

## **2019 ISPAD “Allan Dash” Clinical Fellowship Report**

**Duration of the program:** December 2<sup>nd</sup> 2019 to January 3<sup>rd</sup> 2020

**Host center:** Diabetes and Endocrinology Division in Boston Children's Hospital (BCH), MA, USA

**Mentor:** Prof. Joseph Wolfsdorf

My fellowship in BCH was a once in a lifetime learning opportunity. My main objectives was to have a closer approach to multidisciplinary team in management of diabetes and to gain experience about diabetes technology including insulin pumps and continuous glucose monitoring (CGM) modalities. I was really lucky enough to cover all of my fellowship objectives during my stay.

Diabetes Program at BCH is part of the Division of Endocrinology providing comprehensive and coordinated care through both hospital settings and ambulatory setting. Diabetes Program at BCH is a perfect example of a multidisciplinary care including physicians, diabetes nurse educators, dietitians, social workers, and psychologist.

On the first day, I meet Dr. Ari Wassner, the director of the observership program, who explained comprehensively my timeline and schedule during my stay at BCH. Later on, he introduced me to the fellows who were always supportive and helpful.

The weekly schedule included a daily morning inpatient clinical rounds, afternoon endocrinology clinics on Mondays, Tuesdays and Thursdays followed by 5PM post-clinic conference discussing challenging cases. Additionally, there was a bunch of scientific meetings including the Wednesday weekly medical grand rounds and endocrinology grand rounds, in addition to other educational meetings including weekly meeting of fundamentals of endocrinology and

division conferences as well as a fellow's journal club. I was lucky to have the opportunity to attend some specialty clinics including the Bone clinic, Thyroid nodule clinic as well as OWL (Optimal Weight for Life) and type 2 clinic.

On the third day, I met Prof. Wolfsdorf and highlighted the objectives of my fellowship. Then, I was introduced to Dr. Kate Garvey, the director of type 1 diabetes program, diabetes nurse educators and other attending physicians. I had a Dexcom G6 sensor inserted on my arm (the best way to learn)!

The daily schedule, apart from conferences and clinical rounds, included a morning inpatient rounds with the diabetes service fellow as well as the attending physician. I had the opportunity to do two weeks inpatient clinical rounds with Prof. Wolfsdorf. Children with diabetes are admitted to diabetes service and those presenting in DKA are admitted to either the intermediate care or intensive care unit for initial management before being transferred to the medical ward to begin diabetes education and self-management training for newly diagnosed cases. I have been exposed to mainly patients with type 1 diabetes as well as few patients with type 2. Beside patients with type 1 and type 2 diabetes, the service included CFRD patients (Cystic Fibrosis related diabetes) as well as secondary forms of diabetes. During these inpatient rounds, I gained both evidence-based as well as state-of-the-art experience regarding diagnosis, management of diabetic ketoacidosis, initiation and titration of insulin and principals of nutritional management as well as psychosocial issues.

During outpatient clinics, I had the opportunity to shadow attending physicians and fellows as well. Attending outpatient clinics was a great opportunity to explore the language of communication among patients, their parents and their diabetic team about living with diabetes. In

general, the clinic started by downloading data from the glucose meters, CGMs and pumps and measuring HbA1C followed by interpretation of data and discussing the state of diabetic control with patients and their families, and accordingly tuning insulin and answering any inquiries.

I was lucky enough to shadow excellent diabetes nurse educators, dietitians and social workers. I attended a pump class educating patients about the difference between different types of pumps and the steps required before successfully starting a pump. I was exposed to different technologies including Medtronic 670G, Omnipod, Tandem, looping, Dexcom and Inpen. I experienced the initiation of new Tandem Basal-IQ and Medtronic 670 G.

I couldn't thank enough Prof. Wolfsdorf who was always available to answer my inquiries and generously offered me the knowledge and forwarded article to help me understand more. He taught me that diabetes care is not a one man show and to achieve a successful target glycemic control we need a structured multidisciplinary team, which I am trying my best to achieve in my center. He taught me as well that technology has the potential to improve outcomes but success is highly dependent on the user (a motivated patient as he used to tell me). Thank you Dr. Wolfsdorf for everything.

During my fellowship, I noticed the importance of CGM, in improving the outcomes in diabetes care, and I am trying to raise awareness about the role of continuous glucose monitor in my community. I am also trying to emphasize the importance of detailed and comprehensive education before starting an insulin pump and the importance of proper selection of patients in whom the technology will improve the outcome.

**Acknowledgments:** I would like to express my greatest gratitude to the whole Endocrinology team at Boston Children Hospital for being incredibly cooperative, kind, caring and willing to help at all times.

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Regards,

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