

ISPAD Allan Drash Clinical Fellowship: Report

Principal Investigator (PI): Dr. Reshma Bananki Vijay, MBBS, FEDM, CDE, FACE, Bangalore, India.

Host Center of Excellence: Monash Children Hospital, Department of Pediatric Endocrinology, Melbourne, Australia

Host Center Supervisor: Dr Philip Bergman, Department Head, Pediatric Endocrinologist and Adolescent Physician and Mr. Adam Lamendola, Senior Diabetes Educator – Insulin Pump Specialist.

Visit Dates: 16th November – 21st December 2018

=====

ISPAD Prof Allan Drash Fellowship was a very highly enriching and inspirational, “**Once in a life time**” learning opportunity for me, given the fact that this was my first ever experience with international medical education. Myself and my parent institution Samatvam Jnana Sanjeevini Medical Center, Bangalore India, are most grateful to ISPAD and to Monash [and all its most encouraging and friendly faculty, fellows and staff] for this extraordinary support and goodwill. I assure you all that, in the times ahead, I will utilize the most valuable knowledge and experience in Pediatric Diabetes and Endocrinology that I has been provided to me at Monash:

- a) to the service of my patients and community in India
- b) to enrich and augment the Pediatric Diabetes Clinical Care programs at our institution to international standards [despite the resource limitations for the poor and needy]
- c) and also to implement social relevant research programs in Pediatric Diabetes – with focus on problems of the developing and underdeveloped world.

I will share some of the aspects of my learning experience at Monash.

- Australian government to patients who are enrolled through NDSS scheme provides free Consultations, Insulin, Glucagon, Insulin Pump, CGM etc....
- Monash Children Hospital is very child friendly. They have play area, drawing room, radio station, movie theatre etc....
- Electronic Medical Records helps clinical follow up and management of patients easy.

- Multicultural Society: Interpreter is provided for parents and children of their language of choice, for better understanding during consultation and Diabetes education.
- For newly diagnosed children with diabetes, contact to the on call Endocrinology Registrar through Monash Health switch board is provided, for medical emergencies.
- Referrals for all new cases of pediatric and adolescent diabetes will be directed straight to the Pediatric Endocrinologist via Monash Children's Switchboard for discussion, 24 hours a day, and seven days a week.
- Appointment's are given well ahead of time. Follow up of children are organized not only during weekly Diabetes Clinic but also accommodated during other weekdays at DPED (Department of Pediatric Endocrinology and Diabetes).

Pediatric Diabetes and Endocrinology Clinical Care

1. Team work. Pediatric endocrinologists are assisted by diabetes educators, dietitians, social workers and a clinical psychologist to provide the best care for patients. They also offer multidisciplinary support and education groups for patients and families.
2. Young Adult Diabetes Service (YADS) helps youths aged 15 to 25 transition to adult services including gestational diabetes.
3. Once a week discussion of all inpatient cases takes place during team meetings. Colleagues input are important in challenging cases.
4. Insulin Pump and insulin dose adjustments with multiple Insulin Sensitive Index (ISI) and Insulin Carbohydrate Ratio (ICR) in Individual patients.
5. Endocrine Clinics: Managing children with growth disorders, young hypertension, thyroid diseases, obesity, metabolic bone clinic, autoimmune polyendocrinopathy etc

Pediatric Diabetes Patient Education

1. Diabetic educators respond to each and every mail sent by patients, for their doubts on insulin adjustments, based on insulin log and CGM.
2. Initiation of T Slim Pump and 670 G Medtronic Pump.

3. Newly diagnosed Type 1 Diabetes Children: 3 days detailed Counseling is provided to family members, with the Diabetes information Booklet, which will be given to the family.
4. Stabilization programs for newly diagnosed and existing patients with sub-optimal control, continuous blood glucose monitoring and insulin pump therapy initiation and review are successfully implemented.
4. Mini-Dose Glucagon rescue protocol is very helpful.
5. School management plans for primary and secondary school are organized effectively.
6. School Camp management plans are creative.
7. Continuous Glucose Monitoring (CGM) school management plans for early childhood, primary and secondary school are successful
 - Dexcom
 - Guardian Connect
 - MiniLink/ Guardian 2 Link
 - Freestyle Libre Flash Glucose Monitoring System.

Pediatric Diabetes In Patient Care

1. I obtained new insights on: DKA management.
2. Diabetes with vaginal herpes, cystic fibrosis.
3. Diabetes after starting chemotherapy in Pediatric Oncology.

Pediatric Diabetes Teaching Program (for health professionals)

1. Once a week 1 hour is dedicated to Diabetes new learning. I was lucky as ISPAD 2018 guideline was done during my Fellowship.
2. Diabetes seminar for nurses at hospital.
3. School Teachers education session.
4. Journal club and challenging case discussions takes place once a month live broadcast with Royal Children Hospital team.

Pediatric Diabetes Research Program

I was also given input about ongoing projects. I have received several research publications from Monash Hospital including the following

1. Clinic attendance and disengagement of young adults with type 1 diabetes after transition of care from pediatric to adult services (TrACeD): a randomized, open-label, controlled trial.
2. Increasing incidence of type 2 diabetes in Indigenous and non-Indigenous children in Western Australia, 1990-2012.
3. Pregnancy And Neonatal Diabetes Outcomes in Remote Australia: the PANDORA study- an observational birth cohort.
4. Factors Affecting Vitamin D Status in Infants.
5. Consensus guidelines on the use of bisphosphonate therapy in children and adolescents.
6. Fractures and ventilator dependence in neonates: Is the use of bisphosphonates an appropriate consideration?
7. Disorders of sex development: insights from targeted gene sequencing of a large international patient cohort.
8. Childhood insulinoma masquerading as seizure disorder.
9. Monash Faculty, Fellows and Staff who mentored and supported me:

Endocrinologists

1. Dr Phil Bergman

2. Dr Justin Brown
3. Dr Jacky Hewitt
4. Dr John Welch
5. Dr Mary White
6. Dr Gabby Endocrine Registrar.

Diabetes Educators

1. Mr Adam Lamendola
2. Ms Megan Buszard
3. Ms Anita Joseph
4. Ms Anne McLeod
5. Ms Emma White
6. Ms Rebecca O’Gorman

My Plans for Samatvam Jnana Sanjeevini 2019 onwards:

1. Enrichment of DISHA Childhood Diabetes Clinic for the Poor.
2. Implementation of Insulin Perfection Clinic [Knowledge and experience transfer in our Insulin pump and continuous glucose monitoring Programs].
3. Improvement of our Diabetes Patient and Family Health Education and Counseling Program for children with diabetes and their families
4. Initiating Pediatric Diabetes Endocrinology Grand Rounds
5. Exploring the potential India – Australia [Samatvam-Monash] collaborative research project on: Childhood and adolescent diabetes: Optimal health care and outcomes.
 - Comparative evaluation of the prevalence, profile, risk factors, management challenges and health outcomes between 2 communities / countries with different health care opportunities [3 groups of Pediatric and Adolescent diabetes]:
 - a. Monash Group;
 - b. Samatvam Affluent / Affordable Group (Haves);
 - c. Samatvam Poor / DISHA Group (Have Nots)
6. Possibility of pursuing additional research projects:

- a) High risk type 1 diabetes care and clinics;
 - b) "Bridging the Gap":
 - c) Diabetes care in resource limited settings [D4RLS];
 - D) Novel biomarkers for preclinical diabetic nephropathy and accelerated atherosclerosis;
 - e) Low cost Insulin pumps and continuous glucose monitoring – Innovations for India
7. Upgrade Electronic Medical Record usage at Samatvam -Jnana Sanjeevini.

Thanks and Regards

Dr Reshma Bananki Vijay, MBBS, FEDM, CDE

Consultant and Faculty: Diabetes Endocrinology Medicine

[Special interest: Pediatric Diabetes Endocrinology],

Samatvam Endocrinology Diabetes Center and Jnana Sanjeevini

Diabetes Hospital and Medical Center, affiliated Hospitals, Bangalore, India,

2, 1 A Cross Marenahalli, JP Nagar Phase 2; Bangalore 560078, India

Phone: 91 - 80 - 26493040, 26493060;