NHS
Mid and South Essex
University Hospitals Group

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Issuing Division/Directorate:	Women's and Children's		
Author/Contact: (Asset Administrator)	Sharon Pilgrim, Advanced Neonatal Nurse Practitioner		
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Executive and Clinical Directors (Communication of minutes from Document Ratification Group	**Date:** October 2019	**Distribution Method:**	Intranet & Website

Consulted With:	Post/ Approval Committee/ Group:	Date:
Anita Rao	Clinical Director for Women's and Children's Division	28th August 2019
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Chris Berner	Lead Midwife Clinical Governance	
Emily Sawtell	Advanced Practitioner Sonographer	29th August 2019
Ruth Byford	Warner Library	14th October 2019

Related Trust Policies (to be read in conjunction with)	04071 Policy for standard infection prevention precautions 04072 Hand hygiene policy 06036 Maternity record keeping including documentation in handheld records 09062 Mandatory training policy for maternity services (incorporating training needs analysis) 04225 Examination of the newborn infant 09113 Calling paediatric staff and obtaining paediatric referral

Document Review History:			
Version No:	**Authored/Reviewer:**	**Summary of amendments/ Record documents superseded by:**	**Issue Date:**
1.0	Sharon Pilgrim		July 2010
1.1	Sharon Pilgrim	Clarification to point 6.0 and 7.0	November 2012
2.0	Sharon Pilgrim		August 2013
2.1	Sharon Pilgrim	Clarification to point 5.0 and 7.0	February 2014
3.0	Sharon Pilgrim		November 2016
3.1	Dr Hassan	Clarification to points 5.0; 7.6 and 10.0	October 2017
4.0	Sharon Pilgrim	Final Review	30th October 2019

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1.0 Purpose

1.1 To ensure that infants who present with unstable hips following delivery are identified as early as possible and referred for further investigation.

1.2 To ensure that infants who have predisposing factors for developmental dysplasia of the hips (DDH) are referred for screening within specified timeline.

1.3 To ensure that all infants with DDH receive the correct referrals to ensure good developmental outcome to Paediatric Orthopaedic Service.

2.0 Equality Impact Assessment

2.1 Mid Essex Hospital Services NHS Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.
(Refer to Appendix 3)

3.0 Definitions

3.1 DDH was formerly referred to as congenital dislocation of the hip or developmental dislocation of the hip. It covers a range of hip abnormalities involving abnormal growth or improper alignment of the acetabulum and the femoral head these include dislocation, subluxation, instability and dysplasia.

4.0 Incidence

4.1 DDH is 4 to 8 times more common in female than in males. If not treated, unresolved DDH leads to gait abnormalities, limping, pain & premature onset of joint diseases. The incidence of late diagnosed DDH remains to be 1.28/100 despite a national selective screening programme.

4.2 Reported incidence in the UK is 1.2/1000 live births

5.0 Risk factors

- **1st degree family history of DDH** (mother, father, brother, sister) who required treatment with a splint, harness or surgery (not just a scan);
- **Breech presentation** at or after 36 completed weeks of pregnancy, irrespective of presentation at delivery or mode of delivery.
    - Even if baby becomes cephalic after 36 weeks still considered at risk;
    - Babies who underwent successful External Cephalic Version, still considered at risk if they were breech at or after 36 weeks;
- Breech presentation at delivery if this is earlier than 36 weeks;
- **In cases of multiple births if any of the babies fall into the above categories all the babies in the pregnancy should have ultrasound examination;**

- Babies with other orthopaedic problems (e.g. metatarsus adductus or bilateral Calcaneovalgus foot deformity) or neuromuscular problems (discuss with consultant prior to requesting Hip ultrasound scan);

6.0 Examination

6.1 Physical examination of the hips should be undertaken as part of the discharge examination. The discharge examination can be performed by a paediatrician, (SHO, SpR or consultant) an advanced neonatal nurse practitioner (ANNP) or midwife who has successfully undertaken the 'Examination of the newborn' course. The examination is undertaken using *first the Ortolani followed by the Barlow tests*.

6.2 Ortolani test - aims to detect an existing dislocation:

- Abduct and gently lift the flexed thigh;
- Push the greater trochanter anteriorly;
- Dislocation is indicated by a clunk as the dislocated femoral head goes into the acetabulum;
- This clunk needs to be differentiated from an innocent click in a stable hip.

6.3 Barlow test - aims to identify hip instability by inducing dislocation followed by reduction:

- Place the thumb of one hand over the neck of the femur and the fingers over the greater trochanter;
- Gently attempt to adduct the thigh and dislocate the head of the femur posteriorly;
- Put the head back in the socket by gently lifting the thigh upward while abducting the leg with the fingers over the greater trochanter.

6.4 Observation of asymmetric skin folds or shortening of the thigh may indicate dislocation. Asymmetrical skin folds are found in 25% of normal babies and therefore not an important clinical finding in isolation. Skin crease is usually high in the groin and only appreciated with the nappy removed.

6.5 Both the Barlow and Ortolani tests do not detect a dislocated, irreducible hip, which is best detected by identifying limited abduction of the flexed hip or a stable hip with abnormal anatomy, e.g. acetabular dysplasia.

6.6 Stable hips may be dysplastic. Limited hip abduction (less than 60°) when the hip is flexed to 90° is the most important sign of a dislocated or dysplastic hip.

7.0 Referral

(Refer to Appendices 1and 2)

7.1 Irrespective of the clinical findings, an ultrasound examination of the hips should be performed if the baby has either of the first two risk factors (above) i.e. affected 1st degree family relative or breech presentation.

7.2 For babies with risk factors for DDH but no clinical signs of instability who have an otherwise normal neonatal examination, should have a hip ultrasound scan arranged as an outpatient. Any follow-up if the scan is abnormal will then be made directly with the paediatric orthopaedic team by the scan department.

7.3 Babies with suspected abnormal clinical examination should be seen and examined by a registrar for further assessment.

7.4 Infants with hips that are dislocated or with limited abduction or abnormal hip anatomy require an urgent referral to the orthopaedic team and an early ultrasound within 2 weeks. Referral can be made out of hours to the on call orthopaedic team who can then arrange paediatric orthopaedic team follow up.

7.5 Infants who are found to have unstable hip examinations at their GP check should be referred directly to the children's orthopaedic team and a request for an ultrasound scan to be made at the same time as the orthopaedic team so as not to delay investigation/ treatment.

7.6 Infants who are identified as requiring hip ultrasounds who have been delivered in the community or Midwifery-led Units should have the hip ultrasound and orthopaedic referral (if applicable) arranged by the midwife completing the NIPE for the infant.

7.7 Referrals to orthopaedic team should be made as urgent for any unstable hips, they can be seen by on call orthopaedics and referred on to the paediatric orthopaedic consultant. Contact Helen Gille, Clinical Nurse Specialist for Paediatric Orthopaedics on extension 3784. Also email a referral to Helen.gille@meht.nhs.uk or Pranai.Buddhdev@meht.nhs.uk. (See Appendix 1 for referral form.)

8.0 Infection Prevention

8.1 All staff should follow Trust guidelines on infection prevention by ensuring that they effectively 'decontaminate their hands' before and after undertaking any patient contact.

9.0 Staff and Training

9.1 All Midwifery staff undertaking a hip examination will have received the correct training by completing the 'Examination of the newborn course'; updates for the 'Examination of the newborn' course should occur bi-annually.

9.2 Medical staff completing hip examinations will have received the appropriate training and be assessed as competent.

10.0 Professional Midwifery Advocates

10.1 Professional Midwifery Advocates provide a mechanism of support and guidance to women and midwives. Professional Midwifery Advocates are experienced practising

midwives who have undertaken further education in order to supervise midwifery services and to advise and support midwives and women in their care choices.

11.0 Clinical Audit Standards

11.1 The audit standard includes:

- All babies examined prior to discharge, or arrangements made for examination within 72 hours from birth.
- Ultrasounds to be undertaken in the times directed (2 Weeks for Dislocated or dislocatable hips. For patients with risk factors refer within 4 weeks).
- Referrals to orthopaedic team made as urgent for any unstable hips. Can be seen by on call orthopaedics and referred on to the paediatric orthopaedic consultant. See referrals in section 7.7 and Appendix 1 for referral form.
- Hip ultrasounds booked and performed on all babies with any 1 risk factor.

12.0 Audit and Monitoring

12.1 The risk management lead will review all risk event forms and complaints. Any immediate training or educational issues relating to lack of compliance with this guideline will be addressed on a one to one basis.

12.2 Audit of compliance with this guideline will be considered on an annual audit basis in accordance with the Clinical Audit Strategy and Policy (register number 08076), the Corporate Clinical Audit and Quality Improvement Project Plan and the Maternity annual audit work plan; to encompass national and local audit and clinical governance identifying key harm themes. The Women's and Children's Clinical Audit Group will identify a lead for the audit.

12.3 The findings of the audit will be reported to and approved by the Multi-disciplinary Risk Management Group (MRMG) and an action plan with named leads and timescales will be developed to address any identified deficiencies. Performance against the action plan will be monitored by this group at subsequent meetings.

12.4 The audit report will be reported to the monthly Directorate Governance Meeting (DGM) and significant concerns relating to compliance will be entered on the local Risk Assurance Framework.

13.0 Guideline Management

13.1 As an integral part of the knowledge, skills framework, staff are appraised annually to ensure competency in computer skills and the ability to access the current approved guidelines via the Trust's intranet site.

14.0 Communication

14.1 A quarterly 'maternity newsletter' is issued and available to all staff including an update on the latest 'guidelines' information such as a list of newly approved guidelines for staff to acknowledge and familiarise themselves with and practice accordingly.

14.2 Approved guidelines are published monthly in the Trust's staff newsletter that is sent via email to all staff.

15.0 References

National Screening Committee. Newborn and infant Physical examination (NIPE) London: National Screening Committee; 2010.

American College of Radiology. Developmental dysplasia of the hip. Reston, VA: American College of Radiology; 2005.

Sewell MD, Rosendahl K, Eastwood DM; Developmental dysplasia of the hip. BMJ. 2009 Nov 24;339:b4454. doi: 10.1136/bmj.b4454

Appendix 1: DDH Referral Proforma

Mid Essex Hospital Services NHS
NHS Trust

DDH Referral Proforma – Broomfield Hospital

Please AFFIX Patient Sticker Here
Surname.....Forename.....
Date of Birth.....Sex.....NHS No.....
Address.....
.....
GP & Practice.....

Date.....

Referring Consultant
.....

Interpreter Required ?
(Language)
.....

Primary Contact No .....

Reason For Referral (state R/L:/Bilateral):.....
.....

Abnormal Exam (Please enter details)

Gestation.....Birth Weight.....

Risk Factors: *(tick all relevant)*

- ❑ Family History
- ❑ Breech
- ❑ Multiple Births
- ❑ First born pregnancy
- ❑ Female Infancy
- ❑ Extended FHx
- ❑ Oligohydramnios
- ❑ Foot/Spinal deformity
- ❑ Birth weight > 4kg
- ❑ Clicky Hips
- ❑ Leg Length Discrepancy

Please Complete if Hip USS performed locally

Date of USS Scan.....

Graf Angles.....
(please fax report with Proforma)

ALL infants with **DISLOCATED/DISLOCATABLE HIPS** (confirmed by Consultant) AND/OR **ABNORMAL USS (Graf Alpa angle <55degrees** MUST be referred to the **Paediatric Orthopaedic Clinic**, by:

1. Completing the DDH referral proforma with all salient details
2. Passing the form to *Helen Gille, Paediatric Orthopaedic CNS* and/or email it to helen.gille@meht.nhs.uk & pranai.Buddhdev@meht.nhs.uk
3. Confirm receipt by calling the paediatric orthopaedic clinic on x 3784
4. Informing the parents of above appointment date

Appendix 2: DDH Flowchart

Mid Essex Hospital Services NHS
NHS Trust

Developmental Dysplasia of the Hip (DDH)

Perform Newborn Exam & Complete NIPE SMART

URGENT indication for referring to RNOH Baby Hip Clinic (DOL1)

1. Dislocated/Dislocatable Hips (Ortolani/Barlow +ve)
   (confirmed by NNU Consultant – send Proforma)

Non-Urgent (to be done within 4-6weeks) indication for booking an USS
(at local hospital, booked on DOL1)

1. First degree relative of an infant with a history of DDH
2. Breech/Transvers/Unstable presentation
   a. **at** or **after** 36/40 *irrespective* of final presentation or mode of delivery
   b. **at** deliver if this is earlier than 36weeks
   c. In multiple births, if any babies are breechm all babies should have USS exam
3. Any ***three*** of the following **relative risk factors**
   a. First born pregnancy / mother is primigravida
   b. Extended family member with DDH (any degree)
   c. Female infant
   d. Oligohydramnios
   e. Any foot or spinal deformities
   f. Birth weight >4kg
   g. 'Clicky' hips or leg length discrepancy

Document ALL findings and Actions on NIPE SMART and print the relevant forms into the PCHR (Red Book) and patient clinical notes

If **ANY RELATIVE RISK FACTORS exist**, these should be noted specifically on NIPE SMART and the GP should be encouraged to fully & thoroughly re-examine hips at 6-8 week check. Parents should be informed re: hip health and information given.

If ANY patients require a hip Ultrasound, the HIP REFERAL form on NIPE SMART should be completed and given to……(named person, secretary, consultant)

ALL infants with **DISLOCATED/DISLOCATABLE HIPS** (confirmed by Consultant) AND/OR **ABNORMAL USS (Graf Alpa angle <55degrees** MUST be referred to the **Paediatric Orthopaedic Clinic**, by:

1. Completing the DDH referral proforma with all salient details
2. Passing the form to *Helen Gille, Paediatric Orthopaedic CNS* and/or email it to helen.gille@meht.nhs.uk & pranai.Buddhdev@meht.nhs.uk
3. Confirm receipt by calling the paediatric orthopaedic clinic on x 3784
4. Informing the parents of above appointment date

Appendix 3: Preliminary Equality Analysis

This assessment relates to: 10085 Infant Development Hip Dysplasia

A change in a service to patients		A change to an existing policy	**X**	A change to the way staff work	
A new policy		Something else (please give details)			

Questions	Answers
1. What are you proposing to change?	Full Review
2. Why are you making this change? (What will the change achieve?)	3 year review
3. Who benefits from this change and how?	Patients & Clinicians
4. **Is anyone likely to suffer any negative impact as a result of this change?** If **no**, please record reasons here and sign and date this assessment. If **yes**, please complete a full EIA.	No
5. a) Will you be undertaking any consultation as part of this change? **b) If so, with whom?**	Yes Refer to pages 1 & 2 consultation

Preliminary analysis completed by:

Name	Sharon Pilgrim	**Job Title**	ANNP	**Date**	August 2019