Turbocharging Your EHR Solution

How healthcare collaboration technology makes
EHR data actionable to accelerate care delivery

Care Collaboration Gaps

Let's face it: electronic health records (EHRs) weren't designed for care team collaboration. They are a system of record, designed primarily to capture and house patient data. Unfortunately, highly trained, highly paid care teams now spend monumental amounts of time performing data entry and record-keeping in EHRs rather than on higher value, care-related tasks.

While EHRs play a vital and irreplaceable role in patient care, they don't solve the age-old problem of collaborating with others who don't have access to the same EHR systems, such as non-clinical staff or patients. This is especially true for EHR-based secure chat offerings where provisioning for non-EHR users can be time-consuming and cumbersome. EHRs also struggle to support urgent and emergent communication pathways.

Consider this:

- EHRs can consume 70% or more of the total IT budget
- 44% of acquired hospitals never adopt the larger health system's EHR
- Gaps in care collaboration and patient engagement remain, even after EHR implementation
- The Joint Commission states that improved communication (e.g. test results) improves patient safety

EHR Challenges

Below is a sampling of EHR collaboration gaps at the point of care that are easily overlooked:

Inability to text facilities or individuals across the care continuum who aren't on the same EHR

Inability to text the entire organization, including operations, clinical, and non-clinical staff

Lack of secure messaging during EHR outages or malware attacks, posing a potential patient safety risk

Inability to message a colleague by their role or on-call shift assignment

Inability to view when messages have been received and read

Inability to securely message colleagues outside of patient context or without record

Inability to auto-escalate unread messages in a designated time frame

Low patient portal adoption hinders the achievement of patient experience goals

Inability to receive, acknowledge, or escalate critical test results in a single step

No integration with paging systems and on-call physician schedules, diverting more investment into outdated pager use

In addition to gaps in the EHR, a resurgence of email malware and ransomware attacks poses a new level of organizational risk that the EHR cannot solve. It is critical to have communication tools that aren't reliant on the EHR to maintain safe, effective operations in the face of increasing cyberattacks.
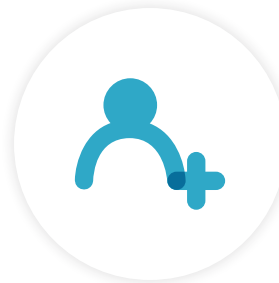
Complementing, Not Competing

Care collaboration and patient engagement solutions are not meant to replace the EHR, but to enhance it. By applying technology that fills in the gaps left behind by EHRs, hospitals can accelerate workflow efficiency, experience, and outcomes across the care continuum while keeping costs at bay.

Efficiency

Experience

Outcomes

Four Key Areas of EHR Enhancement

Emergent
Critical alerts (labs, monitors), response teams (stroke, trauma, and code blue), and EMS communication from the field

Episodic
Patient-centered, event-focused collaboration (discharge planning, capacity management, or level of care status determination)

Cross-Continuum
Coordinating care outside of the hospital's four walls (home health, palliative, DME, and SNF planning)

Operations
Administrative or operational processes (IT/IS, security, revenue cycle, clinical documentation improvement, coding, staffing, and broadcast communication)

Common Emergent Use Cases

Integrating on-call schedules with a care team collaboration solution enables you to reach the right person at the right time — something the EHR does not support. This is done without having to look up who's on duty or on call. Having the ability to manually opt in to a role supports the complex and fluid nature of patient care settings for better workflows and communication.

Consider this: Pagers are antiquated and expensive, and EHRs do not support paging workflows. The costs of these systems can be reduced by routing pages to mobile devices that are already in the hands of care teams.

As an example, one particular 700-bed hospital reduced its monthly paging bill from $12,000 to just over $1,000, merely by integrating pager alerts from the EHR with their collaboration solution. They also reduced risk-adjusted mortality from 1.1 to 0.8 by routing secure text alerts to the sepsis coordinator.

Problem To Solve	Care Collaboration Components	Impact
Need: Route alerts, codes, and pages to a mobile phone in order to reduce the need to carry a pager, as well as the time-consuming operator call-back processes and noise-associated overhead pages.	• Pager replacement • Escalated messaging • Automated role assignments • Teams • Alerts and alarms • On-call physician scheduling	• Optimizes resources more effectively • Reduces code response and time treatments for reduced mortality and complications • Reduces issues in reaching the right person • Enables complete code team to collaborate via group texting for real-time collaboration • Decreases overall pager device and service costs
Need: Need to conduct stroke exam in the field and activate stroke team, so patient goes directly to CT upon arrival. Earlier pre-hospital notification of large vessel occlusion leads to more rapid intervention upon arrival and improves patient outcomes.	• Emergent team activation • Priority messaging • Automated role assignments • Escalated messaging • Group messaging • On-call physician scheduling	• Improves time for provider review of stroke exam • Improves time for neurointerventional suite to be operationalized during off-hours • Improves door-to-groin puncture time • Improves door-to-revascularization time
Need: Organization has not been able to significantly improve early intervention and outcomes for sepsis. The on-duty Sepsis Coordinator needs automated text alerts to evaluate a patient at the first sign of deterioration with the ability to easily collaborate with the team.	• Alerts & alarms • Emergent team activation • Escalated messaging • Automated role assignments • Priority messaging • Teams • Group messaging • On-call physician scheduling	• Decreases sepsis mortality and CMS quality rating • Decreases cost per case • Improves patient experience • Improves patient outcomes

Common Episodic Use Cases

Because clinicians cannot always pause what they're doing to answer a phone call, efficient care requires the option to communicate asynchronously – later in the day or when a free moment presents itself.

Secure texting allows clinicians to respond as soon as they are available, reducing toil, desktop computer dependence, and the number of interruptive phone calls received. Importantly, when the EHR, email, or systems are down, communication can still continue to flow.

Staff can also prioritize critical tasks faster by automating texts to the clinician's mobile device via integrated EHR alerts like discharge orders, nurse call, bed assignments, and surgery-ready patients. Other efficiencies like time and cost savings are gained by eliminating the need to look up the person on duty for various services or specialties. Staff can easily connect with the on-duty individual by role – no need to memorize schedules, and outreach is not limited to those care staff directly assigned to the patient in the EHR.

Problem To Solve	Care Collaboration Components	Impact
Need: Remote parking lot waiting rooms and virtual methods to integrate family into inpatient and outpatient care discussions during COVID-19. Conduct scheduled, on-demand, virtual consults for isolated patients.	• Virtual care • Automated role assignments	• Decreases exposure of patients to the virus • Increases comfort and confidence for patients to seek care • Reduces avoidable ED and IP utilization from patients not seeking chronic care management
Need: Reduction in cost per case and patient experience for elective surgical procedures. • Ensure patient is optimized for surgery, arriving ready and on-time • Automate the alert to the surgeon when the patient is ready • Remotely communicate with the family during a procedure • Provide virtual post-op follow-up care to prevent complications (e.g. patient texts a picture of their wound to NP)	• Emergent team activation • Priority messaging • Automated role assignments • Escalated messaging • Group messaging	• Improves time for provider review of stroke exam • Improves time for neurointerventional suite to be operationalized during off-hours • Improves door-to-groin puncture time • Improves door-to-revascularization time
Need: A more efficient way for nursing, case managers, and physicians to collaborate on admissions, as well as automated text alerts for admit orders, bed assignments, EVS, and transport needs to accelerate patient throughput.	• Alerts & alarms • Escalated messaging • VoIP & video calling • Automated role assignments • Reporting • Group messaging • Teams • On-call physician scheduling	• Reduces ED and inpatient length of stay • Improves overall patient experience • Decreases time for patient to receive definitive care • Decreases lost revenue and rework associated with inaccurate levels of care status upon admission (IP/OBS)
Need: Difficulty tracking tasks from the daily interdisciplinary care rounds results in delayed discharges. Organization needs a better way to coordinate outpatient care and follow-up appointments.	• Alerts & alarms • Group messaging • Teams • External messaging • Phone number masking • On-call physician scheduling	• Decreases discharge turnaround time • Decreases inpatient length of stay • Decreases avoidable days and delays • Decreases 30-day readmission rate
Need: Intra-facility transfer process requires too many phone calls, pages, and on-hold time trying to connect the right people. Facilities also need a secure way to send test results to the receiving physician prior to transfer (e.g. picture of EKG, video scrolling through MRI).	• External messaging • Group messaging • Pager replacement • Alerts & alarms • VoIP & video calling • Automated role assignments • On-call physician scheduling	• Decreases number of repeat tests • Decreases total cost of care • Improves patient experience • Decreases inpatient bed moves related to suboptimal level of care determination

Common Cross-Continuum Use Cases

Healthcare is a human-centric business that relies on practical communication. Making it easier to collaborate with patients, families, and across the community through calls, text, or video can help ease the toil associated with clinician burnout while helping improve patient outcomes.

The key is having the right tool at the right moment. Sometimes a simple phone call to a patient or family member is perfect. On-demand video helps for further assessment at times, and often, a secure text message alleviates rounds of phone tag and generates a timely response. Having a range of suitable options lets staff get the job done effectively and efficiently.

Problem To Solve	Care Collaboration Components	Impact
Need: Easy and reliable activation of the on-duty opioid recovery specialists when patients in the ED require opioid reversal.	• Emergency team activation • Automated role assignments • Escalated messaging • Group messaging • Alerts & alarms	• Uses automated text alerts to help speed response times to under 10 minutes • Allows a recovery specialist to be at the patient's bedside within one hour of arrival to enable specialized addiction care • Enables rapid recovery program scaling by expanding activations in the thousands per month by streamlining communication efficiencies
Need: Mobile alert triggered from the EHR when a patient who has been discharged within the last 30 days registers in the ED. The alert goes to the on-duty case manager in order to support optimal care planning and care in the right place.	• Alerts & alarms • Automated role assignments • External messaging • Teams • Group messaging	• Decreases time to notify the case manager of possible readmission • Decreases 30-day readmission rates • Reduces avoidable ED and IP utilization • Reduces total cost of care • Achieves high-quality outcomes via the appropriate care, place, and provider • Improves continuity of care and the patient experience
Need: Ability to securely text and conduct video calls with patients, promoting engagement after discharge and ensuring that patients are following the care plan, getting medications filled, properly doing exercises, and managing wounds.	• Virtual care • External messaging • Phone number masking • Automated role assignments	• Decreases readmissions • Improves patient experience and personalized care • Improves workflow efficiency • Improves clinical outcomes
Need: When a patient is discharged from the hospital, organizations need a way for the case manager to efficiently and securely coordinate care. This includes the need for secure texting so family can share documents as well as live video to receive virtual education.	• Virtual care • Automated role assignments • External messaging • Phone number masking • Group messaging	• Improves access to outpatient providers who are not on the same EHR • Improves workflow efficiency and decreases the number of phone calls as texting is less interruptive • Improves the experience for both patients and their family members • Reduces medical errors • Decreases the inpatient length of stay • Decreases readmissions

Common Operations Use Cases

Working side by side, clinical and non-clinical staff form the basis of care delivery within a healthcare organization. As such, communication between them should be seamless – something an EHR isn't designed to support. That's where a full-featured, integrated, secure messaging platform can significantly enhance collaboration among these teams.

Whether the CIO broadcasts an EHR outage, the CMO texts a care team to expedite discharges, or a Supply Chain Manager needs to communicate a disruption in the availability of a specific radiological contrast, having the entire care team on the same platform helps keep everyone informed, eliminates information silos, and improves efficiency.

Problem To Solve	Care Collaboration Components	Impact
Need: Eliminate pagers to accelerate call center response times, and allow providers to securely text patient details instead of making phone calls.	• Pager replacement • Automated role assignments • Group messaging • Priority messaging • Escalated messaging	• Allows call center staff to instantly see when a text message has been delivered and read • Automatically escalates messages not read within a prescribed time frame, reducing lag time, countless phone calls, and delayed patient care • Improves on-call provider experience
Need: Morale is down in critical care. Team needs an easy way to share wins, encouragement, and success stories. Also need to improve all access to information.	• Broadcast lists • Group messaging • Forums	• Improves staff satisfaction • Improves staff perception of leadership communication • Improves camaraderie across departments
Need: A faster way to reach staff in order to fill a shift when an urgent staffing need arises. Typically, staff don't check their email often and phone calls take too long.	• Broadcast lists • Group messaging • Teams	• Decreases time required to fill a staffing need • Improves access for all staff to work extra shifts (everyone gets the message at the same time)
Need: Phone tag is inefficient. The department needs to enable administrative staff to reach the right clinician and ensure billing and coding are appropriately completed in a timely manner.	• Group messaging • Teams • Automated role assignments • External messaging	• Decreases time it takes to correct documentation deficits or delinquency • Improves billing and reimbursement accuracy • Reduces clinical denials • Increases CMI (if it's not currently being documented adequately)

Turbocharging EHRs for Care Collaboration and Patient Engagement at Scale

The complexity and cost of bolstering your electronic systems to support care collaboration and patient engagement may seem daunting. The good news is that you can progress at a pace that makes sense for your organization. In the case of care collaboration, texting is not a foreign concept for most staff members, so ramping from basic to more advanced, layered functionality doesn't have to be complicated.

Adopting the practice of including communication and collaboration in every strategic initiative can ensure team alignment and coordination from the outset. Cloud-native solutions and those offering open APIs can lead to easier integrations with EHRs and other hospital-related systems, lowering consumption of IT budget and resources. Through integrations such as on-call schedules, nurse call, and critical alerts, workflows are simplified, care team frustrations are lessened, and better outcomes are attainable.

Connect the Team – Make Collaboration Easy

- Increase communication and accessibility to improve efficiency and outcomes
- Expedite and simplify care transitions
- Reduce clinician toil and medical errors while helping eliminate burnout

Connect with Patients – Rethink Consumerism of Care

- Increase communication and accessibility to improve efficiency and outcomes
- Expedite and simplify care transitions
- Reduce clinician toil and eliminate burnout and medical errors

Connect the Ecosystem – Scale for Impact

- Align the delivery model and outcomes for value-based payment plans
- Control out-of-network referral patterns
- Integrate and automate communication and collaboration across the care continuum
- Facilitate effective transitions of care across IP, OP, PAC, and home care settings
- Divert avoidable ED/hospital admissions

Care Collaboration Capabilities Defined

To better understand the charts in the eBook, here are definitions for some key components of a care collaboration platform.

Virtual Care

More than telehealth, virtual care combines scheduled and on-demand video sessions, voice calls, and secure, two-way texting within a single solution that supports engagement with patients, their families, and the broader care team. Virtual care can also include broadcast messages to patient cohorts and pre-scheduled messages.

Automated Role Assignments

Identifies on-duty staff by auto-assigned role, eliminating the need to know or find specific names and phone numbers. Automation is driven by a scheduling system integration which also allows manual overrides to dynamically adjust schedules. Patient conversations remain visible from shift to shift to improve continuity of care.

On-Call Physician Scheduling

Simplifies the scheduling process by providing schedulers with an intuitive, rules-based scheduling option for quickly creating call assignments in a way that is often rules-based, using algorithms to ensure fairness in shift assignments and prevent burnout by calculating sufficient time between shifts.

Dynamic Care Teams

Supports manual addition and removal of members to a conversation as situations change. Assigned care team roles remain constant as role owners cycle through shifts. Conversations remain visible to each staff member signed into the role from shift to shift to reduce communication failures.

Emergent Team Activation (e.g., Trauma, Stroke, Rapid Response, Code Blue)

Enables emergent and on-call teams to support clinical operations so care team members can reach a patient as quickly as possible in critical situations. Integrates with on-call scheduling systems to ensure proper staff coverage.

VoIP & Video Calling

Supports video and voice calling among internal teams. Masks caller's phone number for privacy and can be used to integrate with internal phone systems and nurse call.

Alerts & Alarms

Intelligently routes alerts and alarms from the EHR, ADT, nurse call, and physiologic monitoring equipment to the appropriate role owner or individual. Notifications may include patient context and are especially helpful for nurse roles.

Escalated Messaging

Escalates unanswered messages after a set period of time to a preset path of team members. Messages may be delivered to a scheduled role assigned or individual.

TigerConnect Teams

Enhances care team collaboration by streamlining the activation of non-urgent teams so staff isn't burdened with searching for on-call resources and wasting time with inefficient call-back cycles.

Broadcast Lists

Supports one-to-many mass-messaging to an entire organization, department, functional group, or custom-created group. Replies may only be visible to the sender.

Group Messaging

Allows staff to message specific groups – existing ones or those created on the fly – to improve the collaboration and coordination of care delivery.

Priority Messaging

Emphasizes the most urgent messages to speed response times using a unique, audible alert and message flagging to ensure these important messages stand out.

External Messaging

Extends secure messaging reach to those outside the hospital network, including specialists and affiliate physicians.

Phone Number Masking

Protects provider privacy by masking phone numbers while showing the caller's name and organization for calls placed directly from the app.

Forums

Topic-specific discussion boards to foster collaboration, learning, teaming, and to boost morale. Can be educational such as evidence-based practice Forums, or inspirational such as staff recognition.

Reporting

Provides analytics and insights to help optimize care team adoption and solution engagement across the enterprise.

Pager Replacement

Duplicates and routes pager notifications and messages directly to the secure communications app, adding message handling functionality and eliminating the need for both a pager and a smartphone.

Closing Thoughts

Communication is at the heart of everything care teams do. Making it as easy as possible for each individual must be a priority for healthcare organizations.

For a real-life example of how health systems are turbocharging their Epic, Cerner, and other EHR systems with essential care collaboration and patient engagement tools, check out the video testimonial of **Temple University Health System in Philadelphia**.

To learn how TigerConnect can help integrate and enhance your EHR, contact us at **info@tigerconnect.com** or request a demo via **www.tigerconnect.com**.
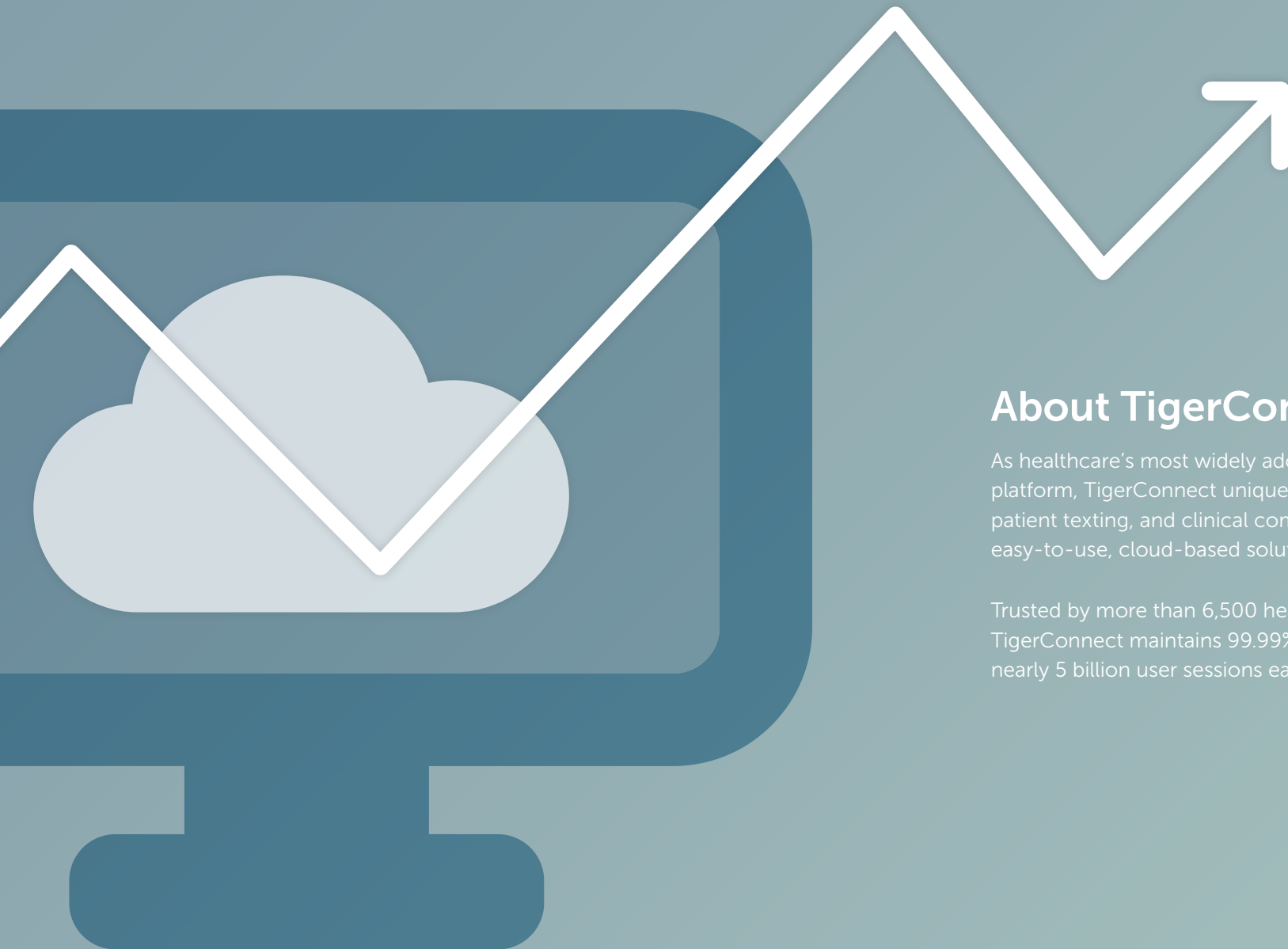
About TigerConnect

As healthcare's most widely adopted communication platform, TigerConnect uniquely combines telehealth, patient texting, and clinical communications in a single, easy-to-use, cloud-based solution.

Trusted by more than 6,500 healthcare organizations, TigerConnect maintains 99.99% verifiable uptime and nearly 5 billion user sessions each year.