



Northern Lincolnshire  
Area Prescribing Committee

## NORTH AND NORTH EAST LINCOLNSHIRE

# Children and Young People Transanal or Rectal Irrigation Policy and Guideline for administration

**Version 5**

**This paper outlines the agreed Transanal Irrigation pathway for Northern Lincolnshire – inclusive of NHS North Lincolnshire CCG and North East Lincolnshire CCG commissioned services for their registered populations**

The policy has been adapted from the Sheffield Children's Hospital;  
*'Guideline for the Administration of Transanal Irrigation in Children'*  
To optimise seamless provision of care

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For original compilation: Sheffield Children’s Hospital; Professor Godbole and Richard Lindley)

Approved: [may 2019 ]

Review Due: April 2020

## **Purpose**

- To provide transparent commissioning approach to Trans-anal Irrigation or Rectal Irrigation services in North East Lincolnshire and North Lincolnshire
- To provide information and guidance for staff regarding the procedure of transanal irrigation.
- To ensure safe, competent practice by all clinicians undertaking transanal irrigation and minimise any risk.
- To standardise practice of transanal irrigation for patients of Northern Lincolnshire & Goole NHS Foundation Trust (working in line with the guideline of Sheffield Children’s NHS Foundation Trust) in the hospital and community environments.

## **Development of Policy and Version Control**

As a result of specific numerous patient and service issues in North Lincolnshire and North East Lincolnshire, a Trans-anal Irrigation (TAI) Project Group was established to develop a transparent commissioning approach and pathway for patients requiring the service. It is acknowledged that the work focuses on one treatment option of the wider chronic constipation and faecal incontinence service/pathway, however, this is required to ensure seamless transparent care for patients accessing this form of treatment/management.

This policy refers to children and young people services only.

Members of the Project Group include: -

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**The agreed process of ratification of the policy is through the Northern Lincolnshire Area**

## Prescribing Committee.

Policy/Guideline Development and Version Control: -

APC NEL & NL Children and Young People Trans-Anal or Rectal Irrigation Policy/Guideline Development			
Version No	Date	Amendments Made	Author / Action By
1	Nov 2018	Sheffield Children's approved Guideline for the Administration of Transanal Irrigation in Children. Approved to adapt above Guideline for local use. Following versions are adaptation version control	Jo Searles, Sheffield Children's Hosp
2	Dec 2018	Amendments made include: <i>Locality and organisation where document refers to, Title, Adaptation, date, purpose &amp; intended audience, Inclusion of development and version control section, Sections 1 – 4 – unchanged, Section 5 – inclusion of equipment table, Section 8 – title changed to 'Pathways and Follow-up Care' – section now includes statements regarding NEL/NL locality and care pathways for each area, References – unchanged, Appendices 1, 2, 3 - unchanged</i>	Donna Redhead Service Manager NELCCG
3	11 Dec 2018	<ul style="list-style-type: none"> <li>John Berry, NELCCG Quality Team inclusion at page / lines; <i>page 7 last sentence re: safeguarding. Page 14 Line 25 sentence re: GP</i></li> </ul>	Donna Redhead
4	Jan 2019	<ul style="list-style-type: none"> <li>Jo Searles, Lead Nurse, Sheff Children's – <i>Pg 9 – Table of devices – removed suggestion of order of use. Pg 17 NEL Pathway changed reference to independent dispensing co.</i></li> <li>James Ledger, NECS Medicine &amp; Optimisation feedback include: <i>inclusion of Appendix 4; PSA, MDA &amp; NICE MTG36. Review date changed pg 2 &amp; 17, added James Ledger as member of Project pg 2, Pg 7 Section 2 last para.. changed word licensed to indicated. Pg 7 Section 3 para 3 – inclusion of required training/competency for staff. Pg 11 Section 7 – para expanded on risks. Pg13 Conclusion – 1<sup>st</sup> sentence adjusted. Pg 15 Supplies – additional para to reflect local prescribing arrangements.</i></li> <li>Helena Dent, Commissioning Lead, NLCCG; <i>Pg 2 Section 3, para 2 – change to reflect local NL &amp; NEL pathway.</i></li> <li>Evonne Zingraf – <i>change of job title.</i></li> <li>Donna Redhead – <i>additional sentence for NEL patient journey &amp; page numbers adjusted .</i></li> <li>Rachel Staniforth - <i>Pg 2 – change of job title, Pg 5 &amp; 7– change ref to local trust guideline for managing constipation, Pg 11 – 2<sup>nd</sup> bullet point – incl lukewarm tap water, Pg 12 – Inc ref to Appendix 4 Patient Safety Alert</i></li> </ul>	Donna Redhead

### Intended Audience

This guideline applies to all stakeholders and professionals in the Northern Lincolnshire localities. The Guideline for administering is solely for the use of professional skilled staff appropriately identified to consider using trans-anal irrigation and those staff involved in teaching, performing or supervising patients and parents performing trans-anal irrigation.

## Table of Contents

		<b>Page No</b>
<b>1</b>	Background - What is transanal irrigation	5
<b>2</b>	Indications for use	6
<b>3</b>	Patient selection	6
<b>4</b>	Procedure	7
<b>5</b>	Equipment - Irrigation fluid - How much to use - When to irrigate - Generic procedure for transanal irrigation	7
<b>6</b>	Documentation	11
<b>7</b>	Risks and complications - Bowel perforation - Pain - Bleeding - Abdominal cramps - Feeling unwell during or after irrigation - Catheter expulsion during pumping - Difficulties with catheter insertion - Nothing is passed from the rectum - Water is passed but no stool - Water or stool leakage after irrigation - Conclusion	11
<b>8</b>	Local Pathways and Follow up Care - Supplies - Care Pathways - North East Lincolnshire North Lincolnshire	14
	References	19
<b>9</b>	Appendices 1 Peristeen manufacturer's guidelines for use 2 Qufora manufacturer's guidelines for use 3 Irypump manufacturer's guidelines for use 4 Further Links: a) Patient Safety Alert - Resources to support safer bowel care for patients at risk of autonomic dysreflexia (25 July 2018) b) MHRA – Medical Devices Alert - Ref: MDA/2014/007 Issued: 26 February 2014 at 16:00 c) NICE Medical Technologies Guidance (MTG36) Feb 2018	20

## **1. Background**

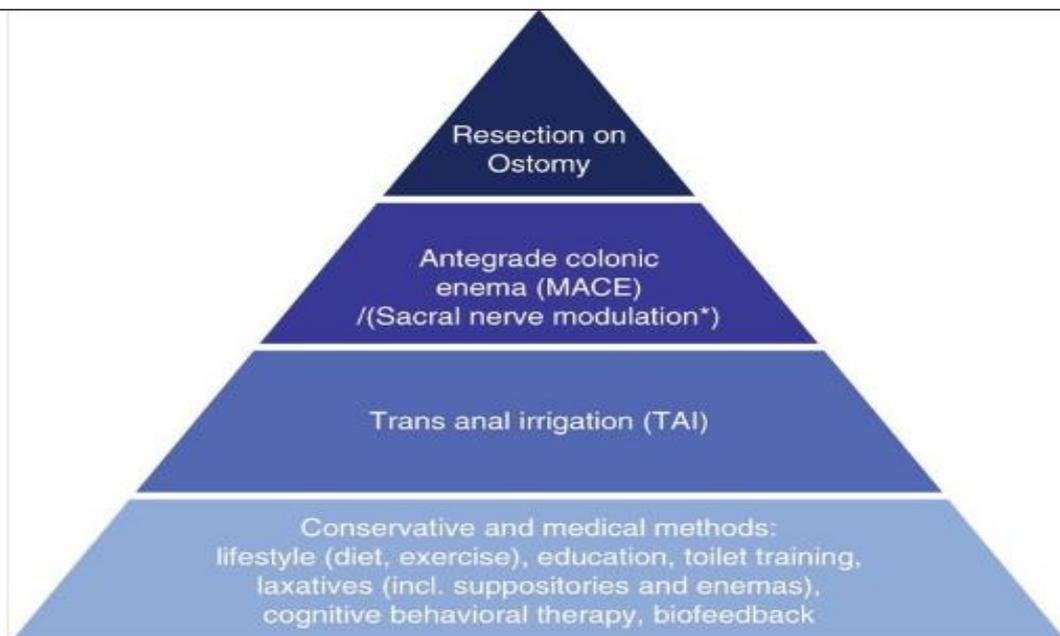
Faecal incontinence and constipation are common paediatric problems affecting around 30% of the paediatric population. It can be organic or functional in nature; however over 95% children, after medical assessment, are found to have no organic cause and have functional constipation (Pashankar 2005, Benninga 2016).

Organic causes of constipation/faecal incontinence include neuropathic bowel following spinal injury, spina bifida, sacral agenesis, transverse myelitis, multiple sclerosis, cerebral palsy or can be as a result of congenital anorectal anomalies including Hirschprung's disease.

Constipation and faecal incontinence whatever the underlying cause has wide ranging implications for quality of life including loss of education days, bullying, low self-esteem restriction of social activities/friendships etc. and can be complicated and problematic to manage. (Wald 2011, Koppen 2016).

Management of both functional and organic causes including disimpaction should initially be conservative with nonpharmacological and pharmacological treatment, supported maintenance, titration of medication and close follow up. (Tabbers 2014). Management should be in accordance with NICE guideline 99 (NICE 2009) and local guidelines for managing constipation. If conservative management is not effective it may be necessary to consider alternative management. Fig 1 shows a paediatric treatment pyramid, adapted from the adult pyramid by Anton Emmanuel (2013) providing a stepwise guide to further management and identifies transanal irrigation (TAI) as the next step when nonpharmacological and pharmacological management is not successful.

Fig 1 Paediatric treatment pyramid cited in Mosiello 2017 adapted from Emanuel 2013



**What is transanal irrigation (TAI)?**

Transanal irrigation (also termed retrograde irrigation) is a process which facilitates the evacuation of faeces from the rectum/colon by introducing water, via a catheter or cone, into the rectum in sufficient enough quantity to reach beyond the rectum and into the descending colon. Scintigraphy has demonstrated that transanal irrigation can empty up to the splenic flexure. (Christensen, 2003).

It was originally successfully introduced by Shandling in 1987 to manage constipation and faecal incontinence in children with neuropathic bowel and extended to other groups of patients that had failed treatment. A lack of suitable, effective equipment was however a limiting factor to its widespread use and resulted in the introduction of surgically invasive interventions like the MACE (Griffiths 1995).

More recent technological advances have resulted in the availability of more effective and user friendly equipment which has facilitated the increased use of TAI in both the adult and the paediatric populations. (Mosiello 2017, Gardiner A, 2018). It has been shown to be effective in children with improvement rates of constipation and incontinence between 53%–97% of patients with an average of 78%. (Mosiello 2017). Studies have also demonstrated improvements in quality of life and increased dignity and independence in both organic and neuropathic causes of constipation in the paediatric population (Cazemier, 2007, Corbett, 2014 Koppen, 2016). There is now general consensus that TAI should be considered before considering the surgical intervention of the ACE procedure in the paediatric population (Alenezi 2014, Mosiello, 2017).

## **2. Indication for use**

TAI is therefore indicated for patients with both organic and non-organic causes of constipation and/or faecal soiling who have been unsuccessful with conservative management. It is contraindicated in patients with:

- Acute active inflammatory bowel disease
- Known obstructing rectal or colonic mass
- Rectal or colonic surgical anastomosis within the last 6 months

It is indicated for use in children from age 3 and above, however, has been used under this age particularly with children who have organic causes.

## **3. Patient selection**

Before considering TAI clinicians should ensure all patients should have been previously examined for anatomical problems such as anal stenosis and that an accurate medical surgical and neonatal history has been taken to exclude red flags and contraindications. Clinicians should ensure the treatment pyramid has been followed and that conservative measures have proved ineffective.

Referrals for assessment of a child and family for TAI should be made to the appropriate nursing team (as per NEL pathway and NL pathway) via one of the paediatric consultants to ensure appropriate assessment, training and supervision.

Staff should have the appropriate level of training and competence to initiate patients on devices, provide training to families and on-going support – including prescribing.

Careful patient selection, a tailored approach, directly supervised training along with sustained follow-up are essential to maximize the effectiveness of TAI (Mosiello, 2017). Before commencement of TAI a comprehensive and holistic assessment should be undertaken by a trained continence nurse specialist to assess suitability. Assessment must include motivation of the child and family and acceptability of the procedure to them. It should also include assessment of cognitive ability, physical ability including balance, dexterity, obesity, physical ability to sit on the toilet. Referral for adaptations/physical support may be necessary for some children with physical disabilities in order to facilitate the procedure. Ideally the child should be able to undertake the procedure independently or with minimal intervention from parents, however, there may be circumstances such as age or physical/cognitive ability where it is appropriate for parents to do the procedure. Children, depending on age will need ongoing support and supervision of parents to maintain success. Physical disability, cognitive impairment and mental health issues should not contraindicate TAI but suitability should be based on individual assessment of all factors.

Underlying safeguarding issues or concerns regarding exaggeration/fabrication of symptoms which may also influence success or be contraindications should be considered and may be a contraindication for TAI. Any safeguarding concerns must be explored fully and referred to the safeguarding team.

#### **4. Procedure**

Prior to commencement of TAI it is important to ensure the child is not impacted. A disimpaction regime as per NICE/local trust guidelines should be employed before commencing TAI if necessary.

Oral laxatives can be used to soften the stool prior to commencement to promote comfort and effectiveness of the washout as necessary.

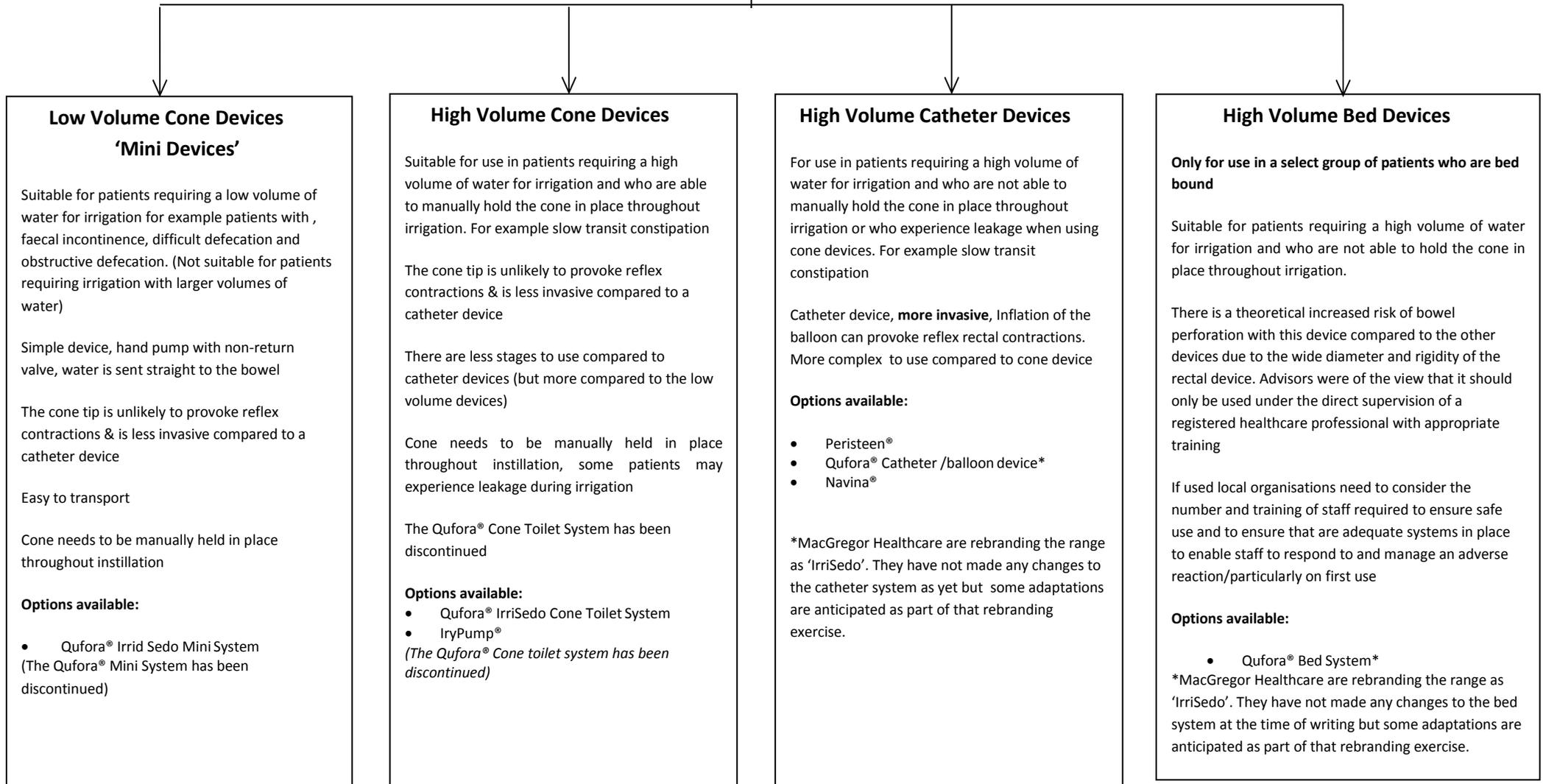
The parents and child should be educated and fully informed of the procedure and potential complications/risks. Informed consent from the parents and child where appropriate, should be obtained. Training and support should be tailored to the individual needs of the child and family ensuring time and patience and using available aids such as books, DVD's etc.

#### **5. Equipment**

There are a number of different types of commercial devices available on prescription to facilitate TAI. Suitability of equipment should be determined after full assessment and in conjunction with the child and family. Parental and child preference and the child's individual needs should dictate the choice of equipment. It may be necessary to try a variety of devices before settling on a preferred system. The devices most commonly used are Peristeen (coloplast), Qufora (MBH,) Irypump (BBraun) and Navina (Wellspect). Each system comprises of either a cone or catheter to be inserted into the rectum to deliver the water, a reservoir to hold the water and gravity or a pump

system which can be manual or electronic to facilitate the delivery of the water. The washout should ideally be delivered on the toilet or commode with supervised self-administration depending on the age and physical/cognitive ability of the child. The catheters are single use only whilst some cones may be washed and reused for up to one month before changing.

## Trans-Anal Irrigation Devices



Devices are chosen based on individual clinical need

## **Irrigation fluid**

Tap water is used for the washout. Water temperature should be room temperature to reduce discomfort and potential nausea and vomiting due to a reflex bowel contraction and also to reduce premature expulsion of the catheter. If water alone does not promote rectal emptying, a prescribed phosphate enema may be added to the irrigation water; however, this should not be introduced until water alone has been tried for at least 1 month. Care should be taken with chosen system to ensure amount of phosphate is measurable.

Tap water is suitable for most patients (Mosiello 2017).

## **How much to use**

10mls/kg is the recommended starting volume for children increasing as tolerated to 20mls/kg. This should be ideal weight not actual if the child is obese. It should be noted that initially much smaller volumes may be needed to gradually introduce TAI to the child to prevent fear and anxiety and to promote confidence.

The frequency initially should be daily until an effective regime is achieved and this may take some months. It may be possible to reduce the frequency to alternate days or three times a week if the child remains clean. Generally laxative therapy can be gradually discontinued once a good regime is established however some may still require small doses of oral laxatives as an adjunct.

It may be possible for some children, particularly those with functional problems, as sensation to defecate returns, to wean off the TAI; however, this should be done very slowly and under instruction from the specialist nurse or continence consultant. Oral laxatives may be required whilst weaning off.

## **When to irrigate?**

Irrigation seems to work best for most people if it is done at approximately the same time each day. Eating and drinking stimulate the bowel, so about 30 minutes after a meal will mean that you have the best chance of working with the natural activity of the bowel and achieving the best emptying. This will be morning or evening for most people. Once irrigation is established fully, routines can be altered to accommodate individual needs and social/recreational activities. The aim of irrigation is to promote independence and not to be restrictive.

Specific manufacturer's guidelines for each individual system can be found in the appendices; however, general guidelines for TAI are as follows:

## **Generic procedure for transanal irrigation**

- Collect together the equipment needed
- Wash hands and apply gloves/apron if healthcare professional or carer
- Fill the bag/container with appropriate volume of lukewarm tap water
- Attach the catheter/cone to the irrigation system
- Select/activate appropriate lubricant for rectal catheter/cone
- Prime system
- Gently insert the lubricated catheter or cone into anus
- Inflate balloon if using a catheter system
- Ensure sitting comfortably on toilet/commode
- Pump the water slowly into rectum until required amount delivered
- Stop if any discomfort
- Deflate balloon and remove or remove cone
- Dispose of catheter or if using cone wash cone to reuse
- Sit on the toilet and wait until poo comes out – the amount of time you are sat will vary, please be patient initially until empty
- Clean your bottom and wash your hands

## **6. Documentation**

It is essential to keep accurate contemporaneous records in the patient's notes regarding:

- The reasons for selecting irrigation for this patient.
- Type of irrigation used
- Volume of water
- Frequency of washouts
- Discussions held with the patients about risks and benefits
- Informed consent to use irrigation
- Information and instructions given to the patient and any carers
- Communication with the primary care team
- Any adverse events/problems reported
- Plans for follow up and monitoring
- Arrangement for ongoing supplies
- Changes in management

## **7. Risks and complications**

'Christensen 2009, Ausili 2011' reported that TAI is very safe and potential risks and problems are uncommon and minimal. However, patient safety alerts, medical device alerts and NICE Medical Technology Guidance have been released since this time. Staff must ensure they are fully aware of all current guidance, risks and actions required. Parents should be informed of potential risks and action to be taken prior to commencing TAI. Please also refer to Appendix 4 which includes web links to

some of the patient safety alerts, medical device alert and NICE MTG - this may not be an exhaustive list.

### **Bowel perforation**

This is a serious adverse event, however, is extremely rare in the adult population and even rarer in the paediatric population, less than 1 in 2 million irrigations (Christensen et al (2016)).

### **Pain**

Pain when inserting the water is uncommon although some discomfort may occur. This is minimized by using small amounts of water initially and slowly increasing the volume or by decreasing the volume used. It may be due to the bowel still being loaded and it may be necessary to clear the bowel out further with oral medication prior to recommencing the washouts. If, however, the pain is acute or severe the washout should be stopped immediately the catheter deflated/cone removed. If the pain persists for more than a few minutes or is accompanied by a lot of bleeding medical help should be sought immediately.

### **Bleeding**

Occasional spots of bright red blood may be seen on the catheter/cone. This is not a cause for concern. If bleeding is occurring regularly this should be reported and monitored. In the unlikely event of a sudden and major haemorrhage with or without pain urgent, emergency medical attention should be sought as this may be an indication of perforation.

### **Abdominal cramps**

Abdominal cramps may be experienced, these may be an indication that the gut is being stimulated and that the washout is working well. These can be mitigated by pumping the water in more slowly or stopping and restarting washouts when cramps have subsided. Water temperature should be at room temperature as if too cool this could cause abdominal cramping.

### **Feeling unwell during or after irrigation**

Occasionally irrigating can cause a little sweating or palpitations/dizziness. It is important to ensure someone is present when initially starting washouts. Advice should be sought with patients who have a spinal injury as they may be prone to autonomic dysreflexia. If symptoms of dysreflexia are experienced it is important to stop the irrigation remove the cone/catheter and have medication to hand. Please see Appendix 4; **Patient Safety Alert** - Resources to support safer bowel care for patients at risk of autonomic dysreflexia (25 July 2018)

### **Catheter expulsion during pumping**

If the patient is using a ballooned catheter such as Peristeen the balloon may be expelled from the rectum and inflated as the washout progresses. Check that the equipment is not being accidentally turning to the air symbol when intending to use the water symbol. If the balloon is expelled immediately after inflation, the balloon is stimulating rectal contractions. Try inflating the balloon more slowly or inflate it a little less. If the balloon is expelled once you have begun to pump, check that the water is not too hot or cold, or try pumping more slowly.

Expelling the balloon may be more likely to happen if irrigation is done after a meal: therefore try other times. Expulsion could also be due to the balloon not being inflated enough especially if the bowel is neuropathic and there is a patulous anus. Further pumps may be required until catheter retention is achieved. If it is still being expelled it may be necessary to try an alternative system such as a cone system where inflation is not required.

### **Difficulties with catheter insertion**

Check for faecal impaction and disimpact as necessary. Check patient's insertion technique. Consider using a cone system if patient has dexterity problems or difficulty handling a catheter

### **Nothing is passed from the rectum**

Check that there is no dehydration. Ensure drinking at least 1.5 litres per day, more if the weather is hot. Check for constipation and treat orally.

### **Water is passed but no stool**

There may not be any stool if last irrigation result was very good. It may be possible to irrigate less often. If there is no stool for several days this may be due to impaction or very hard stool. Oral laxatives may be required.

### **Water or stool leakage after irrigation**

Patients may need to wear a small pad when first irrigating until a good routine is established. Sit on toilet for longer after irrigation, varying the amount of water i.e. trying increased or decreased water may help. If there are ongoing accidents it may be necessary to irrigate more often. An anal plug may help with persistent problems.

### **Conclusion**

TAI in children can be an effective management option for functional and organic causes of constipation where conservative pharmacological and non-pharmacological management proves ineffective. Appropriate patient selection, comprehensive and holistic assessment, regular support and tailored management are essential for its

success. Referral should be made to the continence nursing team for assessment via referral to a consultant in the continence team. TAI should be considered as an option before the surgical ACE procedure.

## **8. Local Pathway and Follow up Care**

There is currently a different configuration of services in place within North East Lincolnshire and North Lincolnshire. Whilst the principles of the policy/guideline apply to both localities the pathway of care/patient journey will be different within each area.

North East Lincolnshire	-	The pathway of care is detailed below.
North Lincolnshire	-	To be agreed - discussions to agree the North Lincolnshire Pathway of care is on-going.

The policy/guideline will therefore be implemented in a staged manner with North East Lincolnshire first and then to be followed by North Lincolnshire.

### **Summary of North East Lincolnshire Patient Journey**

Routinely treatment will be recommended/initiated by Sheffield Children's Hospital specialists. On-going review, prescribing and follow-up care will be provided, where appropriate, by the Diana, Princess of Wales Hospital, Grimsby Nurse led Constipation Team. This is not a 'prescribing only' service – patients must be under the care and have on-going review of the team in order to receive appropriately prescribed products.

Provision/prescribing of the device would be done by the specialist service and NOT by the patient's registered GP. Specialised services are classified as:

- Northern Lincolnshire and Goole NHS Foundation Trust
- North East Lincolnshire Community Adult and Paediatric Continence Care Service, Care Plus Group
- North Lincolnshire Community Continence Service, NLAG
- Specialist service established/provided at a tertiary centre.

There will need to be explicit correspondence from the specialist service outlining a clear management plan and including clear recommendations for provision/prescribing. It is important that the GP is aware of the treatment plan as a matter of courtesy.

Support should continue throughout the teaching of the procedure and continue with regular follow up. It is recognised that it can take several months to establish a good routine and get used to TAI. Access to a professional support system such as the specialist Nurse Led Constipation Team or Community Paediatric Nursing Team is essential. Regular telephone contacts and clinic appointments should be continued whilst TAI is being used.

## **Summary of North Lincolnshire Patient Journey**

To follow

### **Supplies**

The TAI systems and accessories are all available on prescription and on home delivery services. Supplies should be given on discharge/completion of training and arrangements made for ongoing supplies in local areas.

In North East Lincolnshire and North Lincolnshire prescribing is not done by patient's GP. In North East Lincolnshire on-going review and prescribing is undertaken by Advance Paediatric Nurse Practitioners, Constipation Clinic, Diana, Princess of Wales Hospital. Prescribing for North Lincolnshire is still to be confirmed.

It should be recognised that children and families will need to undertake the washouts regularly at home, during holidays, respite care and school residential trips etc. The training of other carers maybe required to facilitate this.

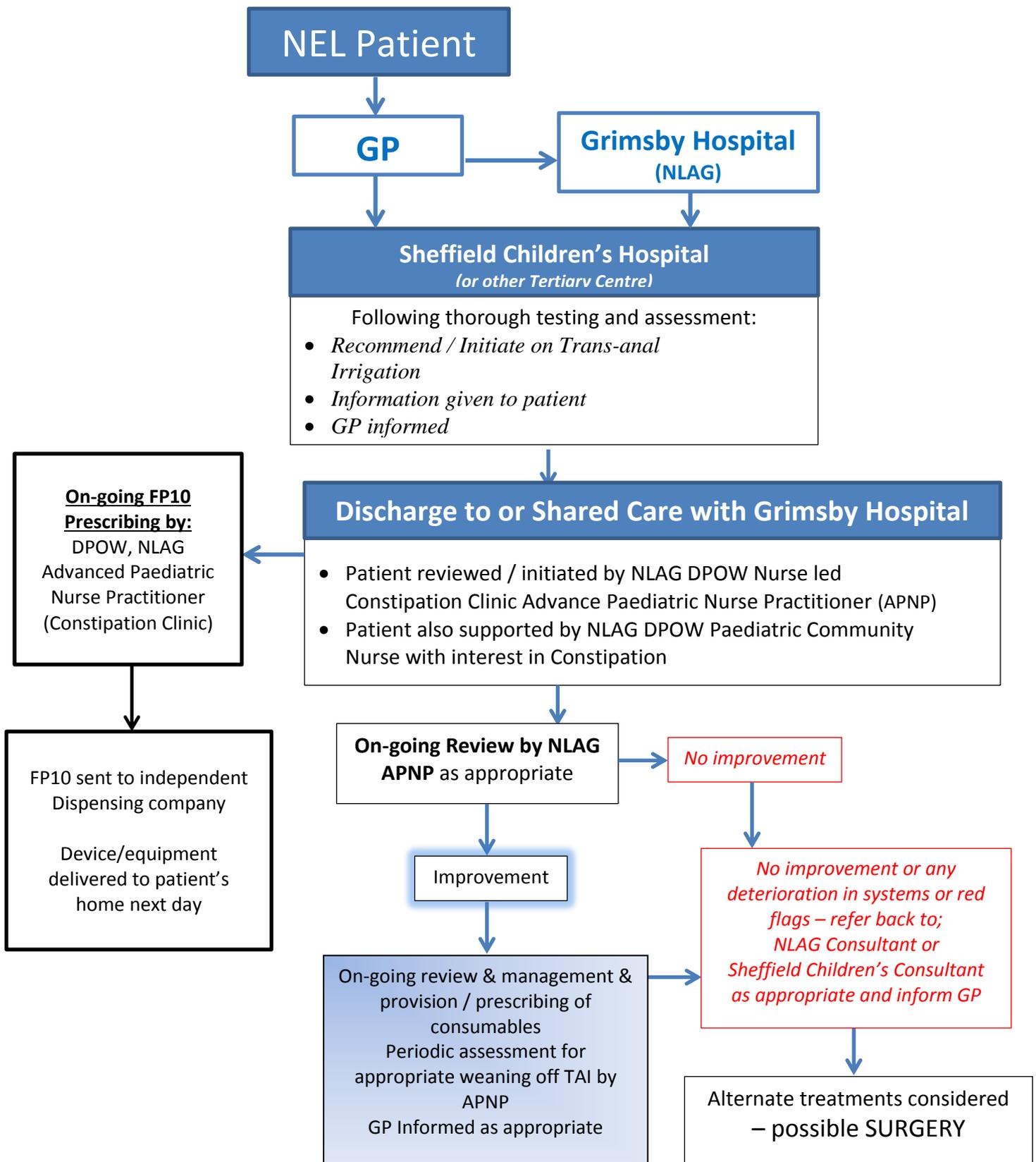
Supplies of equipment will need to be arranged for holidays. Bottled water may be needed if tap water is unreliable in foreign countries.

**North East Lincolnshire  
Children and Young People Constipation Pathway**

**North Lincolnshire  
Children and Young People Constipation Pathway**

***To be included at later date***

**NORTH EAST LINCOLNSHIRE  
CHILDREN AND YOUNG PEOPLE  
TRANS-ANAL OR RECTAL IRRIGATION PATHWAY**



**PLEASE NOTE:** The pathway will ensure prescribing is in accordance with local/national policy/guidelines and that there is no bias to any single product/brand

## **North Lincolnshire Pathway For Children & Young People Trans-anal or Rectal Irrigation**

To be included when agreed.

Discussions to agree the North Lincolnshire Pathway of care is on-going as at January 2019. Approval of this guideline/policy will ensure timely and effective implementation of the North East Lincolnshire care pathway.

## References

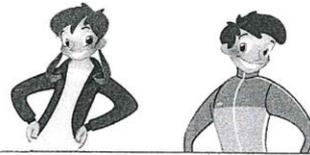
- Alenezi H, Alhazmi H, Trbay M, et al. Peristeen Anal Irrigation as a Substitute for the ACE Procedure in children who are in need of reconstructive bladder surgery. *Can Urol Assoc J* 2014; 8:12–15.
- Ausili E, Focarelli B, Tabacco F, et al. Transanal Irrigation in Myelomeningocele Children: An Alternative Safe and Valid Approach for Neurogenic Constipation. *Spinal Cord* 2010; 48:560–565.
- Benninga M A, Faure C, Hyman P E, et al. Childhood functional gastrointestinal disorders: neonate/toddler. *Gastroenterology* 2016; 150:1443–1455.
- Mosiello G, Marshall, D et al. Consensus Review of Best Practice of Transanal Irrigation in Children. *Journal of Paediatric Gastroenterology and Nutrition: March 2017 - V64 -3: 343–352.*
- Cazemier M, Felt-Bersma R J, Mulder C J. Anal Plugs and Retrograde Colonic Irrigation are helpful in Faecal Incontinence or Constipation. *World J Gastroenterol* 2007; 13:3101–3105.
- Christensen P, Olsen N, Krogh K, Bacher T, Laurberg S. Scintigraphic Assessment of Retrograde Colonic Washout in Faecal Incontinence and Constipation. *Dis Colon Rectum* 2003;46(1):68-76.
- Christensen P, Krogh K, Buntzen S, et al. Long-term Outcome and Safety of Transanal Irrigation for Constipation and Faecal Incontinence. *Dis Colon Rectum* 2009; 52:286–292.
- Christensen P, Krogh K, Perrouin-Verbe B, et al. Global Audit on Bowel Perforations related to Transanal Irrigation. *Tech Coloproctol* 2016; 20:109–115.
- Corbett P, Denny A, Dick K, et al. Peristeen Integrated Transanal Irrigation System successfully treats Faecal Incontinence in Children. *J Ped Urol* 2014; 10:219–222.
- Emanuel A V, Krogh K, Bazzocchi G, et al. Consensus Review of Best practice of Transanal Irrigation in Adults. *Spinal Cord* 2013; 51:732–738.
- Griffiths D M, P S Malone, The Malone Ante grade Continence Enema. *Journal of Paediatric Surgery* 1995.
- Koppen I J N, Kuizenga-Wessel S, Voogt H W, et al. Transanal Irrigation in the Treatment of Children with Intractable Functional Constipation. *J Pediatr Gastroenterol Nutr* 2017; 64:225–229.
- Mosiello G, Marshall, D et al . Consensus Review of Best Practice of Transanal Irrigation in Children. *Journal of Pediatric Gastroenterology and Nutrition: March 2017 - V64 -3: 343–352.*
- National Institute of Clinical Excellence. Management of Constipation in Children London: 99. NICE; 2009.
- Pashankar D. *Clin Colon Rectal Surgery* 2005 May; 18(2) 120-127.
- Shandling B, Gilmour R F. The Enema Continence Catheter in Spina Bifida: Successful Bowel Management. *J Ped Surg* 1987; 22:271–273.
- Tabbers M M, Di Lorenzo C, Berger M Y, et al. Evaluation and Treatment of Functional Constipation in Infants and Children: Evidence-based recommendations from ESGHAN and NASPHGAN. *J Pediatr Gastroenterol Nutr* 2014; 58:258–274.
- Wald A, Sigurdsson L. Quality of Life in Children and Adults with Constipation. *Best Pract Res Clin Gastroenterol* 2011; 25:19–27.

## 9. Appendices

### Appendix 1 - Peristeen manufacturer's guidelines for use

Tick box step by step instructions on how to use

#### Peristeen Anal Irrigation Small



	<p>1. Find your things to do a poo.</p>	<input type="checkbox"/>
	<p>2. Fill up water bag with lukewarm tap water.</p>	<input type="checkbox"/>
	<p>3. Peel the catheter packet slightly.</p>	<input type="checkbox"/>
	<p>4. Put the parts together. Grey goes with grey and blue goes with blue.</p>	<input type="checkbox"/>
	<p>5. Turn the knob to the water symbol  and pump 2-3 times so that water fills the catheter pack. Count slowly to 10 three times. That will make the catheter soft and smooth.</p>	<input type="checkbox"/>
	<p>6. Turn the knob to the balloon symbol  on the handset. Do not pump yet!</p>	<input type="checkbox"/>
	<p>7. Put the catheter slowly and gently into your bottom then pump the balloon  while you hold the catheter in place. Amount of pump: _____ With air in the balloon the catheter should stay in place by its own.</p>	<input type="checkbox"/>

## Appendix 2 - Qufora manufacturer's guidelines for use

### Before use

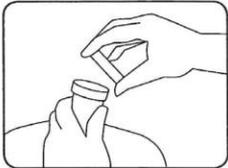
Remember to have lubricant ready.

### After use

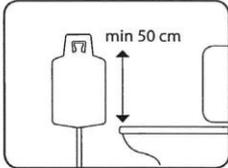
**The cone is single use.** Dispose in a plastic bag in household waste. Clean the pump thoroughly with lukewarm water and soap.

## Qufora® Cone Toilet system Instruction guide

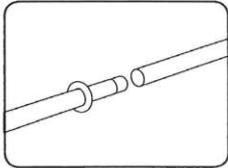
- 1**



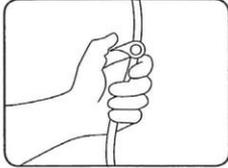
Fill the water bag with approx 100ml more water than you need to irrigate.
- 2**



Hang the water bag at shoulder height or above (approx 50cm above toilet seat).
- 3**



Connect the tube on the cone to the tube on the water bag.
- 4**



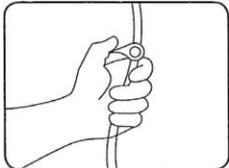
Open the valve and compress pump so that tube and pump fills with water (turn pump other way up to fill and remove air). Then close the valve.
- 5**



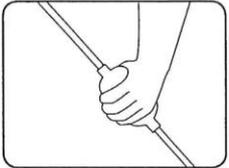
Lubricate the cone with a water based lubricant.
- 6**



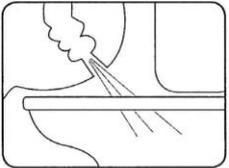
Seated on the toilet, carefully guide the cone into the rectum.
- 7**



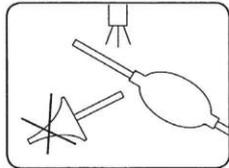
Open valve completely.
- 8**



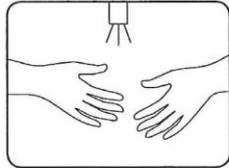
Pump water into the rectum. As advised by your health care professional but usually about 500ml (less in children)
- 9**



Close the valve and remove the cone. Residual water and stool will then flow into the toilet.
- 10**



Disconnect the cone. Dispose of cone/tube end. Wash pump with warm water.
- 11**



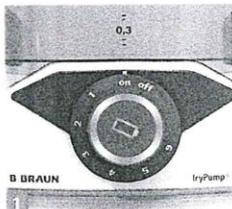
Wash and dry your hands. Store equipment in a dry place, away from sunlight and heat.

## Appendix 3 - Irypump manufacturer's guidelines for use

**B BRAUN**  
SHARING EXPERTISE

### Irypump® S

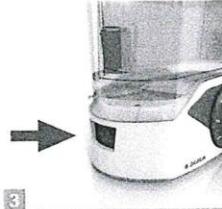
#### Rectal Irrigation - Step by Step Guide



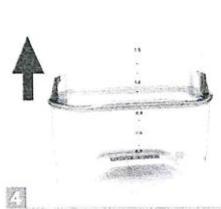
1 Turn on the Irypump® S to check if the battery is properly charged.



2 Ring is red = Irypump® S needs charging. Ring is green = ok to begin irrigation.



3 Remove the water container from the pump module by pressing the side release button.



4 Extend the water container. Pull the inner section up until it audibly clicks into position.



5 Fill the water container with the advised amount of water. Temperature between 36°C and 38°C.



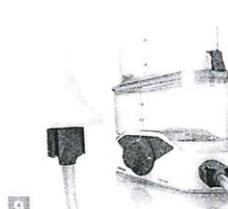
6 Attach the filled water container back onto the pump module.



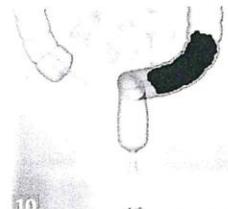
7 Use the quick connector to fasten the tubing system onto the pump.



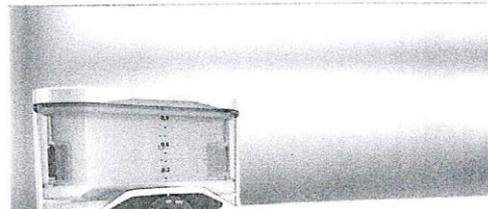
8 Connect the other end of the tubing system to the cone.



9 Expel all air from the tube by turning the control wheel to level 3. Then turn off again.



10 Ensure that you are in a comfortable position. Lubricate the cone and carefully insert it into the anus.



## Appendix 4

### **Further Links for Patient Safety Alerts, Medical Device Alert and NICE Medical Technology Guidance:**

- a) **Patient Safety Alert** - Resources to support safer bowel care for patients at risk of autonomic dysreflexia (25 July 2018) Ref: NHS/PSA/RE/2018/005

*Web Link:*

<https://improvement.nhs.uk/news-alerts/patients-at-risk-of-autonomic-dysreflexia/>

- b) **MHRA – Medical Device Alert** - Peristeen anal irrigation system manufactured by Coloplast Ltd. Issued: Feb 2014 Ref: MDA/2014/007

*Web Link:*

<https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/business/providers/MDA-2014-007final.pdf>

- c) **NICE Medical Technologies Guidance (MTG36) Feb 2018** - Peristeen transanal irrigation system for managing bowel dysfunction

*Web Link:*

<https://www.nice.org.uk/guidance/mtg36>