Appendicitis in Children. Implementing commissioning guidance and improving outcomes for all children in the South Thames Paediatric Network

Revision of June 2024

Please read in conjunction with GIRFT Abdominal Pain Pathway document and the original STPN Appendicitis Policy

The South Thames Paediatric Network (STPN) Surgery in Children working group has representatives from across the region from specialist children's surgery, general surgery, adult urology, paediatric and adult anaesthesia, paediatric nursing and commissioners.

In 2020 the STPN working group agreed that children under the age of 5 years should be transferred to tertiary paediatric surgery/urology centres for management of appendicitis. Children older than 5 years should be treated in their local centre. Children with complex needs or particular clinical challenges older than 5 years of age, that require care from a tertiary center, should still be transferred immediately.

Further to the GIRFT best practice document (2022) on abdominal pain and appendicectomy the STPN working group has revised their guidelines to reflect the national document and the local population's needs. Please see the key elements below and areas for focus.

Key recommendations of the pathway that are unchanged

- Children over the age of 5 years should have their surgery in the first hospital they attend unless they require transfer for medical reasons.
- Children under the age of 5 years with suspected appendicitis should be transferred to a specialist tertiary centre.
- Audits performed in 2021-2022 and 2023-2024 have demonstrated the high quality of minimal access appendectomy that occur across the DGHs in the region. Negative appendectomy rates have reduced over the same time period.
- Transfer of children over five years old is relatively uncommon outside of one site in the region which is not in agreement with the STPN policy.
- Online education programs are in place to ensure quality teaching for paediatricians, anaesthetists, general surgeons and the wider multi-disciplinary team in DGHs to maintain skills, competence and confidence. These are available via the STPN website and Linktree https://linktr.ee/thames_south
- The network focus on ensuring equal access for all patients and minimising health inequalities supports the concept of care closer to home.

Areas where there should be a change or a renewed focus within individual trusts

- There needs to be greater clarity over the responsibility for the care of children presenting with abdominal pain:
    - In non-specialist centres, paediatricians should lead clinical decisions and care for children under five years of age
    - However, this does not mean that children under five are the sole responsibility of the paediatric team, **the local surgical team should still be requested to attend and assess children under five years of age**
    - In non-specialist centres, general surgeons should undertake shared care with paediatricians with all children aged five and over
    - In specialist centres, children of all ages will of course be reviewed by a paediatric surgeon

- There should be a clear agreed care pathway in place for assessment, diagnosis and management of children presenting with abdominal pain and suspected appendicitis for all hospitals in the STPN which aligns with the national and STPN policy.

- Abdominal Ultrasound is the radiology investigation of choice and should be available 7 days a week. The STPN acknowledges that access is not equitable across the region and supports units in requesting the improvement or development of this service locally. Ideally children should not be transferred for radiological assessment. Neither should there be blanket use of ultrasound, but children carefully selected where their clinical risk score is either; intermediate or high with an alternate diagnosis or an appendix mass is possible.

- Once the diagnosis is definitively made, appropriate resuscitation, intravenous fluids and intravenous antibiotics should be commenced and documented. Antibiotic policies should be agreed within individual trusts.

- Adoption of a consistent, appropriate antibiotic strategy for appendicitis is key. Not only to adhere to good antimicrobial stewardship, but also providing children with appendicitis with the right antibiotic, at the right time and for the most appropriate duration will also help to ensure that hospital stays are not prolonged unnecessarily or curtailed with a heightened risk of readmission. Detail is provided in the GIRFT Pathway.

- Although the GIRFT document argues that children should have an appendectomy within 24 hours of a decision to operate, the STPN supports the high quality of work that already exists within region and continues to encourage surgery to occur within 12 hours of listing.

- Children less than 5 years old or with complex medical needs or complicated appendicitis should be transferred to the agreed tertiary centre using the STOPP tool (Safe Transfer of the Paediatric Patient).

- At every step of the pathway assess the child's pain and give appropriate analgesia, from presentation to resolution of pain. Hospitals should have a children's pain pathway that is used consistently. The pain pathway should include; pain assessment and implementation of an appropriate pain management plan.

References

1. STPN, A Discussion paper: Appendicitis in Children. Implementing commissioning guidance and improving outcomes for all children in the South Thames Paediatric Network, 2020, **Add website link**

2. GIRFT Paediatric acute abdominal pain and appendicectomy: Best practice pathway guidance, June 2022 https://www.gettingitrightfirsttime.co.uk/wp-content/uploads/2022/06/20220607_Paediatric-general-surgery_Pathway-guide_Acute-abdominal-pain-and-appendicectomy.pdf

3. STPN, Safe Transfer of the Paediatric Patient or STOPP Tool, Version 4, December 2023, STOPP-Tool-v4.pdf (stpn.uk)

4. STPN, Network Recommendations in the Management of Acute Paediatric Pain, IN DRAFT 2024