Tufts Medical Center Transforms OR Efficiency with TigerConnect and EHR Integration

Tufts
Medical Center

Overview

Tufts Medical Center (Tufts MC) is a Boston-based world-renowned academic medical center that has provided excellent care throughout New England and beyond for more than two centuries. Tufts MC offers primary care and more than 100 specialties and services including cardiac and cancer units, neuroscience, orthopedics, and organ transplantation. The health system is also the principal teaching hospital for Tufts University School of Medicine and a research center.

With more than 5,000 employees and a diverse set of specialties, Tufts MC prizes providing excellent patient care, advancing medical education, and conducting research that enhances healthcare and medical knowledge. Effective clinical communication is vital in supporting Tufts Medical Center's mission to heal, comfort, teach, and promote health.

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> *TigerConnect is allowing physicians to do what they were trained to do and not be bogged down by inefficiencies.*
>
> **Dr. Michael Davis**
> Associate chief medical information officer for acute care at Tufts Medical Center

Challenge

Tufts Medical Center faced multiple communication challenges across its diverse and extensive care teams. Coordinating communication between physicians, nurses, unit clerks, ambulance services, case managers, and subacute care facilities was complex and time-consuming. Legacy communication

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systems such as landline phones and pagers created inefficiencies, with unidirectional communication leading to barriers in care team coordination. Finding the right person to call (assuming schedules were accurate) took time, and waiting for callbacks often led to games of phone tag.

Pagers were equally complicated – users had to scroll through a paging directory to find the right person, send the page, and then wait, often wondering if it even went through due to the long response times. This could lead to another game of phone tag since the page couldn't deliver enough information for a clinician to fully understand the situation and be ready to take informed action.

Tufts MC staff realized that this inefficiency slowed operating room (OR) throughput. The clinical informatics and IT team sat down with the perioperative services department at Tufts MC to review their communication processes. They found that 17 different landline phone calls were made during a single patient's journey through the OR, as clinicians struggled to streamline communication or share patient status updates with multiple team members at once. This fragmentation made it difficult for doctors and nurses to align quickly on patient information, leading to delays in first case on-time starts, slower room turnover, extended bed holds, and overall decreased efficiency in OR operations. The Tufts MC team realized that improving coordinated communication would significantly enhance the ability of clinical staff, including physicians, to maintain timely workflows and optimize patient throughput.

"With 17 different phone calls, you're sort of introducing a lot of inefficiencies and a lot of waste into that single patient's life cycle through the OR.

We started thinking more about how we could make the OR staff's life easier and more automated," said Dr. Michael Davis, associate chief medical information officer for acute care.

Although Tufts MC also had OR tracking boards, they were not always effective for tracking patient throughput in real-time. Additionally, relying on the chat function in the electronic health records (EHR) system did not solve these problems. Not everyone was logged into the EHR at the same time and there were many caregivers (technicians, unit clerks, and other support staff) that did not have access to the system. Additionally, EHR-based communication posed limitations for communicating with care-team members and agencies outside the four walls of Tufts MC who did not have EHR access. Tufts MC needed a communication solution that was not dependent on the EHR but could also work with it.

"We really needed a very solid, instantaneous communication system between the different care team members."

Solution

Tufts MC adopted the TigerConnect Clinical Collaboration Platform, with its Roles and Teams functionality being the key differentiator between TigerConnect and other clinical communication solutions. Tufts MC integrated the platform with their Epic EHR system and added TigerConnect Physician Scheduling to automatically update physician on-call schedules, ensuring that the right provider receives the right message at the right time. Clinicians log into their Roles at the start of a shift, enabling seamless communication handoffs during shift changes.

70%
increase in OR first case on-time starts

6 min
improvement in average OR room turnover time

22%
improvement in orange alert acknowledgement of critical radiology alerts

Additionally, as each OR event is documented within their Epic OP-time module, an automated TigerConnect message will notify the assigned Role or Team for that case, resulting in more cases starting on time, faster room turnover, and quicker patient transfers to the PACU. This streamlined process enabled documentation and notes entered into the EHR to automatically send updates to all care team members without the friction of needing to log into the EHR to receive messages.

"We were able to use TigerConnect's very functional and accessible APIs to create an integration between Epic and TigerConnect," said Dr. William Harvey, chief medical informatics officer. "The security between the two systems is seamless and the security of each of the systems independently is very strong."

Results

Since implementing TigerConnect, Tufts Medical Center has seen significant improvements in several critical operational areas, particularly in operating room workflows and critical radiology alert acknowledgments. Tufts MC saw a 70 percent improvement in OR first case on-time starts, benefiting patients, staff, and the facility's financial performance. As a major revenue source, increased efficiency enabled more surgeries to be performed each day. The integration of TigerConnect with Epic eliminated the need for 17 manual phone calls needed for OR coordination, in lieu of eight automated notifications being sent to TigerConnect. This automation eliminated inefficiencies without adding extra work for staff, as the notifications were triggered by pre-existing case tracking events in the EHR. Tufts MC saw a marked improvement in OR

performance, including a six-minute improvement in average OR room turnover time and better overall OR throughput.

By adopting TigerConnect, Tufts Medical Center was able to overcome the challenges of fragmented and inefficient communication, resulting in streamlined patient care, improved operational efficiency, and enhanced staff satisfaction. The integration of secure, real-time communication with the EHR and role-based functionality has played a critical role in optimizing clinical workflows and ensuring that Tufts Medical Center can continue to deliver high-quality care to its patients.

About TigerConnect

TigerConnect transforms healthcare with the industry's most widely adopted clinical collaboration platform – uniquely modernizing how doctors, nurses, care teams, patients, and data connect. With solutions spanning care communication, patient engagement, scheduling, alarm notifications, nurse call, and more, TigerConnect accelerates productivity, reduces costs, and improves patient outcomes, safely and securely. Trusted by more than 7,000 healthcare entities for user-friendly yet enterprise-ready solutions, TigerConnect delivers 99.995% verifiable uptime for more than 10 million messages each day.

Contact us

To schedule a demo or learn more about how TigerConnect can improve clinical communication efficiency for your organization, contact us.