

## CHILDREN'S ANORECTAL PHYSIOLOGY SERVICE (CAPS): HIGH RESOLUTION AWAKE ANORECTAL PHYSIOLOGY PROTOCOL

### Hypothesis / aims of study

High resolution anorectal manometry (HRAM) is an established method for the collection and interpretation of data relevant to sphincteric and rectal function in adults. We present a protocol for the use of this contemporary investigation in children. This protocol has been developed and used for awake HRAM in children with chronic constipation (CC) and faecal incontinence (FI) in our Children's Anorectal Physiology Services (CAPS).

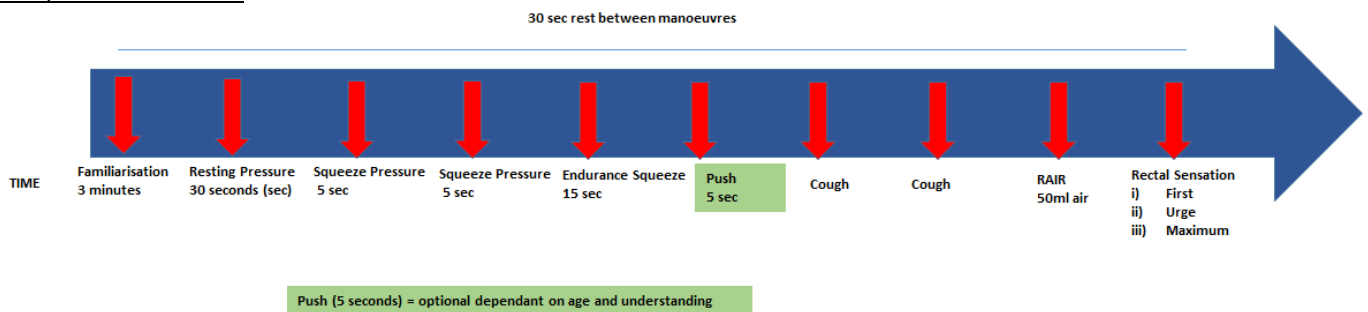
### Study design, materials and methods

HRAM was performed using a water perfused state catheter (8 channels) using a commercially available manometric system (Solar GI HRM; Medical Measurement Systems [MMS], Enschede, The Netherlands). Our protocol was adopted (with amendments) from the adult gastrointestinal physiology unit at our centre, which performs between 1500 – 2000 studies/year. Prospective analysis of all patients was performed from the start of the service.

### Results

The protocol has been performed on 58 patients (September 2016 – January 2017). Each subject was instructed to defaecate, if required, prior to investigation. No bowel preparation was given, however children were asked to ensure they kept up with their usual bowel routine a week before the procedure, to maximise the chance of presenting with an empty rectum. Patients were studied in the left-lateral position with knees and hips flexed. Prior to catheter insertion, a digital rectal examination was performed to assess anal tone and the ability of the patient to understand the commands of 'squeeze' and 'push' when confirmed. All test manoeuvres were performed in accordance with published guidelines. The catheter was inserted into the anorectum, and anal canal was located. The protocol we followed is illustrated in Figure 1. Data was analysed by the software.

### Interpretation of results



*Adopted by adult GI Physiology Service, Royal London Hospital, with amendments for Paediatric use.*

### Concluding message

This study provides an HRAM protocol which can be easily performed in awake children providing information about sphincteric function and rectal sensation of the anorectum.

### Disclosures

**Funding:** Health Foundation, Inspiring for Improvement funded the set up of the service **Clinical Trial:** No **Subjects:** NONE