



Overview

Before a merger with Bellin Health system expanded its footprint in late 2022, the Gundersen Health system served patients across Wisconsin, Minnesota, and Iowa through its seven hospitals, 33 clinics, and 23 ORs. The system's flagship, 325-bed LaCrosse, Wisconsin-based Gundersen Health Hospital, delivers a holistic range of health care services to adult and pediatric patients.

Problem

Amid greater staffing challenges faced throughout the health system in the first half of 2022, Gundersen's perioperative department further experienced capacity problems that hindered the full and efficient use of operating room (OR) time. Leaders, surgeons, and staff lacked real-time visibility into key data they needed to make actionable decisions. Due to the nature of the block build, surgeons' and service lines' real use of assigned block time was not possible to understand, nor was time that could be released and repurposed. As a result, open time for elective cases were severely limited. In these circumstances surgeons were reluctant to release their block time manually, and compounding this issue, autorelease deadlines were shorter than necessary. Scheduling whatever open time was available involved frequent back-and-forth phone calls and faxes between the OR and clinics, with no true audit trail to show the history of releases and requests. Similar problems persisted in accessing resources such as surgical robotics. With no actionable tools available to right-size block assignments and free open time, it was difficult to make decisions that improved OR performance metrics.

Solution

To address these problems by providing visible data and tools to act on these opportunities effectively, Gundersen launched the AI-based [iQueue for Operating Rooms](#) solution in May 2022. The Analyze module in iQueue provided a single source of truth for up-to-date data that all OR stakeholders

could access. It delivered weekly relevant notifications to surgeons and monthly high-level performance reports to leaders, who could then take informed action, such as extending autorelease days where appropriate. The Collect and Allocate modules offered clearer visibility into true block utilization, identified "Collectable" unused time that could be repurposed, and made recommendations on how to right-size block allocation based on historic usage. Leaders used this information to create accurate schedules built on rightsized block. iQueue also sent release reminders to encourage surgeons to release block and provided an open marketplace to facilitate an easy exchange of time across the OR. The platform streamlined the scheduling process overall, so schedulers could view and request open time and track all OR transactions automatically. With the new protocols and practices in place as of October 2022, utilization improved, including noticeably in the robot room, and existing staff were empowered to achieve success using limited resources.

Results

On average in Q4 2022 compared to Q4 2021, Gundersen achieved:

8%
increase in prime
time utilization

9%
increase in staffed
room utilization

8%
increase in
block utilization

14%
increase in prime time
robot utilization

76%
increase in manually
released minutes