Joint Trust Guideline for the Initial Management of Congenital Talipes

A clinical guideline recommended for use:

For Use in:	NNU, Delivery Suite, Postnatal ward, Radiology, Orthopaedics and Paediatric Physiotherapy
By:	Doctors, Midwives, Advanced Neonatal Nurse Practitioners, Paediatric Physiotherapists, Radiologists/Sonographers.
For:	Referral of Talipes
Division responsible for document:	Women and Children's Division
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To be reviewed by:	Fran Sutton – clinical physiotherapy specialist
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Compliance links: (is there any NICE related to guidance)	No
If Yes - does the strategy/policy deviate from the recommendations of NICE? If so why?	N/A

Quick Reference Guideline

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Talipes
Assessed at routine postnatal examination

Not Fully Correctable

Fully Correctable

Advise - this is positional, normal and will improve in time. No intervention is required as there is full range of movement.

The GP will review at the 6/52 baby check

Refer to Paediatric Physiotherapy ASAP

Contact Details

- Paediatric Physiotherapy Department Newberry Child Development Centre 01493 661424
- Referral form completed and sent to Newberry Child Development Centre.
- Physiotherapy must commence **ASAP** so a prompt referral is critical.
- If the physiotherapist is available they will assess the baby on the ward prior to discharge and arrange follow up as necessary.
- The physiotherapist will liaise with the Paediatric Orthopaedic Consultant as necessary and organise a hip ultrasound when required.

Weekend/ Out of Hours
Leave a message on the paediatric physiotherapy answer phone with the referral details.

Complete ice referral and a blue physiotherapy referral form and send to the Newberry child Development Centre.

Ensure all the baby's contact details, including a contact telephone number are included on the referral.

Structural Talipes
- CTEV
- CVT

Positional Talipes
- PTEV
- PTCV

Advice + Stretches
Physiotherapy review in 6 weeks

Physiotherapy referral to:

Orthopaedic surgeon
+
Radiology
(ultrasound scan of hips)

PTEV – Positional Talipes Equinovarus

PTCV – Positional Talipes Calcanovarus

CTEV – Congenital Talipes Equinovarus

CTV – Congenital Vertical Talus

Fully Correctable – In a newborn infant it should be possible to passively dorsiflex, abduct and evert the foot to the outer border of the shin and planter-flex and invert the foot so that your forefinger can sit flush long the shin and the dorsum of the foot. This is normal for this age group.

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Abbreviations

CTEV	Congenital Talipes Equinovarus
PTEV	Positional Talipes Equinovarus
PTCV	Positional Talipes Calcaneovalgus
CVT	Congenital Vertical Talus
DDH	Developmental Dysplasia of the Hip
ROM	Range of Movement
GP	General Practitioner

Definitions

CTEV = a complex, structural/fixed congenital foot deformity, also known as club foot.

CVT = a congenital foot deformity in which the talus is positioned in a vertical position. It is structural/fixed in nature.

PTEV = a positional foot condition in which the foot is flexible, usually associated with intrauterine crowding.

PTCV = a positional foot condition in which the foot is flexible, usually associated with intrauterine crowding.

Fully Correctable = In a newborn, it should be possible to passively dorsiflex, abduct and evert the foot to the outer border of the baby's shin and to planter flex, adduct and invert the foot so that your forefinger can sit flush along the shin and the dorsum of the baby's foot. This is the normal ankle/foot range of movement for a newborn.

Foot deformity and hip dysplasia: There is an association between some foot deformities and developmental dysplasia of the hip (DDH). All newborns should have a careful hip examination as part of the routine postnatal examination, in order to screen for the presence of DDH. (Refer to the JPUH Guideline for the Management of DDH, available on the Trust Intranet). All babies with a structural/fixed foot deformity should also be referred for a hip ultrasound scan.

Objective of Guideline

To enable all those involved in the examination of the newborn to adequately assess for foot and ankle deformities and to refer appropriately.

Rationale for the Recommendations

Congenital Talipes Equinovarus (CTEV) occurs in approximately 1/1000 births (Staheli). Early identification of structural club foot is important - prompt intervention is the first step in effective management of the condition. (Ponseti, Kite)
If CTEV is not detected at birth, the correction of the deformity can be hindered and the final outcome of the treatment will potentially be less successful. The unsuccessful treatment of CTEV has a significant effect on the long term functional ability of the child into their adult life (pain and stiffness being the main additional symptoms).

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Positional Talipes is common in the newborn. In those babies whose foot/feet do not correct fully (see algorithm) it is advocated that early intervention with stretches is instigated, in order to resolve the tightness and achieve the full range of movement in the foot/feet and resolve the problem completely.

This guideline therefore promotes the early identification of babies with structural club feet (CTEV) and positional talipes (PTEV and PTCV) that are not fully correctable. The guideline recommends that **all** babies with structural foot deformities and **all** positional talipes that cannot be fully corrected are referred as soon as possible to the paediatric physiotherapy department for assessment, diagnosis and early intervention.

Recommendations

All newborn babies are examined at birth and this examination should include an assessment for foot deformities.

Any baby discharged prior to examination should have a clear plan for when and where an alternative examination should take place.

All newborn babies should have a full ankle/foot range of movement (ROM) at birth. (Refer to definition list for full range of movement in the newborn).

If the baby has a full ROM this is classed as FULLY CORRECTABLE and therefore normal. No referral is required as no intervention is needed.

Inability to achieve full passive ankle/foot ROM is classed as NOT FULLY CORRECTABLE.

ALL newborn feet that are NOT FULLY CORRECTABLE require a referral to paediatric physiotherapy as soon as possible.

The paediatric physiotherapist will assess and differentiate between a positional talipes and a structural club foot and start the appropriate treatment as soon as possible.

<u>Positional Talipes</u>:

Babies undergo a full physiotherapy assessment and the ankle/foot ROM is recorded. Stretches are taught to the parents. The baby is then reviewed again at 6 weeks and at this stage it is anticipated that the full ankle/foot ROM will have been achieved and the baby can then be discharged from physiotherapy.

No orthopaedic input is required for an isolated PTEV and PTCV.

<u>Structural Talipes:</u>

Babies undergo a full physiotherapy assessment and treatment for their club foot is commenced as soon as possible.

All babies diagnosed with a CTEV require photographs of their foot prior to treatment to attain a baseline image. The babies are referred to medical illustration by the physiotherapist.

All babies with CTEV are referred for a hip ultrasound to screen for DDH. The physiotherapist refers the baby to ultrasound.

The paediatric physiotherapist will refer the baby to the paediatric orthopaedic consultant.

This pathway has been arranged and agreed with the paediatric orthopaedic consultant and radiologists.

There are foot anomalies other than talipes that are not discussed in this guideline. (For example: metatarsus varus (MTV), curly toes, overlapping toes, syndactyly, polydactyly) It is recommended that any concerns about feet and toes should be discussed with the paediatric physiotherapy team.

Clinical Audit Standards

- All babies to be examined prior to discharge or arrangement made within 3 days.
- All babies with 'NOT FULLY CORRECTABLE' feet should be referred to paediatric physiotherapy immediately following examination or, if examined for the first time during the weekend or on a Bank Holiday, referral should be made during the next working day.
- All babies will have a physiotherapy assessment within one week (NNUH) / 2 week's (JPUH) of the department receiving the referral.

Summary of development and consultation process undertaken before registration and dissemination

The author listed above has developed the guideline based on best practice and circulated for comment from paediatricians and the orthopaedic consultants who treat children. It was presented and agreed at the Neonatal Unit Guidelines Forum. Comments made have been addressed and modifications made as necessary.

Distribution list/ dissemination method

NNU, Delivery suite, Postnatal ward, Orthopaedics, Paediatricians, Paediatric Physiotherapy. Trust Intranet guidelines site.

References/ source documents

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Version Information

Version No	Updated by	Updated on	Description of changes
JCG0337v1	THCGAP	11/02/2015	Change of header and reference to joint hospital version. Contact number, referral letter address
JCG0337v2	CGAP	09/02/2017	Changes in personnel
JCG0337 v3	CGAP	12/07/2017	JPUH working to 2 weeks , NNUH working to 1
JCG0337 v3.1	CGAP	12/021/2019	Addition of disclaimer on front page