

# TRANSANAL IRRIGATION USING A CONE SYSTEM IN PATIENTS WITH LOWER MOTOR NEURONE SPINAL CORD INJURY

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## Introduction:

For spinally injured people bowel dysfunction is ranked as the second most limiting symptom (after mobility and ahead of bladder dysfunction).<sup>1</sup>

Contemporary bowel management involves a tailored stepwise approach to managing this neurogenic bowel dysfunction, illustrated as a treatment pyramid (Figure 1).<sup>2</sup> In particular, transanal irrigation (TAI) has emerged over the last decade as a critical bridging therapy for those approximately 50% patients who do not respond to conservative options.<sup>3</sup>

The options for TAI are to use either a catheter- or cone-based approach to instil water in to the rectum and elicit a reflex voiding. While the catheter systems have a balloon to ensure anchoring of the tube, they require adequate hand function to set up and can be associated with very rare incidence of colorectal perforation.<sup>4</sup>

A cone-based transanal irrigation (TAI) system may have an advantage over catheter based systems in terms of ease of setting up, procedure time and low likelihood of complications. The Qufora® IrriSedo Cone System comprises a tube connecting a suspended water bag via a simple valve to a hydrophylic-coated cone (Figure 2).

We hypothesised that patients with lower motor neurone (LMN) spinal cord injury (who tend to have intact upper limb function) and a cone system may offer an advantage over catheter systems.

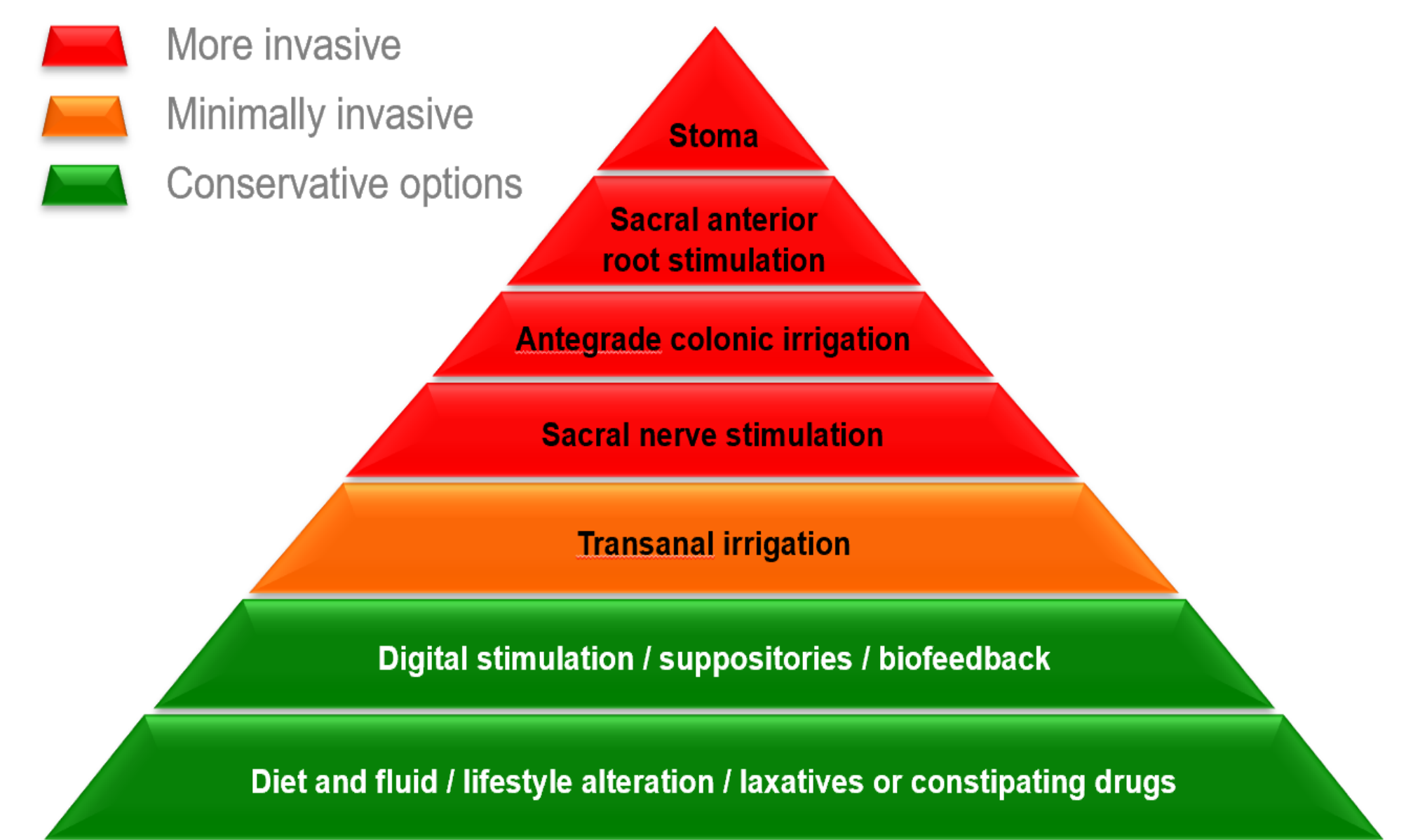


Figure 1: The "pyramid" approach to management of neurogenic bowel dysfunction



Figure 2: The Qufora® IrriSedo Cone System

	Spina bifida (n=8)	Post-disc surgery (n=7)	Post tumour surgery (n=5)
Sex	5f: 3m	3f: 4m	3 f: 2m
Age [y] (range)	33 (22-53)	38 (22-55)	57 (36-72)
Duration of disease [y] (range)	33 (22 - 53)	5.7 (0.6 - 11)	2.1 (0.5 - 4)
Duration of follow-up [mo] (range)	28 (12-48)	31 (8-52)	27 (8-51)

## Methods:

We studied 20 consecutive patients (11 female; mean age 41, range 22-72) with LMN spinal injury. All had bowel symptoms despite adjustments of lifestyle and use of laxative, suppository or enema as per the pyramid. The aetiology of injury is shown in the table: spina bifida (n=8), following spinal disc herniation and surgery (n=7), following spinal tumour surgery (n=5).

All patients were trained to use the Qufora® IrriSedo Cone System and followed up for a mean of 29 months (range 8-52).

Outcome was assessed using the neurogenic bowel dysfunction score (NBDS)<sup>5</sup>, collected at baseline and each 6-monthly follow-up visit.

## Results:

At latest follow up, 17/20 (85%) were still using cone TAI.

The NBDS fell from baseline 16 (range 7-31) to 8 (2-30) at latest follow-up. Mean time spent on toileting fell from 57 (30-120) to 22 minutes/day (12-45).

Faecal incontinence episodes fell from mean 2.1 to 0.3 episode per week.

Three patients discontinued to lack of effect.

Initially 13 patients used laxative, falling to 5 (including all 3 non-responders to Qufora).

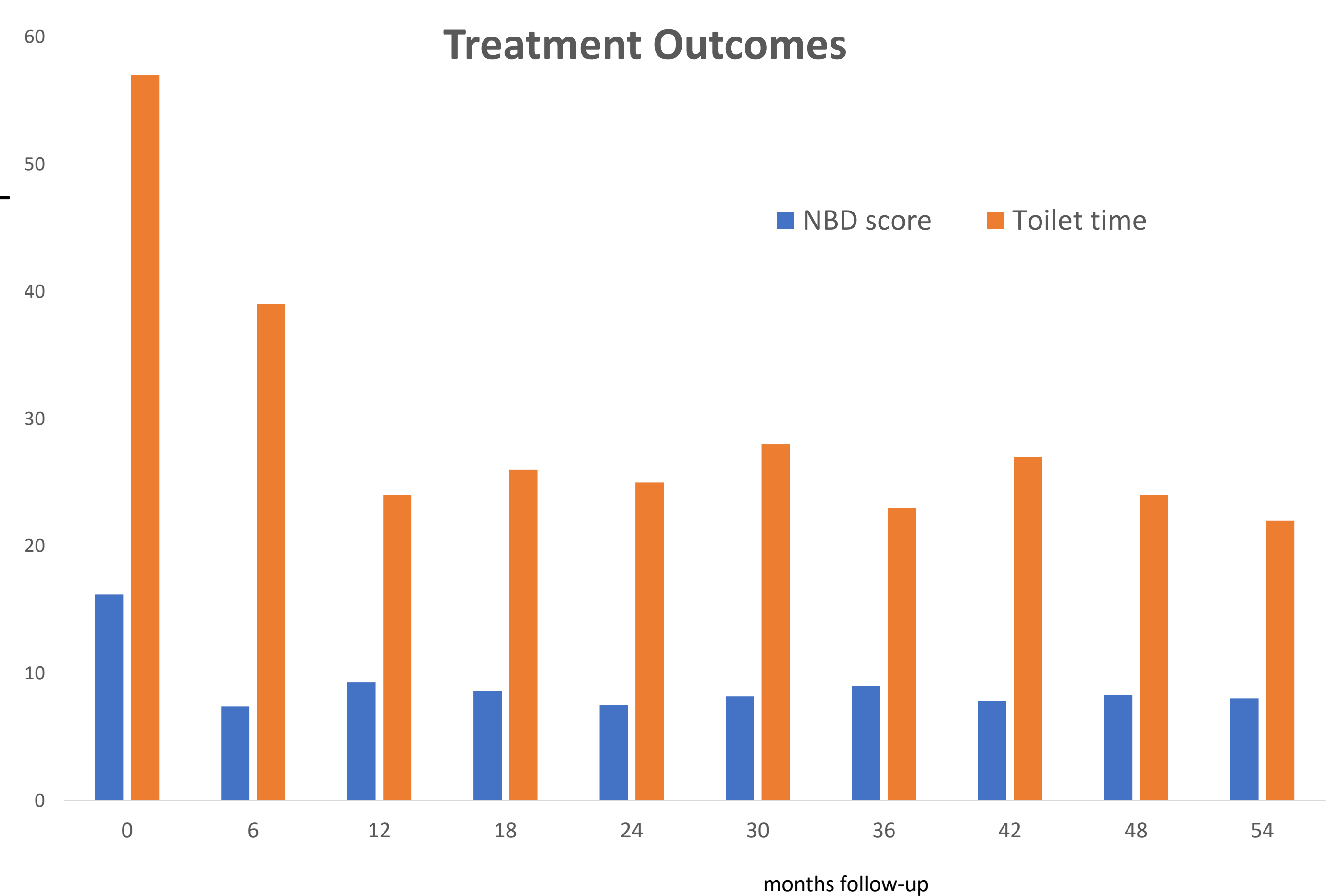
No complications were reported by any individual.

## Conclusions:

TAI with the Qufora® IrriSedo Cone System is a safe and effective option for patients with bowel symptoms secondary to lower motor neurone spinal cord injury.

Key measures such as time spent toileting and faecal incontinence episodes are reduced by the intervention.

## Treatment Outcomes



## References:

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