Limping Children: Assessment and Management guidance

NHS Highland OOH

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<table>
<thead>
<tr>
<th>Policy Reference: Limping Children</th>
<th>Date of Issue: 09 Feb 2016</th>
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<tbody>
<tr>
<td>Prepared by: Antonia Reed/Angus Venters</td>
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<td>Lead Reviewer: Antonia Reed</td>
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<td>Authorised by: OOH Governance Group</td>
<td>Date: 07 Jan 2016</td>
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<td>Planning For Fairness: Yes/No (Formerly EQIA)</td>
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<td>Distribution</td>
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<td>● All OOH practitioners</td>
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Limping Children: Assessment and Management Guidelines

Common diagnoses defined by age

<table>
<thead>
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<th>Toddler 1-3 years</th>
<th>Child 3-10 years</th>
<th>Adolescent 11-16 years</th>
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<tbody>
<tr>
<td>Developmental Dysplasia of Hip (DDH)</td>
<td>Transient synovitis</td>
<td>Slipped Upper Femoral Epiphysis (SUFE)</td>
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<tr>
<td>Toddlers fracture</td>
<td>Perthes Disease</td>
<td>Juvenile idiopathic arthritis</td>
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<tr>
<td>Leg length discrepancy</td>
<td>Juvenile idiopathic arthritis Trauma</td>
<td>Trauma</td>
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<tr>
<td>Neuromuscular disease</td>
<td>Neoplasia (Acute Lymphocytic Leukaemia (ALL) or long bone tumour)</td>
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<td>Leg length discrepancy</td>
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<td>STD-arthalgia/arthritis</td>
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All Ages

- Non accidental injury
- Infection-septic arthritis or osteomyelitis
- Cellulitis
- Neoplasia
- Cerebral palsy
- Discitis

Other causes

- Sickle cell crisis
- Referred pain-testicular torsion or appendicitis
- Metabolic disease
- Vasculitis-Kawasakis disease
- Serum sickness
- Functional limp

1. History
   - Duration of symptoms, *any poorly explained delay in presentation*
   - Complete refusal to weight bear
   - Trauma – coincidental history of trauma in non traumatic condition, or maybe no history of trauma and child has significant injury
   - Preceding illness – especially viral illness
   - Fever or systemic symptoms
   - Pain-site and severity
   - Morning stiffness
   - Previous injuries/previous child protection concerns

2. Examination
   It is essential to examine whole child and to undress the child to look at limbs, noting:
• General appearance of child
• Temperature, pulse, CRT, Respiratory rate (as minimum)
• Skin - Rash (HSP, meningococcal),
  Bruising especially odd pattern-haematological or NAI
  Redness in skin-infection
• Gait, may be more obvious on running
• Bony tenderness
• All joints Knee pain can be referred from hip
  Thigh pain can be referred from spine
  Check SI joints and spine-pain on flexion, tenderness, lordosis
  Hip abduction and internal rotation often most restricted in hip
  pathology
• Neurological examination, muscle wasting
• Abdominal exam, including scrotum if appropriate.

3. Treatment

Is the child well or unwell (i.e. abnormal physiological parameters)?

**AN UNWELL AND/OR PYREXIAL CHILD WITH A LIMP NEEDS EMERGENCY ADMISSION TO PAEDIATRICS.**

Discuss with paediatrics, orthopaedics or local A&E as appropriate:
• if suspected cause of limp is infection of bone/joint, SUFE, Perthes or
  malignancy
• Child presenting on multiple occasions
• Uncertainty regarding diagnosis

A well child with possible fracture or joint injury should be referred to a service with
access to prompt x-ray and ability to manage any abnormality found.

4. Diagnoses

**Irritable Hip (transient synovitis)**
• Commonest reason for limp in pre-school age children, range 3-8 years.
• History of recent viral URTI (1-2 weeks)
• Child usually able to walk but with pain
• Apyrexial child and well
• Mild/moderate decrease in range of hip movement.

**Action:** rest, analgesia (paracetamol/ibuprofen), GP review within 3 days. If not
resolving, return if febrile, unwell or getting worse. *Consider FBC and film.*

**Perthes Disease**
• Avascular necrosis of capital femoral epiphysis
- Age range 2-12 years (majority 4-8 years)
- 20% bilateral
- Pain and limp
- Restricted hip motion on examination

**Action:** rest, analgesia, discuss with orthopaedics for urgent review.

**Slipped Upper Femoral Epiphysis**
- Late childhood/early adolescence. Boys>Girls
- Weight often> 90th centile
- Presents with pain in hip or knee and associated limp
- The hip appears externally rotated and shortened
- Decreased hip movement, especially internal rotation
- Can be bilateral

**Action:** X ray and refer orthopaedics for urgent review

**References**

Limping Child, Emergency Dept, Royal Hospital for Sick Children, Yorkhill (2013)

The Limping or Non Weight Bearing child, The Royal Childrens Hospital, Melbourne. 2012

The Limping Child, Noelle Murphy, Emergency Department, Raigmore Hospital Inverness. (no date) accessed 18/11/15