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SSC 5c Elective Report

Elective Report (SSC 5c)

(Objectives written in bold)

What are the prevalent addiction disorders and paediatric conditions in Suburban Australia?

From my elective at Nepean Hospital, it is apparent that the prevalent addiction disorders presenting to the Addiction Medicine (Drug and Alcohol) services are alcohol toxicity or withdrawal, with or without another substance. The 'other' substances are commonly cannabis, heroin and benzodiazepines. There is extensive variability between regions of Sydney as to what substance related disorder is the most prevalent; for example in the inner city, there is a higher prevalence of addiction of cough mixtures containing alcohol than in suburban regions. Prevalence of addiction disorders is also partially dependent on the community in that particular area, for e.g. aboriginal Australian patients are more likely to develop a substance abuse problem than their non-aboriginal counterparts.

From my paediatric rotation during my elective, it is possible to conclude that the prevalent paediatric disorders requiring inpatient admission are respiratory, such as bronchiolitis, acute asthma, respiratory tract infections and gastrointestinal disorders such as gastroenteritis. These conditions also commonly present in the UK. In the outpatient setting, children with concerns regarding development are commonly assessed and managed. With regards to Nepean Hospital in particular, there is a special interest in Infants born to Substance Abusing Mothers, therefore these infant commonly attend a general paediatrics or a developmental clinic. Specialist paediatric clinics at Nepean Hospital also include genetics and diabetes.

How are services for addiction disorders and Paediatrics organised in Australia? How is this different to parallel services in the UK?

Addiction disorders services in Australia are organised differently compared to parallel services in the UK. Primarily, hospital based Drug and Alcohol services in Australia are separate ward based services, as well as outpatient clinics. A patient's admission into, and treatment in Drug and Alcohol services in Australia may be Medicare - , or privately funded. Nepean Hospital Centre for Addiction Medicine is the only funded detox service in the state of New South Wales. In the UK, National Health Service (NHS) patients with drug and alcohol related conditions are managed by psychiatric and/or gastroenterology services.

With regard to route of entry for patients into inpatient detox services in Australia (with particular regard to Nepean Hospital), there are multiple. A patient is able to self-refer, be referred by their GP, or be referred by friends and family. Once they are in hospital, they will be attended to by the medical Addiction disorders team, nursing staff and will often have social worker or psychologist input depending on if there are social issues or psychological issues to manage prior to patients' discharge. Depending on co-morbidities and any impacting social issues which may affect the patient's recovery, the patient can then be discharged to home, rehabilitation facilities, community based counselling facilities, or to prison if a crime has been committed (in relation to their substance abuse).

Paediatric services in Australia are organised in a very similar way to that in the UK. A patient may be referred to the paediatric ward from Accident and Emergency (Emergency Department), or following the advice of a General Practitioner if the child is unwell. Within the hospital, an infant can referred to the Paediatric inpatient ward from the Neonatal Intensive Care Unit (NICU) if the baby is unwell and still requires ongoing care. They will be discharged home once well.

To understand the investigation and management of neonates and infants born to substance abusing mothers.

Neonates and infants born to substance abusing mothers may present with Neonatal Abstinence Syndrome (NAS). It can occur as a result of withdrawal to *in utero* or postnatal exposure to drugs; characteristically infants present with symptoms of central nervous system hyperirritability, gastrointestinal symptoms, respiratory symptoms and autonomic dysfunction (yawning, sneezing, mottling and fever). The severity and course of NAS is highly varied as symptoms can commence, on average, from birth to the end of the second week of life, with acute and subacute phases lasting up to 1 year of age. The most common class of substance implicated in NAS in Australia are opioids [(1)].

An initial diagnosis of NAS is based on a maternal history of substance use during pregnancy. Following establishing an initial diagnosis, a inpatient based scoring system such as The (Modified) Finnegan scoring system is used to assess the infant at 4 hourly intervals for severity of withdrawal (and therefore the presence of any life threatening clinical features such as vomiting, diarrhoea, weight loss, tremors and pyrexia), and as a guide for treatment. Infants scoring 8 or greater at any one assessment are recommended to have pharmacological therapy. There must be due consideration for any other conditions which may be causing symptoms similar to those of NAS when assessing the patient using The (Modified) Finnegan scoring system [(1, 2)].

Management of NAS, as alluded, to is based on symptom severity. Mild symptoms may be managed in a supportive environment conservatively, with intravenous fluids and electrolytes [(1)]. More severe symptoms are managed pharmacologically, with opioid exposed infants managed with prescribed opioids (morphine, methadone, diamorphine). Additional agents described in literature include phenobarbitone, clonidine and choral hydrate. Polydrug, or non opioid drug NAS can be managed with a symptom dependent dosing regimen of phenobarbitone ([1, 3]). Prior to discharging a NAS infant, a multidisciplinary team case conference should be held in order to formulate a clear discharge plan, with the establishment of post – discharge community based support and care plan ([1]).

To understand/be competent in paediatric and psychiatric history taking and examinations in both Australia and the UK. How did my elective experience change my skills and attitudes towards paediatric and psychiatric patients? How can I incorporate these attitudes into routine practice as FY1/FY2?

From the Addiction Medicine segment of my elective, I have been able to refine my understanding of a psychiatric history with specific regard to the drug and alcohol history section. Therefore from this, I feel more confident in this aspect of the history. In addition, it has taught me to think in a more lateral manner when planning discharges for patients (e.g. referral to community counselling services, need for social workers input, involvement of family and friends etc). As I am

considering General Practice as a Postgraduate career option and will be working in multidisciplinary teams for my foundation jobs, I feel this will be an invaluable and imperative addition to the way I will work. I will systematically consider services available for patients following discharge, and select/organise a referral to any required services, thus planning comprehensive discharges for my patients as Foundation year (FY) 1 and 2 doctor, and providing appropriate referrals when working as a GP.

From the Paediatrics part of my elective, I have had the opportunity to revisit some common paediatric conditions in the outpatient setting, and thus practice history taking, examination and formulating differential diagnoses. It is important to be clinically sound in the above domains of practice as a GP. It has also supported my interest and previous paediatric knowledge which I have acquired from a compulsory general paediatrics rotation and a self-selected respiratory paediatric rotation during medical school.

This paediatrics rotation has also reinforced the importance of communicating with the patient's concerned parents in a sympathetic and caring, yet professional manner. This, in turn, reflects the attitude which a competent doctor should have when seeing paediatric patients. As I have a GP rotation during my FY2 job, I will carry these skills, and a caring attitude forward into my paediatric consultations with due consideration for the parent's concerns.

References

1) Western Australian Centre for Evidence Based Nursing & Midwifery. Management of the Infant with Neonatal Abstinence Syndrome (NAS) – Literature Reviewed. 2007; 1 – 12.
2) Jansson LM, Velez M, Harrow C. The Opioid Exposed Newborn: Assessment and Pharmacologic Management. *J Opioid Manag*, 2009; 5 (1): 47 – 55.
3) Johnson K, Gerada C, Greenough A. Treatment of neonatal abstinence syndrome. *Arch Dis Child Fetal Neonatal Ed* 2003; 88: F2 – F5.