

Appendix A: Summary of evidence from surveillance

Exceptional surveillance review of Constipation in children and young people: diagnosis and management (2010) NICE guideline CG99

Summary of evidence from surveillance

Studies identified in searches are summarised from the information presented in their abstracts.

Feedback from topic experts who advised us on the approach to this surveillance review, was considered alongside the evidence to reach a final decision on the need to update the guideline.

Transanal irrigation

This intervention was not addressed by the guideline.

New evidence has subsequently been identified and considered for possible addition to the guideline.

Surveillance decision

This section should not be added.

Transanal irrigation in children with idiopathic constipation

2012 Surveillance summary

No relevant evidence was identified.

2014 Surveillance summary

One retrospective cohort study⁽¹⁾ (n = 13) was highlighted during the consultation

period by a stakeholder. Bowel function and social problems were assessed in children with fecal incontinence before and after treatment with Peristeen transanal irrigation (TAI) system. The results indicated that all patients experienced a significant improvement in their fecal continence score with some increase in quality of life scores. It is not clear what proportion of the patients had

idiopathic constipation or constipation with a known cause.

2017 surveillance summary

One uncontrolled, non-randomised trial(2) (n = 42) was highlighted during the consultation period by a stakeholder. The study examined the response rates and quality of life outcomes for patients aged under 17 years who commenced TAI for constipation. This was a retrospective database study where 62% of the patients had idiopathic constipation. The median follow-up period was 14 months. Results indicated that 24% of patients were non-adopters of the treatment and 84% of adopters responded to treatment. For those that adopted the treatment, quality of life and incontinence scores were significantly improved after TAI.

One cross-sectional survey(3) (n = 49) was also highlighted during the consultation period by a stakeholder. The study aimed to assess the treatment efficacy of TAI and parental satisfaction in children aged 0-18 years with intractable functional constipation treated with Peristeen. Results indicated that out of all children who still used Peristeen at the time of survey, fecal incontinence had resolved completely in 41%, 12% experienced occasional episodes of fecal incontinence (<1 episode per week) and the remaining 47% still experienced episodes of fecal incontinence regularly (≥1 time per week). Despite high parental satisfaction ratings (child satisfaction was not measured), a large proportion of the children experienced pain during the procedure. Results from a formal statistical analysis were not reported.

2018 Exceptional surveillance summary

A retrospective study of 72 children (mean age 9.2 +/- 2.2 years, 47 males) evaluated the feasibility and efficacy of TAI in treatment resistant functional fecal incontinence(4). Of the 63 children who fulfilled the Rome III criteria of constipation, 46 (73%) showed full response with complete remission of incontinence episodes. Eleven (17%) showed partial response (≥50% reduction).

Intelligence gathering

Topic expert feedback indicated that since the original guideline was produced in 2010, the use of TAI is becoming more mainstream and a viable option to manage intractable idiopathic constipation and soiling when standard therapy has failed. A concern was highlighted that some children may be undergoing surgery (following a referral made in accordance with a current recommendation in CG99) when the non-surgical option of TAI may have been a more appropriate option. However, it is unclear to what extent this may be occurring in practice and no evidence was identified to confirm this.

Since the last surveillance review in 2017, NICE have produced the medical technologies guidance on '[Peristeen transanal irrigation system for managing bowel dysfunction](#)' (MTG36). The guidance supports the use of Peristeen, a TAI system, in both adults and children with bowel dysfunction.

Feedback from a topic expert indicated that the populations in the studies considered in MTG36 and CG99 are very different. Namely, MTG36 drew on

evidence in children with a known cause for their constipation, such as neuropathic or anorectal abnormalities. This group was explicitly excluded from the scope of CG99.

Topic experts also noted that for children with idiopathic constipation, failure of medication is often the result of adherence issues rather than the medication itself. Therefore, the likelihood of TAI being successfully adhered to may be limited because it can be a daily procedure, needing training and support from a multidisciplinary team. These factors were highlighted as a cause for concern and it was agreed amongst the topic experts that TAI may only be a viable option in a very small proportion of cases where medication has been adequately adhered to, yet found to be ineffective. They also highlighted that for TAI to work, case selection, education and adequate support from a healthcare professional are required.

Impact statement

There was some evidence to suggest that TAI may be an effective treatment option for children with idiopathic constipation. In the 2017 surveillance review, the evidence was considered too preliminary at that point to recommend TAI in NICE guideline CG99.

Since the last surveillance review, NICE have published a medical technologies guidance on '[Peristeen transanal irrigation system for managing bowel dysfunction](#)' (MTG36) which covers TAI use in children.

The children population considered in MTG36 are those with a known cause for their constipation, such as neuropathic or anorectal abnormalities, which are not in scope for NICE guideline CG99.

Topic experts were in agreement that the absence of recommendations on TAI in NICE guideline CG99 is a gap in guidance. There was also a strong indication from stakeholders and clinicians that TAI should be considered before referring children to the more invasive surgical procedure option of antegrade colonic enema (see [recommendations 1.7.1-1.7.2](#)). However it was made clear that the procedure should only be considered when standard therapy has failed and when there is case selection, education and adequate support from a healthcare professional.

After taking into account the views of topic experts and the new evidence, we acknowledge that this is an area of research showing promising results for the treatment of constipation in this population. However, the findings from this exceptional review have demonstrated that the evidence on TAI has not substantially progressed since we last checked in 2017 and there is still uncertainty around the safety and efficacy of TAI in this specific population. For this reason, we will not update the guideline at this time.

New evidence is unlikely to impact on the guideline.

References

1. Nasher, O, Hill, RE, Peeraully, R, Wright, A, Singh, SJ (2014) Peristeen (c) transanal irrigation system for paediatric faecal incontinence: a single centre experience. *International Journal of Pediatrics* 2014:954315
2. Ng, J, Ford, K, Dalton, S, McDowell, S, Charlesworth, P, Cleeve, S (2015) Transanal irrigation for intractable faecal incontinence and constipation: outcomes, quality of life and predicting non-adopters. *Pediatric Surgery International* 31(8):729–34
3. Koppen, IJN, Kuizenga-Wessel, S, Voogt, HW, Voskeuil, ME, Benninga, MA (2017) Transanal Irrigation in the Treatment of Children with Intractable Functional Constipation. *Journal of Pediatric Gastroenterology and Nutrition* 64(2):225–9
4. Jorgensen, CS, Kamperis, K, Modin, L, Rittig, CS, Rittig, S (2017) Transanal irrigation is effective in functional fecal incontinence. *European Journal of Pediatrics* 176(6):731–6

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