HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Neonatal Intensive Care Unit (NICU)		
Document:	Multidisciplinary Policy and Procedure		
Title:	Management of Intraventricular Haemorrhage (IVH)		
Applies To:	All NICU Staff		
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1. PURPOSE:

1.1 The guidelines help health care provider to give maximum support and proper treatment according to last updated evidence in the medical field.

2. DEFINITIONS:

2.1 Intraventricular haemorrhage (IVH) considered one of the important causes of brain injury in premature infants. Improvement of survival among extremely premature infants lead to greater number of survivors with this condition, 90% occur in the first three days after birth.
The degree of IVH
Grade I – Only germinal matrix Haemorrhage.
Grade II – IVH within ventricle without ventricular Dilatation.
Grade III – IVH within ventricle with ventricular dilatation.
Grade IV – Haemorrhage in any parenchymal location in addition to a unilateral or bilateral IVH.

3. POLICY:

3.1 Written order for cranial ultrasound to be done by physician
3.2 Clinical presentation of IVH :
3.2.1 Catastrophic: Acute IVH with bulging fontanel, split sutures, change in level of consciousness, pupillary and cranial nerve abnormalities, decerebrate posturing, and often with a rapid decrease in blood pressure and haematocrit.
3.2.2 Saltatory: Gradual deterioration in neurological status may be subtle abnormalities in the level of consciousness, movement, tone, respiration, and eye position/ movement.
3.2.3 Asymptomatic: 25-50% of IVH. Fall in haematocrit or failure of haematocrit to rise with transfusion should cause concern.

4. PROCEDURE:

4.1 **Time of Brain Ultrasound Screening**

GESTATION					
< 30 weeks	0-3 days		6-10 days	14-16 days	36 weeks CGA or at discharge
30-32 weeks		3-7 days			36 weeks CGA or at discharge

4.1.1 CGA = Corrected gestational age
4.1.2 Scan babies of ≥ 32 weeks only if clinically indicated
4.1.3 Scan all eligible babies at 4 to 6 weeks for periventricular leukomalacia (PVL)
4.2 If the baby has IVH (Grade 1-2)
4.2.1 Observe

4.2.2 Consider repeating brain ultrasound.

4.3 If the baby has IVH (Grade 3-4)

4.3.1 Daily head circumference

4.3.2 Monitor hemoglobin and Haematocrit

4.3.3 Monitor for apnea and any abnormal movement.

4.3.4 Consult neurosurgeon if hydrocephalus suspected

4.3.5 Update Parents

4.4 Document the changes in physician progress note and nurses note

5. MATERIALS AND EQUIPMENT:

5.1 Measuring tape

5.2 Cardiac monitors

5.3 Ultrasound machine

6. RESPONSIBILITIES:

6.1 Physician

6.2 Nurse

6.3 Ultrasound staff

7. APPENDICES:

N/A

8. REFERENCES:

8.1 Christensen RD, Baer VL, Lambert DK, et al. Association, among very-low-birth-weight neonates, between red blood cell transfusions in the week after birth and severe intaventricular haemorrhage. Transfusion 2014;54:104

8.2 J Pediatric 2016 Oct: 177:108-13 doi: 10.1016/j.jpeds.2016.06.051. Epub 2016 Jul 26. Intubation attempts Increase the Risk for Severe Intraventricular Haemorrhage in Preterm Infants-A Retrospective Cohort Study.

8.3 Neonatal Guidelines 2017-19 Published by the Bedside Clinical Guidelines Partnership, Staffordshire, Shropshire and black country Neonatal Operational delivery Network and Southern West Midlands Neonatal Operational Delivery Network

9. APPROVALS:

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