Australian Paediatric Surveillance Unit
STUDY PROTOCOL
Acute Flaccid Paralysis

Commenced 1995

Revised AFP Study Protocol 06/2014

The AFP Study Group announces a briefer questionnaire for the collection of clinical data. Other study details remain unchanged.

BACKGROUND

Acute flaccid paralysis (AFP) is defined as the acute onset of flaccid paralysis in one or more limbs or acute onset of bulbar paralysis. In the past, acute poliomyelitis was the most common cause of AFP, now Guillian-Barre syndrome and transverse myelitis are the two leading causes of non-polio AFP (for other causes see table 1).

This study commenced in March 1995 at the request of the Commonwealth Department of Health in order to meet the certification requirements of the World Health Organisation for poliomyelitis eradication. In October 2000 the Western Pacific region, which includes Australia, was certified free of circulating wild poliovirus. However, **AFP surveillance must continue to document maintenance of Australia's polio-free status and to detect imported cases and cases of vaccine associated paralytic polio.**

STUDY OBJECTIVES

1. To determine whether AFP is caused by poliovirus infection and if so, whether it is 'wild' or vaccine strain poliovirus.
2. To document the reported rate of AFP over time and to assess the adequacy of AFP surveillance according to WHO criteria
3. To monitor the aetiology, clinical features and outcome at 60 days of non-polio AFP.

Table 1: Causes of AFP

Peripheral neuropathy
- Guillain-Barre syndrome
- Acute axonal neuropathy
- Neuropathies of infectious diseases
- Acute toxic neuropathies (heavy metals, snake toxin)
- Focal mononeuropathy

Anterior horn cell disease
- Acute anterior poliomyelitis
- Other neurotropic viruses

Systemic disease
- Acute porphyrias
- Critical illness neuropathy
- Acute myopathy in ICU Patients

Muscle disorders
- Polymyositis, dermatomyositis
- Trichinosis
- Periodic paralyses
- Corticosteroids and blocking agents
- Mitochondrial diseases (infantile type)
- Post viral myositis

Acute myelopathy
- Cord compression *eg: Tumor, trauma*
- Demyelinating diseases *eg: transverse myelitis, acute disseminated encephalomyelitis (ADEM)*
- Ischaemic cord damage *eg: anterior spinal artery syndrome*
- peri-operative complication

Disorders of neuromuscular transmission
- Myaesthenia gravis
- Botulism
- Insecticide *eg: organophosphate poisoning*
- Tick bite paralysis
- Snake bite

CASE DEFINITION

Please report any *child less than 15 years of age* with acute flaccid paralysis in one or more limbs or acute onset of bulbar paralysis.

All cases are reviewed by the National Polio Expert Panel and classified as: confirmed poliomyelitis; non-polio AFP, polio-compatible or non-AFP.

REPORTING INSTRUCTIONS

Telephone/Email reporting: Please report cases ***immediately by telephone*** to VIDRL on (03) 9342 9607 **or email** enterovirus@mh.org.au.

APSU reporting: Also report cases on the *monthly APSU report card.*
Please keep patient details in your blue APSU folder

It is important that stool specimens be collected from all patients with AFP, even when an alternative definitive diagnosis has been confirmed.

COLLECTION OF STOOL SAMPLES

- Please collect **2 stool samples 24 hours apart within 2 weeks of onset of paralysis** and send them to your local laboratory who will forward them to the **National Enterovirus Reference Laboratory, VIDRL, Doherty Institute, 792 Elizabeth Street, Melbourne Victoria 3000**
- On the request form the patient must be identified as having **AFP**.
- Please inform the laboratory that the **specimens must be forwarded to VIDRL for exclusion of poliovirus**.
- All costs for transport and analysis will be borne by VIDRL. Information regarding specimen transport can be obtained from the National Enterovirus Reference Laboratory at VIDRL *on 03 9342 9607,* or at http://www.vidrl.org.au/laboratories/poliovirus-reference/specimen-referral/
- VIDRL will send results to your local laboratory.

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