ELECTIVE (SSC5b) REPORT (1200 words)

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

Elective Report Year 5 MBBS

Pediatric Gastroenterology/Nutrition

Massachusetts General Hospital, Harvard Medical School

Elective period: 1 May – 28 May 2017

Learning Objectives:

1. What are the prevalent pediatric conditions in the United States? How do they differ from the UK?

2. How are pediatric services organized and delivered in the United States? How do they differ from the UK?

3. What are the current health promotions in child health in the United States? How do they differ from the UK?

4. To practise focused pediatric history-taking, communication and examination skills.

Introduction

I am always fascinated by pediatrics as a specialty and I would like to use this invaluable opportunity to experience the fulfilling life of a pediatrician. I spent my 4-week elective with the Pediatric Gastroenterology/ Nutrition team at Massachusetts General Hospital (Mass General) which is one of the main teaching hospitals at Harvard Medical School. Mass General is one of the largest hospitals in the heart of Boston, and it is ranked among the top hospitals in the United States (US) consistently. It provides a wide range of health care services such as outpatients, inpatients, emergency and community services. It is also a world renowned research center for different specialties. This was indeed a fruitful and enjoyable learning experience for me because of the friendly hospital environment, the knowledgeable and fascinating medical team and the diverse patient cases that I saw every day during my elective.

1. What are the prevalent pediatric conditions in the United States? How do they differ from the UK?

The prevalent pediatric conditions in the US are very similar to those in the UK, namely gastroesophageal reflux (GER), acute diarrhea, chronic constipation, infantile colics, recurrent abdominal pain, vomiting, alimentary intolerances, celiac disease, malabsorption syndromes and hepatic conditions (1). GER is a common condition in infants, with at least 40% having the symptom

during the first 6 months (2). The prevalence of functional constipation in pediatrics ranges from 4 to 36% (3-6). Pediatric constipation contributes 3% of all referrals to pediatric inpatient care and it accounts for 25% of the cases referred to pediatric gastroenterologists (3). On the other end of the spectrum, many children have more than one episode of diarrhea every year. Diarrheal illness accounts for approximately 16% of all cases at pediatric emergency department (7). There are many causes of diarrhea such as gastroenteritis, celiac disease, cow's milk protein allergy, inflammatory bowel disease and lactose intolerance. Acute gastroenteritis accounts for 10% to 20% of hospital admissions in pediatrics (8, 9). The prevalence of celiac disease is 1% (10) and cow's milk protein allergy has a prevalence from 2% to 7.5% (11). IBD has an incidence of 6.4 per 100,000 population annually, and the prevalence was 48.7 per 100,000 population in 2010 (12). The prevalence of lactose intolerance due to lactase deficiency varies enormously geographically as this is associated with the extent of dairy product intake. The prevalence ranges from 5% to 17% in Northern Europe while and 70% to 95% in Africa and Asia, and the prevalence increases with age after infancy (13, 14).

2. How are pediatric services organized and delivered in the United States? How do they differ from the UK?

The healthcare system in the US is privately run and it revolves around insurance, which is vastly different to the healthcare system in the UK. Primary care providers (PCP) in the US are pediatricians who have the same role as a general practitioner (GP) in the UK and they follow the children up until they are 21 years of age. Children visit their PCP regularly for well child checks. They are the first port of call for the children when they become unwell. The pediatricians are the ones who make pediatric specialist referrals for the management of more complex diseases.

The healthcare system in the UK emphasizes more on primary care. National Health Service (NHS) in the UK is a publicly run healthcare provider which comprises hospital care and general practice. Everyone in the UK is required to register with a GP in order to gain access to the health services, and specialist referrals can only be arranged through the child's GP. GP is the first point of contact for children in the UK and they start their management plan such as investigations and treatments according to The National Institute for Health and Care Excellence (NICE) guidelines. The child's GP is also responsible for immunizations, regular health checks and specialist referrals. The patients' GP are constantly updated with the patients' progress after referral, since this aims to facilitate follow-up arrangements when the patients are discharged from specialist care.

I appreciate having a pediatrician as the children's GP as practiced in the US since the presenting symptoms of children are often non-specific and different to adults, and children can deteriorate very quickly if they are not treated appropriately. GP has relatively less experience in pediatrics and they may miss the diagnosis and unnecessarily delay the management.

3. What are the current health promotions in child health in the United States? How do they differ from the UK?

In regards to health promotions in pediatrics in the US, there is an extensive range of health initiatives managed by the American Academy of Pediatrics (AAP). Examples of some health initiatives are breastfeeding and formula feeding advice, early childhood screening, healthy active living programs, healthy eating advice, immunization guide, mental health support, smoking awareness and substance use interventions. These programs provide support, advice, education, practical tools and resources for healthcare professionals, parents, patients, schools and childcare providers in terms of provision of early screening and detection, monitoring, follow-up checks and referrals. These health initiatives are to strengthen children's access to healthcare services, and also to ensure high-quality continuing pediatric care is optimally provided (15).

Similarly in the UK, the Department of Health launched a pediatric health initiative called "Health Child Program" in 2009 which aims to provide comprehensive support on health and social care in pediatrics. The program has several emphases, which include strong focus on antenatal care and screening, greater involvement and support for both parents, early identification of at-risk families, encourage vaccination uptake and promotion of other public health priorities such as healthy eating and physical activity. The program is delivered by GP, primary health care team, health visitors, midwifery staff, children's centers and schools. At-risk families include parents who are unemployed, with chronic illness or mental health problems; family with high risk of parental neglect; and families with lower socio-economical status. This program highly focuses on providing early detection of the needs of these families in order to prevent avoidable risk to the child's health and care, and to ensure early provision of specific and specialized protective measures and support (16).

4. To practise focused pediatric history-taking, communication and examination skills.

The Pediatric Gastroenterology/Nutrition team is responsible for both outpatient and inpatient care at Mass General. I was so glad that I had the invaluable opportunity to conduct my own consultations in the clinics and I learnt immensely from it in terms of both history-taking and examination skills. I also had the chance to clerk and examine patients on the pediatric general wards and in intensive care unit when the patients' parents were present to describe their child's symptoms and history to me.

I found conducting a pediatric consultation quite complicated since I need to multi-task every minute and take everyone's interests into consideration. Other than focusing on the child's need, I also need to address the concerns of both parents, occasionally the concerns of grandparents if they are present at the consultation as well. I learnt to communicate through interpreters when the parents do not speak English. And I realized there are many sources of distractions during the consultation, such as the patients themselves if they are babies or toddlers, and their young siblings. As for the consultations with older pediatric patients, sometimes it was difficult when they did not agree with what their parents say to me, and sometimes they might not disclose everything since their parents were present. At the same time, I was not very familiar with the trade names of medications prescribed in the US since generic names are used instead in the UK. I learnt how to communicate and examine children tactfully since I need to quickly examine them before they start crying or moving

about. This was an amazing hands-on consultation experience and I am much more confident in history-taking, communicating with the parents and examining children.

Summary

I indeed enjoyed my 4-week elective at Massachusetts General Hospital because of my delightful and insightful pediatric team and the encouraging learning environment. The full schedule of morning and noon teachings and conferences on diverse pediatric topics prompted me to learn and consolidate my pediatric knowledge which further cultivates my deep interest in being a pediatrician.

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