

# BARIATRIC SURGERY - a health economic perspective of the prescription costs

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## Introduction

- The economic burden of obesity on healthcare systems is increasing.
- Bariatric surgery, despite its effectiveness, is costly and doubts about its affordability have been raised.
- Few studies have assessed outcomes such as drug use and costs after bariatric surgery.

## Objectives

The aim of this study was to:

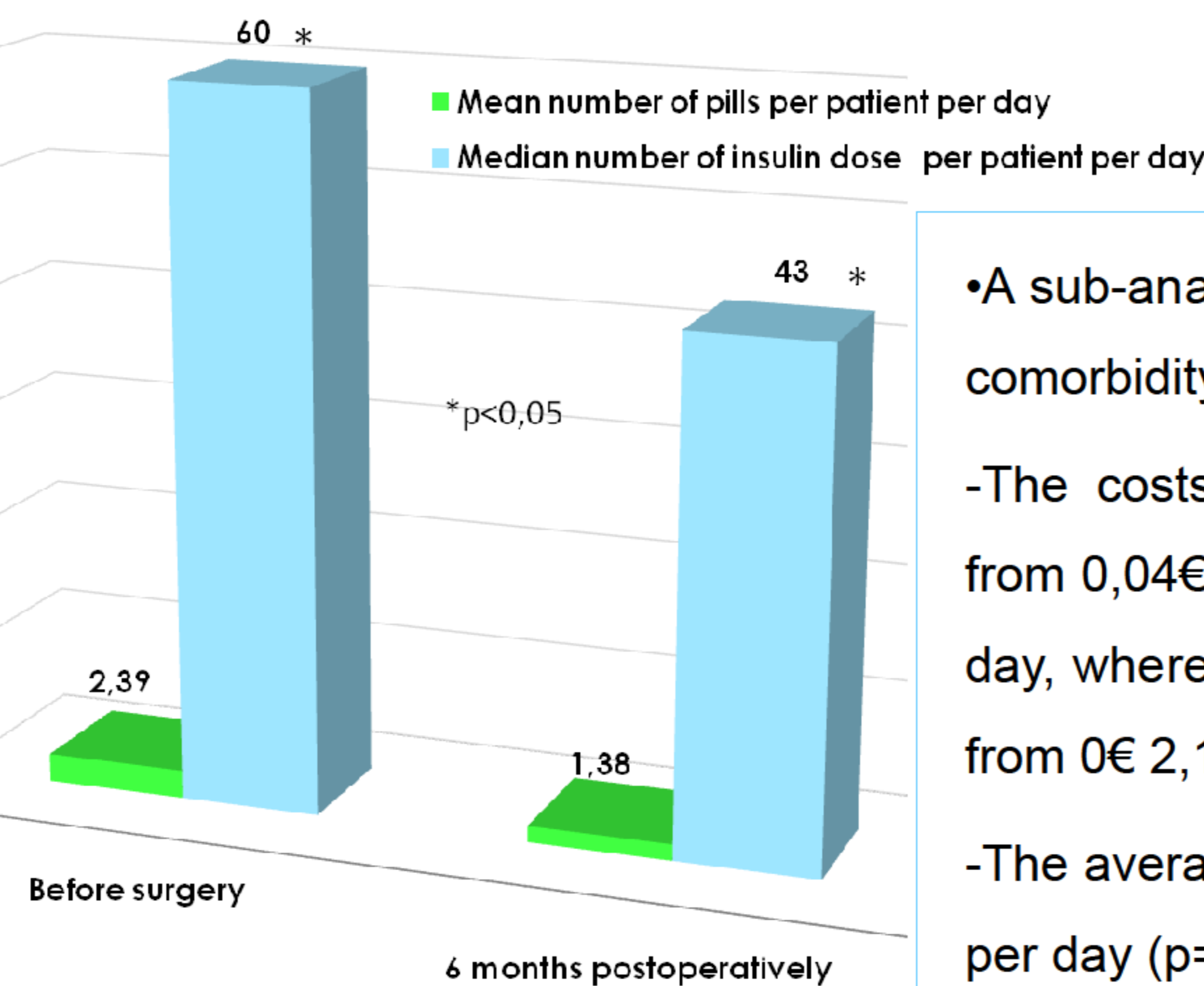
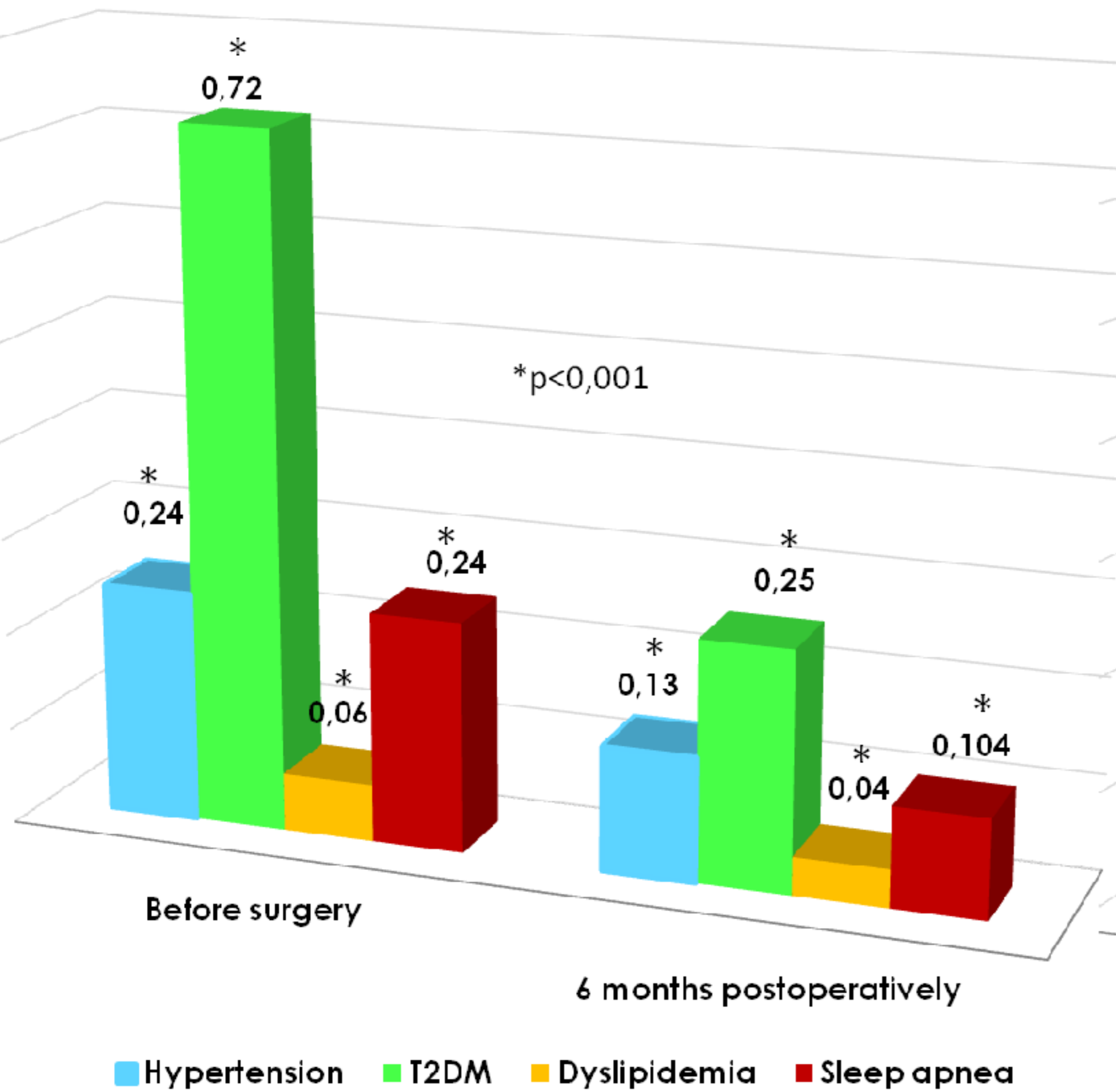
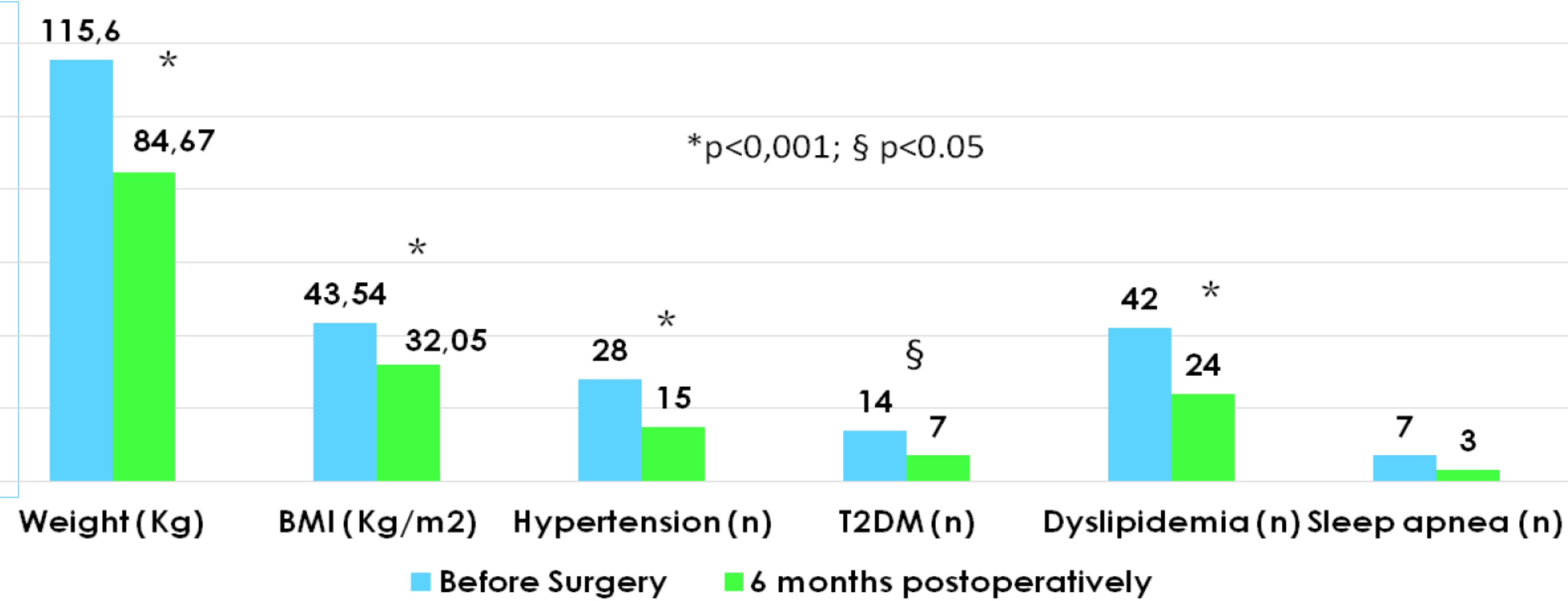
- evaluate prescription and prescription costs before and 6 months after bariatric surgery;
- estimate the cost-benefit analysis of bariatric surgery from the Portuguese National Health Service (NHS) perspective.

## Methods

- A retrospective study was conducted reviewing the medical charts of patients submitted to bariatric surgery in 2014.
- Data recorded included patient's age, gender, weight, height, body mass index (BMI), comorbidities (type 2 diabetes mellitus (T2DM), hypertension, dyslipidemia, and sleep apnea) and prescription drugs and its dosages. The number of pills and insulin dose were compared pre and postoperatively as well as the necessity of using continuous positive airway pressure (CPAP) for sleep apnea.
- Because bariatric surgery is entirely paid by the NHS and since treatments used for the described comorbidities are mainly or totally financed by our NHS, savings for the NHS were estimated.

## Results

- n=72
- 11 ♂ (15,3%), 61 ♀ (84,7%)
- Age ranged from 23 to 65, with a mean of 40±9,3 years.
- Gastric bypass – n=17; Sleeve gastrectomy – n=55
- There was a significant reduction in the prevalence of hypertension, dyslipidemia and T2DM.



•A sub-analysis of the 33 patients treated for at least one comorbidity before surgery revealed:

- The costs of these treatments ranged, preoperatively, from 0,04€ to 8,61€, with a mean of 1,26€ per patient per day, whereas 6 months postoperatively, the costs ranged from 0€ to 2,1€, with a mean of 0,53€ per patient per day.
- The average difference of costs was of 0,73€ per patient per day (p=0,015).

## Conclusions

- This study demonstrates a significant reduction in the number of drugs and drugs' cost after bariatric surgery, in respect to comorbidities such as T2DM, hypertension, dyslipidemia and sleep apnea.
- Even at a relatively short follow-up, this study found that the pharmaceutical savings are significant and, if patients maintain their health, could be able to offset the costs of surgery.
- So, even though the cost of surgery is high, in the long run, the reduction of costs respecting treatment of obesity-related comorbidities demonstrate that bariatric surgery can be an excellent option in polymedicated patients.

## References

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