

# Bowel Continuity Testing Patient Case Study



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Emma is a Clinical Nurse Specialist, Stomal Therapy in Auckland where she provides holistic care to patients with stoma's. Her specialties outside of work include being a Michelin star chef, occasional gardener, and annihilating a plate of hot chips.



This case report details the use of The Insides™ System to prepare “Mary”<sup>1</sup> for reversal of her double-barrel ileostomy. This ileostomy was formed as a part of Mary’s care pathway to treat multiple internal fistulas secondary to diverticular disease<sup>2</sup>.

## Introduction

Mary is a 75-year old female patient with a history of complicated diverticular disease. She has had previous colovaginal<sup>3</sup>, colovesical<sup>4</sup>, and coloenteric<sup>5</sup> fistulas secondary to diverticular disease.

On the 19th of February, Mary underwent a laparotomy, low anterior resection, small bowel resection, and fistulotomy of her coloenteric, colovesical, and colovaginal fistulas. A double-barrel ileostomy was formed to protect the anastomosis.

A contrast computed tomography (CT) was performed on the 28th of May 2020 which demonstrated the anastomosis was widely patent.

The Insides™ Company was contacted by Mary’s colorectal surgeon to use The Insides™ System to rehabilitate her distal bowel, test for functional continence, and allow Mary to simulate intestinal continuity.

## Preparation

Mary was contacted by a stomal therapist (STN) a week before being set up with The Insides™ System to learn about the device, and how to prepare for installation. Mary was advised to maintain a low residue diet to achieve the appropriate chyme consistency for The Insides™ Pump to work properly<sup>6</sup>.

During this consultation, Mary mentioned a small parastomal hernia she had. Mary's hernia was evaluated by the STN, where it was determined that the hernia would not affect the set-up and use of The Insides™ System.

## Set-Up

On the 22nd of June 2020, the STN completed the installation of The Insides™ Tube, and the set-up, education, and troubleshooting of The Insides™ System at Mary's home, which took approximately one hour.

Mary was taken through how to care for The Insides™ Tube, and how to change her ostomy appliance and The Insides™ Pump every three days. She was also educated in aspects of troubleshooting if The Insides™ Pump became blocked. She was advised to slowly increase the frequency of refeeding to build a tolerance to chyme reinfusion, as well as to minimize lower abdominal discomfort from introducing food to the previously defunctioned distal intestine.

Rehabilitating the distal limb of an ileostomy can be uncomfortable because the luminal walls stretch when reintroducing chyme downstream. This stretching generates diffuse discomfort across the lower abdomen. The longer a person's bowel has been defunctioned, the longer it will take to increase their tolerance to reinfusing their entire daily output. Mary had been defunctioned for four months, so it took six days for her to become established with no lower abdominal discomfort.

## Follow-up Care

The STN followed up with Mary the day after device installation, and at the end of the week to ensure she was reinfusing her output and to help mitigate any issues that arose. The main concern for Mary was keeping her output thin enough for it to be pumped through by The Insides™ Pump. Mary found that drinking another two glasses of water per day kept her output thin enough for reinfusion.

Mary refeed 50 ml on the first day, 50 ml twice the following day, and gradually increased the frequency and amount over the next four days until she was refeeding 85% of her output (day 6). Mary also passed her first bowel movement (Bristol 5) on day 6.

## Ongoing Management

Mary continued to refeed 85–90% of her output throughout the remainder of her therapy with few issues. The 10–15% that was not refeed occurred in the early morning output that had been sitting within the stoma appliance overnight (for close to 8 hours) and therefore needed to be discarded.

Mary had also established a routine that entailed refeeding around her many social events and family gatherings and was able to have a formed bowel movement every alternate day for the 35 days following therapy.

The STN followed up with Mary via weekly phone calls and had a face-to-face visit every fortnight. Routine appointments with the STN ensured Mary felt supported and that any issues could be immediately remedied.

## Reversal

The STN removed The Insides™ Tube the day before Mary's planned reversal on the 29th July.

Mary had an uneventful surgery where her double-barrel ileostomy and parastomal hernia were reversed and repaired. She started passing flatus 6 hours post-reversal and passed a formed bowel movement at 72 hours. She stated that she only required paracetamol for pain for the first 36 hours postoperatively. Mary was successfully discharged on day four after her surgery.

- \*1 Alias used to protect patient privacy
- \*2 Diverticular disease (diverticulosis): A condition in which small bulging pouches develop in the digestive tract.
- \*3 Colovaginal Fistula: A fistula (abnormal connection) between the colon (large intestine) and the vagina.
- \*4 Colovesical Fistula: A fistula (abnormal connection) between the colon (large intestine) and the bladder.
- \*5 Coloenteric Fistula: A fistula (abnormal connection) between the colon (large intestine) and the small intestine
- \*6 The Insides™ Driver has five power settings designed to pump a range of chyme consistencies. However, it is advised that the patient should avoid fibrous and stringy foods that may clog The Insides™ Pump.



Figure 1. Patient with Ostomy Appliance

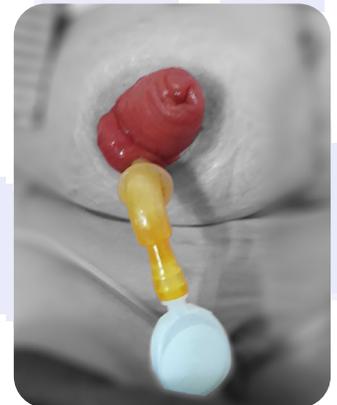


Figure 2. The Insides™ Tube inserted into the patient's distal bowel

## Patient Testimonial Disclaimer

Individual results may vary, testimonials are not claimed to represent typical results. All testimonials are received from real patients via text, verbally or video submission, and may not reflect the typical patient's experience, nor intended to represent or guarantee that anyone will achieve the same or similar clinical results. Each patient's condition is unique to their physiology and health status. Thus, the testimonials shared by The Insides™ Company may not reflect the typical patients' experience. However, these results are meant as a showcase of what these patients have achieved.