

Management of the post-surgery hospital care in France according to the type of surgery: a French claims database analysis



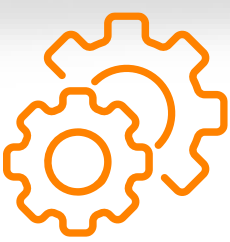
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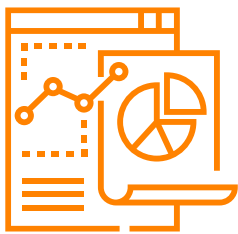
BACKGROUND AND OBJECTIVES

- > French HTA has set the goal of achieving 70% of outpatient surgical procedures by 2022, but a slowdown has been observed in recent years<sup>1</sup> due to the existence of barriers linked to the risk of postoperative complications which concerns 10 to 15% of patients.<sup>2</sup> It hinders the deployment of Enhanced Recovery After Surgery (ERAS) protocols, which remain sparsely used in France.
- > Remote monitoring medical devices (RMMD) can remove these barriers by facilitating and securing the early discharge of patients at risk of post-surgical complications. Based on this rational, the length of hospitalization is a key clinical endpoint for assessing the impact of RMMDs on hospital organization.
- > **The objective of this study is to describe the characteristics of post-surgical hospital care in Metropolitan France by major diagnostic categories.**



METHODOLOGY

- > This is a retrospective transversal study based on French national claims database (PMSI), covering all public and private care centers in France.
- > Patients ≥ 18 years old who had at least one hospitalization for surgery in one of the three major diagnostic categories (MDC) of interest for the RMMD indication (respiratory (RS), digestive (DS), and endocrine, nutritional, and metabolic (ENM)) in 2019 were included in the study.
- > The length of hospitalization (LH) and hospitalization severity (HS) were described by MDC separately. Four level of severity were considered (1 being the lowest and 4 the highest level).
- > Hospitalization cost was calculated considering the Diagnosis related group (DRG) cost according to the health care perspective.
- > Study registered under MR006 with the Health Data Hub.

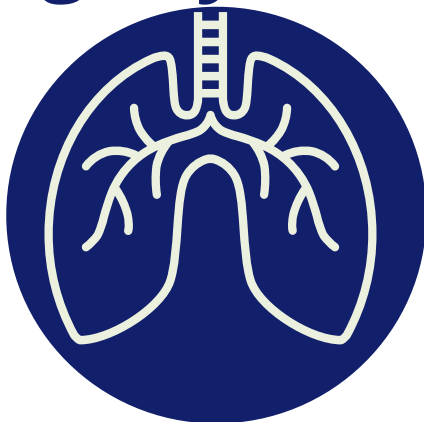


RESULTS

> Key findings for the overall population:

- > For the three MDC, we identified 172,243 hospitalizations in 2019 including 9,3% of ERAS.
- > The LH was shorter with ERAS vs non-ERAS, -3.5 days for RS, -4.1 days for DS and -1.2 days for ENM.
- > Severe HS was less present in ERAS hospitalizations regardless of MDC (14.2% vs 25% for RS, 33.8% vs 49.4% for DS, 1.3% vs 2.6% ENM).
- > The hospitalization cost for non-ERAS was greater in average to ERAS hospitalization regardless of the number of observed hospitalizations, region or MCD.

> Key findings by MDC and region:



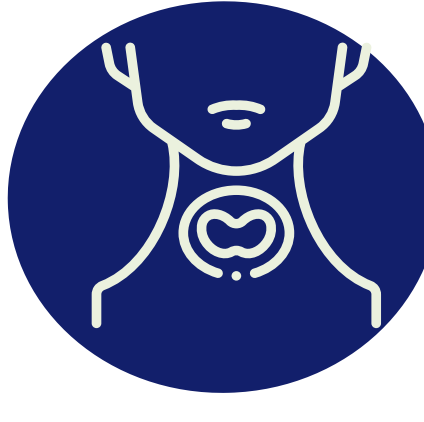
RS

N= 33,614  
ERAS : 8%



DS

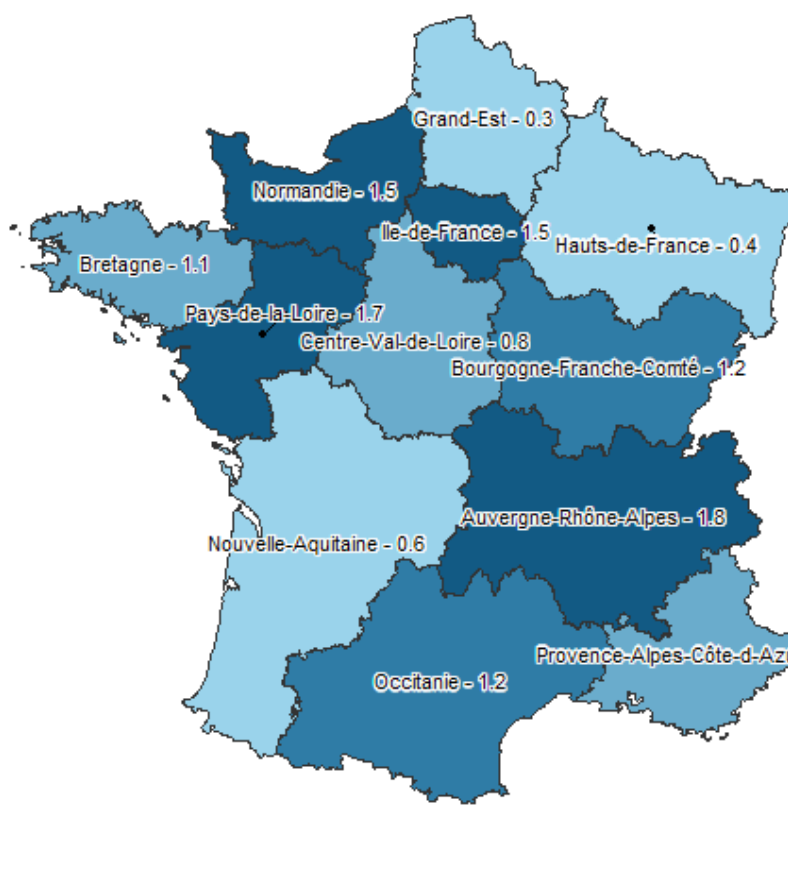
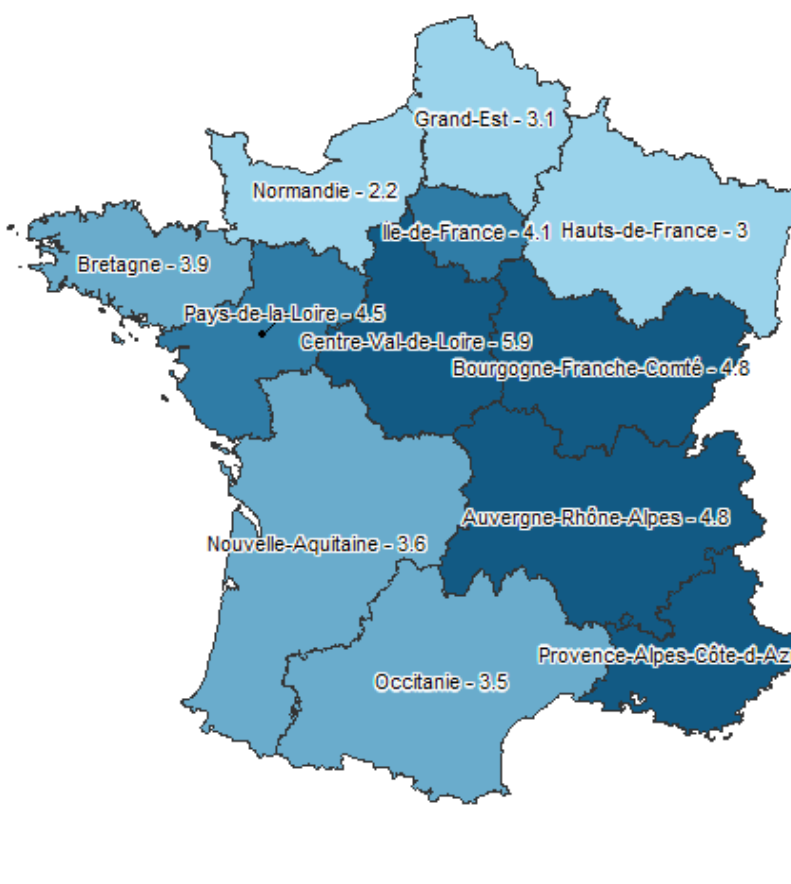
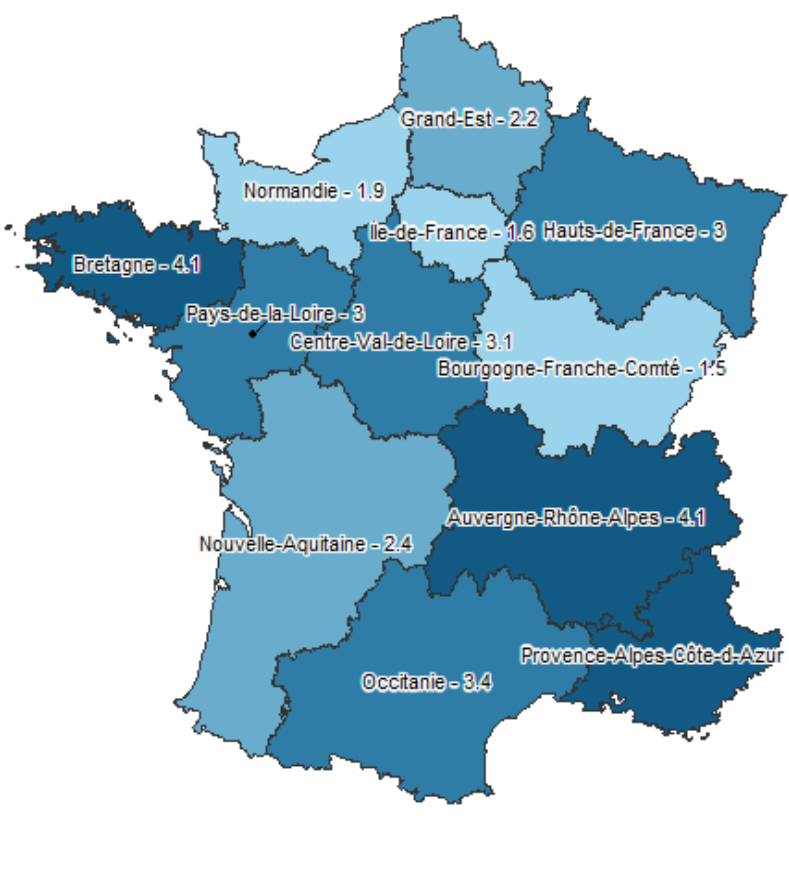
N= 101,714  
ERAS : 7.7%



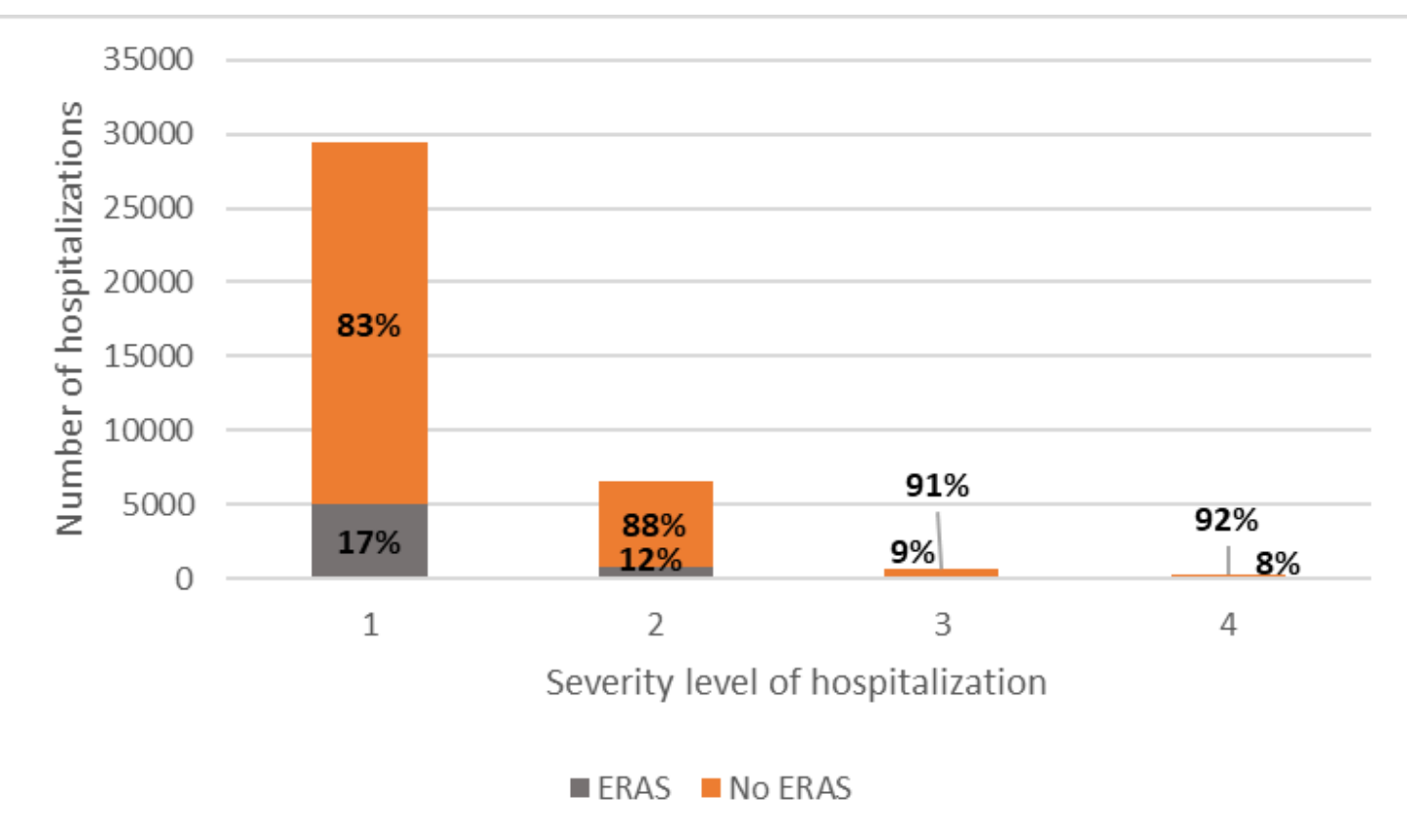
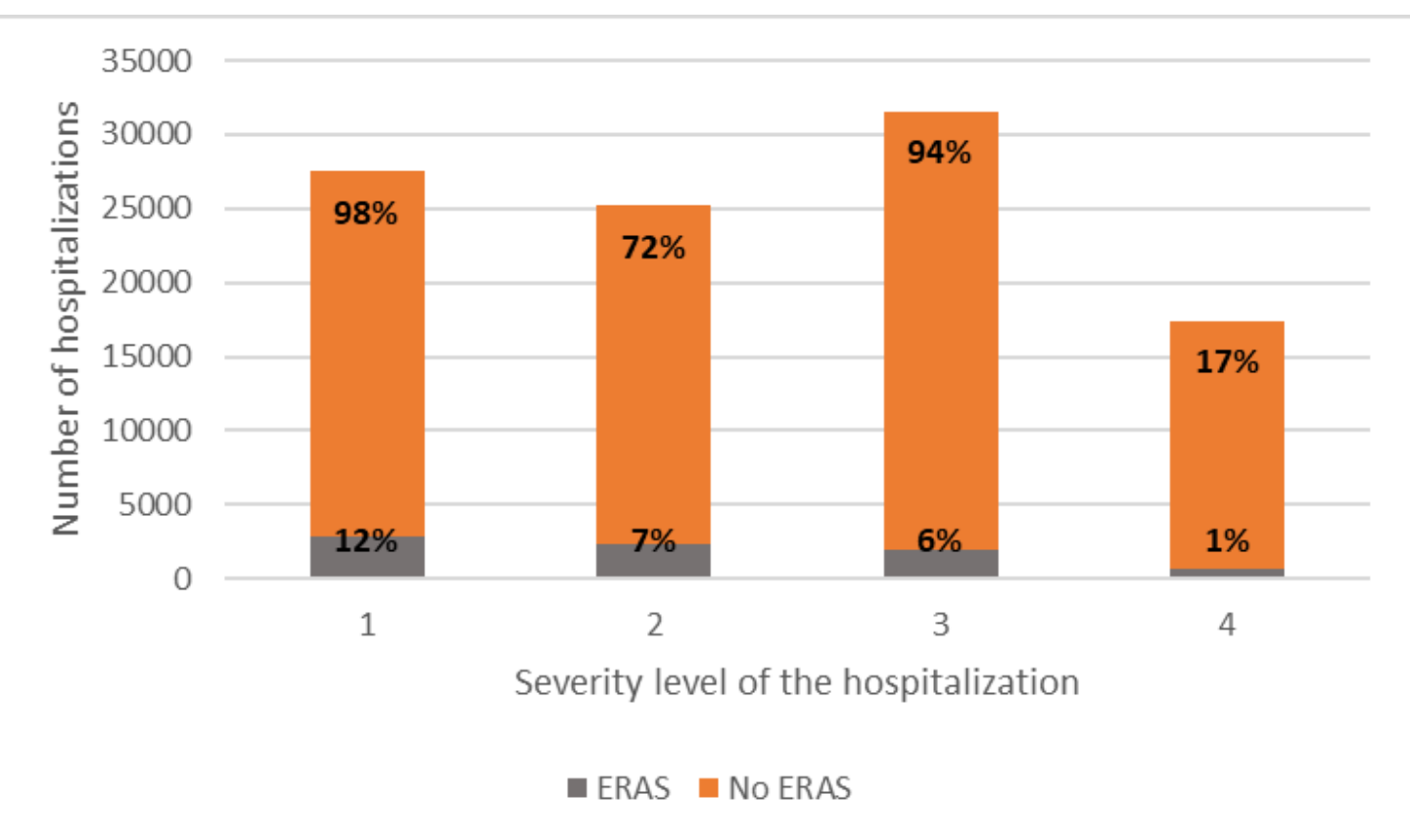
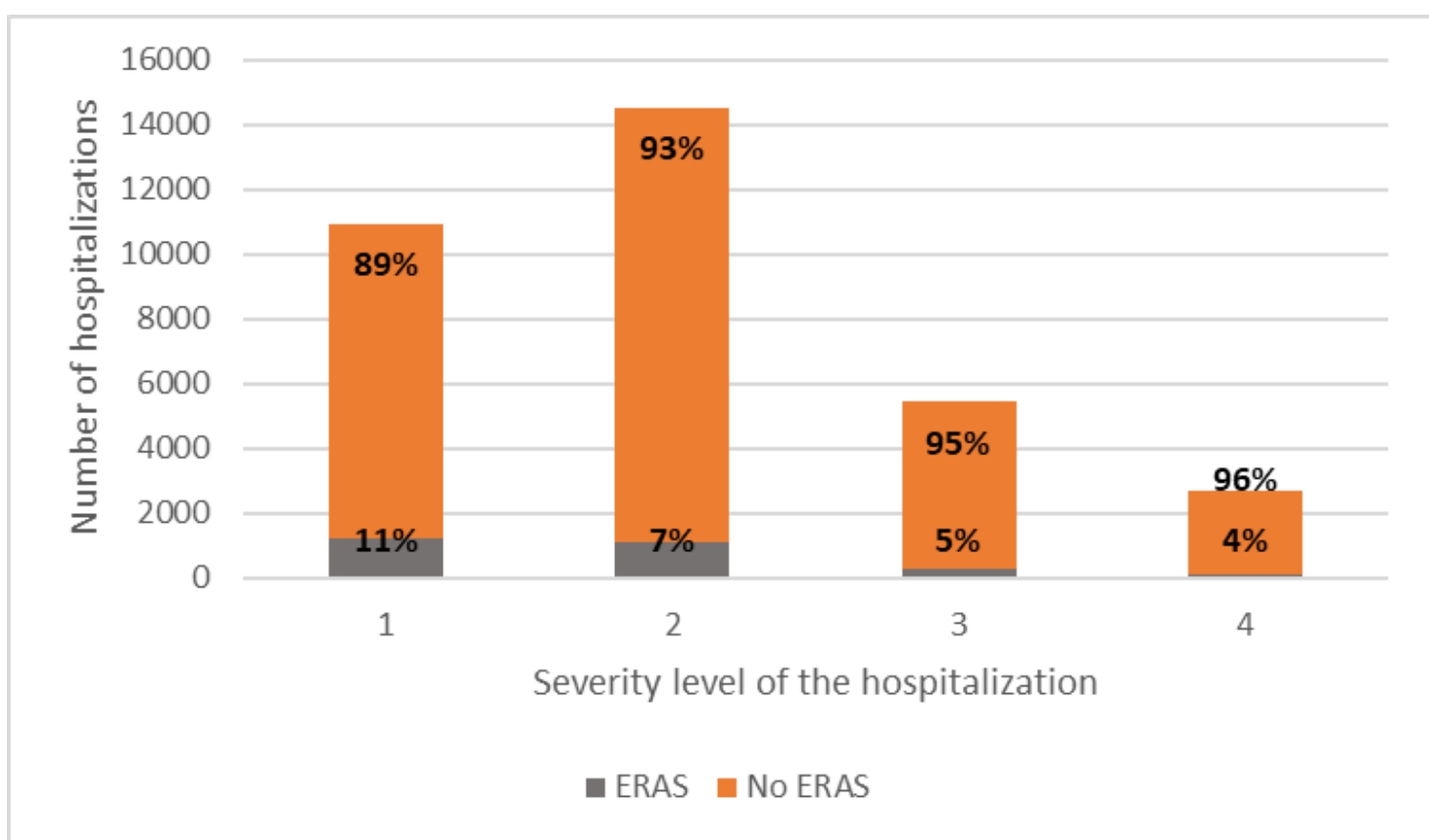
ENM

N= 36,915  
ERAS : 15.7%

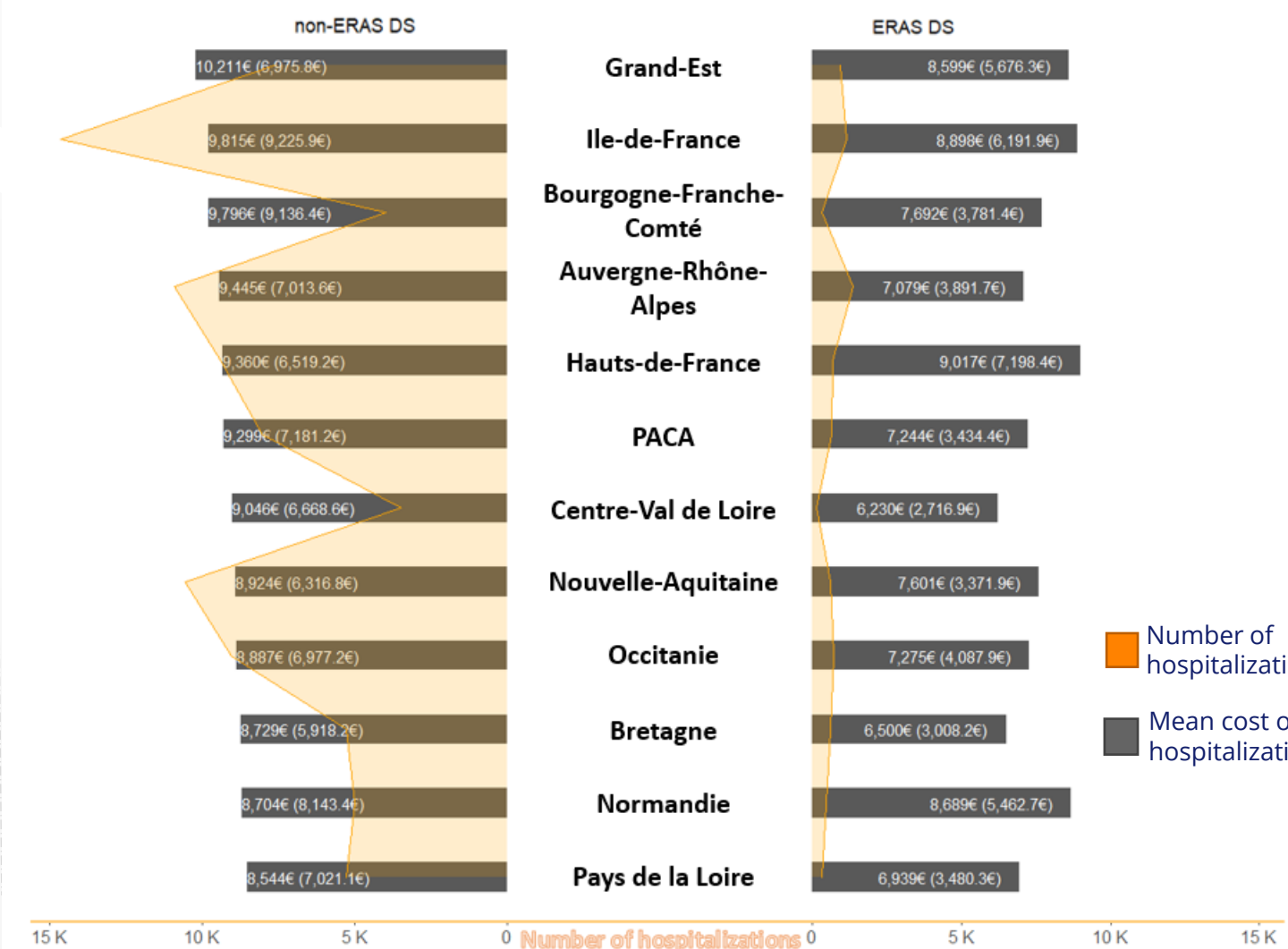
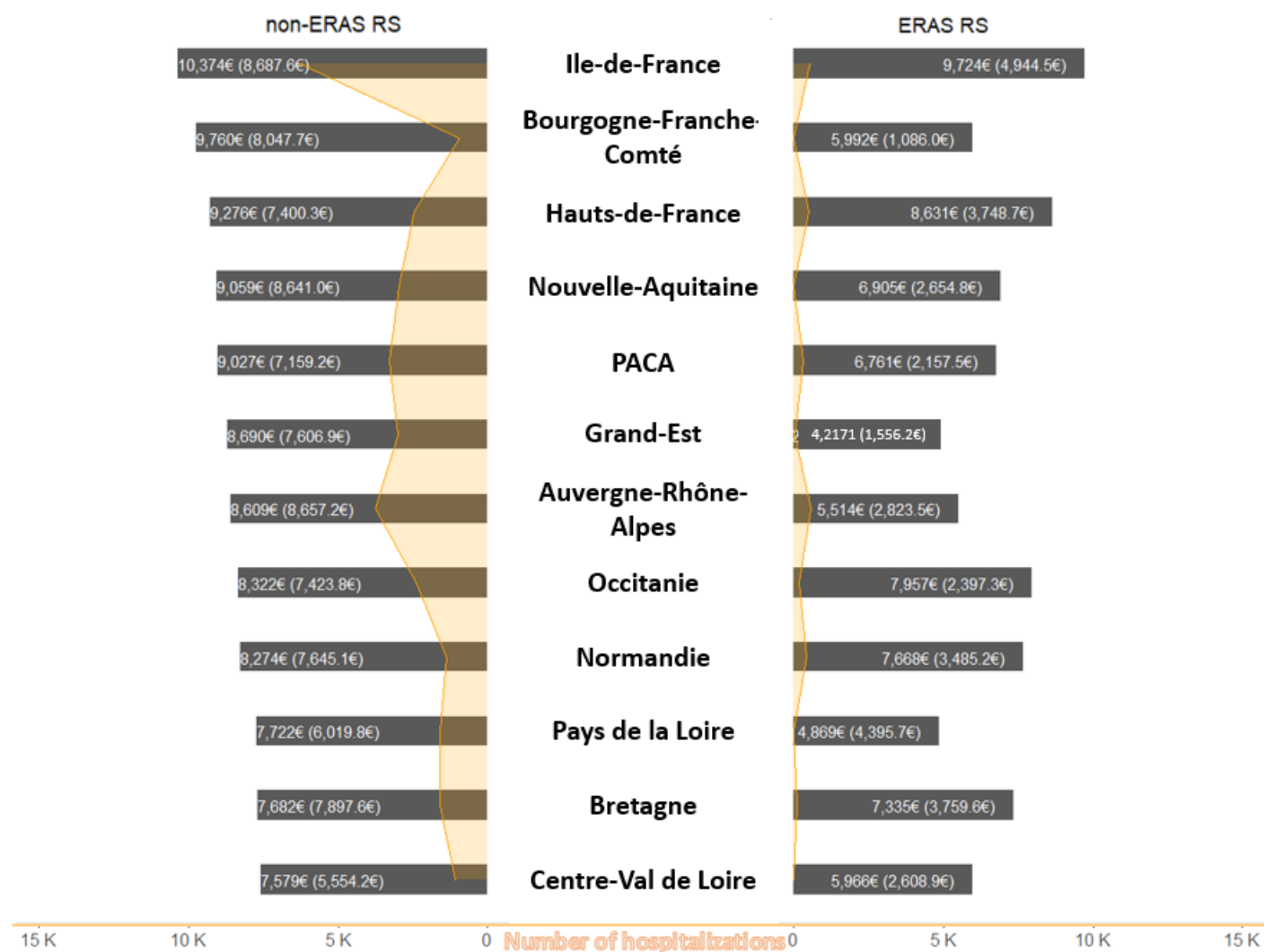
Difference in LH



Proportion of severe hospitalization by severity



Difference in hospitalization cost



CONCLUSION

- > This study provided a national understanding of the post-surgical practices in particular the LH reduction linked to ERAS and associated patient's severity.
- > The observed size effect is a relevant input for clinical investigation design to assess the clinical and economic benefits of RMMDs.

Disclosure :

Nicoleta Petrica, Mathieu Rosé, Romain Finas : consulting activity of Alira Health  
Arnaud Quinet, Elie Lobel, Alexia Vidal : RDS SAS employees



REFERENCES

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- > 2. International Surgical Outcomes Study group, 2016, British Journal Of Anaesthesia