave me the opportunity to learn and manage long-term complications such as infections (CMV, BKV, PCP, EBV), acute and chronic rejection under supervision of Dr Perry Lau. It also gave me the opportunity to learn about the benefits of transplant as the best form of therapy for kidney failure in terms of better quality of life, ease of reintegration in the society (going back to school, having jobs, getting married and starting own family) and freedom from complications and debilitating effects of chronic illness, and the stress of doing daily dialysis. I have also witnessed the psychosocial dynamics among the circle of kidney transplant patients and the effort that they provide for patients adjusting to the lifestyle of a new kidney transplant patient. In fact, I can say that this training provided me in-depth experience in transplant immunology, genetics and immunosuppressive regime.

1.4. Outpatient clinics

General nephrology clinic usually run on every Fridays and Saturdays and Dialysis and transplant clinic was every 3rd and 4th Thursday.

In outpatient clinic we have to see the patient under the direct supervision of Prof. Yap. We can learn how to approach the diagnosis for new cases and events such as clinical evaluation, laboratory investigation interpretation, immunosuppressive drug dose adjustment and counseling for regular follow up cases. In outpatient clinic, I had the opportunity to see some rare tubular diseases and syndromic patients.

The dialysis and renal transplant clinic gave me the opportunity to follow-up, monitor and manage dialysis and transplant patients. It gave me the opportunity to tailor prescriptions according to patient's current status, monitor biochemical parameters, monitor patient's compliance.

1.5. Procedures

I participated in all of the renal biopsies that had been done here and was given the chance to do biopsies including transplant and non-transplant patients under direct supervision of Prof Yap. I was also able to learn

some procedures at the hemodialysis unit including setting-up the hemodialysis and peritoneal dialysis machine, needling (and un-needling) the AVF/AVG. In some instances, I was able to witness some surgical procedures such as Cooks catheter insertion, Tenckhoff catheter insertion and renal transplantation.

1.6 Renal pathology

Renal biopsy meetings at the Singapore General Hospital are scheduled every 6 months. This gave us an opportunity to review and discuss all our patients biopsied within that period. I had great chance to see the specimen with light microscope, immunofloresence and electromicroscope which is very useful for my career life as a nephrologist.

2. ACADEMIC TEACHING

We have to follow the daily bedside rounds with renal team. The consultants of the renal team guide to emphasize on history taking and physical examination rather than laboratory investigations for a sound diagnosis and differential diagnosis. Prof Yap also delivered comprehensive lectures in variety of nephrology topics such as UTI, CKD, AKI, transplantation immunology, glomerulonephritis, tubulopathies, neurogenic bladder, hemodialysis and peritoneal dialysis as well. We can also attend CME lectures every Wednesday.

3. SYMPOSIUMS/WORKSHOPS/SEMINARS & CONFERENCES ATTENDED

| Date/Venue | Details |
|--|--|
| 3 rd October 2016, NUH | NUH orientation course, Mask fitting, PPE, handwashing technique |
| 31 st October 2016, NUH | Basic cardiac life support- certified course. |
| 20 th February 2016, NUS | Line simulation |
| 7 th February 2017, NUH | NUH-KKH Combined Nephrology Training |
| 28 th March 2017, SGH | SGH Biopsy meeting |
| 2 nd April 2017, Singapore Yacht Club | SSN, Renal Residents' Review and Retreat |
| 27-29 th July 2017, NUS | Basic Life Support and Paediatric Advanced Life Support |
| 26 th -27 th August, 2017, NUH | 6 th Wong Hock Boon Paediatric Masterclass |
| 29 th August 2017 | SGH Biopsy Meeting |

4. PROPOSALS

I have following proposals to make this training a more beneficial one –

- 1) To conduct Pre and Post training assessment for fellows.
- 2) To form Fellow group discussion.

5. FUTURE PLANS

Pediatric Nephrology is well established and demanding subspecialty in Myanmar. My future plans are as follow:

- 1) I really want to upgrade Pediatric Hemodialysis, CRRT and APD in children in my country, Myanmar.
- 2) I will try to initiate Pediatric renal transplantation in my center, Yangon Children Hospital in 2018.
- 3) I have an intention to work in nutrition and social support in children with CKD which is not very well established in our setting for improving patient survival, health and quality of life.
- 4) I will motivate our renal kids for regular follow up and health education.
- 5) I will try my best with available and limited resources for the patient's well-being.

6. ACKNOWLEDGEMENTS

I would like to give my special thanks and gratitude to you for your perpetual support in the past months and for the opportunity to be trained through IPNA fellowship program. I am also greatly pleased to acknowledge the training that I got in NUHS under the direct supervision of Prof Yap Hui Kim, Head, Division of Pediatric Nephrology; Prof Lee Yung Seng, Chief, Department of Pediatrics. I would like to give my thanks to Dr Ng Kar Hui, Dr Perry Lau, Dr Yeo Wee Song, Dr Isaac Desheng Liu, Head staff nurse Noor Haziah and all the staff of NUH and CKC for their kind help and support throughout my training in National University Hospital.

With warmest regards.

Dr Lei Wah Lwin