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## OBJECTIVES

Patients who develop low anterior resection syndrome (LARS) often suffer from severe bowel dysfunction such as fecal incontinence, which may lead to stoma creation (1). Transanal irrigation (TAI) consists in emptying the colon through water irrigation thus avoiding leakage and stool loss. It is a safe and effective strategy for patients who have failed a more conservative treatment approach and could prevent from more invasive procedures such as stoma surgery (2). The aim of this study was to estimate the budget impact of introducing TAI as a treatment option for patients with LARS from the Spanish National Healthcare System perspective.

## METHODS

A budget impact model was developed over a 3-year time horizon. The target population was estimated based on the prevalence and incidence of rectal cancer in Spain and the proportion of patients who developed LARS following a rectal resection. The model estimated that 4,206 patients with LARS would be eligible for TAI and would remain using it in the long term (3-9) (Figure 1). An all-cause mortality rate of 0.87 was applied (10). The evaluated alternative was the stoma surgery. TAI market shares were: 83.3%; 76.7% and 75% for the first, second and third year, respectively. Data which populated the model were validated during an expert meeting.

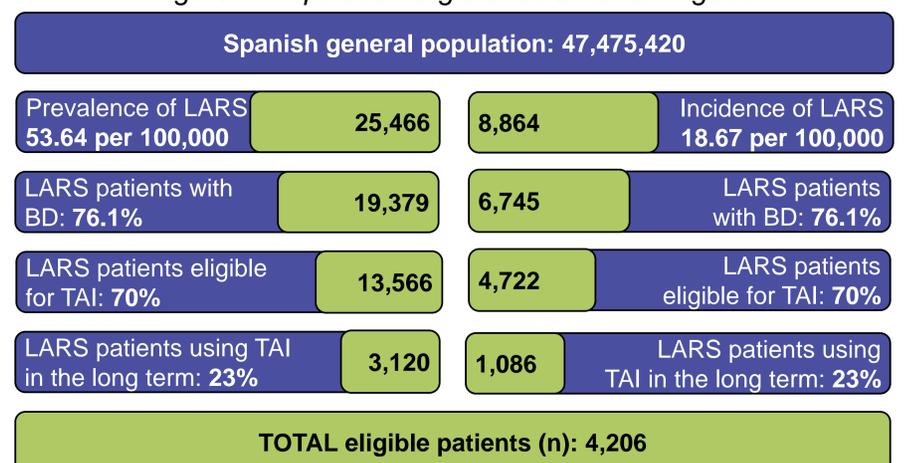
The following direct health costs (€ 2022) were included:

- Transanal irrigation device (11)
- Medical visits: general practitioner, nurse, specialist (12)
- Pre-surgery tests: electrocardiogram, blood test, chest x-ray (12)
- Surgery: colostomy (12)
- Accessories for stoma care: stoma bags, irrigation equipment, belt, plasters (13)
- Adverse events (14-15)

## RESULTS

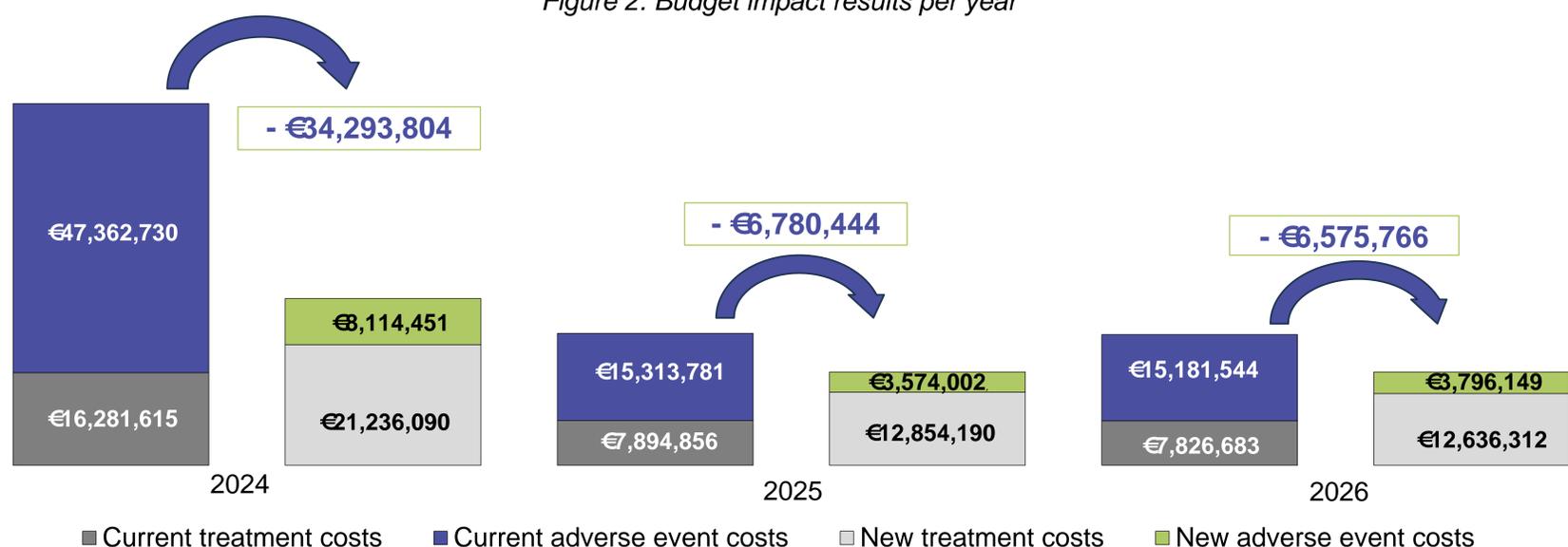
Implementing TAI would allow the Spanish National Healthcare System to save €34,293,804; €6,780,444 and €6,575,766 in 2024, 2025 and 2026 respectively, leading to an overall cumulative budget reduction of €47,650,014 over the three years. The most significant savings were generated by reducing costs associated with stoma surgery complications (Figure 2).

Figure 1. Population eligible to transanal irrigation



Abbreviations: LARS: Low anterior resection syndrome; BD: bowel dysfunction; TAI: transanal irrigation

Figure 2. Budget impact results per year



## CONCLUSION

This study suggests that introducing transanal irrigation as a treatment option for bowel dysfunction in LARS patients is a sustainable alternative and would generate savings estimated at €47,650,014 during the first three years of its introduction, as well as minimizing the need for colostomy.

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