Predictive factors for compliance with transanal irrigation for the treatment of defecation disorders

Authors: Clémence Bildstein, Chloé Melchior, Guillaume Gourcerol, Estelle Boueyre, Valérie Bridoux, Eric Vérin, Anne-Marie Leroi.
World J Gastroenterol. 2017;23(11):2029-2036.

Purpose. The aim of this study was to **(1)** investigate Peristeen® transanal irrigation (TAI) compliance in adults suffering from chronic constipation (CC) or faecal incontinence (FI) of various etiologies, and **(2)** to identify specific predictive factors of compliance[1].

Methodology. This retrospective cohort study was conducted over a 4-year period and included 108 patients [87 women and 21 men; median age 55 years (range 18-83)] with CC or FI. Patients were trained to use Peristeen® TAI by specialist nurses at a single institution, after which patients continued using TAI in their homes.

Peristeen® Training Flow
1. Training session = Patients prepared with leaflets, DVDs, and meetings with specialist nurses where the system was presented and explained
2. Patients conducted Peristeen procedure under supervision of a specialist nurse
3. Volume of water and number of pumps to inflate the rectal balloon were evaluated
4. The progress of training sessions were evaluated, and any difficulties recorded (expulsion of catheter, fluid leakage, no evacuation of stools)

Results. Study outcomes were assessed based on compliance with TAI **one year** after the first training session. Subjects were either classified as: **Adopters** if they remained compliant with TAI for at least one year, or **Non-adopters** if they discontinued TAI within one year.

(1) Persiteen TAI compliance. At the one-year follow-up 43% (46/108) of patients were considered adopters and 57% (62/108) non-adopters. The patients with FI had the best results, with 54.5% remaining compliant, while only one third of the patients with constipation, due to slow transit or obstructed defecation, continued TAI (Figure. 1).

Among non-adopters the main reasons for discontinuing treatment were technical problems (36.4%), inefficacy (40.9%) and too many constraints (22.7%), mainly related to time spent preforming TAI. In this group the median discontinuation time was 3 months and led to resumption of medical treatment for 54% of the non-adopters and invasive surgical procedure for 37%. Among adopters, 47 minor adverse events and no bowel perforations were reported.

(2) Predictors of compliance with TAI. To identify predictive factors, the characteristics of the **46 adopters** were compared to **44** out of the 62 **non-adopters** (12 patients were lost at follow-up, 5 failed the first training session, and 1 died).

The analysis showed that the **satisfactory progress of the first training session** was the **only significant predictive factor** of compliance with TAI (p=0.02). Patients experiencing technical complications or TAI inefficacy during the first training session were **5 times** more likely to become non-adopters (Figure. 2).

No significant differences related to the main symptom of the patient (CC or FF), the severity of the main symptom, the type of constipation (slow transit constipation or obstructed defecation disorder) or the underlying pathology (such as NBD) were found between adopters and non-adopters. **No significant difference** between the two groups related to the number of training sessions, the type of administration (self-administrated or assisted), frequency of TAI use or the number of side effects were observed.

Figure 1. Compliance with TAI based on bowel dysfunction etiology

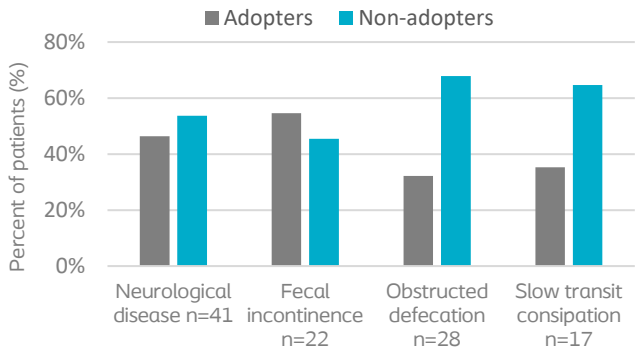
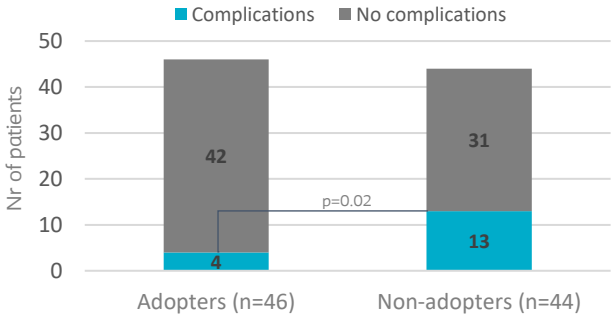


Figure 2. Occurrence of complications during first TAI training session



Conclusion. The progress of the first training session was the only factor that predicted patient compliance with TAI. The authors of the study suggest that the first training session should be better structured to set expectations about treatment efficacy, side-effects and especially constraints, in order to reduce the discontinuation rate.

1. Bildstein, C. *et al.* Predictive factors for compliance with transanal irrigation for the treatment of defecation disorders. *World J. Gastroenterol.* **23**, 2029–2036 (2017)

Coloplast