Introduction

Technology is integrated into the fabric of health care and will most likely become increasingly part of the core fiber. The American Organization for Nursing Leadership (AONL) recognizes the significant role technology will play in our future. In support, AONL leadership has developed several tools to assist nurse leaders in incorporating technology into their work.

Technology is recognized as a key lever within the system of health care delivery. It has the unique capacity to either reduce or increase workload demand. Creating the appropriate balance and/or impact is a critical role for leadership. Understanding the role of the nurse executive in this work is essential.

AONL first addressed technology with the development of the AONL Guiding Principles for Defining the Role of the Nurse Executive in Technology Acquisition and Implementation. These guiding principles were developed by a group of nurse leader experts, representing both practice and the information technology industry. Those principles and the accompanying toolkit offered nurse leaders a roadmap to understanding the unique role they must play in technology implementation.

It was a natural progression to look at further ways to leverage technology, especially addressing the issues of quality and safety. AONL pursued this endeavor with industry partner Hill-Rom. Nurse executives from AONL and subject experts from Hill-Rom met for a two-day DayofDialogue™ to explore these issues. The collaboration provided an opportunity to appreciate the potential power that partnerships between industry and nursing can exert in health care redesign.

The outcome of that DayofDialogue™ is the following set of guiding principles that outline how technology/industry partners and nurse executives can partner to leverage technology at the bedside to enhance clinical outcomes.

Assumptions

The following assumptions ground the AONL Guiding Principles for the Nurse Executive to Enhance Clinical Outcomes by Leveraging Technology and provide a background and backdrop to their development and implementation.

- The current health care work/practice environment must be redesigned to enhance quality, safety and healthfulness for today and for the future.
- Individuals involved in health care delivery—both from clinical and technology/industry perspectives—are motivated to fix problems and to redesign systems.
- It is clear that integrated technology is required in order to achieve work redesign for today and for the future.
- There is no single transformational technology; this is a complex, multi-year journey that requires a co-designed roadmap to the future.
- Environments and organizations are complex and already engaged in sometimes chaotic redesign and the implementation of multiple technology systems and products. We will not have the luxury of a fresh, clean slate from which to continue redesign work.
• The environment and organizations within it will continue to be challenged with regulatory demands.
• Human and capital resources will remain constrained.
• There is a critical need for a shared model of partnership between technology/industry and the clinical endeavor. This model includes the mission, vision and values that will guide the full spectrum of industry/clinical relationships. The model supports mutual expectations of participation from both the technology/industry partner and the senior leadership team of the clinical enterprise, including the chief nursing executive (CNE), chief executive officer (CEO) and chief information officer (CIO).
• The model is based on evidence and an appreciation of standardization as a core element.
• Ultimately, it will be clinical outcomes that must drive industry partnerships, not merely financial indicators.

AONL Guiding Principles

Attributes of the Ideal System to Leverage Technology
• A well-defined governance model that defines strategic vision, roles, accountabilities and measures of success.
• A well-defined road map with iterative steps to successful integration and adoption of enabling technologies to enhance care at the bedside.
• A collaborative model between the CNE, CIO and technology/industry partner with a structure for dialogue, outcomes and planning.

Top Priorities for the Chief Nurse Executive (CNE)
• Clearly articulate the amount of process work required to achieve the results outlined in the roadmap; fully engage in the change management process.
• Assure that there is a defined governance model that oversees technology initiatives.
  ▪ Define roles, accountabilities and outcomes to achieve the strategic vision
  ▪ Align the overall technology and patient care strategic plans as the foundation for the governance model
  ▪ Define criteria for acceptance, initiation, midcourse correction and termination of the initiative
  ▪ Define the communication and decision-making process and the rules of engagement for all participants
  ▪ Engage the entire C-suite in the initiative
• Define clear, measurable, clinical outcomes for each technology initiative/project.
  ▪ Drive performance measurement based on evidence-based best practices using an adaptive model to synthesize new knowledge
  ▪ Clearly link outcomes to the strategic plan and communicate outcomes to all working teams
For the Nurse Executive to Enhance Clinical Outcomes by Leveraging Technology

- Define a scalable and repeatable methodology to measure outcomes
- Assure and advocate for adequate resources for data support and analytics
- Align and integrate clinical outcomes with the quality improvement plan

- Assume ownership of the process roadmap for future work redesign and the relationships that manage the process.
  - Articulate and define a transformational vision and a strategy to achieve the vision
  - Create an effective communication plan
  - Identify, name and empower a multidisciplinary team to drive the process to its initial end state
  - Do not underestimate the complexity of process work—it requires education at all levels to achieve the cultural change required
  - Support and champion cultural transformation as the foundation for process change

**Top Priorities for the Industry Partner**

- Clearly articulate the amount of process work required to achieve the results outlined in the roadmap; fully engage in the change management process.
  - Provide a project plan that details the hours, resources and tasks needed to accomplish the vision
  - Scan and bring forward best practices from industry top performers versus the blank sheet approach to project planning
  - Dedicate executive visibility, accountability and passion to the project
  - Gain buy-in from the organization’s information technology (IT) leadership and team members on the change management needed to achieve the project plan, recognizing that IT and patient care come from different cultures with different languages and that alignment between them is foundational

- Stop providing point solutions and provide full solution offerings even if it means partnering with the competition.
  - Be the integrator of disparate solutions
  - Assure full understanding of project scope and alignment
  - Facilitate the marriage of complementary technologies and services in order to provide solutions and not just one-off products
  - Seek input from clinicians into the concept development and design in research and development

- Provide open systems that share information/interoperate across vendor platforms with zero tolerance for lack of interoperability.
  - Be mindful that the reason to focus on interoperability is so that clinicians can take better care of the patient
  - Work with key stakeholders, including hospital leaders, partners and competitors to develop the interoperability roadmap
• Work in partnership with industry groups to change the standards of interoperability to establish a more coordinated effort
• Understand the health care organization and its needs well enough to push forward interoperable opportunities across the industry
• Develop standard and efficient methods and metrics for testing interoperability
• Understand organizational and industry needs and best practices well enough to push a solution framework out rather than waiting to be asked for one
• Provide your software development kit (SDK) to the health care IT marketplace in order to facilitate and assure interoperability