Perinatal and Maternal Mortality Review Committee

He matenga ohorere, he wairua uiui, wairua mutungakore

REPORTING FORM FOR INFANT WITH NEONATAL ENCEPHALOPATHY

Neonatal encephalopathy:

A clinically defined syndrome of disturbed neurological function within the first week of life in the term of an infant, manifested by difficulty in initiating and maintaining respiration, depression of tone and reflexes, subnormal level of consciousness and often seizures. The severity of the encephalopathy is measured by the Sarnat stages 1, 2, or 3 or as mild, moderate and severe. Details of this staging classification are given in the Table below.

	Stage 1/ Mild	**Stage 2 / Moderate**	**Stage 3 / Severe**
Level of consciousness	hyperalert	lethargic or obtunded	stuporous
Muscle Tone	normal	mild /moderate hypotonia	flaccid
Posture	mild distal flexion	strong distal flexion	intermittent decerebration
Stretch reflexes	overactive	overactive	decrease or absent
Suck	weak	weak or absent	absent
Moro	Strong / low threshold	Weak / incomplete high threshold	absent
Autonomic Function	generalized sympathetic	generalized parasympathetic	both system depressed
Seizures	none	Common / focal or multifocal	uncommon

What was the worst Sarnat stage of encephalopathy during admission? **(select one)**

Moderate ☐ Severe ☐

We wish to collect data on infants who present with **moderate or severe neonatal encephalopathy** (defined below) in the **first seven days after birth**. If the child has mild encephalopathy only or is over seven days old please do not report the case.

PLEASE RETURN THE FORM EVEN IF YOU ARE UNABLE TO ANSWER ALL QUESTIONS

Personally identifiable information (of the mother, baby or lead maternity carer) will be collected on this form under the auspices of the PMMRC and will be kept confidential (see study information sheet for details).

1. Baby's NHI: _____ **Mother's NHI:** _____

2. Baby's first name(s): _____ **Mother's first name(s):** _____

3. Baby's last name(s): _____ **Mother's last name(s):** _____

4. Gender: Male ☐ Female ☐ Undetermined ☐

5. Baby's ethnicity (Select **all** relevant)

☐ New Zealand European ☐ Tongan

☐ Māori ☐ Niuean

☐ Samoan ☐ Chinese

☐ Cook Island Māori ☐ Indian

☐ Other (such as Dutch, Japanese, Tokelauan), If other please state: _____

6. Date and time of birth:

Date: ☐☐/☐☐/☐☐☐☐ (DD/MM/YYYY) Time: ☐☐:☐☐ hrs (24 hour Clock)

7. Gestation at birth: ☐☐ Wks ☐ days

8. Baby's Birth Weight: **Baby's Length:** **Baby's Head Circumference**

☐☐☐☐**grms** ☐☐.☐**cm** ☐☐.☐**cm**

9. Apgar scores:

1min ☐ 5min ☐ 10min ☐ 15min ☐ 20min ☐

10. Cord gases: Obtained ☐ (give result below) Not taken ☐

If no cord gas taken but arterial gas obtained < 1 hour after birth ☐ (tick here and give result below)

		Arterial		Venous
pH		☐.☐☐		☐.☐☐
Base deficit	+ / -	☐☐.☐	+ / -	☐☐.☐
Lactate		☐☐.☐		☐☐.☐

11. Resuscitation at birth:

Was the baby resuscitated at birth? Yes ☐ No ☐ Unknown ☐

Resuscitation methods: (Select **all** relevant) IPPV intermittent positive pressure ventilation ETTendotracheal tube

Stimulation/suction?

Oxygen only ☐ IPPV with mask ☐ IPPV with ETT ☐

Cardiac massage ☐ Adrenaline ☐ Unknown ☐

12. Was the baby transferred from their place of birth?

Yes ☐ No ☐ Unknown ☐

(If "yes" is selected then please answer question below otherwise skip to next question)

13. Where was the baby transferred after birth to? (Select one)

Level III / NICU ☐ Level II / SCBU ☐ Post Natal Ward ☐

Home ☐ Other ☐ Please state other: ☐

14. Were there any subsequent transfers? Yes ☐ No ☐ Unknown ☐

Date and time of first transfer:

Date: ☐☐/☐☐/☐☐☐☐ (DD/MM/YYYY) Time: ☐☐:☐☐ hrs (24 hour Clock)

Date and time of any subsequent transfer: Please specify location: ☐

Date: ☐☐/☐☐/☐☐☐☐ (DD/MM/YYYY) Time: ☐☐:☐☐ hrs (24 hour Clock)

Date and time of any subsequent transfer: Please specify location: ☐

15. Neonatal course: (Select **all** relevant investigations / interventions carried out)

a) Respiratory and ventilation management

Mechanical ventilation (tick if yes) Yes ☐ No ☐ Unknown ☐

Nitric oxide Yes ☐ No ☐ Unknown ☐

b) Infection

Positive blood culture (tick if yes) Yes ☐ No ☐ Unknown ☐

Specify organism if positive: ☐

Antibiotics Yes ☐ No ☐ Unknown ☐

c) Neurology

Anticonvulsant therapy (tick if yes) Yes ☐ No ☐ Unknown ☐

Drugs used:

Phenobarbitone ☐ Phenytoin ☐ Benzodiazepines ☐

Lignocaine ☐ Other ☐ Please state other: ☐

- Electroencephalograph: Yes ☐ No ☐ Unknown ☐

Day of life EEG performed: ☐☐ Result (select one) *(For definition see study guide)*

Normal ☐ Mildly abnormal ☐ Severely abnormal ☐

- Neuroimaging with MRI : Yes ☐ No ☐ Unknown ☐

Day of life MRI performed: ☐☐

Normal or only mildly abnormal ☐ Mod/severely abnormal ☐

- Induced hypothermia / cooling Yes ☐ No ☐ Unknown ☐

Total Body ☐ Selective head cooling ☐

Date and time when cooling commenced:

Date: ☐☐/☐☐/☐☐☐☐ (DD/MM/YYYY) Time: ☐☐:☐☐ hrs (24 hour Clock)

d) Associated Diagnoses: (Select **all** relevant)

Birth trauma Yes ☐ No ☐ Unknown ☐

Congenital CNS abnormality Yes ☐ No ☐ Unknown ☐

Hypoglycaemia Yes ☐ No ☐ Unknown ☐

Inborn error of metabolism Yes ☐ No ☐ Unknown ☐

Congenital cardiac disease Yes ☐ No ☐ Unknown ☐

Other Yes ☐ No ☐ Unknown ☐

If other please state: ☐

16. Systems Review - Contributory and Causative factors

Contributory factors may be highly specific to the death or generalised to the system(s). Identifying contributory factors that occur, and are inherent in, the system is an important part of the review.

Were there any features that caused or contributed to an unsatisfactory neonatal resuscitation?

☐ Yes ☐ No ☐ Unsure

If unsure please read following questions:

Have any organisational and/or management factors been identified? ☐

Have factors relating to personnel or training been identified? ☐

Have factors relating to technology or equipment been identified? ☐

Have factors relating to the environment been identified? ☐

Have factors relating to the woman and her family been identified? ☐

Give further details here if required:

17. Discharge Information at time of discharge from your unit

Date: ☐☐/☐☐/☐☐☐☐ (DD/MM/YYYY)

Is Discharge home? ☐ Yes ☐ No If no, specify location:

Examination on discharge? Normal / Mild or moderate abnormality / Severe abnormality (circle)

Feeding method on discharge? (Select **all** relevant)

Full sucking feeds Yes ☐ No ☐ Unknown ☐

Feeding support Yes ☐ No ☐ Unknown ☐

Respiratory support required? (Select **all** relevant)

Suctioning Yes ☐ No ☐ Unknown ☐

Oxygen Yes ☐ No ☐ Unknown ☐

Anticonvulsants therapy?

Ongoing therapy Yes ☐ No ☐ Unknown ☐

If yes please state drugs:

Support services involved?

Ongoing involvement Yes ☐ No ☐ Unknown ☐

If yes please state them:

18. LMC Details:

LMC details are required so we can contact them under the auspices of the PMMRC and collect further details of the perinatal/antenatal course.

Name:

Address:

Contact Phone:

Contact Email:

19. Summary

Please provide any information you think relevant that was not covered in the previous questions, which you consider may have contributed to the outcome. (Please continue over page)

Form completed by:

Name:	
Designation:	
Contact Phone:	
Contact Email:	
Date:	

Please send (mail or fax) the completed form to:

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