Norfolk and Norwich University Hospitals NHS Foundation Trust

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Joint Guideline for the Follow-Up of Infants on NICU

A Clinical Guideline recommended for use

For Use in:	Neonatal Intensive Care Unit and postnatal wards
By:	Medical and nursing staff
For:	Infants admitted to the neonatal intensive care unit
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1.2	07/03/2022	Reviewed with no clinical changes	Dr Paul Clarke

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Joint Guideline for the Follow-Up of Infants on NICU

1) Quick reference guideline:

Follow up should be arranged for infants with the following conditions (in the appropriate consultant neonatologist clinic) at **6-8 weeks** from discharge: it is the responsibility of the ***person completing the discharge summary*** to arrange the follow up appointment.

- < 32 weeks' gestation
- Very low birth weight (VLBW) infant (<1500g)
- Significant Respiratory Distress Syndrome (RDS) (requiring mechanical ventilation)
- Cardiac anomalies
- Cleft lip / palate
- Hypoxic Ischaemic Encephalopathy (of any grade if received therapeutic hypothermia)
- Chromosomal abnormalities
- Multiple congenital abnormalities
- Neonatal abstinence syndrome requiring treatment
- Maternal HIV (Dr Walston)
- Abnormal antenatal renal ultrasound scans - discuss with consultant for timing of appointment
- Antenatal diagnosis of ventriculomegaly or other brain abnormality (choroid plexus cysts as an isolated abnormality in an otherwise normal newborn ***does not*** require follow up)
- Any infant with a major abnormality detected on cerebral ultrasonography ('Major abnormalities' include grade 3 or 4 intraventricular haemorrhage, cystic periventricular leucomalacia (any grade), subcortical leukomalacia, basal ganglia lesions, and focal infarction)
- Post-surgical procedure - appointment with paediatric surgeon
- Infants discharged under the care of the Neonatal Outreach team – at the discretion of the Outreach team
- Babies with significant neonatal jaundice:
    - where investigations were required for prolonged jaundice
    - where exchange transfusion was required
    - Haemolytic jaundice where direct Coomb's test more than ++

Note:

1. In infants in whom there have been significant social concerns and/or where there is doubt as to whether a particular infant requires follow up with a neonatology consultant, please discuss with a consultant prior to discharge.
2. Preterm infants ≥32 weeks gestation who do not have a qualifying reason for follow up *do not* require a routine follow-up clinic appointment. If in doubt, please discuss with relevant consultant neonatologist!

Referral for BSID-3 formal developmental assessment

Referral for formal developmental assessment at the corrected age of 2 years is indicated for some infants (as shown below); it is the responsibility of the *consultant neonatologist* to make this referral

> According to current regionally-agreed screening criteria for high-risk infants:
>
> (i) Infants with birth weight <1000g and/or born at <30 weeks gestation
>
> (ii) Infants with hypoxic-ischaemic encephalopathy who required therapeutic hypothermia

These infants are at higher risk of adverse neurodevelopmental outcome and should be referred by the neonatologist to **Dr Priya Muthukumar**, consultant neonatologist responsible for neurodevelopmental follow-up clinic. Referrals should be made as a written consultant-to-consultant request at the age of ~18 months for a BSID-3 developmental assessment to be done at approximately 2 years corrected age.

Note: VLBW infants not qualifying for formal neurodevelopmental assessment according to above criteria (ie of birth weight 1000 – 1499 g) should be followed up by the responsible consultant neonatologist until age 2 years corrected, at which time, as part of their final review, the 2 year parental questionnaire of development should be completed and recorded in the BadgerNet electronic database.

Referral to community paediatrician for consideration of formal developmental assessment

All other **high-risk babies** (i.e., higher risk of adverse neurodevelopmental outcome – as defined below) irrespective of birth gestation/ weight should be followed up by the responsible neonatologist in their out-patient clinic. These infants should be referred to the community paediatric team for consideration of a formal developmental assessment at the corrected age of 2 years. The timing of the referral will be at the discretion of the consultant neonatologist responsible for the infant and would depend on the individual case. Address referral letter to: Consultant Community Paediatrician, Child Development Unit, 40 Upton Road, Norwich, Norfolk, NR4 7PA

Infants categorised as 'high-risk' are those with:

- Neonatal Seizure disorder requiring anticonvulsant drug treatment at discharge
- Infants with grade 3–4 intraventricular haemorrhage
- Proven neonatal meningitis (or other significant sepsis) that was associated with seizures or brain abnormalities on cerebral imaging.
- Congenital brain malformations

- Cerebral infarction/ perinatal arterial ischaemic stroke
- Documented periventricular leucomalacia
- Hydrocephalus
- Syndromic diagnoses (where syndrome is recognised to be associated with neuro-developmental delay)

2) Objective of Guideline

To define the follow up criteria for infants admitted to the neonatal intensive care unit

3) Rationale for the recommendations

This guideline is intended to introduce and maintain consistency in the criteria used to allocate outpatient follow-up after discharge from the neonatal intensive care unit.

4) Clinical Audit Standards derived from guideline

- All infants who qualify for follow-up are offered an outpatient appointment following discharge from NICU
- All infants who qualify for formal neurodevelopmental assessment are notified to Dr Priya Muthukumar, consultant neonatologist, and are offered an appointment for BSID-3 neurodevelopmental assessment at the corrected age of 2 years

5) Summary of development and consultation process undertaken before registration and dissemination

This guideline was drafted by the authors listed above, on behalf of the neonatal intensive care unit. During its development it was circulated for comment to consultants, other medical staff, nursing staff and administrative and clerical staff on the neonatal unit*:* Suggestions for changes to the inclusion criteria were incorporated into the final guideline. This revised version of the guideline was agreed by the consultant neonatologists.

6) Distribution list/ dissemination method

Hospital intranet, NICU guideline folder.