EE432

Propel® Technology – A Budget Impact Analysis in the Italian Context

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BACKGROUND & OBJECTIVES

>10%

Chronic rhinosinusitis (CRS) is an inflammatory condition that affects the nasal mucosa and the paranasal sinuses. It is estimated that CRS affects > 10% of the population (1)
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QoL

The clinical burden comes in nasal congestion, drainage, facial pressure/pain, and loss of smell, which is very difficult for patients (pts) and significantly impacts the quality of life (1, 2, 3).

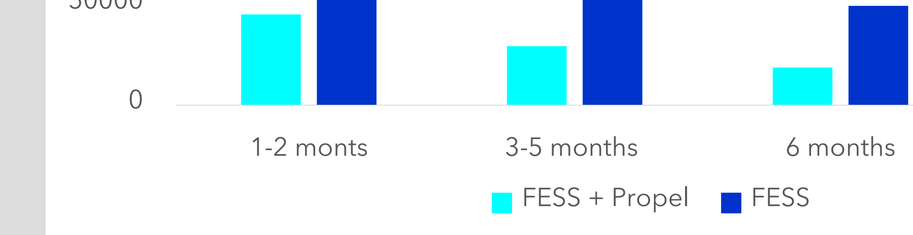
The standard treatment for CRS is with medications, or functional endoscopic sinus surgery (FEES) if medications do not work (4).

After 18 months, until 40% of patients submitted to FESS could have a relapse of CRS symptoms (3).

Propel®, which is a drug-releasing stent, can be implanted during FESS with optimal results regarding post-surgical complications (5,6). **The aim of this project is to study how much Propel® could positively impact costs during the follow-up.**

METHODS

A **budget impact analysis** has been performed to analyze the impact of Propel® use from the Regional Healthcare point of view (Tuscany Region). Costs of complications for patients after FESS vs FESS + Propel® implant have been analyzed.



Outcomes and costs

Time	Outcome	FESS + Propel	FESS
		Average	Average
1-2 months	Lysis of adhesions	14%	25%
	Polyposis recurrence	22%	39%
	Nasal corticosteroid spray use	0%	100%
3-5 months	Lysis of adhesions	0%	28%
	Polyposis recurrence	15%	31%
6 months	Revision surgery	2%	5%
	Lysis of adhesions	0%	40%
	Polyposis recurrence	7%	24%

- Type and percentages of complications came from the PILOT and Advance II studies (two published randomized clinical trials) as in the UK model (7)
- Costs derived from the tariffs paid by the Region to hospitals for both out-patient visits and hospitalizations occurred to take care of complications (8)

RESULTS

- Both the patients submitted to FESS and patients with FESS + Propel reported higher costs during the first 1-2 months after the surgical procedures.
- After 6 months, the simulation of cost of complications for 100 pts with FESS is € 196.114 (min. € 150.727 – max.€ 237.850) vs €93.806 (min. € 52.652 – max €129.580) for 100 pts with FESS + Propel® implant.
- The total saving is more than €100.000 in favor of pts with Propel®.
- The different costs have been obtained thanks to the lower percentages of complications and consequent postoperative interventions for the population with FESS + Propel.

CONCLUSIONS

Propel® is a technology recently introduced in Italy with solid clinical evidence. This budget impact analysis demonstrates that the use of Propel® could save money during the follow-up of pts submitted to FESS for CRS.

These results help in showing the value of the device by looking at the patient pathway positive consequences

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