

ISPAD ALLAN DRASH CLINICAL FELLOWSHIP REPORT
OCTOBER 30th, 2015
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SPONSOR: ANTOINETTE MORAN, MD, UNIVERSITY OF MINNESOTA

INTRODUCTION

I would like to acknowledge and extend my heartfelt gratitude to everyone who supported me in completing the ISPAD Clinical Fellowship in Diabetes for the year 2015 at the University of Minnesota Children's Hospital, USA.

I am a pediatric endocrinologist by profession. I completed my pediatric residency training in India and after a brief stint as an Assistant Professor in the Department of Pediatrics for two years, my keen interest in pediatric endocrinology led me to pursue a fellowship in pediatric/adolescent endocrinology (2012-13) at the renowned Indira Gandhi Institute of Child Health, Bangalore. Following my fellowship, I joined Narayana Health City hospital in Bangalore as an associate consultant in pediatric endocrinology. In April 2014, a wonderful opportunity opened for me at the Health City Hospital at Cayman Islands, which is an international branch of Narayana Hospital, India.

At Cayman Islands, I had a new challenge of starting the pediatric diabetes program from scratch. I believed exposure to a well established diabetes program and seeking input from Dr. Antoinette Moran, who is the Division Chief of Pediatric Endocrinology and Diabetes at the University of Minnesota with more than 25 years of experience in Pediatric Diabetes care and also with an excellent academic and research background, would definitely help me in the care of diabetic children here and also in India. To fulfill this, I applied for the ISPAD Allan Drash Fellowship 2015 and was granted the award.

My specific aims for this clinical fellowship were:

1. To gain experience in running a Pediatric Diabetes Program, with particular emphasis on integrating nurses, dietitians and psychologists into the care team,
2. To gain experience in patient-centered care including developing a patient/family education curriculum that encourages self-management skills,
3. To spend time at diabetes camp, with the goal of starting diabetes camps for children in the Cayman Islands and in India, when I return.

CENTRE OF EXCELLENCE

University of Minnesota Children's Hospital is located on the Mississippi River in Minneapolis and is affiliated with the University of Minnesota Medical School. The hospital provides a broad range of paediatric programs including the Division of Endocrinology and Diabetes, which is headed by Dr. Moran and consists of 7 endocrinologists, 2 fellows at different levels of training, 2 diabetes nurse educators, a dietitian and psychologist. The diabetes clinic runs Thursdays at the main hospital, with other diabetes clinics in satellite hospitals on different days.

My mentor Dr Antoinette Moran, Division Chief of Pediatric Endocrinology and Diabetes, University of Minnesota Children's Hospital guided me throughout my fellowship. She also helped me with my interest of insulin pump initiation, blood glucose monitoring, and continuous glucose monitoring.

FELLOWSHIP EXPERIENCE

My fellowship training was for 6 weeks from 1st August to 15th September 2015, getting experience in both endocrinology and diabetes but focusing on diabetes. Initially, I had an orientation, introduction to the team and setting up the schedules for the rotations. I attended the outpatient diabetes clinics (2 full day clinics per week) and endocrine clinics (3 half day clinic per week) and discussed cases with Moran and the other endocrinologists, Kyriakie Sarafaglou, Brad Miller, Brandon Nathan, Anna Petryk, Melena Bellin and Muna Sunni, giving me a large spread of experience and influences.

Diabetes Clinic

I attended the outpatient diabetes clinics, 2 clinic days per week---every Thursday at the University of Minnesota Children's Hospital and every Tuesday at a satellite diabetes clinic in Minneapolis and discussed cases with Drs. Moran, Nathan and Sunni. There are more than 450 children and adolescents with diabetes in the service, with ~70 new cases per year, with 70% of the children with diabetes on insulin pumps. The diabetes clinic at the University of Minnesota Hospital is a full day clinic (7:30 am to 5:00 pm) with approximately 20 patients seen each day. Each week the clinic is run by a least 2 paediatric endocrinologists, assisted by a fellow, dietitian, 2 diabetes educators and a psychologist. Blood glucose recordings are downloaded and HbA1c measured and reviewed before the patient sees the physician. At the clinic, I worked together with the paediatric endocrinologists during the consultations and this was a great opportunity to observe the interaction between patients, their parents and the physicians dealing with their diabetes. At the clinic, each patient's diabetes management was unique and this was a rich clinical experience for me.

I also learnt enormously from the other team members, especially the nurse educators, Anne Kogler and Marrissa Mashuga, and dietitian, Carol Brunzell. I attended their sessions during the clinics and this empowered me with better skills in management of diabetes. I got to appreciate practical diabetes self management through diabetes education. In comparison to my hospital at Cayman Islands, where the diabetes team model is incomplete and lacking dietitians and educators, the efficiency and the importance of their roles needs to be emphasized. The structure of the satellite clinic at Minneapolis was exactly the same as the one at the main University Hospital. The clinic atmosphere was so lively and everyday at the end of clinic we discussed all the cases which was really helpful. That gave me a chance to know more about the problems faced by children with diabetes on insulin pumps.

There were research projects running at the clinic during my clinical fellowship. I attended research meetings with Dr. Moran and it was a great opportunity for me to reflect on the use of operational research in my setting to improve the clinical care.

The Diabetes Camp

I had a great opportunity during my fellowship to be a part of ADA Diabetes Camp for children. The diabetes camp was held at YMCA Camp St. Croix in Hudson, Wisconsin, 16th August to 22nd August 2015. Over 300 children and adolescents with diabetes attended the camp, including the day pointers (children aged less than 8 years who only attended during the day), and those aged ≥ 8 years who stayed in the camp for the whole week. The children were grouped into cabins depending on the age and sex. Each cabin had a maximum of 8 children with 2 counselors and a medical staff member allocated to them. The counselors consisted of former paediatric diabetic campers and non-diabetic youth trained on how to manage diabetes. Their role was to oversee the children's activities, general social care, and supporting them with blood glucose testing and identification of any acute complications. The children and the camp teams were involved in various activities which included hiking, canoeing, and various games in and out of camp.

The medical staff role was to provide medical support to the children and counselors. I worked closely with a paediatric endocrinologist and was allocated 2 cabins; a total of 16 children to take care of during their stay. We were to guide them with their insulin adjustments, using decision making in regards to the activity and food at the camp. We would treat the children with any acute illness. It was a great experience to learn from the children, counselors and medical staff. I also had real practical experience on insulin pump initiation and follow-up by putting on an insulin pump on myself at the diabetes camp.

A big proportion of the children had a basic knowledge in self-management of their diabetes which further stresses the point of the necessity of good diabetes education. The role of peer education and peer support was very alive at the camp and very inspiring. I feel peer education is very important in my setting where I have limited trained health workers in diabetes. These peers maybe used as educators to back up the diabetes teams at our clinics.

Other Experiences

In addition to diabetes clinics and diabetes camp, I participated in ward rounds for endocrinology and diabetes with Dr Antoinette Moran and Dr. Brandon Nathan, and saw many rare interesting cases. I attended endocrinology clinics (general endocrinology, bone health, disorders of sexual differentiation, obesity, and brain tumor clinics), and general pediatrics grand rounds.

The endocrinology division had weekly meetings every Wednesday to discuss challenging patients. This was a great opportunity for me to learn from other team members, clarify any ambiguity and to discuss up-to-date diabetes and endocrinology management.

POST CLINICAL FELLOWSHIP

Currently, I am working as an Endocrinologist in Health City Hospital, Cayman Islands. I have more confidence than before in dealing with diabetic patients. The training on insulin pumps helped me in guiding my diabetic patients properly on management issues. I learned a lot about managing diabetes that is now helping me to individualize as per the needs and glycemic control of the patient.

I recommend all interested candidates to pursue this ISPAD fellowship. The University of Minnesota is one of the best centres of excellence for managing diabetes. Pursuing your fellowship in University of Minnesota will be really worthy of your time as it is for me.

Sincere thanks to Dr. Antoinette Moran for helping me to achieve this landmark in my career.

Good luck to all future ISPAD Clinical Fellows.

Regards,

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