

Nail Your Next Hospital Tender

4 Common Pitfalls of Tendering Nurse Call Systems - and how to avoid them





In this eBook we discuss how Nurse Call Systems support nurses in hospitals and acute care facilities - allowing nurses to manage their patients and staff workflow to ensure less crowded waiting rooms, more productivity, fewer errors, and happier patients. However, if not integrated properly the solution can end up costing hundreds of thousands in unexpected fees to complete the project and maintain it over the long term. If you're an engineer interested in avoiding these expensive pitfalls for your client - this eBook is for you.

Why Tending Nurse Call Systems Properly is Critical

When it comes to your resident and patient care you want to ensure you provide your nurses and staff the right tools to respond to calls and requests promptly. Being able to effectively respond to an emergency call can mean the difference between life and death. This means that in the design and tender process of modern hospital solutions - no detail can be overlooked.

The engineering firm selected by the healthcare authority to build out a Nurse Call System becomes responsible for not only the structure, civil engineering and mechanical systems but also critical electrical and life saving systems.

These engineers may be experts in building out structural and electrical systems...but often lack

the expertise to optimize the unique details of healthcare systems. For example, if engineers do not specify the system in a way that can integrate and scale with other systems, in two years when the hospital adopts a new advance in medical technology, they may miss the mark if future-ready foundational elements were not considered in the original design.

In Canada, the healthcare landscape is changing dramatically, and will require platforms that integrate with IoT devices, SIP phones, RTLS, HL7/ADT, pagers, scrolling marquees, medical beds, medical equipment, alarms and more. And this integration is most often tested when a patient or their family uses a Nurse Call System to ask for help.

4 Common Pitfalls to Avoid

Ensuring the conjunction of knowledge of information and communication systems offers organizations and leadership the information needed to drive successful implementations of new technologies and approaches to care delivery.

1. The solution doesn't provide a foundation for tomorrow

Although experts in civil engineering, electrical and mechanical systems, we cannot expect the engineers tendering healthcare systems to also be experts in healthcare informatics; a field of science that aims at developing methods and technologies for the acquisition, processing and study of patient data. Data that comes from many different sources and modalities - like electronic health records, diagnostic test results, medical scans.

Clinical information systems and clinical technologies such as workload measurement systems, scheduling and monitoring systems are ubiquitous in healthcare and while they have changed the delivery of healthcare, they have also fallen short of clinician expectations. Increased workloads, documentation burden and inefficient workflows have resulted from information systems designed without the benefit of integration and scalability built in at the start.

If done correctly, integrated and scalable systems play a significant role in addressing organizational and system level workplace contributors to burnout for nurses and negative patient outcomes related to documentation and digital health. Reducing clutter and delivering information in the most efficient way possible means that the best possible knowledge is available to nurses in a format conducive to them using the information to inform the patient and their families' decisions.



“One thing that for sure the pandemic has taught us is how central the health of our society, our health care system, is to a well-functioning society. So, we do need to build a more resilient health care system that can sustain this. We need to do the work to ensure that we’ve got that resilient health care system so it’s there when people need it.”

– Laura Greer, Patient advocate
[Overview: Impacts of COVID-19 on health care providers - CIHI Report 2022](#)



2. You don't include the software needed to capture healthcare informatics

A lot of data comes from a nurse call manager solution and manufacturers have recording software to capture this information for hospitals to use for everything from staffing to quality of care decisions. This is often missed because engineers focus on the system and not the outcomes the system needs to drive for patient care. For example, information from a nurse call manager solution includes data on the quantity of code blue alerts, bed exits and staff emergencies.

Find a provider without third party integration issues

With the right software (often recommended by manufacturers but not always included in a tender) and integration this data can inform other clinical technologies like workload measurement systems, scheduling and monitoring systems that are ubiquitous to healthcare and without integration and scalability - all too often fall short of clinician expectations. With the shortage of nursing staff not ending anytime soon, it's vital that clinical information systems are integrated and future-proofed to support their workload today and in the future. Canadian hospitals should be well equipped to move forward digitally five years from now without starting over.

Starting on the right foot: Capture the right information at the beginning



Hospitals cannot manage what they don't understand



Integrated systems are the foundation for process automation, information governance, findability, context, task routing and information security



Manually entering data in an era of massive staffing challenges is time-consuming and error-prone



The capture and application of data across systems is the first step in good information governance and finding process efficiencies

3. Make the investment as transparent as the vision

According to Gartner, the Total Cost of Ownership (TCO) is defined as a comprehensive assessment of information technology (IT) or other costs across enterprise boundaries over time. This includes hardware and software acquisition, management and support, communication, end-user expenses and the opportunity cost of downtime, training and productivity loss. For Canadian hospitals, this often includes hefty licensing fees for the software needed to tie their systems together. For example, a Canadian hospital can expect recurring fees from \$10,000-\$20,000 CAD per year or more to integrate Electronic Medical Records (EMR).

Include recurring fees from your base bid

After the sale of a solution, not including the cost of recurring licensing fees means after one year of software licensing use, the hospital will be stuck with a hefty new bill for fees not accounted for in the capital budget. It's important for the client to understand the total cost of ownerships as these types of fees get passed down to their operational budget. Being open and transparent about recurring annual fees is imperative.

By helping the hospital truly understand their investment without any surprises, you relieve the hospital's budget of tens of thousands of dollars in

surprise fees. Canadian hospitals are operating on such a fixed budget that not accounting for software fees means you are impacting their operating expenses and setting them up to cut other budgets unexpectedly in the longer term in order to cover surprise expenses.

Be realistic about the cost of change orders

In an effort to win the lowest bid, change orders can be understated in contracts with an allowance clause in the contract for change orders. This is especially true with closed envelope bidding. No construction project goes perfectly to budget. However, being realistic about the actual number of expected change orders will save the hospital hundreds of thousands in change order costs. Accidentally under bidding change orders can cost your client huge, and once signed into the contract they are unable to argue the massive jump in project costs. Take care in choosing the right company and do not look blindly at the lowest cost option. Having prices that do not change once the client is under contract goes a long way to building your reputation as a partner they can trust for their next project.

4. Check the lifespan of the solutions you recommend

You are tendering solutions for a hospital that is designed to serve generations of families in the local community. After a Nurse Call System is implemented, imagine your client receiving an email that their system is going end-of-life within the year and it must be replaced or, surprise, there are no replacement parts available and limited support. The decisions you make on which providers to recommend have a huge impact on the patient experience. Patients cannot be left in a room where their life safety systems are not working properly and are unserviceable. Imagine being a patient or family member of a patient and experiencing difficulty without the ability to call for help.

Ignoring or not paying attention to older or discontinued systems causes service interruptions, negative patient experiences, slow response times to patient emergencies and even unit wide failures of life saving systems. Often, upgrading end of life systems means months of planning to get the system back up and running, ordering parts, installing them and running tests - with only two to three rooms completed per day. For a large hospital this translates into months of service interruptions for staff and patients alike. The availability of the systems you choose is closely tied to patient satisfaction and safety.



Leveraging the correlation between patient experience and clinical outcomes

Nurse call systems allow a patient to call or contact their nurse/nurse's station easily and enables healthcare professionals to provide exceptional care to their patients. Whether your system is in a retirement home, long term care facility, or hospital, the residents and patients want to feel safe and secure.

The system is designed to serve patients and staff alike by optimizing staff efficiency and keep staff accessible and available for direct patient care needs. This increases patient satisfaction and lowers wait times.

When technology enables integrated, interactive patient education and communication it creates more personalized

patient engagements - reducing the length of stays, falls and readmissions as well as patients enjoying on demand entertainment options and real-time service request ability.

Imagine the impact on families and staff when each patient's engagement can be tailored to their age, culture, language preference, condition and care requirements!

When Value Engineering Goes Right

As patients and caregivers consume more digital healthcare information and data, they have increasingly higher expectations for preventative care, wellness, diagnosis, treatment and disease management. Healthcare organizations constantly look for new opportunities to make the promise of Health IT transformation a reality, and look for new efficiencies in workflows to enhance patient-caregiver collaboration and fuel data driven decision making.

When a project goes right, it is life saving for families and affordable for the Canadian healthcare system. However, engineers are often tendering multiple solutions and having a partner that is healthcare focused and understands the unique needs and terminology can help you avoid the significant cost of the pitfalls discussed above.

Finding a partner like PX Solutions with an open integration approach helps architect and engineering firms provide their customers with the best solution to meet their needs and keep you up to date with the latest products, applications and details to include in your next Nurse Call System tender.



PX Solutions is Dedicated to Canadian Healthcare



Our Team

We specialize in cultural and clinical process transformations in healthcare with innovative health technology and healthcare IT solutions that improve workflows, access to care and quality of service.



Our Vision

To bring about a future in which healthcare stakeholders across the continuum of care can respond to patients more effectively and efficiently, with innovative healthcare solutions, and continue to improve care and the care experience.



Better Together

Our in-house team of experienced healthcare professionals and partnerships with leading healthcare IT and application developers lets us create and offer a full suite of applications, services and infrastructure to help you achieve your organization's goals.



PX Solutions

PX Solutions offers technologies and solutions to achieve better outcomes for Healthcare in Canada. PX Solutions brings leading-edge products, software, infrastructure and services functioning together to connect the patients, families and clinicians along the patient's healthcare journey.

