Clinical Communication & Collaboration Strategy for Nurses

A Step-by-Step Guide to Support In-Patient Care Delivery

A Telmediq Guide

TELMEDIQ

Introduction

Although the average nurse completes a remarkable 72.3 tasks every hour,[1] less than 20 percent of his or her time is actually spent on direct patient care.[2] The rest, as healthcare leaders well know, is an often-inefficient regimen of tracking down physicians, verifying patient orders and documentation.

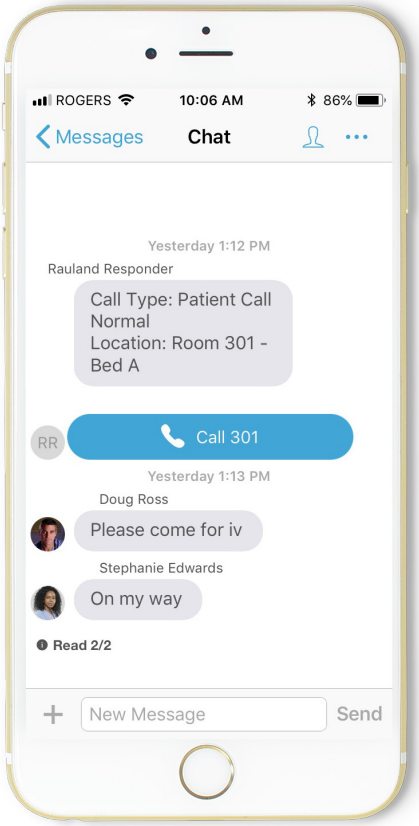
Technology aimed at streamlining nurse workflow has often missed the mark and compounded the problem. The Technology Drill Down project, conducted by the American Academy of Nursing's Workflow Commission, found that nurses were frustrated by siloed, task-specific technology solutions that weren't user friendly and required work-arounds.[3]

Further, the evolution of team-based care has added considerable complexity for nurses. The days of communicating with one attending physician are long gone. Now nurses must coordinate care among a broad spectrum of professionals including hospitalists, specialists, primary care physicians, social workers, physical therapists and home-health providers.

Within this healthcare landscape, cutting-edge clinical communication technology has emerged to fill in the gaps and return nurses to the bedside. Deployed strategically, an integrated clinical communication and collaboration platform eases the burden of non-clinical tasks, saving time for nurses and enabling faster and more focused delivery of care.

Across North America, Telmediq has helped thousands of clinicians transition to integrated mobile communication. Utilizing the following three-step approach, health systems can design and implement an effective in-patient mobile communication strategy that will facilitate collaboration, streamline nurse workflow and dramatically increase the time nurses spend caring for their patients.

Step 1
Assess the Use Cases



The initial step in setting a mobile strategy is to understand, in the broadest sense, exactly what can be accomplished with the new technology. Health systems that short-cut this process end up with band-aids—narrow, myopic solutions that address limited workflow challenges and ultimately must be replaced by a more comprehensive technology.

Technology solutions tend to look very similar on paper, however. To differentiate, skim past the ambiguous feature lists and focus instead on the use cases. Use them to map out desired workflow-improvement goals. A robust clinical communication and collaboration platform will offer nursing workflow improvements such as:

Mobile Nurse Call

A patient hits the "water" call button in her room. The communication platform receives the call from the nurse call system and identifies the "water" request. It automatically routes the request to the user who has logged in as the "Patient Care Technician" on the unit instead of the nurse, preventing the nurse from needing to respond to a non-clinical patient call. According to a recent study, only 52 percent of bed calls require nursing care; all others could be answered by support staff.[4]

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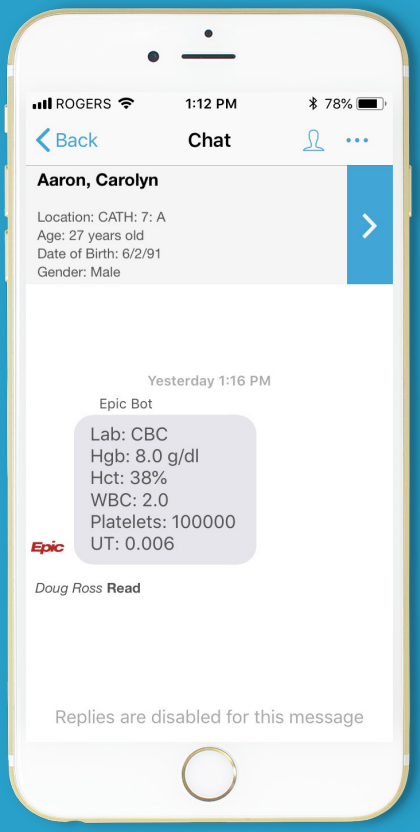
Later, the patient hits the general call button in her room. This time the assigned nurse receives the message. The nurse calls back to the room with one click of the button and has a quick conversation with the patient. The nurse is then able to determine if a trip to the patient room is required.

Alarm Management

A patient's monitor leads fall off. The alarm middleware detects that the leads are off for more than 10 seconds[1], which triggers an alert to the communication platform. The platform forwards the "leads off" alarm to the nurse assigned to the patient. The nurse is unable to respond to the alarm within 30 seconds[1], so the alarm is escalated to the charge nurse. The charge nurse heads to the patient room to investigate and accepts the alarm to disable further escalations. An altered patient attempts to get out of bed unassisted. The communication platform alerts all staff on the unit that there has been a "Bed Exit Room 100." All available staff are then able to respond to Room 100 and prevent a life-threatening fall.

Streamlined Collaboration

Nurse Smith is caring for Mrs. Doe who is recovering from a routine knee replacement. Nurse Smith notices slight inflammation around the incision site. She takes a picture of the incision and sends it to Dr. Black, the orthopedic surgeon, with a regular-priority message. However, since it's now after hours, the message automatically redirects to the "Hospitalist On Call." Dr. Moore concurs that the inflammation looks abnormal and asks some clarifying questions over a brief text exchange. Dr. Moore decides that intervention may be needed and adds the "General Surgeon On Call" to the message thread. The system automatically sends this message to Dr. Ross, who instantly gets the image and can see the entire text from the previous conversation between Dr. Moore and Nurse Smith. Dr. Ross agrees to see the patient immediately.



Critical Lab Result Notification

A patient's lab results reveal a serious bacterial infection. Because critical lab values are routed through the communication platform, the patient's care team is notified immediately—without delays on hold or waiting for call-backs— and the patient receives prompt treatment. The results are automatically stamped with all the Joint Commission-required documentation.

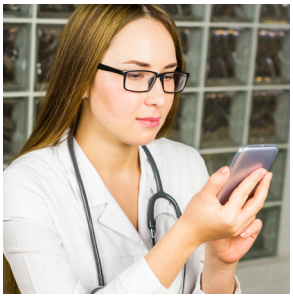
STAT Order Notification

While rounding on a patient, a physician writes a STAT order in the EHR for oral potassium. The pharmacy and patient's nurse receive a smartphone alert that a STAT order is pending. The pharmacy can distinguish this as a truly STAT order and the nurse is able to administers the medication sooner. The patient is treated more quickly.

Sepsis Alerts

A sepsis alerting engine in the EMR detects potential sepsis for a patient. The communication platform receives a sepsis notification, and the patient care team is immediately alerted about the risk. However, the patient's bedside nurse does not read the message within 10 minutes because he is busy with another patient. The system automatically escalates the sepsis alert to the charge nurse on the unit. The attending physician also receives the alert.

Code Team Deployment



A patient codes in the ICU, and Nurse Jones dispatches the code team through the clinical communication platform. Designated code team members are paged simultaneously when Nurse Jones dials a specific five-digit extension. All recipients of the page can see when their team members have received and listened to the code message. Team members are able to respond with pre-programmed quick responses that are tied to the code message types, such as “Be there in 5 minutes.”

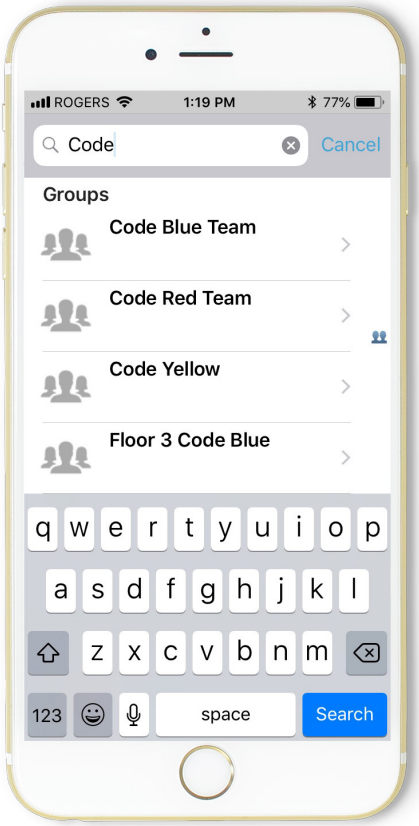
Non-Clinical Task Delegation

A nurse notes that his unit is running low on a particular syringe. He places his app-enabled smartphone against an NFC (Near Field Communication) RFID tag for syringes on the supply closet and a notification is sent to supply management, automatically documenting the location and supply type that is depleted. A patient’s bathroom is soiled, and housekeeping needs to be paged. The nurse places his phone against an RFID tag in the bathroom, which automatically notifies the housekeeping manager of the spill and room number, with no typing or lookup required from the nurse.

Voice Calling

A nurse receives a medication from the pharmacy and notices a potential discrepancy when reconciling with the medication order. She opens the communication app and calls the pharmacy extension “5555,” or simply clicks “Pharmacy” in the directory, for clarification with the pharmacist.

A patient’s family member calls into the main hospital call center. The operator looks up the patient and sees that Nurse Smith is assigned to the patient. The call is transferred to Nurse Smith’s mobile phone, but she is busy with another patient. The patient’s family leaves a voicemail for Nurse Smith, which appears in her unified inbox. As soon as possible, Nurse Smith is able to call the family member back with one click while blocking her personal number to maintain privacy.



“Workflow benefits are achieved by integrating key hospital systems at the outset.”

Mobile Documentation

It's 9 a.m., the busiest time on the floor, and the nurses are conducting their assessments. As they take patient vitals and administer medications, they can use the SBAR template to create bedside documentation. The completed SBARs are saved in the platform and can be easily shared with all members of the care team. There is no need to wheel a large mobile cart or return to the nurses' station to complete the documentation. Before this technology, 38.6 percent of nursing time was spent at the nurses' station.[5]

Rules-Based Communication

A non-urgent consult request is submitted to a cardiologist during the night shift. Because the physician group has set a rule that non-urgent messages are not routed to physicians until 8 a.m., the physician is not disturbed unnecessarily in the middle of the night. She sees the message first thing in the morning, and she schedules the consult into her day.

Secure Care-Team Text Messaging

A nurse is waiting to consult with a physician regarding her patient in Room 100. While she is in another room caring for one of her other patients, she is concerned that she will miss the physician when he rounds in Room 100. She sends a secure text message to the physician asking him to find her before he leaves the unit. She does not have to track the physician down later in the day. The patient receives the prescribed care immediately.

A hospitalist is preparing to discharge a patient. Clicking on the patient's name in the communication platform, the hospitalist can view the patient's entire care team—the shift nurse, the cardiologist, the primary care physician, the physical therapist and the case manager. She sends a group message to coordinate the discharge and the patient is discharged promptly.

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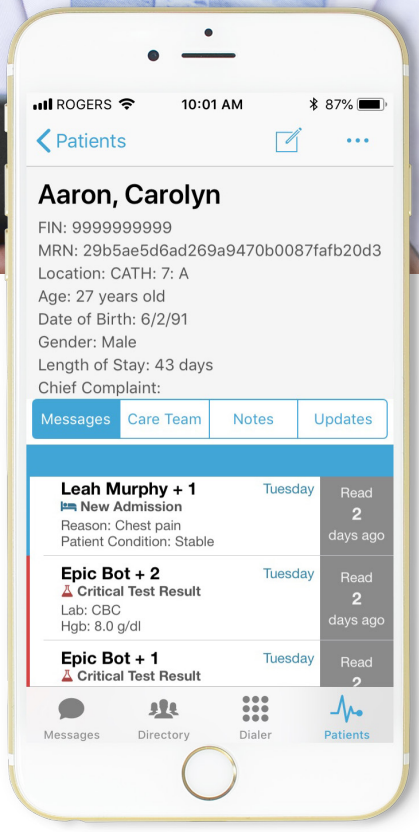
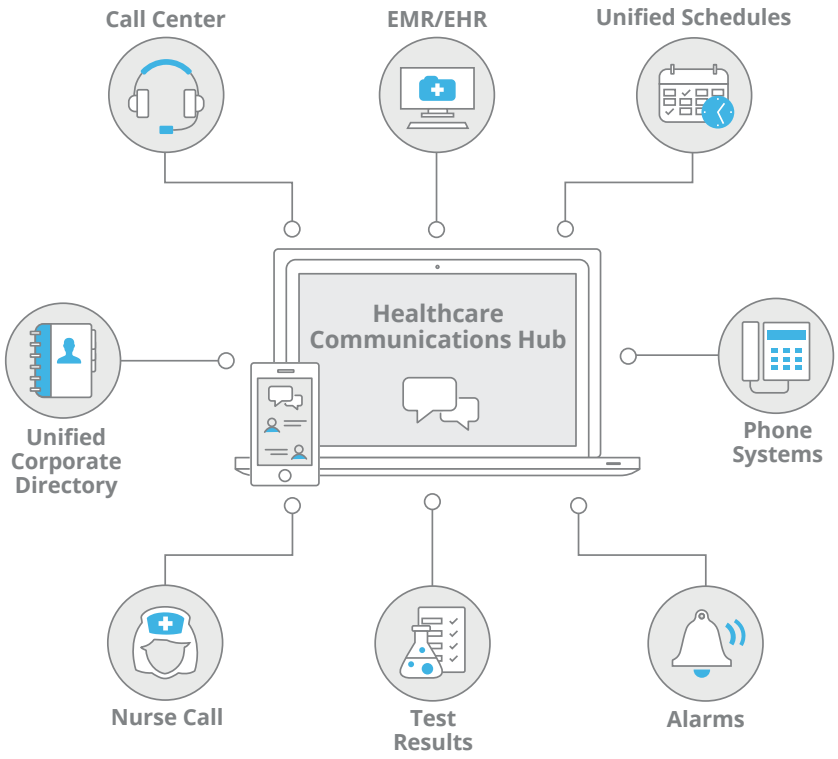


Role-Based Messaging

Nurse Sandy has logged in as the ED charge nurse for her shift. It is a busy day in the Emergency Department, and she is focused on ED throughput. Several patients have been admitted to the ICU. The charge nurse sends a text message to "ICU Charge Nurse," and the message goes directly to the smartphone of the person on shift in that role. Patient transport is coordinated immediately.

Step 2
Identify Required Integrations

Health systems frequently plan to launch clinical communication technology with only basic HIPAA-compliant texting functionality. However, unless the communication platform delivers significant workflow benefits— ease of use, faster care, increased patient throughput, better outcomes—clinicians won't use it. Thus, it also fails to accomplish HIPAA-compliance and unified communications.



Workflow benefits are achieved by integrating the communication platform at the outset with key hospital systems. Starting from the workflow goals articulated in Step 1, administrators can easily determine the required integrations that ensure the technology will be embraced as an essential tool rather than resisted as yet another technology to work around.

A strong technology partner will be able to provide guidance, advising healthcare organizations on workflows that will deliver the most impact. These are the integrations that facilitate the use cases outlined above:

Authentication Infrastructure

Integration with Active Directory or Single Sign-On systems facilitates easy provisioning of users onto the communication platform, and for daily use, it allows users to authenticate to the platform using their pre-established health system credentials.

For nurses and other shift workers, Telmediq's proprietary NFC technology takes authentication to the next level by enabling the easy use of shared devices. Nurses can "badge in" to shared devices without having to enter credentials each time and automatically logs them out when the phone is placed on the charger. The system automatically keeps track of which nurses are on duty.

Hospital Phone System

Phone system integration expands functionality beyond text messaging, allowing nurses to place and receive voice calls. Nurses should be able to call any landline extension or location in the hospital from the directory. Synchronous communication is essential for communicating outside the hospital with patients' families, for verifying texted orders, and for escalating text interactions when clarification is needed.

Telmediq can integrate with existing PBX phone systems such as Avaya, Cisco, Mitel and Nortel, and the cloud-based system can replace much of the on-premise PBX system. The platform also has the functionality to assign phone extensions from the existing hospital switch, so the purchase of separate DIDs is not necessary.

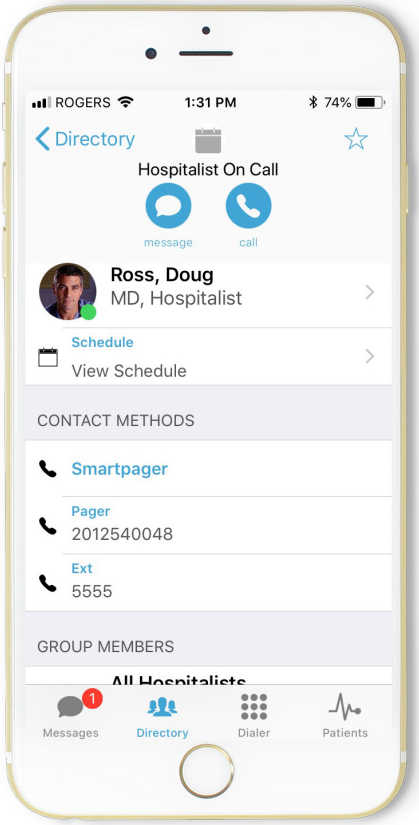
Electronic Health Records

Order notifications, patient lists, care teams and test results are all routed to the communication platform through the EHR. Integration with the EHRs, such as Epic, Cerner, McKesson and Meditech, is what enables clinicians to access patient chart details from their smartphones. Nurses are able to complete message templates for standard clinical documentation tasks such as pain surveys, vitals recording and SBAR assessments.

Corporate Directories

A communication system only works if everybody is on it. Health system directories must be integrated so all users can easily find and communicate with anyone in the organization. Active Directory can be leveraged to provide the most current and reliable names, roles and contact information for all users throughout the organization. Key location phone numbers can be called out for quick access. Users can also group frequent contacts onto Favorites lists to customize their user experience.

On-Call Schedules & Role Based Assignments



This critical integration drives role-based messaging capabilities. Messaging the "Hospitalist On Call" or the "ED Charge Nurse" is possible because the communication platform automatically pulls the correct physician or nurse from the integrated call schedule and directory for role-based assignments.

Look for a platform that offers both scheduling integration and a built-in scheduling tool. Scheduling integration enables departments to continue using Qgenda, Tangier, Amion and other tools that are already deployed. The built-in scheduler offers an easy solution for those departments that are still using paper call schedules. Further, the ability to integrate multiple scheduling solutions assures that accurate call schedules and the system-wide directory are available digitally, in a single view, to everyone in the organization.

The solution should also offer providers the ability to update their schedules "on the fly" to accommodate real-time shifting demands. When a provider's schedule is current, nurses are assured they are reaching the correct person for each scenario.

Lab Systems

Few integrations deliver more measurable ROI than this one. Automated routing of critical lab and imaging results saves hours of time each month for lab technicians who are charged with notifying clinicians. Faster notification leads to faster patient treatment, which in turn leads to better patient outcomes. Intelligent routing can be set to auto-escalate critical abnormal test results directly to clinicians. Test results can easily be routed to requesting providers or the entire care team.

Receipt of test results (sent, received, opened) can be auto-logged to the EHR, eliminating an unnecessary step in documentation. Telmediq complies with 2016 Joint Commission requirements for the delivery and review of critical test results.

Pagers

A large health system will undoubtedly have select departments and clinicians that are still using pager technology. A communication platform must be able both to message existing pagers by integrating with other pager technologies and to offer platform-based paging functionality that reduces pager dependence.

Bed Management

Patient throughput is optimized with real-time locating systems (RTLS) and bed-management platforms. Integration with these technologies allows clinicians to quickly connect patients to the most suitable beds across the health system's continuum of care. Admissions, transfers and discharges are accomplished efficiently and effectively.

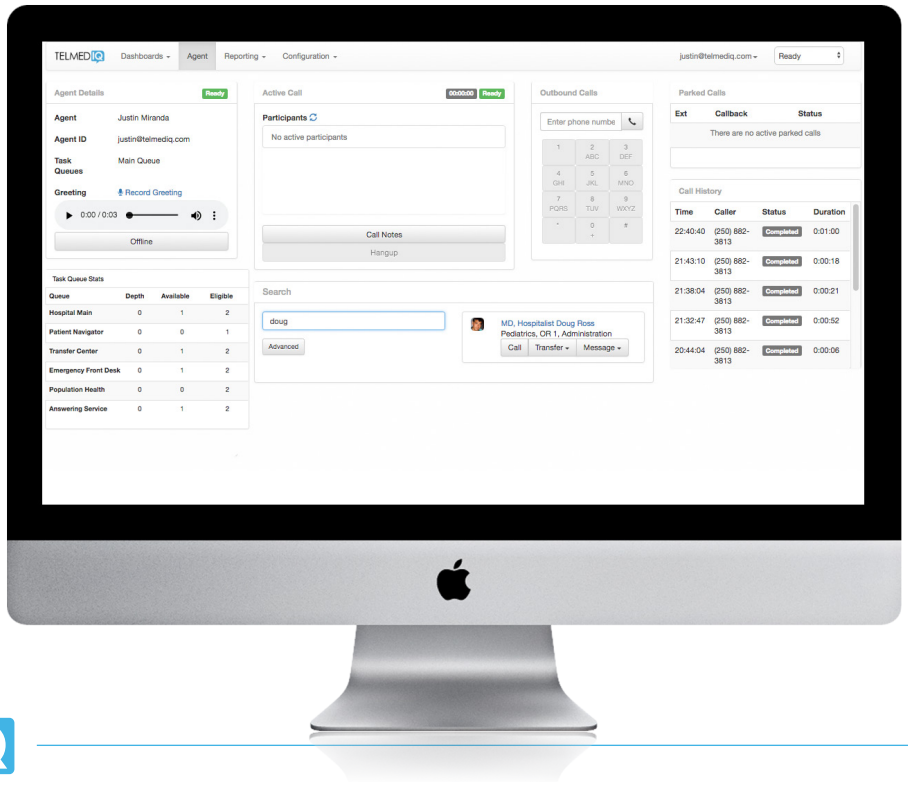
Nurse Call and Patient Monitoring Devices

Faster and more efficient care is delivered by routing patient monitoring devices and nurse call buttons through the communication platform. Non-clinical alerts are routed to patient care techs or nursing assistants, which frees nurses to focus on direct patient care. Urgent alerts are escalated systematically to ensure rapid response by the next available nurse. Overall, disruptive audible alarms are eliminated on the unit, which increases patient comfort and satisfaction.

Look for a platform that integrates with alarm technology such as Phillips, GE, Spacelabs, Rauland RR5, Hill-Rom, CAS and more.

Call Centers

Integration with call center systems brings HIPAA-compliance and a streamlined workflow to the hospital's answering service. A call center solution should allow operators to send secure messages with patient details directly to the smartphone of the clinician. Messages should be marked when they're delivered and read, so operators never have to wonder if the message went through.



Step 3

Select the Hardware

BYOD works for physicians, but not for in-patient nurse mobility. In the hospital, nurses need ruggedized smartphone devices that can be thoroughly sanitized, that are easy to carry on duty, and that don't give patients the impression that the nurse is checking Facebook. Most important, they need reliable connectivity, which can't be assured unless they're using smartphones selected, vetted and maintained as corporate devices.

Telmediq is currently the only cloud-based solution to bundle both the software and the hardware into one mobility strategy. During discovery, the following device considerations are analyzed in developing the mobile strategy:

Budget

Devices range from less than $200 to more than $1,000 per unit. A strong technology partner will help an organization determine which device on that spectrum offers the most value. ROI is critical here; when investing heavily in hardware, the new platform must have both the software and the hardware to deliver the workflow improvements outlined in Step 1.

Authentication

Success with shared devices depends upon how efficiently nurses can log in and out. Telmediq's NFC technology enables effortless "badge-in" authentication, and it automatically logs nurses out when they return the devices at the end of the shift.

Device Management

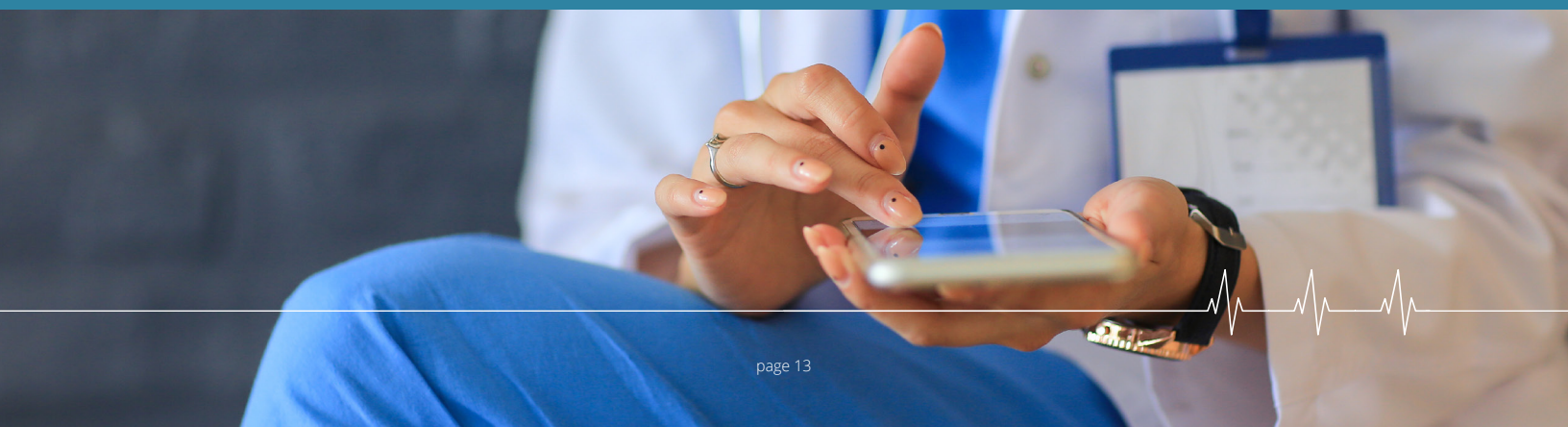
Shared devices need a strategy all their own. Plan for modular charging, as well as an efficient system for disinfecting devices and maintenance. Branded device sleeves can be employed to assist with patient perception—along with communication, they help patients understand that the devices are being used for clinical work.

WiFi

A communication partner will assess and rectify any dead spots and connectivity issues within the hospital before rolling out the platform. Look for a partner that is Cisco DevNet Fast Lane certified to prioritize voice and texting of critical communication.

Compatibility

Device choice must also take into consideration the other required apps deployed at the hospital, as well as the systems on which they will operate.



Endnotes

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About Telmediq

The No. 1 KLAS-rated vendor for secure communication platforms, Telmediq streamlines clinical communication and workflow so health systems can improve patient safety, throughput and satisfaction. The Telmediq healthcare communications hub pulls together disparate hospitals systems—EMR, lab, nurse call, clinical alarms, call centers and call schedules—into one powerful and integrated platform for HIPAA-compliant communication and care coordination. To learn more about the unique and recurring use cases of Telmediq in acute and ambulatory settings, download our Guide.

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