

IMPLEMENTATION OF THE NOA-DIGITAL APPLICATION IN THE OPHTHALMOLOGY CIRCUIT

WHAT IS THE IMPACT?

Catarina Diogo¹, Rui Caceiro², Catarina Canário¹, Sónia Camões¹, Sofia Bastos¹, Cláudia Silva¹, Helena Duarte¹, Armando Alcobia¹
1: ULS Almada-Seixal | 2: ULS São José; Nova Medical School

Introduction: To improve the medication circuit in Ophthalmology at our hospital - which has grown exponentially and was largely paper-based, and prone to errors - a **digital application** called NOA-Digital **was developed** in 2023.

Objectives: To **assess the impact of implementing** the NOA-Digital application.

Methods: A retrospective comparative study. Data was collected through the application and Excel files between June and August 2024 and the corresponding period of the previous year.

Results

1. The use of the application **eliminated paper prescriptions and their transcription** to Excel files, which previously generated a document with over 120,000 fields filled by the pharmacist annually.
2. Its implementation **reduced the time spent** on bureaucratic tasks **from 5 days per week to just 1**.
3. In a total sample of **701 patients, 1,384 prescriptions were entered** into the application, and 1,800 injections were prepared: 696 of aflibercept, 836 of bevacizumab, 235 of ranibizumab, and 14 of faricimab, among others.
4. Compared to 2023, the **production of aflibercept increased by 9%** (640 in 2023 vs 696 in 2024).
5. By **fractionating this drug** in a negative pressure chamber, one vial can be used for two patients, representing a theoretical consumption of 348 vials (€209,252.40) in 2024. However, only 303 vials were used (€182,193.90), resulting in **savings of €27,058.50** (about **13%**).

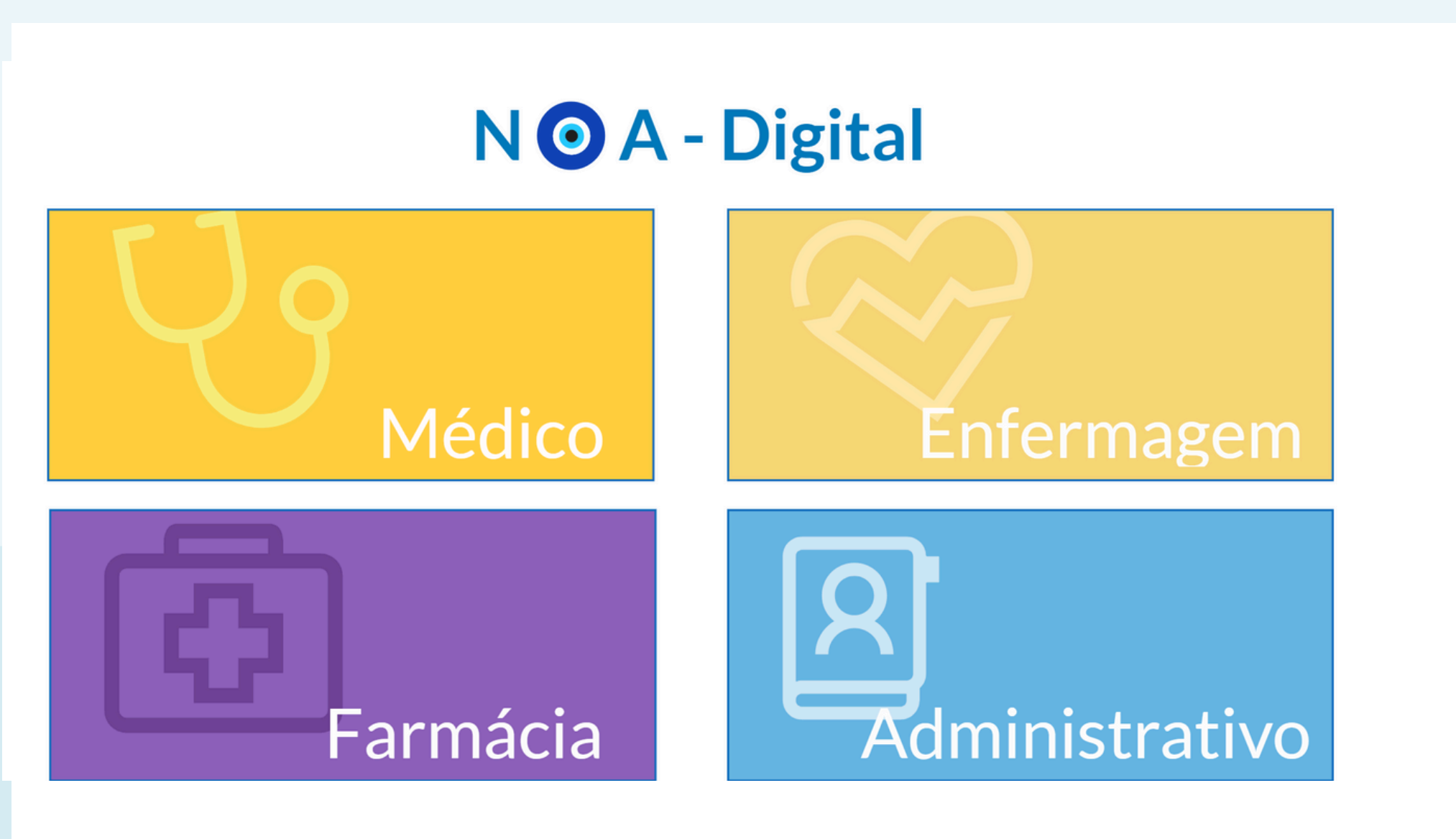


Figure 1 - Menus of the NOA-Digital application

Discussion & Conclusion

The software **reduced by 80% the time pharmacists spent on administrative tasks**, through the automation and centralization of processes and easy access to information. It facilitated the inclusion and monitoring of more patients, increasing production and it **improved the pharmacist's organization and availability**, allowing for the refinement of production techniques, which **generated savings**. The software **also eliminated common errors from the previous system** and provided access to previously unrecorded information.

In conclusion, the implementation of the NOA-Digital application **proved to be an effective solution** for improving the ophthalmic medication circuit, promoting greater safety, efficiency, and quality while contributing to cost reduction. **Continued monitoring and analysis of its use is recommended** to identify additional improvement opportunities and assess its adaptability for implementation in other pharmaceutical services.