AB118. SOH23ABS_041. The role of imaging in suspected paediatric appendicitis: a scoping review

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Background: Imaging modalities in suspected paediatric appendicitis remains a hotly debated topic. Professional college/society guidelines from surgeons, anaesthetists, and radiologists vary widely or are absent entirely. While there is a general consensus on the use of ultrasound as first-line imaging, there is no definitive agreement between computed tomography (CT) and Magnetic resonance imaging (MRI) (contrast/non-contrast) for ambiguous or suspected false negative ultrasound results. As such, there is an abundance of new research surfacing in this area. This scoping review aims to explore the current landscape and discuss the latest data on the subject.
Methods: This study follows the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses: Scoping Review extension (PRISMA-ScR) checklist. The search included the PubMed and EMBASE databases, using a combination of the keywords "paediatric suspected acute appendicitis imaging" and "negative appendectomy". Studies in English between 2012–2022 that investigated the imaging pathway to diagnose paediatric acute appendicitis were included.
Results: The database search yielded a total of 920 results, which were screened by three independent reviewers. Results demonstrated that ultrasound is the best initial test. Furthermore, clinicians should use ultrasound in all cases of suspected paediatric appendicitis regardless of the clinical and laboratory picture. If the initial ultrasound is equivocal, providers should observe and perform serial ultrasounds prior to advanced imaging. Non-contrast MRI is the first choice in advanced imaging; however, if this is unavailable, low-dose, limited-range CT would be the alternative.
Conclusions: This study aims to provide the current consensus on imaging pathways for paediatric appendicitis.
Keywords: Appendicitis; guidelines; imaging; paediatric; ultrasound

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Footnote

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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