



SCIENTIFIC REVIEW

TRANSANAL IRRIGATION (TAI)

Transanal irrigation (TAI) is a well-documented and safe bowel management therapy. Today, compliance is the major issue with TAI therapy, and may be improved through greater knowledge of which patient is best suited for TAI. Patient training and close follow up with digital support during start up may also increase compliance.

TAI is a bowel management therapy designed to assist the evacuation of feces from the bowel by introducing water via the rectum. Therapy choice should be individually determined, depending on patient tolerability and needs. Different TAI features include: using a rectal catheter with a balloon or a cone, coated or non-coated catheter, varying the volume of irrigation fluid, varying the speed of irrigation fluid and manual or electronic operation.

Originally, TAI was used for children with bowel dysfunction.¹ Encouraged by the positive results, TAI was used with adult patients with defecation disorders in whom conservative treatments had failed.^{2,3} Today, there is a rapid increase of TAI methods in highly symptomatic patient groups with anorectal symptoms.⁴

General bowel symptoms reported when using TAI, are equivalent to, or fewer than, the side effects experienced with conservative bowel management.⁵ Many symptoms, such as sweating, headache, and flushing are associated with autonomic dysreflexia.^{5,6} However, only one case of autonomic dysreflexia has been reported with the use of TAI therapy.⁷

It has also been shown that anorectal physiological limitations do not influence the outcome of TAI or deteriorate over time.⁸ The major safety consideration discussed with TAI therapy is bowel perforation. It is reported to have occurred in two cases per million procedures over a period of eight years.⁹

Out of 17 studies and 1229 patients, TAI therapy was considered successful in 53% of all cases. Success rate varied in patient groups with the

following symptoms; constipation 45%, fecal incontinence 47%, and mixed

symptoms 59%.¹⁰ When TAI was compared to non-irrigation conservative bowel care, patients using TAI had:^{5,6,11}

- Fewer complaints of constipation
- Less fecal incontinence
- Improved symptom-related quality of life
- Reduced time spent on bowel management procedures

Compliance is considered an issue with current TAI therapy. The drop-out rate in short-term prospective studies was between 25% and 35%.^{5,6,11} A long-term observational study showed a short-term drop-out rate of 20% after 3 months.⁸ Another study, that contained long-term-accumulated experience, found overall success of TAI therapy in 47% of patients with heterogenic background pathology, after an average follow-up period of 21 months.¹² However, there appears to be a continually high drop-out rate over time which gives a realistic 5-year estimate of patients still in TAI therapy of 35%.⁸ Some of the reasons for discontinuing with TAI therapy are unsatisfactory effect, expulsion of catheter and burst of the rectal balloon.^{5,8}

Emmanuel et al. suggest that best practice for successful outcome of TAI requires selecting the most suitable patients, training the patients, and a follow-up during the first weeks. An international database to create a better understanding of optimal patient selection is one solution. Patient training and follow-up may be helped with written information and the use of digital information and aids.¹³

References

1. Shandling B, Gilmour RF. The enema continence catheter in spina bifida: successful bowel management. *J Pediatr Surg.* 1987;22(3):271-273. [Abstract](#)
2. Christensen P, Kvitzau B, Krogh K, Buntzen S, Laurberg S. Neurogenic colorectal dysfunction - use of new antegrade and retrograde colonic wash-out methods. *Spinal Cord.* 2000;38(4):255-261. [Abstract](#)
3. Briel JW, Schouten WR, Vlot EA, Smits S, van Kessel I. Clinical value of colonic irrigation in patients with continence disturbances. *Dis Colon Rectum.* 1997;40(7):802-805. [Abstract](#)
4. Christensen P, Krogh K, Buntzen S, Payandeh F, Laurberg S. Long-term outcome and safety of transanal irrigation for constipation and fecal incontinence. *Dis Colon Rectum.* 2009;52(2):286-292. [Abstract](#)
5. Christensen P, Bazzocchi G, Coggrave M, et al. A randomized, controlled trial of transanal irrigation versus conservative bowel management in spinal cord-injured patients. *Gastroenterology.* 2006;131(3):738-747. [Abstract](#)
6. Del Popolo G, Mosiello G, Pilati C, et al. Treatment of neurogenic bowel dysfunction using transanal irrigation: a multicenter Italian study. *Spinal Cord.* 2008;46(7):517-522. [Abstract](#)
7. Emmanuel A. Review of the efficacy and safety of transanal irrigation for neurogenic bowel dysfunction. *Spinal Cord.* 2010;48(9):664-673. [Abstract](#)
8. Faaborg PM, Christensen P, Kvitsau B, Buntzen S, Laurberg S, Krogh K. Long-term outcome and safety of transanal colonic irrigation for neurogenic bowel dysfunction. *Spinal Cord.* 2009;47(7):545-549. [Abstract](#)
9. Christensen P, Krogh K, Perrouin-Verbe B, et al. Global audit on bowel perforations related to transanal irrigation. *Tech Coloproctol.* 2016;20(2):109-115. [Abstract](#)
10. Christensen P, Krogh K. Transanal irrigation for disordered defecation: a systematic review. *Scand J Gastroenterol.* 2010;45(5):517-527. [Abstract](#)
11. Christensen P, Bazzocchi G, Coggrave M, et al. Outcome of transanal irrigation for bowel dysfunction in patients with spinal cord injury. *J Spinal Cord Med.* 2008;31(5):560-567. [Abstract](#)
12. Christensen P, Andreasen J, Ehlers L. Cost-effectiveness of transanal irrigation versus conservative bowel management for spinal cord injury patients. *Spinal Cord.* 2009;47(2):138-143. [Abstract](#)
13. Emmanuel AV, Krogh K, Bazzocchi G, et al. Consensus review of best practice of transanal irrigation in adults. *Spinal Cord.* 2013;51(10):732-738. [Abstract](#)

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Wellspect HealthCare, Aminogatan 1, P.O. Box 14, SE-431 21 Mölndal, Sweden. Phone: +46 31 376 40 00.