# SUBDURAL HAEMORRHAGE IN CHILDREN UNDER 2 YEARS OF AGE

## Background

Subdural haemorrhage is sometimes seen in neonates, particularly after traumatic delivery. In New Zealand, it has also been described in a small group of infants prior to birth, possibly as a complication of trauma *in utero*. It may rarely be seen in infants with coagulopathy, inborn errors of metabolism associated with severe cerebral abnormality, and severe accidental trauma.

Subdural haemorrhage is more	often seen in infants v	vho have none of	these conditions. They
are almost always under the age	e of two years. They o	ften present with	no history of injury, or
with a history of trivial trauma. They may be found after investigation to have other injuries			
which may include: subgaleal bleeding, intracerebral bleeding, cerebral oedema, axonal			
injury, injury to the cervical spine, retinal haemorrhage and bony injuries (typically ribs and			

There is no New Zealand literature on subdural haemorrhage in early childhood. The information from this study will provide basic epidemiological knowledge. It will inform health care workers, caregivers and statutory agencies, and may assist in obtaining the kind of intervention needed to protect infants from further injury. This information will also enable us to plan more comprehensive studies looking at outcomes related both to medical and statutory interventions.

#### Objective

To study the incidence, etiology and initial outcome of subdural haemorrhage in infants under the age of 2 years in New Zealand.

# Case Definition

A child under the age of 2 years with subdural haemorrhage

#### **Diagnostic Criterion**

The diagnostic criterion is the presence of blood in the subdural compartment. This may be established radiologically (by the typical appearances of blood on CT scan or MRI) or pathologically (by subdural tap or postmortem examination).

## **Reporting Instructions**

Please report any new patient under the age of 2 years seen in the last month with subdural haemorrhage as defined above. You will receive a request to complete a short questionnaire concerning this child.

## Additional request

The radiological diagnosis of blood in the subdural compartment may be problematic. To ensure consistency of radiological interpretation for the purposes of this study, when you receive the questionnaire you will be also be requested to forward the <u>original</u> CT scan and MRI films to the address given below. The films will be reviewed by a paediatric neuroradiologist, and returned to you by courier within 2 weeks, with a copy of the paediatric neuroradiologist's report. When the films are received, the Whakaruruhau administrator will cover the patient label on the films with a blank sticker containing the identifying code and the date of the Xray. No other identifying information will be disclosed to the investigators or the reviewing neuroradiologist. The Whakaruruhau administrator will remove these stickers before the films are returned to you.

Please forward to:

Ngaire Lynch, Administrator

Whakaruruhau, Starship Children's Hospital

Park Road, Auckland, New Zealand

Fax:

09 3074930

Phone:

09 3074907

email:

whakaruru@ahsl.co.nz

#### Follow-up

A short questionnaire requesting demographic and clinical details will be forwarded to those reporting a case. A follow-up questionnaire will be sent 12 months later

#### **Principal Investigators**

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If you have any questions please contact Dr Patrick Kelly:

Fax:

09 3074930

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09 3074907 (home) 09 4457812

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## THANK YOU FOR YOUR HELP WITH THIS STUDY