Transanal Irrigation with Navina Systems
Content

• Therapeutic knowledge for how to teach TAI
• Transanal irrigation - TAI
• Patient education
• The practical procedure
• Follow-up and adherence
• Tips & tricks
• Patient cases
To teach TAI you need knowledge

**Theoretical knowledge**
- Anatomy and symptoms
- When TAI is a suitable treatment
- The aim and benefits of TAI
- TAI - Complications and countermeasures
- TAI – the practical procedure
- Devices available

**Assessing the patient’s ability to perform TAI**
- Motor and sensory function
- Cognitive function
- Mental status

**Implementation of TAI – teaching methods and arrangements**
- Information – oral and written
- Material, animations, images
- Start and follow-up
- Specialized personnel will yield better results
Rectal irrigation

1500 BC
Ancient Egyptians starts with rectal irrigations

Throughout the centuries:
Enema as a detoxification method and purification

1987
Transanal irrigation with a rectal catheter with an inflatable balloon is used in children with Spina Bifida

Several studies display evidence of the use of transanal irrigation for constipation and fecal incontinence in both children and adults with different indications

2016
Navina Smart – one of the first electronic irrigation system
Therapeutic knowledge for how to teach TAI
Anatomy & symptoms
Bowel symptom pathway

Patient with bowel symptoms → Investigate any red flags → Irritable bowel syndrome → Lifestyle advice

Functional bowel disorders → Laxatives, suppositories and/or biofeedback

Neurogenic bowel disorders → Transanal irrigation

Complex referral
What is TAI?
Transanal irrigation
Neurogenic causes for needing TAI

Neurogenic bowel disorders (NBD):

- MS (multiple sclerosis)
- Parkinson’s disease
- Spina bifida
- Spinal cord injury
- Stroke
Non-neurogenic causes for needing TAI

• Functional bowel disorders (FBD)
  – Chronic (idiopathic) constipation
  – Fecal incontinence

• Obstructed defecation or pelvic floor dysfunction
  – Rectocele
  – Rectal prolapse
  – Dyssynergia

• After surgery
  – (Low) anterior resection syndrome ((L)ARS)

• Birth defects
  – Hirschsprung’s disease
  – Anorectal malformations
Transanal Irrigation (TAI)
TAI benefits

• Less symptoms of constipation
• Less likely for fecal incontinence episodes
• Improved symptom-related QoL
• Reduced time spent on bowel management
• Fewer urinary tract infections
Patient selection and preparation

• Careful patient selection
  – Contraindications and precautions to be considered
    • Careful medical history and digital rectal examination
    • In case of previous anal, colorectal or pelvic surgery, an endoscopy or comparable examination should be performed to exclude other contraindication disorders
  – Secure patient motivation

• Patient preparation
  – If fecal impaction, initial clean out before starting TAI
  – Inform patient about risks and benefits with TAI
Factors to consider before choice of TAI system:

- Home environment
- Toilet position and stability on the toilet
- Manual function:
  - Dexterity
  - Strength
  - Wrist flexibility
- Body habitus:
  - Buttock contour
  - Size (ability to reach to insert)
  - Skin integrity
- Psychological factors:
  - Cognitive, linguistic or visual impairment
  - Mental health
  - History of abuse
- Examination features:
  - Perianal sensation (safe catheter insertion)
  - Digital rectal examination (cone or catheter, not impacted)
TAI is both a medical treatment and self-care

- The ability for self-care should be evaluated and documented
- The patient should be informed about what this self-care means
- This means that the one making the assessment should inform the patient about the fact that this procedure, carried out by the patient or someone else outside the hospital, is not to be considered as medical care, and consequently is not covered by health- and medical legislation
Steps before starting TAI

• A prescription

• Meeting the patient
  – Understanding the problem with emptying the bowel
  – Has the patient understood what TAI means in practice and the benefits of the treatment?
  – Is the patient motivated?
  – Does the patient have any worries/obstacles?
  – Give the patient enough time to overcome fears / worries

• Set realistic expectations
Patient education before start of TAI
Patient education TAI

• **Preparation**
  – Consider sending a bowel evaluation tool and/or information material, such as user guides, before the meeting

• **Participation**
  – The patient is informed about the diagnosis and therapy

• **Motivate**
  – Discuss the benefits of the therapy with the patient

• **Teach**
  – Give oral and written information about the bowel and TAI.
  – Show assembly/disassembly of the device. If possible, help them carry out TAI under guidance.

• **Expectations**
  – Set realistic expectations - It can take time to get it right and for the body to adjust

• **Individualize**
  – Adapt the irrigation frequency, water volume, flow rate and balloon size individually

• **Inform**
  – About complications such as AD (if SCI), bowel perforations, minor complications such as balloon bursts and bleeding, etc.

• **Contact person**
  – Inform about a contact person and contact information

• **Material**
  – Send enough rectal catheters to last until their first order arrives

• **Plan and schedule follow-up**

• **Document**
Patient information material to help facilitate the initiation of TAI
Healthcare information material to help facilitate initiation of TAI and follow-up
Support your patient in doing TAI

**Oral information regarding:**
- The method – “how to perform TAI”
- Product/device
- Monitoring tool: score or diary
- Aids

**Practical execution at the clinic:**
- Suggestions for TAI-position
- Assembly/disassembly device
- Actually, performing TAI under supervision or demo how to perform TAI
Choose a monitor tool

- Bowel diary
- Effect on quality of life scores
- Constipation scores such as
  - Constipation Scoring System / Cleveland Clinic constipation score / Wexner constipation score / Agachan score
  - Patient Assessment of Constipation Symptoms (PAC-SYM)
  - Knowles Eccersley Scott Symptom score (KESS)
  - Chronic idiopathic constipation index (CICI)
  - Constipation Severity Instrument (CSI)
- Fecal incontinence scores such as
  - Wexner fecal incontinence score
  - Vaizey / St Marks score
- Obstructed defecation scores such as
  - Obstructed defecation score (ODS) / Altomare score
  - ODS score Longo / Longo constipation score
- Indication specific scores
  - NBD score
  - LARS score
TAI complications & countermeasures

• Bowel perforation
• Autonomic dysreflexia (AD) – when a spinal cord lesions at or above T6
• Minor complications:
  – Pain
  – Bleeding
  – Expulsion of the rectal balloon
  – Leakage
  – Difficulty inserting catheter/cone or instilling irrigant
  – Irrigant is not expelled
  – No stool evacuated
Bowel perforation

• Symptoms of bowel perforation
  – Sudden and severe abdominal pain
  – Severe and persistent bleeding
  – Swelling or bloating of the abdomen
  – Fever and chills

• Very uncommon with bowel perforation during TAI
  – 0.0002% risk or 2 in a million irrigations

This is a medical emergency and requires immediate medical attention
Autonomic Dysreflexia (AD)

- Symptoms of AD
  - Headache
  - Sweating
  - Nasal stuffiness
  - Flushing
  - Slow heart rate
  - Anxiety

- Triggered by afferent stimuli such as full bladder or bowel
- Remove stimuli immediately

TAI may have a protective effect against AD
Pain and bleeding

• Pain, cramps or discomfort
  – Wait, proceed more slowly
  – Check temperature of irrigant

• Expulsion of the rectal balloon
  – Reduce speed of inflation, minimize inflation
  – Check temperature of irrigant
  – Ensure rectum is empty of stool, check for and treat constipation

• Bleeding
  – Minor bleeding to be expected
  – Copious or regular bleeding needs to be investigated

• Balloon burst
  – May cause pain or discomfort
Patient introduction to TAI device

- Show TAI system in packaging
- Assemble the TAI system
- Fill the water container and prime the system
- Use a model of the rectum
- Insert the cone and hold it in the model
- Insert the catheter and inflate the balloon
- Instill water, remove cone / deflate balloon and remove catheter
- Disassemble and disposal of the TAI system
Practical procedure
How to perform TAI
Practical procedure – How to perform TAI
Navina Classic

Click the image to play video
Navina Smart

Click the image to play video
1. Preparation of water container

1. Preparation of water container

2. IMPORTANT: Make sure that the safety valve on the lid is not blocked during the whole TAI procedure.

3. IMPORTANT: If the container is hanged, be sure to place the handle behind the tube.

4. 36-38 °C

5. IMPORTANT: Make sure that the safety valve on the lid is not blocked during the whole TAI procedure.
# TAI – volume of water

<table>
<thead>
<tr>
<th>Diagnosis / symptoms</th>
<th>TAI irrigation fluid volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive fecal incontinence</td>
<td></td>
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<tr>
<td>Post-defecation seepage</td>
<td></td>
</tr>
<tr>
<td>Rectocele / rectal prolapse</td>
<td>Low-volume (less than 250 ml)</td>
</tr>
<tr>
<td>Incomplete evacuation</td>
<td></td>
</tr>
<tr>
<td>Evacuation difficulties</td>
<td></td>
</tr>
<tr>
<td>Low anterior resection syndrome (LARS)</td>
<td>Low- or high-volume (depends on outcome)</td>
</tr>
<tr>
<td>Fecal incontinence</td>
<td></td>
</tr>
<tr>
<td>Constipation (idiopathic, slow-transit, opioid-induced or irritable bowel syndrome)</td>
<td>High-volume (more than 250 ml)</td>
</tr>
<tr>
<td>Neurogenic bowel dysfunction (NBD)</td>
<td></td>
</tr>
</tbody>
</table>
2. Assembly Navina Smart
2. Assembly Navina Classic
3. Activation Navina Smart

Note: Do not add any additional lubricant
3. Activation Navina Classic

Note: Do not add any additional lubricant
4a. Instillation – insertion and inflation

**IMPORTANT:** If experiencing resistance when, remove and make sure that the rectum is empty.

Hold the cone in place during the procedure.

The balloon should not be inflated more than 2 times.
4b. Instillation Navina Smart - water
4b. Instillation Navina Classic - water

By using the scale on the water container, you can check the amount of instilled water.
5. Evacuation – Navina Smart

IMPORTANT: Do not remove the catheter before the balloon is completely deflated.
5. Evacuation – Navina Classic

IMPORTANT: Do not remove the catheter before the balloon is completely deflated.
6. Disassembling and cleaning Navina Smart

**IMPORTANT:** Do not flush the cone/catheter down the toilet.
6. Disassembling and cleaning Navina Classic

IMPORTANT: Do not flush the cone/catheter down the toilet.
Navina Smart - transfer data with the Navina Smart app

The Navina Smart app lets users see which settings have given the best results
TAI frequency

• Once daily during initiation
• Could be reduced when stable therapy
• Individual frequency
  – See complications and countermeasures
• After a meal
• Adjust time on day after patient preference
Follow Up
Adherence and follow up

- Set realistic expectations
  - 4–12 weeks to achieve a reliable and effective routine

- Best practice for successful outcome
  - Supervised training
  - Close follow-up the first weeks
  - Ongoing support

• Adjust volume of water depending on result of TAI
• Optimize irrigation technique, including system assembly
• Address compliance with daily regimen (move to evenings if mornings are inconvenient)
• Ensure regular and punctual delivery of supplies
• Encourage perseverance (the first month is crucial for supporting the patient)
Navina Smart app – an automatic irrigation diary

Download the app from App store/Google Play

Synchronize with Navina Smart

Irrigation diary

- Automatic registration of:
  - water volume instilled
  - Balloon size used
  - Water flow rate

Recommend user to rate their irrigations

Use the information for follow-up:

- To adjust settings and tailor treatment
  - Navina Smart Treatment Schedule
What to document in the patient records?

Decision for treatment
- Prescribing physician of a guideline
- Indication
- Consent to treatment
- Time for treatment

Transanal irrigation
- Product name/model, type of rectal catheter, recommended balloon size and water volume to start with
- Recommended frequency

Evaluation
- Of the patient’s ability for self-care
- Of the patient’s experience
- Establishing routines and need for support

Follow-up
- Planned follow-up
- Always re-evaluate when conditions change
Tips & Tricks
Tips & tricks - leakage

- Leakage during TAI
  - Check location of catheter/cone
  - Increase balloon size
  - Check irrigant temperature
  - Instill slower

- Leakage of water between uses of TAI
  - Time on toilet
  - Adjunctive measures
  - Reduce irrigant volume
  - Repeat TAI within 10-15 min

- Leakage of feces between uses of TAI
  - Increase volume of irrigant
  - Repeat TAI within 10-15 min
  - Perform TAI more often
  - Consider laxative use

Adjunctive measures:
- Abdominal massage
- Raising intra abdominal pressure (through leaning back, forward or to the side, or through bracing of the abdominal muscles)
- Digital rectal stimulation
Tips & tricks - insertion and evacuation

• Difficulty inserting catheter/cone or instilling irrigant
  – Check and remove stool in rectum
  – Increase frequency of TAI
  – Increase water volume

• Irrigant is not expelled
  – Repeat irrigation
  – Adjunctive measures
  – Hydration
  – Assess constipation

• No stool evacuated
  – Repeat irrigation
  – Split into double irrigation
  – Adjunctive measures
  – Use of laxatives
  – Assess constipation
  – Impaction
  – Hydration
  – Reduce frequency of TAI
Physical and psychological obstacles that might make TAI more difficult

Often a little bit of ingenuity is required. Common examples might be:

**Anatomical**
- Toilet position? Use aids, e.g. Navina accessories

**Motor function**
- Reduced hand function - Navina Smart

**Tremor**
- Use aids, e.g. Navina accessories

**Reduced sensitivity**
- Products that are easy to handle

**Reduced vision**
- Use other sensory functions

**Mental**
- Psychological
- Emotional
- Cognitive
- Motivation
Troubleshooting

• Contact details to your local Wellspect office
• You can find Instruction for use and FAQ in local languages on wellspect.com
Patient cases
Patient case
Male, 49 years old, recovering from rectal cancer

Medical status before
• Ano-rectal surgery due to rectal cancer
• The rectal muscles were damaged after surgery
• Accidental bowel leakage was a fact in daily life
• Isolation, decreased intimacy with his partner and damaged relations

TAI Therapy
• A specialist introduced him to try Navina Smart
• After a few weeks of adjusting settings, it works fine
• He irrigates every day, and the routine only takes about 30 minutes

Medical status today
• Feels confident at his work
• Relation with his wife is better
• Able to be spontaneous going out
Patient case
Female, 54 years old, diabetic, FBD

Medical status
• More than 5 years problems with leakage
• Diabetic, but no other underlaying diagnosis
• Visit her GP and was given many tips that didn't work
• Was later referred see a specialist who put her on stimulation treatment to strength the anus muscles
• Problems came back as well as the anxiety

TAI Therapy
• Introduction of Navina Smart
• After a period of introduction and setting a routine TAI was life changing

Medical status today
• The incontinence issues are over
• The blood sugar has been stabilized
• More independent
Patient case
Male, 45 years old, chronic constipation

Medical status before
• Difficulties to defecate, has to digitate and push hard
• Colonoscopy showed no concerns
• Transit-time normal
• Uses natriumpicosufates every other day
• Fiber makes situation worse
• Anismus

TAI therapy
• Introduction of Navina Classic with 300 ml water
• Difficulties to get water out (because of anismus) assisted with the catheter to get water out
• After phone follow-up, uses now 600ml water every other day. Sometimes twice at the same time

Medical status today
• After 6 months use of TAI he feels better
• And his social life is better
Patient case
Female, 30 years old, fibromyalgia, anorexia, obstipation

Medical status before
• Used all laxatives for years,
• Difficulties to find any food to eat
• Colonoscopy normal as well as transit-time was normal

TAI therapy
• Introduced to Navina Classic
• Difficulties to be motivated, because of social problems
• Started with 500-800 ml water, first daily for one week, then every other day

Medical status after
• Now satisfied with therapy
• And regular bowel empties every other day with Navina Classic
Navina - Securing independence

**Navina Smart**
The intelligent and precise Transanal Irrigation (TAI) system

**Navina Classic**
The intuitive and convenient Transanal Irrigation (TAI) system