

ALLAN DRASH FELLOWSHIP REPORT by DR. NAINA BHAT

VISITING CENTRE : Division of Pediatric Endocrinology
Stanford University School of Medicine

DURATION : 8 weeks (January 8th to March 2nd 2018)

MENTORS : Dr. David Maahs and Dr. Tandy Aye

It was a privilege to be awarded the Allan Drash fellowship and I was indeed fortunate to be able to spend 8 weeks at the Division of Pediatric Endocrinology at Stanford Children's Hospital. The Division of Pediatric Endocrinology and Diabetes at Stanford is ranked among the best centres in the world, providing care for children with a variety of endocrine problems including diabetes. The division comprises of esteemed faculty offering excellent clinical care and conducting pioneering research in the fields of diabetes, gender and bone related disorders. It is also a premier training centre with a 3 year fellowship program in Pediatric Endocrinology.

Prior to the start of my observer ship, my mentor Dr. Aye and I discussed my objectives and formulated a schedule to ensure that I had exposure to both clinical and research work. Being a practicing Pediatric Endocrinologist in a tertiary care referral teaching hospital in India, my goal was to learn the nuances of setting up a multidisciplinary Pediatric Diabetes and Endocrine unit, and gain exposure to the management of Pediatric Diabetes in an advanced Pediatric Diabetes centre. I was particularly interested in obtaining in-depth knowledge and experience in newer insulin pumps and CGM devices.

Below is a summary of my work schedule during the 8 week observer ship.

Outpatient services

I attended the daily diabetes clinic, both at Lucile Packard Children's Hospital as well as at the satellite clinics run by the department. I was able to see a lot of interesting cases and discuss their clinical approach and management. I was able to discuss similarities and differences in treatment protocols between my unit in India and this institution. In addition, I attended the endocrine clinic 3 times a week and the gender clinic once a week.

Counselling and patient education sessions

I attended teaching sessions for new onset Type 1 and Type 2 diabetic patients and their families, conducted by a team comprising of the Attending physician, a Certified Diabetic Educator (CDE), a dietician and a social worker. These sessions were very informative. In India, at most centres, counselling and patient education is done by the treating doctor in the

limited time available. These sessions made me realize the need for a team approach to counselling and education of patients and families. I plan to incorporate this in my practice in future.

Patients visiting the Diabetes clinic had a one-on-one interaction with the CDE and dietician at each visit, which enabled a patient centric continuum of care. This helped me get an insight into the barriers and problems faced by these families and the solutions offered by this team.

I also attended patient information sessions for diabetic patients and families, as well as dedicated information sessions for patients on insulin pumps.

Inpatient services

During my observer ship I was fortunate that my mentor was the Attending physician on call and during this period I was able to attend rounds in the wards and intensive care units. This helped me gain insight into their protocols for DKA and other endocrine emergencies as well as multidisciplinary management of patients with diabetes and other comorbidities, especially celiac and chronic kidney disease. Incidence of celiac is on the rise in India and this experience was particularly useful. This being a referral centre I was able to witness interactions between primary care physicians and on call team which was unique and would be a useful practice to implement in my practice. Some of the interesting observations I made during the exposure to inpatient services included the fact that the infrastructure was very patient and family centred, with individual intensive care suites where families could stay with the patients and separate closed work spaces for physicians to ensure privacy.

Diabetes technology

One of the main highlights of my observer ship was getting exposure to the latest innovations and technology in Pediatric Diabetes, both from a clinical and research perspective. Nearly 65-70% of the patients are using insulin pumps and/or CGM devices and this helped me understand the nuances of fine tuning insulin doses using these devices as well as the practical problems faced by patients on these devices. This also helped me understand how to select the appropriate device for a particular patient.

Academics

I attended the weekly division meetings wherein all faculty were present. An overview of the admitted patients was presented by fellows and complex cases encountered in the inpatient and outpatient clinics were discussed in detail. In addition, seminars and journal club presentations were made by residents, fellows and faculty. I had the opportunity to make an academic presentation on MODY in one of these meetings.

The weekly grand rounds in Pediatrics and Endocrinology gave me an opportunity to attend guest lectures by renowned faculty from within and outside the institution.

I had the opportunity to interact with medical students and share my knowledge and experience with them. I found the medical students extremely enthusiastic and interested in learning. The discussions I had with fellows helped me get a perspective of clinical care and training at the centre.

Research

The division of Pediatric Endocrinology and Diabetes is renowned for its contribution in the field of clinical and translational research particularly in the area of Diabetes. I was fortunate to be able to participate in the discussions of various research groups, particularly in the area of closed loop insulin delivery devices, continuous glucose monitoring and qualitative research in Diabetes in collaboration with the Department of Child Psychology.

Dr Aye gave me an opportunity to assist with one of the student projects on device downloading practices in patients with Type 1 Diabetes.

I was able to attend the 4th Annual Global Health Research Convening hosted by the Stanford Centre for Innovation in Global Health. The convening aimed to foster collaborations and was a forum for presentations and discussions on global health issues. It gave me the opportunity to interact with young researchers presenting their work on issues that impact global health.

Other non-academic experiences

I got an opportunity to attend various events and classes offered by Stanford University, such as an architectural history walking tour of the campus, visiting the Stanford Medical History centre, attending classes on improving literature searches and a course in animation to improve powerpoint presentations.

Lessons learnt and what I intend on incorporating into my practice in a resource limited setting in India

The thing that made a deep impact was the importance of ancillary staff supporting the physicians in ensuring better quality of care, better compliance and better patient satisfaction.

Some interesting observations I made were, that while we in India struggle with convincing patients about multiple doses of insulin, they struggle with patients being unable to make consistently healthy food choices. Our current approach to stricter diet plans is in stark contrast to the approach in the west.

The barriers to ensuring better A1cs and a better overall quality of life were very different from the barriers we face in India, especially in resource limited settings. "Diabetes care burnout" was a new concept to me. It has given me an insight as to the type of challenges to expect in the coming years of diabetes care in India.

The consultants, fellows and supporting staff at the Department were incredibly warm and helpful at every step of the way. I was able to share my clinical experiences with the faculty and students in the department and had a wonderful learning experience. This exposure has given me confidence to set up a Pediatric Endocrinology and Diabetes unit when I get back to India and lessons learnt would particularly help me to provide optimum care to diabetic patients. This opportunity has also given me ideas of how to incorporate research along with clinical practice and how important it is to conduct relevant research to improve patient care.