

Chyme reinfusion in a double-barreled stoma: A cohort study

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Background & Aim

- Patients with a double-barreled stoma (**loop or split ileostomy**) may have accessible bowel suitable for distal feeding
- **The Insides System** has been developed to allow a closed-system distal feeding through the anal limb of a double-barreled stoma
- This study aimed to describe the **clinical results** in a real-life cohort of patients, referred for distal feeding using the Insides System

Results

- We **included** 13 patients (5 women and 8 men)
- Median patient **age** was 69 years (range 35-81 years)
- **Indications** for referral
 - Intestinal failure with intent to wean HPN and establish reinfusion (n=10)
 - Trial of distal feeding before reconnective surgery (Crohn's n=2, medical intractable *C. difficile* n=1)
- **Successful** initiation of reinfusion in 6 (46%) patients, enabling discharge
 - 3 (50%) were weaned off home parenteral nutrition
- **Failure** in 7 (54%) patients due to
 - Anatomical problems compromising tube insertion (n=3)
 - Chyme reflux (n=1)
 - Pain (n=1)
 - Cognitive impairment (n=1)
 - Recurrence of *C. difficile* infection (n=1)

Conclusion

- Patient-managed chyme reinfusion using the Insides System is a feasible method for distal feeding in motivated patients
- The system holds the potential to wean patients off parenteral nutrition and improve preoperative conditioning before reconnecting surgery
- Careful patient selection seems pivotal

Population and Methods

- Quality improvement study in routine clinical care
- Adult patients with intestinal failure and a double-barreled stoma (n=13)

Figure 1. The Insides System for reinfusion:

- A catheter for insertion in the anal limb of the stoma. We used a Cook gastrostomy tube with a balloon (1).
- A pump/impeller that is fixed on the catheter and placed in the stoma bag (2)
- The driver, used on the external side of the stoma bag to drive the pump/impeller (3)

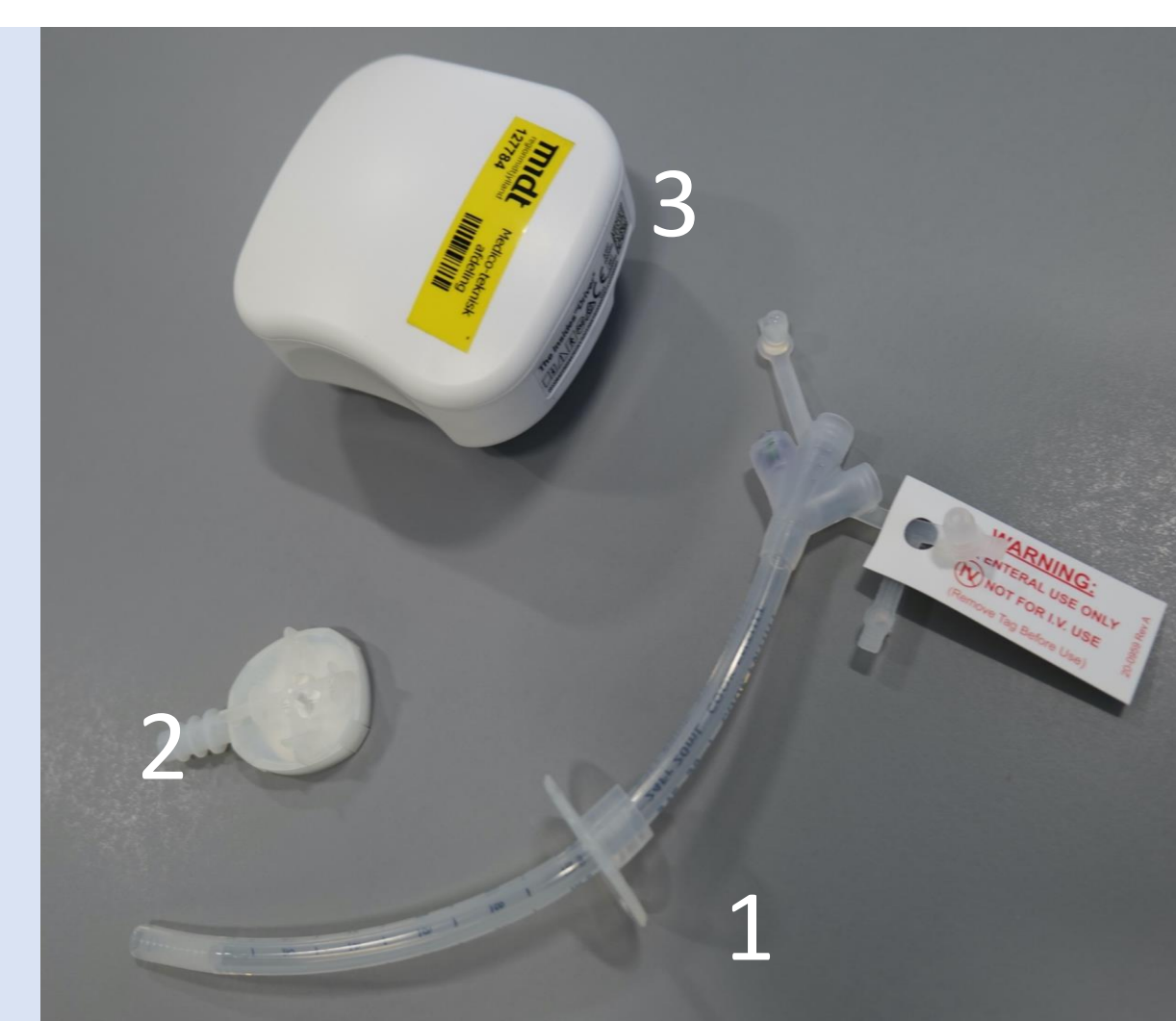


Figure 2. Preparing for reinfusion:

- Loop ileostomy with a 24 Fr catheter (gastrostomy tube) and the pump/impeller fixed on the inserted catheter in the anal limb for distal feeding.
- The patient is clinically and metabolically stable without infection, and a follow-through bowel imaging has revealed continuity.
- The patient is ready for reinfusion.



Figure 3 . Reinfusion:

- Loop-ileostomy bag with chyme. The external driver is magnetically connected to the internal pump/impeller and the chyme is pumped by the inserted tube into the distal limb. Chyme reinfusion in a closed system is established

