Guidance for Paediatric GI Investigations in Adult GI Physiology Units

Target Audience	GI Physiology Professionals
Document Reference:	AGIP.PAEDS.1
Version:	1.0
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Approval Date:	February 2026
Review Date:	February 2027
Frequency of Review:	1 yearly

Guidance for Paediatric GI Investigations in Adult GI Physiology Units

Wherever possible, paediatric GI investigations should be performed in specialist paediatric GI physiology services by appropriately trained paediatric teams. If this is not feasible due to clinical urgency, investigations may be performed in adult GI physiology units, provided the additional safeguards below are followed alongside current AGIP procedure-specific guidelines. Adult GI physiology units undertaking paediatric investigations must have local approval and defined pathways agreed with paediatric services.

This guidance aims to ensure safe, effective, and child-centred delivery of GI Physiology Investigations performed in adult GI physiology units.

This guidance applies to older children and adolescents (aged 9-18 years), with the strong recommendation that investigations in younger children are performed in paediatric centres.

The clinician performing the procedure must be either fully trained and accredited by AGIP in this procedure or supervised by a fully trained and accredited practitioner.

Referral and Indications

- Referral must be made by a Consultant Paediatric Gastroenterologist or Consultant Paediatric Surgeon.
- The referral should clearly state
    - The clinical indication
    - Recent relevant investigations
- Note: in paediatric practice, endoscopy is performed under general anaesthesia; therefore, manometry may be requested prior to performing endoscopy.
- Prior imaging, if performed, (e.g. barium swallow, OGD, colon transit study) should ideally be within the previous 12 months.
- The indication should be clinically urgent (e.g. weight loss, suspected achalasia, severe dysphagia, or failure to thrive with possible motility disorder).

Patient Preparation

Preparation is key to reducing anxiety and improving coordination.

- Ideally the clinician performing the investigation should contact the family in advance to explain the procedure.
- Identify and document:
    - additional needs (e.g. learning disability, autism, anxiety, previous procedural trauma etc).
    - any previous healthcare trauma/previous attempts at this procedure
    - parental/carer anxiety associated with the procedure.
- Advise parents/carer to inform the child what they will be attending hospital for
- Clearly explain to parents/carers that the procedure is not painful and that they are likely to remain present throughout. Ensuring they are well informed helps minimise anxiety, distress, or adverse reactions (e.g., syncope) and supports a calm environment for the child.
- Discuss risks associated with intubation (that will be consented for on the day) so that this discussion does not need to happen in depth on the day in front of the child.

- Encourage families to bring along distraction tools (e.g. tablet for music/games etc, fidget toys) and/or comfort items (soft toy etc).
- Inform that a packed lunch, with a variety of foods and including trigger foods, should be brought in by the family for oesophageal manometry investigations (consider alternative drinks if the child is likely to refuse water).
- Confirm who will accompany the child and ensure that the accompanying adult has parental responsibility, as this determines their legal right to provide consent for the procedure.
- Inform the family which clinical staff will be present (including trainees and healthcare assistants).
- A paediatric-trained nurse must always be present and act as chaperone.
- Book an extended appointment slot to allow adequate time for the procedure.

Adjustments

Supportive tools

- A hospital/health passport can be very helpful for children with learning disabilities, autism or complex needs; this is a document completed by parents/carers or the child themselves to communicate information about their health, preferences and requirements. It is important to acquire this prior to arranging the appointment.
- Photos or visual information about the department and procedure can aid familiarisation.
- Communication cards can be very helpful, when available. These are laminated cards displaying single words such as “yes,” “no,” and “pause,” and can support children who are unable to communicate verbally, or who have difficulty doing so, during the procedure.

Environment

- Consider reasonable adjustments for sensory needs (e.g. softer lighting, reduced noise)
- Offer a separate waiting area away from adult patients where possible.
- Where possible, schedule the child first on the list to minimise waiting and anxiety.

Equipment

- Paediatric resuscitation equipment must always be available and appropriate to the size of the patient. This may be brought to the appointment by the paediatric chaperone if not available in the department (check local protocol).
- Adult impedance catheters (A01/A02) are suitable for height >150cm (BSPGHAN position statement).
- Paediatric impedance catheters (P01/P02) are suitable for height >75cm - <150cm (BSPGHAN position statement).
- Manometry can be used to measure distance to LOS for positioning of pH sensor. The placement of the distal pH sensor should be estimated at 1.5 cm (infants), 3 cm (<10 years old) or 5cm (>10 years old) above the LOS. However, fluoroscopic or X-ray confirmation of position is helpful in confirming the advised position of two vertebral bodies above the diaphragm (ESPGHAN consensus).
- Laborie 24-channel water-perfused (AHC HR2412MAL) or 8 French solid-state HRM catheters are generally suitable for children aged ≥9 years (contact agip@bsg.org.uk in advance of the procedure date for any queries).
- Laborie 24-channel (S7-R24-1009) or 10-channel (AHC 710MAL) adult anorectal water-perfused catheters are used for children aged 9 years and above in paediatric centres.
- For other equipment manufacturers, refer to manufacturer guidelines for lower age limit and sensor spacing – contact agip@bsg.org.uk in advance of the procedure date for any queries.
- For younger or smaller children, liaise with paediatric services to source appropriate-sized catheters.
- Assess whether the couch/bed is appropriate for a child's size and consider if there is sufficient space for a parent or carer to sit alongside if needed.
- All equipment must be checked in advance to confirm suitability.

Procedure

- Height and weight should be measured on the day unless already recently documented.
- Greet the child soon after arrival to introduce yourself, check in and identify any current or arising concerns.
- Prepare the room as fully as possible before the child arrives, ensuring all required items (e.g., vomit bowl, tissues, Inco pads) are immediately accessible. Carrying out visible preparation in front of the child can increase anxiety, so this should be avoided where possible.
- Take time to build rapport.
- Be friendly, open and honest about the procedure. Using clear, concrete, age-appropriate language can help reduce anxiety and build trust.
- Where appropriate, consider covering equipment such as transducers and catheters, which may appear intimidating to the child. Assess whether it would be beneficial for the child to see the equipment beforehand and allow them to explore it if helpful (for example, by feeling the catheter or lubricating gel) prior to the procedure.
- Consider explaining any risks in a way that is appropriate to the child's age and level of understanding.
- Do not assume the procedure has been explained fully at home; explain it clearly to the child using age-appropriate language. Consider asking the child what they are expecting to happen.
- Be aware of body language and terminology used when discussing the procedure. Some terms can be taken literally e.g. 'jump up on the couch'. Be mindful when referring equipment, for example the 'rectal balloon' may be visualised by a child as a large party balloon - it can be helpful to clarify that it is a very small, soft medical balloon that gently inflates and is specifically designed for the test. Using simple and reassuring language can prevent unnecessary anxiety or misunderstanding.

Consent

- Obtain informed consent from the parent or carer, ensuring you are familiar with current guidance on consent for children and young people, and confirming who holds legal parental responsibility and is therefore authorised to provide consent on the child's behalf:
    - Consent to treatment - Children and young people - NHS
    - Parental rights and responsibilities: Who has parental responsibility - GOV.UK
- Be mindful of Gillick competence in children.
- Seek assent from the child where appropriate.
- Ensure arrangements are in place for any communication needs so consent is fully informed.
- Ensure the parent or carer (and child, where appropriate) understands the purpose of the investigation, what it involves, the potential risks and discomforts, benefits, and any alternative options, including the option to defer.
- Explain clearly what the child may experience during and after the procedure (e.g. sensations, duration, possible after-effects), avoiding misleading reassurance.
- Confirm that consent is voluntary and that questions from both parent/carer and child are encouraged.
- Document the consent discussion clearly, including who provided consent and their relationship to the child.

Protocols

- Follow established adult protocols (e.g. Chicago Classification v4.0, London Classification).
- Empower the child to take ownership of their test, e.g. agree a clear 'hand-up to pause' signal so they understand they can request a break at any time.
- Listen to the child throughout the procedure, validating concerns while remaining mindful of potential avoidance or delaying behaviours.
- Be prepared to adapt the protocol depending on the child's tolerance, comprehension and cooperation.

Common adaptations include:

- Manoeuvres performed in a different order to standard protocols.
- Taking resting pressure at the end of the study.
- Practice/repeat manoeuvres to allow for understanding of instructions.
- Where possible, have suitable alternative solids or fluids available in case the initial items are declined, to ensure adequate swallow measurements can be obtained during oesophageal manometry.

Completion of the procedure (whether tolerated or not)

- Praise the patient on aspects they did well such as listening to instructions / asking relevant questions.
- Say thank you to the child for attempting the procedure, even if the procedure was not tolerated.
- Emphasise what the child has achieved — even if it is simply attending the appointment and being willing to try. Reinforcing a positive outcome, regardless of whether the procedure is completed, helps build constructive healthcare experiences and improves the likelihood of success at future attempts.
- Reward stickers and/or certificates can greatly contribute to a positive experience and help reinforce the child's sense of achievement.

Patient Safety

- A paediatric-trained nurse must be present throughout the investigation.
- Paediatric resuscitation equipment must be immediately available.
- Ensure a clear and appropriate plan is in place to address any specific medical management needs (e.g. a seizure management plan for individuals with epilepsy, where relevant).
- Ensure reduced fasting times are considered and appropriately managed for children with diabetes or metabolic conditions, in line with relevant clinical guidance.
- Document and escalate any safeguarding concerns.

Interpretation and Reporting

- Document any:
  - tolerance difficulties with the procedure
  - adaptations made to improve tolerance
  - safeguarding concerns

Analysis

- Analysis of results is advised directly following completion of the test as patient compliance may make interpretation difficult.
- While there are currently limited established normal paediatric reference values; be aware of recognised metric variations associated with a shorter oesophagus length:
  - Shorter latency
  - Smaller peristaltic breaks

Reporting

- Discuss with paediatric colleagues if there is uncertainty in interpretation. Email agip@bsg.org.uk for support from paediatric GI Clinical Scientists.
- The full report should be sent directly to the referring paediatric consultant.
- It is advised that the results are discussed with the referrer in a multidisciplinary team setting for clarity and shared decision-making.

Training and Governance Requirements

All staff involved in the care of paediatric patients must have:

- An enhanced DBS check for working with children.
- Up to date paediatric Basic Life Support training
- Up to date paediatric safeguarding training
- A strong understanding of consent to treatment in children
- Familiarity with age-appropriate communication techniques