

# CAN THE USE OF ANDON AND A DEDICATED TRAFFIC MANAGEMENT NURSE ASSIST IN DIAGNOSING OPERATIONAL ISSUES IN SURGICAL CENTERS?

HSD60



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## INTRODUCTION

Efficient management of surgical centers is critical to ensuring high-quality patient care and controlling operational costs in hospitals. However, surgical centers are complex environments where operational delays can lead to increased idleness, higher costs, and potential clinical complications. As healthcare facilities seek innovative solutions to improve operational efficiency, automated systems and dedicated personnel for process monitoring are becoming valuable assets. This study investigates the impact of using an automated Andon system alongside a dedicated time management nurse to diagnose and address operational inefficiencies within a large Brazilian hospital's surgical center. By utilizing the OR 4.0 platform, developed by Mudita.CARE, this study provides insight into the system's potential to identify idleness and improve response times in real-time, potentially enhancing overall surgical workflow and patient outcomes.

## OBJECTIVE

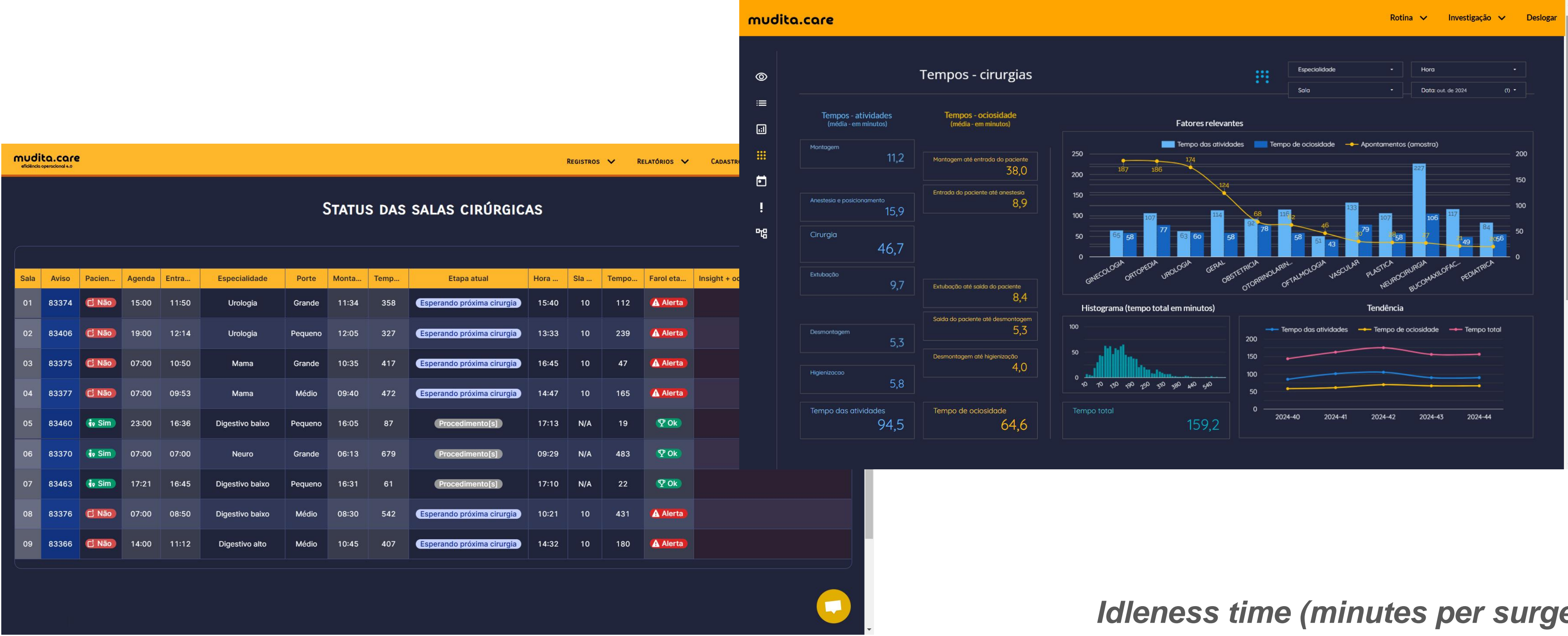
To evaluate whether the use of automated Andon and a dedicated time management nurse can assist in diagnosing operational issues in surgical centers.

## METHOD

This study presents partial results from a single-arm clinical trial conducted in a large Brazilian hospital, which performs small, medium and high complexity surgeries. The Operating Room 4.0 platform by Mudita.CARE was used as a tool to collect data on idleness and identify delays in the operational processes of surgical rooms in a visual and automated manner. The platform features a user-friendly dashboard that allows real-time identification, via the Andon system, of which rooms and at which stages of the surgical process there is greater than anticipated idleness. This can reduce operational efficiency, increase the risk of clinical complications, and raise the costs of procedures. A dedicated nurse was also trained to intervene immediately whenever the Andon system signaled a delay in any of the operational processes of the surgical rooms.

## RESULTS

2845 surgeries were evaluated with this new process between April and June 2024. In the first month of implementing the intervention, the system indicated 403 delays, representing 41.3% of the surgeries performed, with an average idleness time of 73.9 minutes (mostly in the stages between setting up the surgical room and patient anesthesia). In the second month, these indicators increased: the system indicated 554 delays in 53.4% of the surgeries, with an idleness time of 65,7 minutes. However, these delays began to receive immediate intervention by the traffic management nurse.



Andon and idleness measurement platform

Idleness time (minutes per surgery)

1<sup>st</sup> month

73.9

2<sup>nd</sup> month

65.7

## CONCLUSIONS

The use of automated Andon and a dedicated traffic management nurse can significantly contribute to identifying improvements in operational processes, thereby reducing hospital costs and preventing surgical complications for patients.

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