

PROACTIVE VERSUS RETROACTIVE MODELS IN MEDICATION RECONCILIATION – ARE THERE BENEFITS?

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BACKGROUND AND IMPORTANCE

Medication Reconciliation (MR) at admission has been rising in Portugal; however, its implementation predominantly focuses on the Retroactive model, with **limited or no experience** applying the Proactive model.

Comparative data between these two approaches remain scarce in the Literature—fewer than five scientific articles have been published—underscoring the **pioneering nature of this study**.

AIMS AND OBJECTIVES

Characterize and compare Retroactive and Proactive MR processes, particularly regarding the **number of Unintentional Discrepancies (UD)** that can lead to Drug Related Problems (DRPs).

To explore each model in the **average length of hospital stay**.

To investigate the connection between the **admission waiting list**, prior and following, to implementation of MR.

MATERIALS AND METHODS

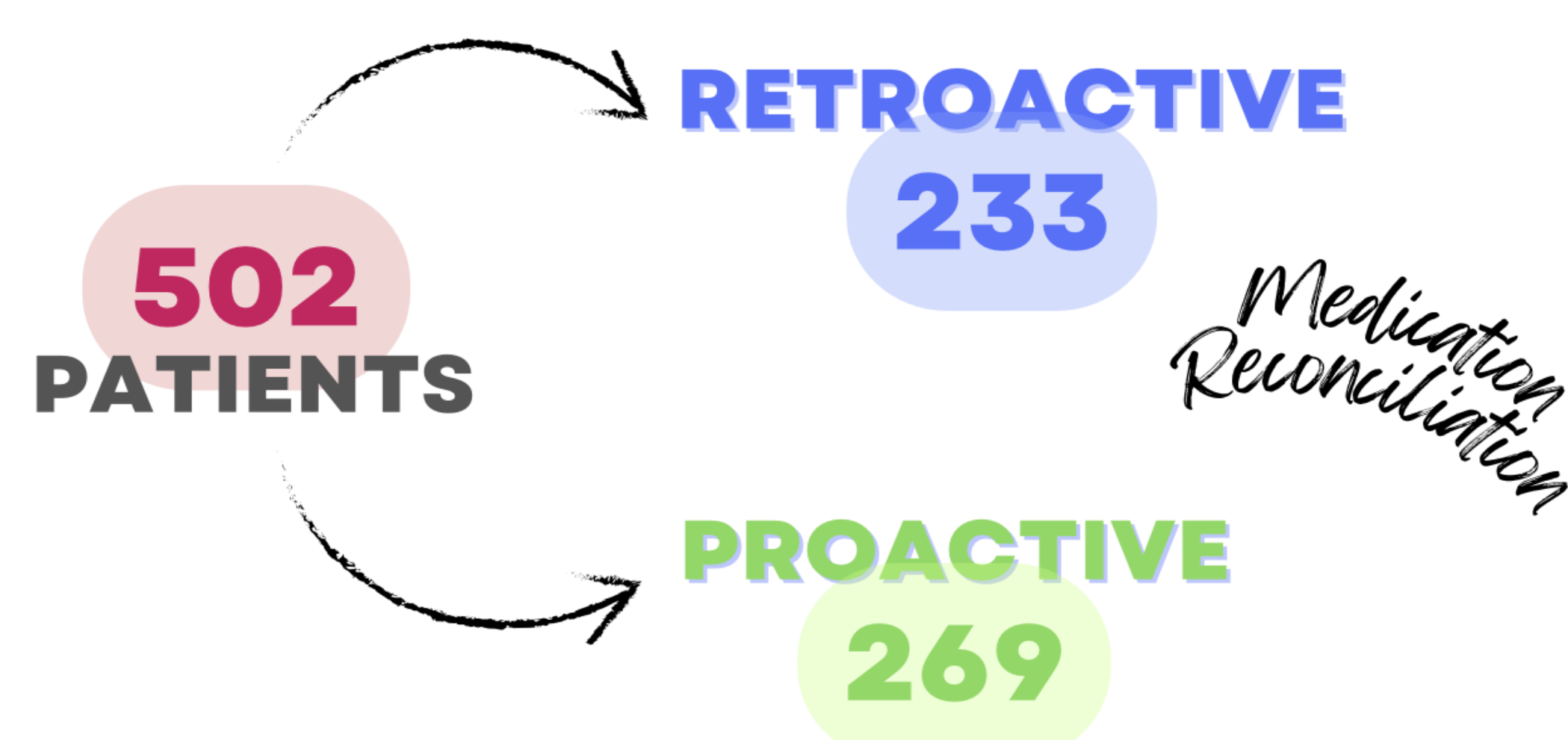
Prospective study conducted for **twelve months** in a Vascular Surgery unit (October 2023 to September 2024).

Inclusion criteria: presence of comorbidities, age ≥ 55 years, prior chronic therapy with ≥ 5 drugs.

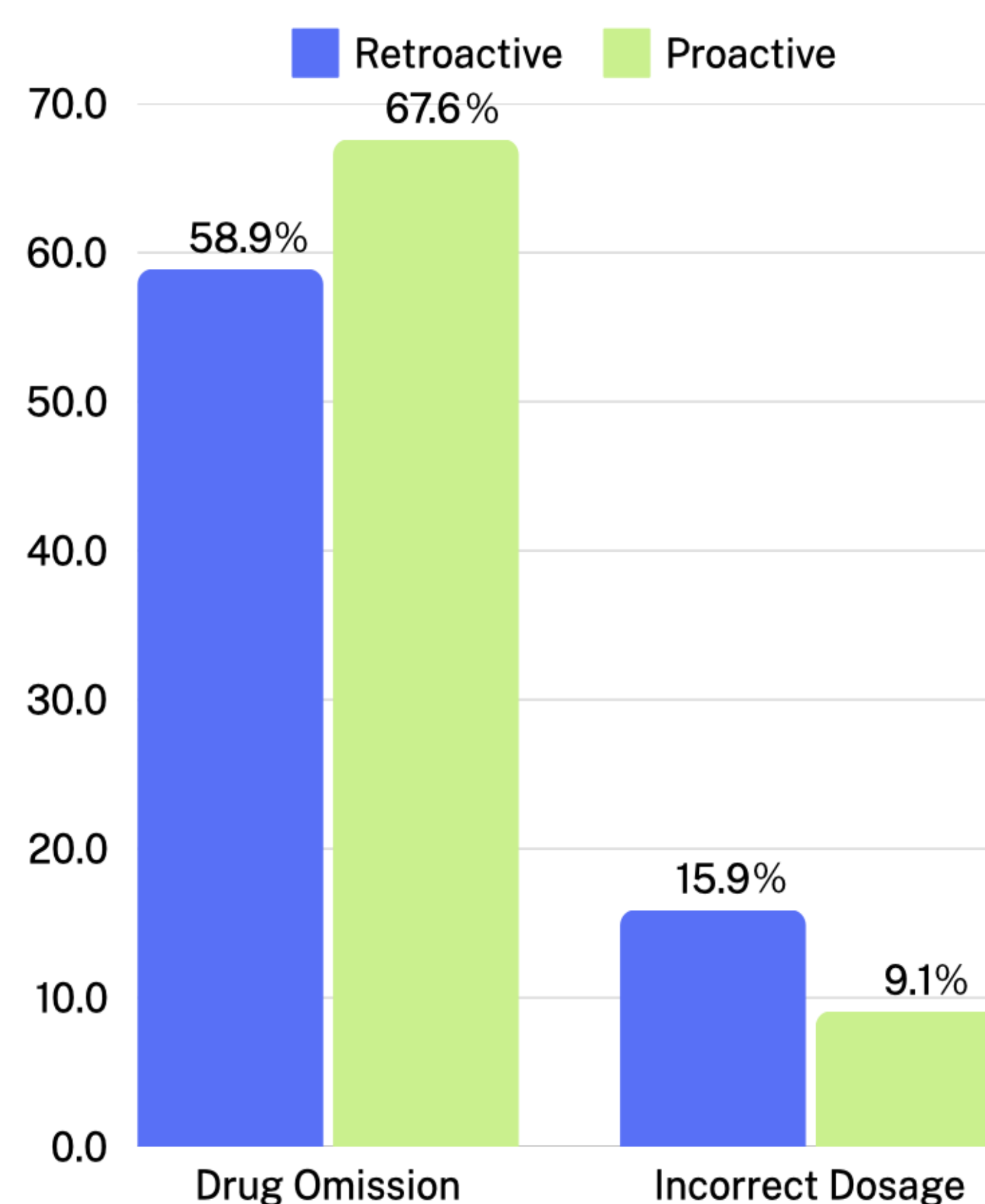
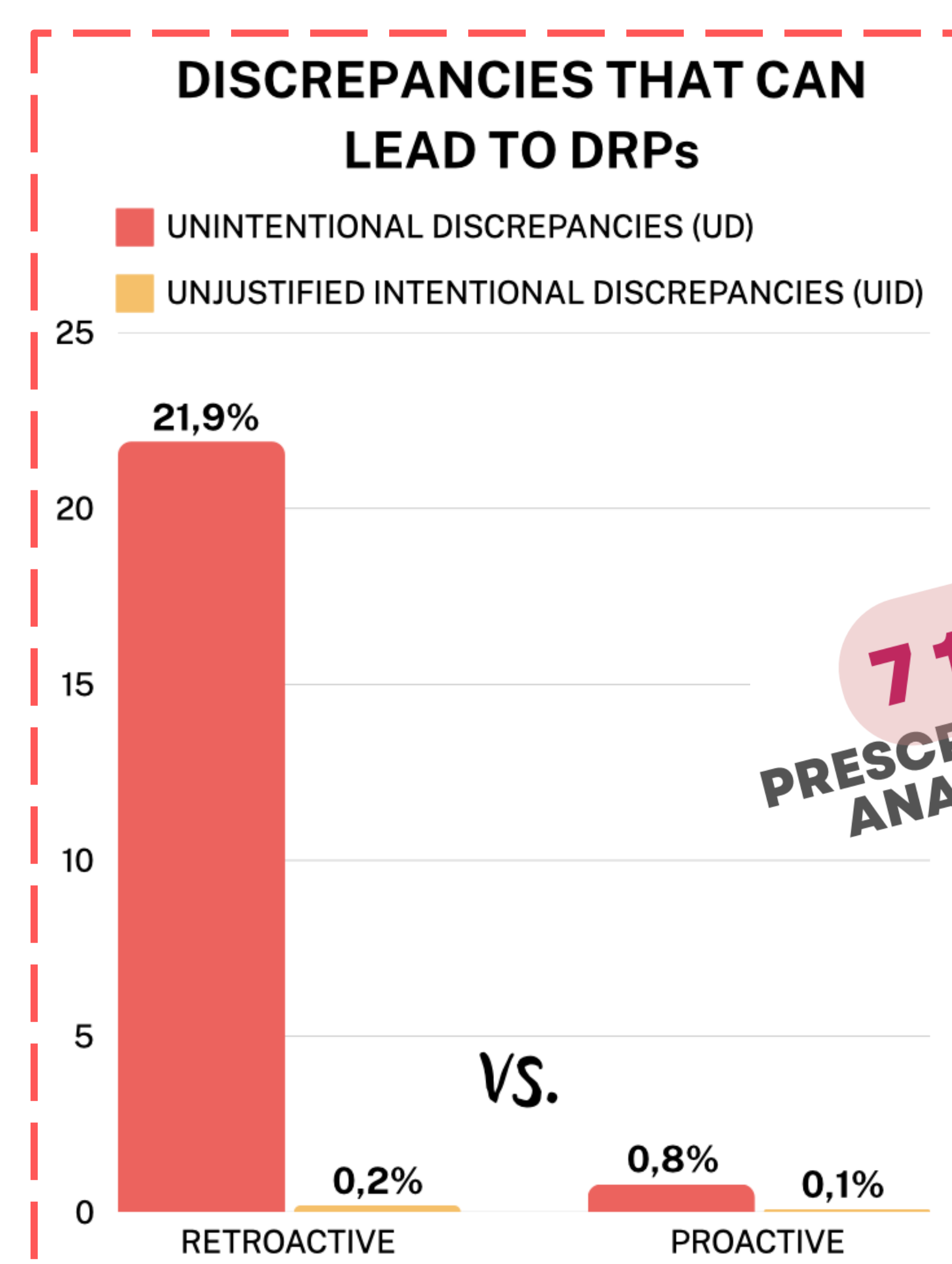
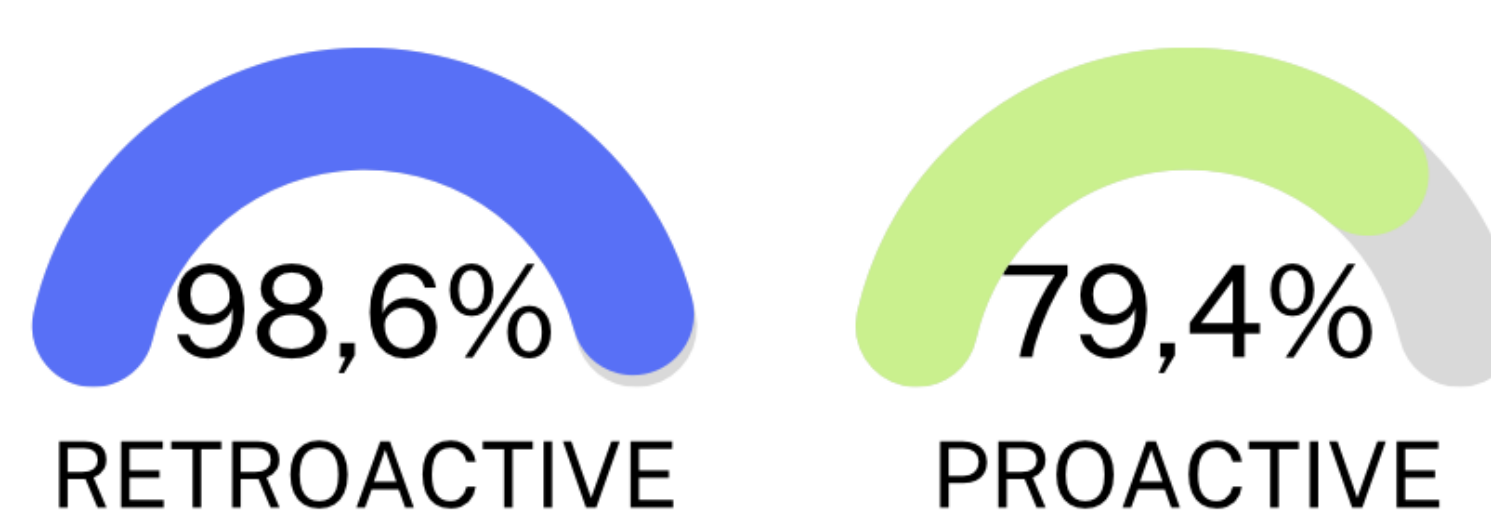
Data collection and analysis using Microsoft Excel.

*Model classification depending on prescription and medication history availability.

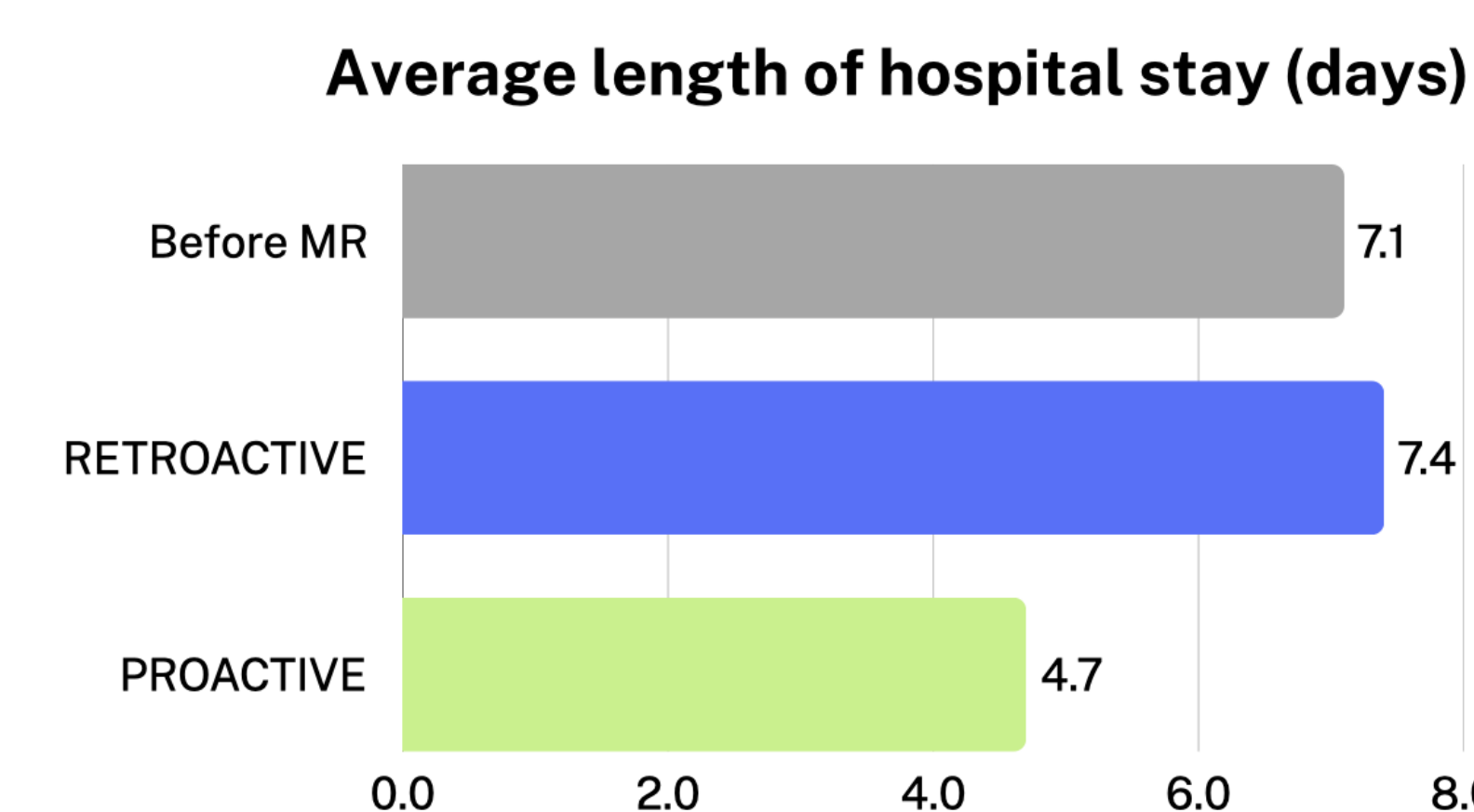
RESULTS



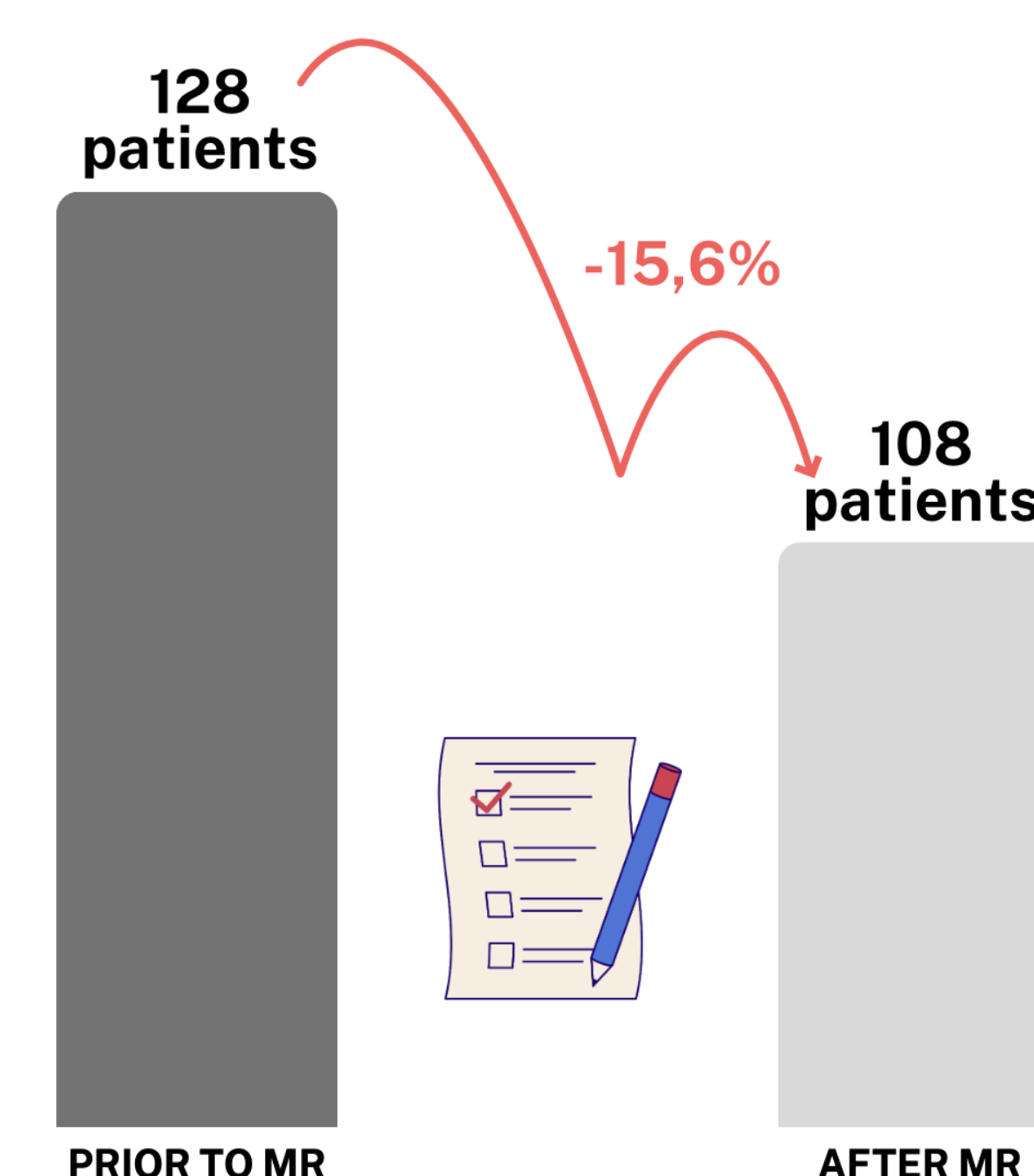
APPROVED PHARMACEUTICAL INTERVENTIONS (PI)



The leading causes of UD and UID for both methods were **drug omission** and **incorrect drug dosage**.



Comparison of length of stay prior to MR and both models (**Retroactive:** 7.4 days (SD=13.9) and **Proactive:** 4.7 days (SD=8.9)).



Difference between hospital admission waiting lists: March 2023 vs. September 2024.

CONCLUSION AND RELEVANCE

Proactive MR model demonstrated **remarkable benefits** over the Retroactive model in **early prevention of UD**s capable of leading to DRPs.

- **Shorter hospital stays** and greater patient recovery were observed, suggesting better bed availability.
- Overall, **MR and PI** may have contributed to **reduced treatment waiting lists**, though further monitoring is needed to strengthen these findings.

References:

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- Gomes T, Greaves S, van den Brink M, Bjerre LM, Brosen K, Gilron I, et al. Pregabalin and the Risk for Opioid-Related Death: A Nested Case–Control Study. *Ann Intern Med.* 2018;169(10):732–4.

Keywords:

- Impact clinical pharmacy
- Medication reconciliation
- Pharmacy interventions
- Clinical pharmacy

