Paediatric Cardiology

Paediatric Chest pain; Assessment, whether specialist referral is required, and if so, to whom?

Staff relevant to:	Children's Hospital & Primary care
Approval date:	November 2025
Version:	1
Revision due:	November 2027
Written by:	F Bu'Lock
Trust Ref:	C66/2025

1. Introduction

This guidance is intended to provide guidance for paediatricians and GPs on the assessment of whether a child or young person with chest pain requires specialist referral, and if so to which specialist service. If a child does not have chest pain fitting those categories, then the expectation is that it can be managed in general paediatrics or primary care, according to standard literature.
It is not exhaustive and is subject to need revision.
It does not apply to those children and young people with a known underlying diagnosis.

There are many articles and textbooks about the diagnosis and management of chest pain in children, but the key skill is discerning which symptoms suggest a genuine cardiac or indeed respiratory or gastrointestinal cause, from the majority, which do not. Cardiac chest pain in children is rightly feared but is actually very rare and usually readily differentiated. Appropriate reassurance skills also take time and practice to develop and can be supported by discussion with a specialist on occasion.

2. Chest Pain in Childhood; Who to refer, and degree of urgency?

NB: This guideline assumes no underlying diagnosis has been made, as referral may be required depending on the presence of an identified cause.
Referral (or a documented discussion with a specialist) may enhance reassurance, even when a diagnosis of concern is unlikely, but this should be the exception rather than the rule.

Urgency will depend on acuteness of the presentation.

2.1 Referral to Paediatric Cardiology

Box 1 Potential red flags that increase the likelihood of a cardiac cause for chest pain

- Personal past or current history of acquired or congenital cardiac disease*
- Exertional syncope
- Exertional cardiac-type chest pain
- Hypercoagulable or hypercholesterolaemic state
- Family history of:
  sudden death under 35 years of age
  young onset ischaemic heart disease
  inherited arrhythmias such as long QT syndrome or Brugada
- Implantable cardioverter defibrillators in situ
- Connective tissue disorders
- History of cocaine/amphetamine use

*Although a history of congenital heart disease is not necessarily a risk factor for chest pain, in the absence of other obvious diagnoses, referral back to the paediatric cardiologist for reassurance may be appropriate.

- Pain associated with significant cardiac symptoms and / or signs, particularly colour change (cyanosis or pallor), syncope, dizziness, palpitations (define), sweating, nausea, dyspnoea.
- Presence of a crushing, poorly localised pain with radiation to the left arm.
- Exercise-induced pain (assuming not due to asthma / Musculo-skeletal).
- Strong family history of heart disease (especially hypertrophic obstructive cardiomyopathy, arrhythmias, sudden death <35 or premature ischemic heart disease).
- Evidenced clinical suspicion of Marfan's syndrome or other connective tissue disorders.

2.2 Referral to Respiratory

- Presence of other significant respiratory symptoms and / or signs, particularly breathlessness, cough, noisy breathing, sputum production, and hemoptysis.
- When asthma is likely but has not responded to standard asthma therapy, especially when pain is exercise-induced.

2.3 Referral to Gastroenterology

- Presence of other significant gastrointestinal symptoms and / or signs, particularly dysphagia.
- When gastro-oesophageal reflux is likely but has not responded to adequate reflux therapy.
- Musculoskeletal and non-organic causes of chest pain can and should be managed in primary care.

3. Education and Training

None

4. Audit Criteria

None

5. Supporting References

15-minute consultation: A structured approach to the assessment of chest pain in a child
Collins SA, et al. Arch Dis Child Educ Pract Ed 2014;99:122–126.

15 minute consultation chest pa

6. Key Words

Chest pain, Referral, Symptoms, Cardiac, Cardiology

The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

EDI Statement

We are fully committed to being an inclusive employer and oppose all forms of unlawful or unfair discrimination, bullying, harassment and victimisation.

It is our legal and moral duty to provide equity in employment and service delivery to all and to prevent and act upon any forms of discrimination to all people of protected characteristic: Age, Disability (physical, mental and long-term health conditions), Sex, Gender reassignment, Marriage and Civil Partnership, Sexual orientation, Pregnancy and Maternity, Race (including nationality, ethnicity and colour), Religion or Belief, and beyond.

We are also committed to the principles in respect of social deprivation and health inequalities.

Our aim is to create an environment where all staff are able to contribute, develop and progress based on their ability, competence and performance. We recognise that some staff may require specific initiatives and/or assistance to progress and develop within the organisation.

We are also committed to delivering services that ensure our patients are cared for, comfortable and as far as possible meet their individual needs.

CONTACT AND REVIEW DETAILS			
Guideline Lead (Name and Title) Prof Frances Bu'Lock – Cardiologist Dr Umar Mahmood - Cardiologist			**Executive Lead** Chief Medical Officer
Details of Changes made during review:			
Date	**Issue Number**	**Reviewed By**	**Description Of Changes (If Any)**
November 2025	**1**	**UHL Paediatric Cardiology**	**New document**