**Presentation title:**

**Prevalence of Epilepsy in Australian Aboriginals**

**Abstract** (max. 300 words):

First Australians (Aboriginals and Torres Strait Islander Peoples) health outcomes are lagging-behind other ethnic minorities in the developed world(1). This paper reviews the literature on the prevalence of epilepsy among First Australians.

Plummer, Cook, Anderson & D’Souza (2014) reported on their retrospective analysis of seizure hospitalization in three states between 1998 and 2004(1). They found First Australian patients had a threefold higher rate of seizure admissions associated with an additional diagnosis than non-aboriginals(1). Furthermore, there was an over-representation of First Australian males aged 15-64 years, and the combined First Australians seizure hospitalization rate was 5.6 times greater than that for non-indigenous(1).

Archer & Bunby (2006) state that 30% (146/486) of patients presenting to E.D. in Far North Queensland with seizure in 2004 were First Australians, 31% (130/418) of inpatient admissions with epilepsy during 2001 to 2004 were First Australians, and 44% (28/63) of patients admitted with status epilepticus were First Australians(2). On top of this, First Australians were more likely than non-indigenous patients to have an abnormal EEG result (31% v 18%)(2). Archer & Bunby state that these rates may be under-represented.(2)

Studies have shown First Australians have lengthier admissions (5.1 times longer according to Plummer et al., 2014), and with more severe conditions(1,2). Archer & Bunby (2006) found that 53% of adult patients presenting with severe epilepsy were First Australians(2). Furthermore, First Australians’ emergency as opposed to elective admission rates were over three times greater than that for non-indigenous.(1) This has been implicated with greater non-adherence to anti-seizure medication(3).

There is a possibility of increased incidence of epilepsy among Aboriginals(2). There is place for greater patient education about epilepsy(2) in order to facilitate earlier access to health care and drug compliance(3), increasing health-worker education of epilepsy(2), and increasing the proportion of First Australians in health-care roles in rural areas.

References:

1. Plummer C, Cook MJ, Anderson I, D'Souza WJ. Australia's seizure divide - indigenous versus non-indigenous seizure hospitalization. Epilepsy Behav. 2013 Nov 5;31:363–8.

2. Archer J, Bunby R. Epilepsy in Indigenous and non-Indigenous people in Far North Queensland. Med J Aust. 2006 Jun 29;184(12):607–10.

3. Wilson IB, Hawkins S, Green S, Archer JS. Suboptimal anti-epilepsy drug use is common among indigenous patients with seizures presenting to the emergency department. J Clin Neurosci. 2011 Dec 3;19(1):187–9.