

Introduction

The chief nurse executive (CNE) plays a critical role in the selection and implementation of information systems. Acquiring new systems is a complicated process that impacts the entire facility. Although some tasks may be delegated, the chief nursing officer (CNO) must remain actively involved in the overall decision-making and implementation process. These guidelines serve as a tool for the CNO and are not meant to capture all aspects of acquiring and implementing information technology in an organization.

Pre-Acquisition

The CNO focuses on framing the institution's need and gaining necessary knowledge about the information technology (IT) industry.

- Cultivate American Organization for Nursing Leadership's (AONL) vision for patient care of the future that supports the use of technology by nurses and other members of the health care team and work to align IT services with that vision.
- Identify how to align the organization's IT strategic plan and the overall nursing strategy plan in collaboration with the chief information officer (CIO).
- Enhance and model own skill in the use of IT and encourage this development in all clinical staff including physicians.
- Be involved in decisions made regarding technology platform interoperability, scalability and understand capitalization of technology.
- Know the maturation of the IT product and understand the relationship between the need to purchase new technology and what already exists.
- Be aware of all technology acquisition occurring in the institution and understand possible impact to nursing systems. This includes the possible impact on labor relations.
- Ensure that decisions for nursing remain within the CNO's authority.

Acquisition – Before Selection of Vendor

The work that occurs prior to the actual selection of a vendor lays a critical foundation for success. It is helpful for the selection committee to develop a standard set of questions to be used in the selection/ rejection process and for site visits. Clinicians should be leaders of clinical implementations. Although operational responsibility is delegable, the CNO remains accountable for this process.

- Ensure that decisions for nursing remain within the CNO's authority.
- Understand the concept of outsourcing IT and if using a consultant for the selection of a vendor, ensure that he/ she be supplier neutral.
- Make decisions about data ownership before you select a vendor and read their annual and 10K quality reports.
- Understand coded data structures. What language is used? What is the standardized nomenclature? Know whether you will be an alpha or beta site. Understand the company's definition of "customized;" what the risks of customization are, and what response time offsets the need to customize for industry changes.
- Know the limitations of a scripted versus a nonscripted presentation.
- Find out where the vendor's CNO sits on their organizational chart and where the vendor implemented its IT systems before—check references.
- Be involved in site visits and involve staff from all levels of your organization. These due diligence visits cannot be delegated and should include talking with the site CNO, determining the infrastructures in place to support the IT systems, learning what training resources were required and how the change process was managed.
- Understand/participate in the request for proposal (RFP) process. Know if it is part of the contract and know all functional requirements in the RFP. Address how adding this IT system meets your strategic imperative. Learn if there are viable opportunities for further exploration.
- Determine if the new IT system supports evidence- based practice and provides good decision-support? Will it support nursing and interdisciplinary practice?
- Invite the viable vendors in to evaluate/assess the organization. This is when the organization's CNO meets the vendor's CNO and the value proposition is explored (may include return on investment [ROI]).
- Demonstrations by the vendor should be done for the senior leadership team with physician representation. Know the benefits and limitations of a scripted vs. non-scripted demo. Scripted demonstration may lead to limitations of a fully robust delivery of the capabilities of feature functions. Understand the difference between clinical staff scenarios and patient care scenarios.
- As soon as the executive sponsor/leader of the steering committee is identified, the CNO should pay special attention to his/her collaborative relationship with the CIO. This is to assure that the clinical perspective will be integrated.

The Return on Investment (ROI) – Benefit Management and Value

The CNO should work with other members of the senior leadership team to determine the value proposition beyond the usual proposed saving of FTEs. Integrate patient safety and quality into the ROI analysis/processes, regardless of where they are conducted. Base benefits on sound evidence whenever possible.

- Assure that staff understands the benefits and objectives at the beginning of the project and monitor to those objectives.
- Assure that these are measurable and know ahead of time how they will be measured and when.
- Risk metrics are included in the contract. Understand if the vendor does not achieve their metrics and how this will affect cost.
- If there are risk metrics in the contract that impact clinical practice, the CNO should review and sign off on them.

Contracts and Negotiations

Although the CNO may not be the executive who manages the contracting process, once there is a contract, he/she should review the entire contract paying special attention to the parts of the contract that refer to clinical practice, phasing, resources and expectations for the CNO (note: there might be dual contract negotiations underway).

- Know if the facility is being considered a reference site and find out what that means and its potential impact on operations.
- Know what the vendor is responsible for delivering and ensure language specific for education and training including who will provide and pay for this, when and for how long. If the hospital is paying for education/training that is required, what budget will carry this expense?
- Understand the penalty aspects of the contract and how the system will be financed. Monitor the contract finalization process, paying close attention to any changes that are made during that process.
- Know the obsolescence clauses, software upgrade fees, and other potential budget implications that may occur in the future.
- Know if the contract states whether or not the CNO can receive direct contact from the vendor's CNO.

Implementation – Managing the Process

The CNO plays a critical role in managing the process of implementation that should be congruent with his/ her vision for the future. He/she should review the project timeline and budget to assure that it covers necessary activities and resources anticipated.

- Assure the vendor's IT team possesses necessary expertise and that there will be frequent contact between the frontline implementation team and the CNO, with a clear plan for managing communication. This includes communication between the vendor CNO and the organization's CNO. Define the escalation process for problems ahead of time.
- Include in the communication plan highlights for implementation and successes along the way. Celebrate these.
- Identify measures of success and metrics from the contract that are critical for the CNO and monitor these closely—manage to benefits. Assure that there is a process to alert the CNO of any major workflow changes that may impact other strategic initiatives such as patient safety. Have a strong voice in the go/no-go decision.
- Educate and enlist the nursing leadership team to serve as the ongoing champions for the project and assess the readiness of staff as part of implementation. Assure there is a nurse informaticist to support the implementation roll out.
- Assure that there is a deployment strategy with adequate resources and know the trade-offs of big-bang implementation versus a phased in approach defined by time/cost/resources. Pay extra attention to quality and safety during implementation.
- Assess the impact of the new IT system on students from schools of nursing, pharmacy, etc. and decide how much the student will be included. Involve all stakeholders in the implementation process.
- Achieve a basic working knowledge of the new IT system, specifically its functionality features.
- Be prepared for unplanned and planned system downtimes by having adequate plans that function during these times. It is advisable to have offsite redundancies.

Post Implementation

The CNO should be involved in the executive leadership meetings regarding all stages of IT acquisition and assure nursing representation on user group meetings. He/she should proactively evaluate current and new technology to know how these can serve the organization.

- Understand the process for future upgrades and version releases.
- Participate in the scheduling and prioritizing of system upgrades and version releases in order to align deployment of these changes.

- Establish and monitor all of the performance measures to be certain that the system is meeting patient, staff and physician needs. This is especially true for compliance and satisfaction measures.
- Know what additional functionality is available and how it can be maximized.
- Assure there will be ongoing organizational nursing IT support.
- Establish how the CNO will get information on an ongoing basis.

Understanding the Overall Policy Issues Related to Information Technology

Policy depends on data, leading to information that leads to knowledge. In addition to the CNO's local responsibility for the acquisition and implementation of IT systems in the organization, he/she should maintain a global perspective on information technology and its impact on policy.

- Be aware of the state and national policy implications of technology advances.
- Take advantage of policy issues as leverage points if they can improve patient care.
- Stay connected to professional associations such as AONL that keeps members informed of policy implications.
- Always consider policy implications of technology implementation and use. Be aware of the availability of grant money to facilitate acquisition of technology.
- Stay informed through information technology news sources such as *IT HealthBeat*.

Survival Tips for the CNO New to the Organization: Stop. Look. Listen

If the CNO is hired by an organization that has recently made an IT decision, learn the IT strategic plan for the facility and how it fits with nursing's strategic plan and priorities. It will be critical for the CNO to establish a collaborative and sustainable working relationship with the CIO.

- Optimize the situation, but understand that altering significantly a major system decision that has already been made cannot be done at this time.
- Review the overall role accountabilities for the CNO and recalibrate for the new facility.
- Understand what the CNO will be held accountable for regarding the implementation of the IT system.
- If the CNO is entering in the middle of implementation of a new system, he/she will need to have IT as a core competency in order to be successful.
- Contact colleagues, especially those with recent IT implementation experience, and request collegial consultation and mentoring.
- Seek out the vendor CNO for assistance when needed.

Directives from the CEO/Board

When information system selection is a decision made at the CEO or board level, there won't be an opportunity to go through the full vetting process for selection as described in these guiding principles.

- Understand the political environment of the selection and the potential impact of the decision, as well as why it is important to work towards acceptance and successful implementation of the new IT system.
- Use these guiding principles and review the metrics of the IT contract. Understand how they might impact operations. If it happens, debrief to understand what occurred and why.
- When bringing up issues or concerns, do so in a way that targets success of the project so as to not be seen as a barrier to implementation.

Legal Aspects

The CNO should be familiar with legal issues specific to the acquisition and implementation of IT systems.

- Understand the legal parameters around intellectual property. For example, anything created by a paid employee usually belongs to the employer.
- Contracts can define ownership of the system. Know who is identified as the owner.
- Understand copyright and licensing laws and their impact on the information system. Know the boundaries for exposure and liability.
- Be aware of corporate compliance laws, especially during contract negotiations (i.e. Stark Regulations).

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