

Specialty guides for patient management during the coronavirus pandemic

Urgent and emergency musculoskeletal conditions in children (under 16) requiring onward referral

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As clinicians we all have responsibilities in relation to coronavirus and for these we should seek and act on national and local guidelines. We are responsible for ensuring that essential musculoskeletal (MSK) care continues with minimal burden on the NHS. This guidance will help primary or community care practitioners recognise serious pathology which requires urgent or emergency referral to secondary care in children who present with new or worsening musculoskeletal symptoms.

The majority of children with COVID-19 develop a sub-clinical or mild illness and are vectors, likely to be important in disease transmission. Reducing the number of hospital attendances and shortening the duration of clinical contact with children is therefore essential during the COVID-19 emergency. However, we still need to ensure serious pathology continues to be recognised, referred on and will be seen where clinically appropriate.

Serious pathology as a cause of MSK symptoms is considered rare but needs to be managed either as an emergency or as an urgent onward referral as directed by local pathways.

Any part of the MSK system can be affected, and prioritised onward referral should be considered if a child presents with:

- signs of non-accidental injury
- fever with or without systemic symptoms
- deteriorating pain, unresponsive to conservative management or medication

- escalating night pain that prevents sleep
- persistent joint stiffness with or without swelling where synovitis is suspected.

Emergency conditions

Conditions that are life or limb threatening including:

- **Non-accidental injury:** Any child considered being at risk, or a victim, of abuse should be referred immediately to child protection services according to standard local guidelines.
- **Infection (osteomyelitis/septic arthritis):** Patients presenting with fever, a hot swollen painful joint with generalised restriction in movement and/or loss of limb function should be referred immediately. Special attention should be paid to hip examination where pain with, and restriction of internal rotation, is a sensitive sign of any hip joint pathology, including sepsis.

Urgent conditions

The following warrants urgent onward referral:

- **Slipped upper femoral epiphysis:** Any child with sudden onset leg pain and difficulty weight bearing.
- **Malignancy:** Any child with escalating pain including night pain and new or worsening swelling.
- **Acute inflammatory arthritis and suspected rheumatological conditions:** Refer any person to paediatric rheumatology with:
 - **Suspected juvenile arthritis:** Presentation varies through age groups and can present at any age. Symptoms include a persistent limp, loss of function, stiffness and swelling of joint(s) with restriction - worse in the morning or after rest. Bloods are not needed for diagnosis and are often normal. This is associated with asymptomatic sight threatening uveitis.
 - **Suspected new-onset autoimmune connective tissue disease (for example, Systemic lupus erythematosus (SLE), scleroderma) or vasculitis:** Symptoms include extra-articular manifestations such as fevers, rash, headaches, fatigue, weight loss, Raynaud's (colour change, with hands and/or feet turning white-blue and/or red in the cold), mouth ulcers, and MSK symptoms including new

inflammatory arthritis. Renal involvement is common in juvenile SLE, protein on urinalysis.

- **Dermatomyositis:** Commonly affects young children. Symptoms include difficulty rising from the floor and climbing the stairs, altered gait, fatigue. May people experience a change in voice and swallowing difficulties. Proximal weakness and typical rash affecting extensor surfaces and face. Raised muscle enzymes (creatine kinase (CK) / lactate dehydrogenase (LDH).
- **Suspected inflammatory spinal pain:** The child may report prolonged early morning stiffness, pain radiating to buttocks and/or night pain. They may or may not have associated psoriasis, inflammatory eye disease (uveitis, iritis) and/or inflammatory bowel disease. Further information is available on the [East Sussex Healthcare NHS Trust website](#).

Non urgent conditions

The majority of MSK conditions that affect children are innocent, self-limiting or have treatable solutions, especially if symptoms are intermittent.

Definitive management of the majority of these conditions will be possible even if delayed by three to six months and may therefore be postponed for the duration of the COVID-19 pandemic.

If you have a query about a specific patient, particularly those with suspected developmental dysplasia of the hip or congenital talipes equinovarus, please contact your local paediatric orthopaedic service for advice and guidance.