

## Examination of the Newborn

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<b>To be read in conjunction with the following documents:</b>			
<b>Are there any eCARE implications?</b> No			
<b>CQC Fundamental standards:</b> Regulation 9 – person centred care Regulation 10 – dignity and respect Regulation 11 – Need for consent Regulation 12 – Safe care and treatment Regulation 13 – Safeguarding service users from abuse and improper treatment Regulation 14 – Meeting nutritional and hydration needs Regulation 15 – Premises and equipment Regulation 16 – Receiving and acting on complaints Regulation 17 – Good governance Regulation 18 – Staffing Regulation 19 – Fit and proper			

### Disclaimer

Since every patient's history is different, and even the most exhaustive sources of information cannot cover every possible eventuality, you should be aware that all information is provided in this document on the basis that the healthcare professionals responsible for patient care will retain full and sole responsibility for decisions relating to patient care; the document is intended to supplement, not substitute for, the expertise and judgment of physicians, pharmacists or other healthcare professionals and should not be taken as an indication of suitability of a particular treatment for a particular individual.

The ultimate responsibility for the use of the guideline, dosage of drugs and correct following of instructions as well as the interpretation of the published material **lies solely with you** as the medical practitioner.

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## Guideline Statement

This guideline is necessary to ensure correct process for the completion of a newborn baby check in line with the Newborn and Infant Physical Examination Programme.

## Executive Summary

After a baby is born, the Midwife will carry out an initial preliminary examination on the baby. Then every neonate must have a thorough physical examination carried out by a Paediatrician, Advanced Neonatal Nurse Practitioner (ANNP) or appropriately trained Midwife who has completed an approved course in examination of the newborn, within 72 hours of birth.

### 1.0 Roles and Responsibilities

Paediatricians / ANNPs - to perform NIPE for all babies and enter date into NIPE Smart system immediately after the examination has taken place.

Midwives - with appropriate training may take on the responsibility for healthy/term infants in all birth settings.

This document requires that Midwives with appropriate training, ANNP's and Paediatricians undergo the required training as described in the Training Needs Analysis. Please see Maternity Services Training Needs Analysis.

### 2.0 Implementation and Dissemination of Document

This document will be disseminated across the maternity unit, through team meetings, and circulation to all colleagues. This document will be published on the Trust Intranet.

### 3.0 Processes and Procedures

#### 3.1 Initial Examination Following Birth

Prior to examination the Midwife will check for a 'Baby Alert' form in case of suspected conditions or maternal conditions that can put the baby at risk

After a baby is born, the Midwife will carry out an initial preliminary examination on the baby. This examination must be performed with the mother present unless the baby has been admitted to NNU. This includes a top to toe assessment of the baby for any obvious signs of abnormality or deviation from the normal. Any defects or problems identified will be referred immediately to a paediatrician. The Midwife must explain the purpose of the examination to the parents. The baby must be observed naked in a good light, consideration must be given to the fact that babies get cold quickly and the room must be warm.

Suggested order of the examination is as outlined below. Details of what to look for and action if problems are identified are summarized in enclosed explanatory note (section 3.2.6). It is carried out when the baby is calm and comfortable. Babies must be examined when undressed.

This initial examination is recorded in the Baby's Birth Notes and if there are any concerns at the time of this examination then the paediatrician/ANNP is informed and asked to review the baby. If any anomaly is detected, whether it is previously suspected or not, the anomaly form needs to be completed and sent to the Screening Lead Midwife.

## The Midwife must

- Observe overall symmetry and for any signs of bruising or abrasions
- The baby must have good tone, be pink and warm (the extremities i.e. fingers and feet) may still be blue. Take baby's temperature. The baby must be alert.
- The breathing of a new born can be erratic in this early stage especially if the baby is crying; however, there must be no recession of the chest wall and no audible sound in breathing e.g. 'grunting'. The skin must be well perfused and pink. The mucous membranes must be pink.
- Check the head for obvious bruising or other trauma or misshaping that has occurred as a result of the birth. The skull must be examined and the amount of overriding of the skull bones at the sutures and fontanelles noted. The head circumference must be measured in centimetres.
- Visualise both eyes to confirm that they are present, and they look normal. There must be no signs of infection or milky colouring of the lens.
- Check the mouth is normal and the palate is fully formed by placing a clean finger into the mouth and feeling for any cleft. The sucking reflex can be checked at the same time. The tongue must not be overly large or protruding from the mouth. The soft palate must be palpated with finger for a cleft. If a tongue tie is suspected please document and inform the parents and midwife responsible for care so that feeding can be assessed and a referral made only when appropriate (see Ankyloglossia (Tongue Tie) Guideline).
- The ears must be inspected, noting their position. Accessory auricles and small tags of tissue are sometimes noted. Ear abnormalities must be reported to the paediatrician as they can be associated with chromosomal anomalies and syndromes.
- Ensure that the neck is fully mobile. Document if the baby prefers to hold the head to one side.
- Document any webbing of the neck or any excess skin at the nape of the neck, as this may indicate a Syndrome (for example Turner's syndrome).
- Observe the mobility of the upper limbs. If the birth was traumatic observe for any bruising, swelling or palsy.
- The abdomen must be checked for any abnormal swelling or hernias. The cord must be checked to ensure that it is clamped securely.
- The genitalia must be checked. Any doubt about sex of the baby needs urgent referral to a paediatrician. **DO NOT INFORM PARENTS YOURSELF – CONTACT PAEDIATRIC REGISTRAR/CONSULTANT IMMEDIATELY.**

**Do not refer to gender. If directly asked by parent(s) be honest that you are unsure of baby's gender but will get a senior colleague to review as soon as possible.**

- Genitalia is often swollen but this is normal in the first few hours. The testes may not have descended at this stage but must be palpated and if undescended, documented in notes. Patency of both the urethra and the anus must be ascertained at birth.
- The fingers and toes must be counted and noted for normal size and shape, there must be no webbing. The palmar and plantar creases must be checked.

- The legs must be equal length
- The back must be checked for any signs of spinal abnormalities
- The temperature must be checked within the first hour of life – prior to examination.
- The baby must be weighed and Vitamin K given with parental consent
- The baby must be identified and labelled in accordance with the Procedure for patient identification. Labels must be checked with parents prior to putting on baby.

**All of the above must be clearly documented on the postnatal records.**

Any abnormality or concern must be reported to the paediatrician/ANNP, a plan for assessment must be made and documented and the same must be handed over to the ward staff.

Midwives undertaking assessment following a home birth can contact the paediatric registrar on bleep 1631 to discuss identified abnormalities/concern and subsequent management plan.

### **3.2 First Full Examination of the Newborn Infant (NIPE) (See Appendix 1)**

Examination of the newborn is a screening procedure undertaken by a paediatrician, ANNP or an appropriately trained Midwife who has completed an approved course in examination of the newborn.

It is the responsibility of the practitioners to ensure that they undertake an annual update to ensure that their skills are within current guidance.

The examination of the newborn must be performed within the first 72 hours of life, though it may be undertaken after 4 hours of age and no later than 72 hours of age. It must be explained to parents that some conditions do not become evident until baby is older and this is why further examinations are carried out e.g. at 6-8 weeks by their GP.

The NIPE must be carried out prior to discharge home unless exceptional circumstances.

To be read in conjunction with Trust Guideline: Pulse-Oximetry (Universal) Screening which is undertaken at 4-72 hours in an apparently well baby carried out at the time of NIPE.

#### **3.2.1 Process for NIPE Examination**

All staff designated to be qualified and competent to perform NIPE must ensure that they have access to NIPE computer system. Logins and passwords can be obtained from the Ward Clerk on NNU. Nursing and midwifery Examination of the Newborn accreditation will be required and confirmed prior to a NIPE login being granted.

The practitioner undertaking NIPE for that shift will print off 'babies not started' 'To Do' List from NIPE Smart and discuss with midwife in charge if there are any concerns regarding the babies under their care.

The NIPE paperwork consists of three sheets. The first sheet and second sheet is double sided which is inserted into the baby's Personal Child Health Record (PCHR), The second sheet is kept

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for EDM – An MRN sticker is placed on this copy and is then placed in the EDM Box in the locked Ward 9 Ward Clerk Office.

Any abnormal findings must be discussed with the parents, documented in the baby's eCare record and the Midwife caring for the baby informed of the plan.

Babies admitted to the Neonatal Unit, where appropriate, must have their NIPE within the recommended time limit. Where the baby is extremely premature or unwell, the cardio-respiratory functions are monitored daily. The remainder of the newborn examination is completed as soon as possible thereafter once the baby is stable.

The following babies must have their NIPE undertaken by a paediatrician / ANNP:

- Abnormalities detected in the antenatal period e.g. dilated renal pelvis
- Babies assessed at birth with a problem
- Any congenital abnormality including heart disease and family history of any genetic or inherited disorder
- Blood disorders e.g. high antibody titres
- Known maternal infection e.g. Herpes, Hepatitis B or C, HIV.
- Maternal alcohol and drug misuse
- Admitted to neonatal intensive care unit (NICU)

### 3.2.2 Babies Transferred to Other Hospitals

If the newborn check has not been completed the receiving hospital must be informed and it is their responsibility to ensure the newborn examination is completed in a timely manner. Babies being re-admitted from another hospital must have their transfer documentation checked to ensure that the newborn examination has been completed and, if not, the newborn examination must be completed as soon as possible post admission and before discharge home.

### 3.2.3 Referral

- The clinician examining the baby must have the knowledge and ability to refer promptly and directly to the appropriate specialist clinician, when an actual and/or potential problem is identified.
- Referral must be sent directly to paediatric services and, if in the community, the General Practitioner (GP) must be informed.
- All babies with cardiac murmurs must be referred for immediate review and investigation (see Heart Murmurs in Neonates Guideline).
- Babies in high risk groups for hip problems must have an automatic referral, regardless of clinical findings
- Babies, in whom there is a history of hereditary eye conditions in the immediate family, must be referred for examination by a specialist.
- Parents must be given a full explanation of the reason and timescale of the referral.

### 3.2.4 Documentation

Discuss and confirm the outcome of the full physical examination with the parent(s) and answer any questions or queries at the time of completing the examination.

Ensure that the outcome of the full physical examination is appropriately and accurately entered onto the NIPE programme and that the documentation is printed off and placed into the PCHR and the copy is sent for EDM.



Complete the relevant referral forms if required.

Ensure those involved in providing future health care to the family, e.g. Community Midwives and GP's, receive the relevant information relating to the baby.

### 3.2.5 The History

Prior to examination, the health professional will introduce themselves to the parents and obtain consent from the mother. The health professional must ask about the pregnancy, birth and any family history of note. The health professional will read the handheld pregnancy record (EPR as at May 2018). All maternal documentation should be available on the hospital eCare system – Antenatal scans and reports are available on the hospital PACs system if not in the handheld notes. Also check for 'Baby Alert' form. They will also ask the mother how she is feeling. It is also an opportunity for the parents to ask questions (e.g.: Antenatal and Newborn Screening Programmes).

If there is a language barrier then the health professional must ensure there is an interpreter available at the time of the examination.

Identify parental concerns and review family history with particular attention to (NIPE 2008):

- a) Dysplasia of the hip, particularly in 1<sup>st</sup> degree relatives (parents and siblings)
- b) Early onset of **visual impairment** in 1<sup>st</sup> degree relatives.
- c) Family history of congenital cardiac abnormalities in first degree relatives.
- d) TB- BCG vaccine to be offered and given to high risk groups. Please see BCG Immunisation in Children guideline.

### 3.2.6 The Examination

#### Explanatory Notes on Common Examination Findings and Suggested Action

##### Skin Colour

<b>Cyanosis</b>	Peripheral cyanosis of hands, feet, circum-oral area is common during the first 48 hours. Central cyanosis of lips and tongue needs urgent investigation, pulse oximetry on upper right AND lower limbs will help differentiate. Significant cyanosis may be masked by pallor due to circulatory failure or anaemia.
<b>Pallor</b>	Unusual in the newborn; may indicate anaemia or poor perfusion. Check capillary return (>3 seconds = abnormal) and haemoglobin, particularly if Antepartum Haemorrhage.
<b>Jaundice</b>	Clinical assessment comes with practice – sclera and nasal tip useful sites. Jaundice in first 24 hours is abnormal and needs investigation. See Jaundice Management of the Newborn guideline for details.
<b>Mottling</b>	May be associated with serious illness or related to transient fluctuations in skin temperature.

##### Skin Texture

<b>Peeling</b>	Common in post term babies.
<b>Oedema</b>	Pitting – check for hypoalbuminaemia. Non-pitting – (particularly of feet) consider Turner's Syndrome in females.

## Skin Rashes/Birthmarks

<b>“Stork marks”</b>	Capillary naevi on forehead/back of neck – common and will fade.
<b>Port wine stains</b>	Remain static: on the face may indicate intra-cranial problems e.g. (Sturge – Weber syndrome – Paediatric Registrar to see).
<b>Strawberry naevi</b>	Will increase in size over 1-2 years and then resolve.
<b>Bruising and petechiae</b>	Normal after instrumental births, particularly on presenting part after a difficult birth, but spontaneous petechiae, purpura or ecchymoses need immediate investigation.
<b>Blue spot</b>	Slate coloured mark over the lower spine and buttocks. Commoner in babies of non-Caucasian parentage. No medical significance. Document Blue spot in NIPE records.
<b>Extensive flat naevi/ haemangiomata</b>	Are unusual: may be part of a “neuro-cutaneous syndrome” – Paediatric Registrar to see.
<b>Erythema toxicum neonatorum</b>	Small, white, vesiculo-pustular papules on an erythematous base developing 1 to 3 days after birth. Persist for about a week. Benign.

## Face

<b>General appearance</b>	If any unusual features search for other “dysmorphic features/minor variants” and look at parents (see dysmorphic features on page 14).
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## Nose

<b>Nares</b>	<ul style="list-style-type: none"> <li>- For patency and symmetry</li> <li>- Flaring indicates respiratory illness and needs prompt assessment/treatment</li> </ul>
<b>Swelling at root of nose</b>	<ul style="list-style-type: none"> <li>- Unusual, may be an encephalocele.</li> <li>- Needs careful assessment.</li> <li>- Paediatric Registrar to see.</li> </ul>

## Eyes

<b>History</b>	<p>Infants at risk of eye problems because of family history of eye disorders of childhood onset such as congenital cataract, congenital glaucoma, retinoblastoma, must be referred to the Consultant Ophthalmologist.</p> <p>If baby screens positive to any eye disorder the first assessment must be with a consultant ophthalmologist/paediatric ophthalmology service and the baby must be seen: <b>Within 2 weeks of Examination</b></p> <p>Please refer to the Visual Assessment of Pre-school Children guideline.</p>
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## Observe “visual behaviour”

<b>Look for</b>	<ul style="list-style-type: none"> <li>- presence of red reflex bilaterally</li> <li>- abnormal eye movements e.g. nystagmus</li> <li>- asymmetry in shape</li> <li>- cloudiness of cornea</li> <li>- coloboma</li> </ul> <p>If ANY of the above noted: Refer to Ophthalmology Consultant URGENTLY – baby to be seen within two weeks of the NIPE Examination.</p>
<b>Conjunctivitis</b>	<ul style="list-style-type: none"> <li>- Mild/mucoid discharge – common, needs topical care</li> <li>- Purulent – urgent swabs for Gonococcus/Chlamydia. Discuss need for treatment with Paediatric Registrar.</li> </ul>
<p>The eyes often open spontaneously if the infant is held up and tipped gently forward and backward. This manoeuvre, a result of labyrinthine and neck reflexes, is more successful for inspecting the eyes than is forcing the lids apart.</p>	

## Mouth

<b>Cleft lip +/- palate</b>	<p>Palpate and visually inspect (using a tongue depressor and light source) hard and soft palate for a complete or submucosal cleft or high arch may be unilateral/bilateral</p> <ul style="list-style-type: none"> <li>- isolated or associated with cleft palate</li> <li>- refer to Cleft Lip &amp; Palate Team at John Radcliffe, Oxford</li> </ul>
<b>Epstein’s Pearls</b>	White blobs on gums/palate – of no significance
<b>“Natal Teeth”</b>	<p>Natal teeth are rare and pose a potential risk from inhalation, or discomfort to the mother whilst breast feeding.</p> <p>Contact Consultant Orthodontist, MKUH for advice re: management.</p>

## Ears

<ul style="list-style-type: none"> <li>• Look at general shape, size, and position of ears.</li> <li>• Check auditory meatus for patency but do not attempt to visualize the ear drum.</li> <li>• Tags are often familial and if removal is desired by parents refer to plastic surgeon.</li> <li>• Pre-auricular sinuses may be associated with hearing loss and/or renal anomalies.</li> <li>• For babies with a positive family history of sensorineural hearing loss in first degree relative, ensure that newborn hearing screening is performed on the baby. Even if the newborn hearing screen is normal, inform parents that if they have any concerns regarding the baby’s hearing, they must discuss this with their GP and / or health visitor and they can be referred for further Audiology screening if appropriate.</li> </ul>
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## Head

<b>Size</b>	<p>Occipitofrontal circumference must be checked (largest diameter), recorded and plotted on centile chart. Get Paediatric Registrar to review if less than 0.4th centile or above 99.6th centile. Large fontanelles and separated sutures may be seen in normal babies, but warrant an ultrasound scan to exclude hydrocephalus.</p>
<b>Shape</b>	<p>Moulding and mild plagiocephaly are common but marked asymmetry may indicate craniosynostosis and needs investigating with further</p>

	imaging investigations. Craniosynostosis is identified by a hard non-moveable ridge over the suture and an abnormally shaped skull.
<b>Swellings</b>	<p>Non-fluctuant swelling of the presenting part of the head and the “chignon” following ventouse extraction will settle quickly.</p> <p>Fluctuant swelling confined by suture lines – cephalhaematoma does not need treatment but may take several weeks to settle fully.</p> <p>Fluctuant swelling of a large area of scalp – “subgaleal haemorrhage” can be associated with significant blood loss and needs urgent assessment. Midline swellings must be treated with suspicion.</p>
<b>Fontanelles</b>	<p>Great variations in size. Large fontanelle and separated sutures may be seen in normal babies but warrant an ultrasound scan to exclude hydrocephalus.</p> <p>Persistently small fontanelles suggest microcephaly, craniosynostosis, congenital hypothyroidism or wormian bones.</p> <p>A third fontanelle may suggest Trisomy 21 but is seen in preterm infants.</p>

## Neck

<b>Size</b>	Very short neck – may be indicative of cervical vertebrae anomaly, e.g. Klippel-Feil – refer to Paediatric Registrar to check and consider cervical spine x-ray.
<b>Shape</b>	Webbed neck – can be associated with various syndromes including Turner's/Noonan's.
<b>Swellings</b>	<p>Cystic hygroma – soft, transilluminable, fluctuant swelling in the posterior triangle.</p> <p>Sternomastoid tumour – “swelling” in the muscle, often associated with torticollis. Refer to Physiotherapist.</p> <p>Fractured clavicle – felt as crepitus. Confirm with x-ray.</p> <p>Branchial cysts/Sinuses - May occur along the line of the sternomastoid Muscle. Can be associated with inner ear abnormalities/hearing loss. Paediatric registrar to review.</p>

## Chest and Cardiovascular System

### Rate and pattern of respiration

<b>Periodic breathing</b>	Not uncommon in babies, with apnoeic spells of 5-10 seconds. Longer spells are significant and need investigating.
<b>Tachypnoea</b>	Sign of pulmonary/cardiac/metabolic pathology or sepsis. (Normal respiratory rate: 40-50/minute). Refer to Paediatric team if above normal.
<b>Palpation</b>	<p>Apex beat – must be in left 4<sup>th</sup> ICS, mid-clavicular line. Location determined to detect dextrocardia.</p> <p>Check peripheral pulses, particularly femorals.</p> <p>If these are weak/absent refer to Paediatric Registrar.</p>

<b>Auscultation</b>	Transient grade 1-2/6 ejection systolic murmurs are very common in first 48 hours.  Distinction between pathological and innocent murmurs can be difficult. Paediatric registrar to review baby and do pre- and post-ductal saturations measurements. The following approach may help. See also Heart Murmur Guidelines in Neonates.
	1. Is there peripheral circulatory collapse? If so, this is an emergency! Inform Paediatric consultant and admit to NNU.
	Are there any signs of heart failure? • e.g. tachycardia, tachypnoea, breathless on feeding, large liver Are femoral pulses easily felt? • If absent or weak, consider coarctation. If any of the above are present, urgent paediatric registrar review is required and consider admission to NNU. If baby is well and <24 hours old, review again after 24 hours. See Heart Murmur Guidelines in Neonates.
	2. Is baby well and over 48 hours old? Paediatric Registrar to review and follow Heart Murmur Guidelines in Neonates.
	<b>Pulse-Oximetry is undertaken at the time of NIPE. Please see Trust Guideline: Pulse-Oximetry (Universal) Screening</b>
<b>Breast Hypertrophy</b>	Common. Milk may be present but must not be expressed. Asymmetry, erythema, induration and tenderness must suggest mastitis or a breast abscess.

## Abdomen

<b>Observe</b>	For distension
<b>Palpate</b>	For organomegaly. Liver edge up to 2 cm, and spleen 1 cm is within normal limits. Any enlargements or unusual masses warrant investigation.
<b>Umbilicus</b>	Hernia not uncommon. Resolves spontaneously, usually within a few years.
<b>Inguinal hernia</b>	Risk of strangulation. Paediatric Registrar to check and refer to surgeons. Advise parents regarding complications.

## Genitalia

<b>Males</b>	Check position of meatus for hypo/epispadias Testicles - Check each one for descent and note whether well descended in the scrotal sac or not. (Refer to Testicular Descent guideline) Babies who are identified with <b>bilateral</b> undescended testes on the newborn physical examination - these babies must attend for assessment by a consultant paediatrician/ associate specialist within 24 hours of the newborn examination.  For unilateral undescended testis: GP to review at 6-8 weeks (See Testicular Descent Guideline – under Healthy Child Programme)
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	Hydrocoeles - Usually resolve spontaneously. No treatment required.
<b>Females</b>	Inspect vulva for anatomical abnormalities. Blood stained vaginal discharge common. Equivalent of "withdrawal period".
<b>Ambiguous genitalia</b>	This needs sensitive handling.  DO NOT INFORM PARENTS YOURSELF – CONTACT PAEDIATRIC REGISTRAR/CONSULTANT IMMEDIATELY.  Do not refer to gender. If directly asked by parent(s) be honest that you are unsure of baby's gender but will get a senior colleague to review as soon as possible.

## Anus

Check position and patency.

## Spine

Inspect for curvature and midline abnormality. The presence of a hairy patch, naevus, lipoma, dermoid, deep sinus (base not visible) warrants a detailed neurological assessment of the lower limbs and sphincters by the Paediatric Registrar and a discussion with the Consultant about investigations/follow-up. Dimples with easily visible floor situated in the buttock cleft are common and not of any consequence.

## Upper Limbs

Inspect arms for shape, posture and symmetry. Observe spontaneous arm movements. Lack of active movements suggests palsy. Lack of active movements and pain on passive movements suggest a fracture or infection. Examine the hands for accessory digits, clinodactyly and palmar crease pattern. Each of these can be familial but look carefully for other dysmorphic features. Accessory digits must be removed by the plastic surgeons.

## Lower Limbs

Inspect the legs and feet for posture, symmetry, shape and size as well as spontaneous movements. Deformities of the feet are common in the neonate. The commonest is positional talipes in which the abnormal position of the foot can be corrected passively, Trust documentation – Patient leaflets are available to give to parents so that they can carry out the exercises required to correct the positional talipes. True talipes (calcaneovalgus or equinovarus) requires orthopaedic attention. Both forms of talipes are an indication for arranging ultrasound scan of the hips (see Developmental Dysplasia of the Hip (DDH) guideline). Over-riding toes are nearly always self-correcting, syndactyly (commonest 2<sup>nd</sup>/3<sup>rd</sup> toe) is often familial, and neither

needs treatment. However, where syndactyly is identified, careful examination to exclude other abnormalities is required.

## Hips

### **A) Babies with Risk Factors require specialist hip ultrasound scan (USS):**

- First degree family history (parent or sibling) of hip problems in early life needing treatment
- Breech presentation at or after 36 completed weeks gestation irrespective of presentation at birth
- Breech presentation at birth if <36 weeks.
- In event of breech presentation in one of multiple births, all babies in the pregnancy require screening.

### **B) Babies who are found to have dislocated or dislocatable hips (DDH) on newborn physical examination will require specialist hip ultrasound scan:**

- Difference in leg length
- Knees at different levels when both hips and knees bilaterally flexed
- Difficulty in abducting a hip to 90 degrees

### **Hip USS appointment for Screen Positive (A & B):**

- **One or more Risk Factors ie: Breech, Family History of DDH etc.**

Or

- **Suspected DDH at NIPE**

### **These babies (A & B) must undergo assessment by specialist hip ultrasound within:**

- **4-6 weeks of age for babies born > 34+0**
- **38+0 – 40+0 weeks corrected age for babies <34+0 weeks gestation – for babies on NNU**

Babies who are found to have “clicky hips” or asymmetry of skin folds on physical examination must also be referred for ultrasound scan at six weeks BUT must NOT be noted as screen positive for DDH.

Details of risk factors for the selective neonatal ultrasound screening programme and techniques for clinical examination are outlined in the Developmental Dysplasia of the Hip (DDH) guideline.

## Neurological

Formal testing is seldom needed. Adequate information can be usually gleaned from talking to the mother, carefully watching, handling and listening to the baby throughout the examination.

Testing of primitive reflexes such as Moro, grasp, stepping are not required unless there are concerns.

## General observations must include

	<ul style="list-style-type: none"> <li>• Behavioural status – “degree of alertness”</li> <li>• Posture</li> <li>• Spontaneous motor activity</li> <li>• Muscle tone – with pull to sit manoeuvre, in ventral suspension and held upright supported under the armpits</li> <li>• Crying</li> <li>• Feeding and sucking patterns</li> </ul> <p>With practice and experience one is soon able to judge from the history and handling of an infant during the examination whether he/she is behaving normally.</p>
<b>Features that must arouse suspicion and need detailed assessments</b>	<ul style="list-style-type: none"> <li>• Persistent failure to suck properly</li> <li>• A high-pitched cry</li> <li>• Extreme irritability or starry-eyed appearance</li> <li>• Abnormal posturing, e.g. excessive fisting, opisthotonus</li> <li>• Frog leg posture or generalized hypotonia</li> <li>• Generalized persistent hypertonia</li> <li>• Paucity of spontaneous movements or asymmetrical movements</li> </ul>

## Dysmorphic Features

The term dysmorphic features include any anomaly of structure that results in an abnormal appearance of any part of the body. The value of their recognition is that they may serve as an indicator of “more significant structural abnormalities” or constitute valuable clues in the diagnosis of a specific pattern of malformations.

In summary, the presence of **3 or more minor anomalies** is unusual and suggestive of a more serious underlying problem. These babies need a detailed assessment by the Registrar and consultation with the Duty Consultant.

In isolation the presence of these features may be a variant of normal.

## Examples of “anomalies” are:

Epicanthic folds	Syndactyly (fusion at any level of digits)
Slanting palpebral fissures	Abnormal nails
Hyper or hypotelorism	Wide gaps between toes
Brushfield spots	Shawl scrotum
Preauricular tags/pits	Large fontanelle
Protruding ear	3 <sup>rd</sup> fontanelle
Low set ear	Accessory nipples
Malformed/underdeveloped ear	Abnormal hair pattern
Abnormal palmar/plantar creases	Micrognathia
Clinodactyly (horizontal curved finger)	Abnormal philtrum



## 4.0 Statement of Evidence/References

### 4.1 Statement of evidence

### 4.2 References

National institute for Health and Clinical Excellence (2006) Routine Postnatal care of Women and Their Babies. London: NICE. At [www.nice.org.uk](http://www.nice.org.uk)

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NHS Quality Improvement Scotland (2008) Best Practice Statement-May 2008 Routine Examination of the Newborn. Edinburgh: NHS quality Improvement Scotland At [www.nhshealthyquality.org](http://www.nhshealthyquality.org)

NMC (2008) PREPP Standard. NMC London.

Royal College of Anaesthetists, Royal College of Midwives, Royal College of Obstetricians and Gynaecologists, Royal College of Paediatricians and Child Health. (2007). Safer Childbirth. London: Royal College of Obstetricians and Gynaecologists. At [www.rcog.org.uk](http://www.rcog.org.uk)

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UK National Screening Committee (2008) Screening for You and Your Baby: Important Information to Keep With your Hand Held Maternity records. Leeds: UK NSC. At [www.screening.nhs.uk](http://www.screening.nhs.uk)

Newborn and Infant Physical Examination (NIPE) Standards and Competencies, NHS Antenatal and Newborn Screening Programmes 2008. [www.nipe.screening.nhs.uk](http://www.nipe.screening.nhs.uk).

### 4.3 External weblink references

## 5.0 Governance

### 5.1 Document review history

Version number	Review date	Reviewed by	Changes made
1	2017		
2	2020	Laurie Gatehouse	Comments addressed

### 5.2 Consultation History

Stakeholders Name/Board	Area of Expertise	Date Sent	Date Received	Comments	Endorsed Yes/No
Kate Swailes	Matron for Children's Services	22 <sup>nd</sup> July 2021		Comments made	Yes
Julie Cooper	Head of Midwifery	26 <sup>th</sup> July 2020		Comments made	
Amal Mohamed	Midwife	23 <sup>rd</sup> July 2020		Comments made	
Laura Jewell	Rotational Midwife	21 <sup>st</sup> July 2020		Comments made	
Zuzanna Gawlowski	Paediatrician	July 2020		Reviewed and happy	
James Bursell	Consultant	21 <sup>st</sup> July 2020		Reviewed and happy	
Paediatric PIG	Governance	26 <sup>th</sup> October 2020		Author made Governance aware that there will be slight changes in line with National Guidance in April 2021. A small amendment is due to be made and it was agreed this will not require circulation in April, just amending and uploaded.	Yes
Paediatric CIG	Governance	9 <sup>th</sup> November 2020		Author made Governance aware that there will be slight changes in line with National Guidance in April 2021. A small amendment is due to be made and it was agreed this will not require circulation in April, just amending and uploaded.	Yes

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Guidelines Review Group	Governance	25 <sup>th</sup> November 2020		Author made Governance aware that there will be slight changes in line with National Guidance in April 2021. A small amendment is due to be made and it was agreed this will not require circulation in April, just amending and uploaded.	Yes
Maternity CIG	Governance	2 <sup>nd</sup> December 2020		Author made Governance aware that there will be slight changes in line with National Guidance in April 2021. A small amendment is due to be made and it was agreed this will not require circulation in April, just amending and uploaded.	Yes
Maternity Guideline and PIG	Governance	31/04/221. 29/03/21		Updated in line with national guidance	Yes

### 5.3 Audit and monitoring

Audit/Monitoring Criteria	Tool	Audit Lead	Frequency of Audit	Responsible Committee/Board
<ul style="list-style-type: none"> <li>Documentation of clinician undertaking full examination</li> <li>Documentation of the timing of examination whether performed within 72 hours of birth</li> <li>Completed full examination secured within the health record</li> <li>Documentation of referral if deviation from the norm identified</li> <li>Documentation of communicating outcome of examination with parents ('Red book')</li> </ul>	Audit tool	<ul style="list-style-type: none"> <li>Paediatricians</li> <li>ANNP's</li> <li>Midwives trained with neonatal examination</li> </ul>	Annual	<ul style="list-style-type: none"> <li>Paediatric CIG</li> <li>Labour ward Forum</li> </ul>

## 5.4 Equality impact assessment

As part of its development, this Guideline and its impact on equality has been reviewed. The purpose of the assessment is to minimise and if possible remove any disproportionate impact on the grounds of race, gender, disability, age, sexual orientation, religion or belief, pregnancy and maternity, gender reassignment or marriage and civil partnership. No detriment was identified. Equality Impact assessments will show any future actions required to overcome any identified barriers or discriminatory practice.

Equality Impact Assessment			
Division	Women's & Children's	Department	Paediatrics
Person completing the EqIA	Administrator	Contact No.	86589
Others involved:		Date of assessment:	22/10/20
Existing policy/service	Yes	New policy/service	No
Will patients, carers, the public or staff be affected by the policy/service?		Yes	
If staff, how many/which groups will be affected?		Paediatricians, ANNPs, Midwives	
Protected characteristic	Any impact?	Comments	
Age	NO	Positive impact as the policy aims to recognise diversity, promote inclusion and fair treatment for patients and staff	
Disability	NO		
Gender reassignment	NO		
Marriage and civil partnership	NO		
Pregnancy and maternity	NO		
Race	NO		
Religion or belief	NO		
Sex	NO		
Sexual orientation	NO		
What consultation method(s) have you carried out?			
Meetings, emails			
How are the changes/amendments to the policies/services communicated?			
Meetings, emails			
What future actions need to be taken to overcome any barriers or discrimination?			
What?	Who will lead this?	Date of completion	Resources needed
N/A	N/A	N/A	N/A
Review date of EqIA	04/2023		

## Appendix 1: NIPE Screening Programme Newborn Pathway

### NIPE Screening Programme: Newborn Pathway

