

Australian Paediatric Surveillance Unit

PROTOCOL – SUBACUTE SCLEROSING PANENCEPHALITIS (SSPE)

Objectives: To determine: i) the incidence of SSPE in Australia; ii) the clinical and demographic features of affected children; iii) the proportion of children with a prior history of measles or measles immunisation and the age at which that occurred. This will enable determination of the incubation period; iv) the ethnic background of children with SSPE.

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Summary Protocol:

SSPE is a rare childhood disorder. Although it is preventable, concerns have been raised that the incidence of SSPE in Australia is "surprisingly high" (1). It is known that Australia has difficulty in adequately immunising younger children (2) and that a large ongoing nation-wide measles epidemic began in April, 1994 (3).

Currently there are more SSPE deaths than deaths from "acute" measles in Australia (3). Therefore SSPE is a very important, albeit rare, outcome with which to monitor the effectiveness of childhood immunisation in Australia. Although a previous attempt has been made to establish a register of SSPE cases in Australia (2), this was not sustained. There have been no population-based studies concerning the epidemiology of SSPE in Australia. We believe that the APSU is the ideal mechanism for SSPE surveillance in Australia.

References:

1. Robbins SJ. Measles and subacute sclerosing panencephalitis: an argument for intensified vaccination in Australia. *Med.J.Aust.* 1984;141:325-327
2. Hanna JN, Wakefield JE, Doolan CJ, Messner JL. Childhood immunisation: factors associated with failure to complete the recommended schedule by two years of age. *Aust.J.Public Health* 1994;18:15-21.
3. Hanna J, Messer R. Three deaths from the late complications of measles. *Comm.Dis.Intell.* 1994;18:220-252.

Case Definition:

Any child less than 16 years of age with:

- a) **A typical history i.e. insidious onset of mental deterioration, followed (usually within a few months) by progressive motor dysfunction, involuntary movements, dementia and ultimately decerebration and death and**
- b) **Raised measles antibody titres in the CSF and/or**
- c) **Typical histopathological features of the brain at autopsy**
- d) **EEG changes showing "periodic complexes" would also be supportive of the diagnosis**

Reporting Instructions:

Please report any **new** cases seen in the past month, including those born abroad, if they have not been previously reported. Please report suspected cases, even if the diagnosis is in doubt.

Follow-up of positive notifications:

A questionnaire requesting brief clinical details will be sent to all reporting clinicians.