OSBORNE
Hayley
PAEDIATRICS

Electives Write-Up

1) What are the major causes of children being admitted to paediatric intensive care units (PICU) in the UK and how does this compare to other countries throughout the world.

The top three causes for admission to PICU's in the UK are: cardiological, respiratory and neurological (1). With other major causes including: gastrointestinal, infection, trauma, oncological and muskculoskeletal. It is hard to make comparisons with other countries due to the lack data available; however, it is possible to compare this to Australia where they have very similar reasons for admission. Cardiovascular and respiratory causes being the leading reason for admission, however there are fewer admissions for neurological conditions but more for accidents/trauma (2).

2) How is paediatric care arranged in the UK? How does this compare to other countries worldwide.

In the UK there are 4 levels to paediatric care. Primary care is provided by GPs and is the first port of call. Secondary care is that provided by district general hospitals, and gives generalised paediatric hospital care. There is then tertiary and quaternary care, which provide specialised and sub specialised paediatric care. All of which is free at the point of delivery. This differs from Spain, in that there the first point of call is a general paediatrician rather than a GP. The General Paediatrician provides the same function as a GP but only deals with children, normally under the age of 14 after which you attend a General Physician. From the General Paediatrician the levels of care are much the same. They General Paediatrician can refer the child on to any sub speciality that may be required by the child i.e. paediatric cardiologists. These doctors are hospital based like in the UK and can make further referrals as required.

3) To gain a better understanding of those diseases that cause children to be admitted to the paediatric intensive care unit at Great Ormond Street.

While at Great Ormond Street I was able to spend time on both the Paediatric Intensive Care Unit (PICU) and the Neonatal Intensive Care Unit (NICU) , where the disease/conditions that caused the children to be admitted were very different.

In the NICU, the majority of the patients who came to the unit suffered with diseases due to prematurity and they came to the unit for surgical correction of these conditions where either medical treatment is not possible or in those where medical treatment had failed. Some of the most commonly seen conditions were those related to prematurity such as: necrotising enterocolitis, and persistent ductus arteriosus. Congenital conditions requiring surgical correction, including: transoesophageal fistular (TOF) and oesophageal atresia (OA) and gastroschisis, which although where seen a number of times during my placement would not be common in other NICU's.

The PICU also saw an array of conditions, some common, others extremely rare. Conditions commonly seen in other units, these included: children admitted with sever acute asthma, those with traumatic brain injuries due to road traffic accidents and those suffering with severe infections leading to sepsis. On the other hand, there were a number of patients who suffered with a number of rare conditions that where either admitted to the unit post-operatively or due to a deterioration in their condition. These conditions include: Spinal Muscular Atrophy, Coralie's Disease, Chronic Inflammatory Demyelinating Polyneuropathy and TOF and OA in older children. Other patients on the unit had such rare condition that a diagnosis was yet to be made.

The departments also looked after any patients who deteriorated in the hospital and required further medical support, such as intubation and ventilation or inotropes, therefore patients with any conditions seen in the hospital could become patients on the PIC. During my time at the unit this included a number of oncolgical patients such as those with leukaemia and Wilms tumours.

4) To gain further experience in paediatric care especially intensive care to allow me to further consider this as a career option.

During my time at the PICU my opinions changed throughout on whether I could consider this as a further career. When I first began at the unit I had difficulty dealing with emotionally aspects of the specialty. I found it extremely hard to see children lose their lives or be left with permanent neurological deficits. However; after the first couple of weeks I began to find this easier to deal with as I began to understand more of what these children had gone through, and would go through and how in some cases all treatment options had already been exhausted.

I do still feel that I would like to further consider paediatrics as a career choice, however, due to health issues I am not sure whether intensive care would be the best sub speciality, and maybe the best way to pursue a career in paediatrics would be to become a GP and specialise in paediatrics as this would fit better with the health problems that I suffer with, although I would still prefer to specialise in neonatal medicine.

References

1) PICA Net, National Report of the Paediatric Intensive Care Audit Network, January 2004-Deccember 2006. Accessed online, Found at: http://www.picanet.org.uk/Documents/General/Annual_Report_2007/PICANet%20National%20Report%202004%20-%202006.htm#C11.1 (accessed on 23/5/2012)

2) P. Namachivaym et al, Three decades of pediatric intensive care: Who was admitted, what happened in intensive care, and what happened after, Accessed Online, Found at: http://www.sh.lsuhsc.edu/pediatrics/Journal_Club_Articles/30%20years%20of%20ICU_JC_Oct10.pdf (accessed on 23/5/2012)