In the 1970s when a group of visionaries declared they would make the El Camino Hospital in Mountain View, Calif., paperless, many had trouble believing them.

Thirty-five years later, the hospital is completely wireless and is en route to becoming paperless, and eventually filmless. Doctors and nurses wear small, voice-activated wireless devices around their necks to communicate with each other, and supply cabinets are opened with a biometric thumbprint reading.

Lessons Learned
Among the lessons from the research done in hospitals like El Camino is how to enter and retrieve patient care data efficiently, how to link the data with medical knowledge to improve medical care processes, and how to achieve user acceptance or, at least, user cooperation.

But this is only one part of the equation. Equally important in establishing the paperless nursing facility is the desire to improve quality of care, reduce costs, improve access to care and patient safety, and prevent inappropriate actions while reducing errors of omission.

The above goals go right back to the need for day-to-day critical thinking on the part of nurses, certified nurse assistants (CNAs), and other key staff who provide the direct caregiving services at the nation’s nursing facilities. It is noteworthy that the development of the personal computer, along with accompanying software, has significantly reduced the costs of collecting and using information. More noteworthy, perhaps, is that the current generation of nursing students is computer literate. Most are entering the workforce having already mastered the personal computer, as well as assorted health care information software, as part of their core curriculum. Many have experienced sophisticated medical care simulations, much like student pilots use simulators to practice various maneuvers.

Forces At Work
Many forces are converging to make the paperless nursing facility possible. While limited research dollars have been directed at nursing facility informatics, the federal laws on prospective Medicare payments have moved the profession to adopt technology.

For some time now, nursing facilities participating in Medicare and Medicaid have been required to uniformly assess patients using the resident assessment instrument and to submit results of this assessment to the federal government within the minimum data set transmission file.

These standards, and the subsequent improvements in informatics, are now used to measure quality, establish payment, and create added resident assessment protocols that call for care plans and soon may become a permanent part of annual survey and licensure processes. To encourage the spread of paperless systems, providers must educate and motivate staff to adopt and use these exciting new information systems and strengthen their critical thinking at work.

Among the steps Heritage Enterprises, a long term care operator in Bloomington, Ill., undertook to make information systems more useful in critical thinking was to expand access to resident safety, quality of care, and cost information. From this process, the company gained the ability to track use of information and to work with the leadership of 30 facilities by making access to and use of information an easy part of their day.

Using these tools, Heritage is able to monitor and help ensure better compliance with requirements for resident assessments and Medicare and Medicaid reimbursement. A side benefit is that more staff have found electronic information useful in their daily work in caring for residents. This step

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In addition to choosing the right hardware and software, the switch to an IT-based system requires across-the-board “buy in” from top executives to frontline caregivers.

is helping the company to prepare for the implementation of electronic charting and physicians’ orders.

As Heritage moves toward electronic charting, one component is the federal and now ANSI (American National Standards Institute) HL-7 standard for intercommunication and interoperability (HL7 version 3). Software vendors will need to provide this important component of health care information technology, because HL7 is the communication standard for electronic health records. This means that eventually physician orders from office visits will be electronically captured and made interoperable from the physician’s office, to the hospital, to the nursing facility.

The potential to improve communication, motivate critical thinking, and help ensure better care is on the path to being realized within this half decade. It is the HL7 standard that defines how messages such as the ADT (admission, discharge, and transfer) physician’s orders, and nursing observations must be made so as to communicate with other systems.

The job of those on the front lines of this new information technology (IT) goes beyond merely educating and motivating staff to adapt to computers. The technology itself is in a state of flux, ever changing and evolving, which means that staff must be taught to adopt a new mindset that can absorb and reconcile these changes as they occur.

Making It Work
Making IT work in the long term care setting depends on both implementation planning and the followup education and training that must occur. But even if a company has the best trainers and the best technology, an IT project becomes extremely difficult to implement without complete buy-in from senior leaders like the chief executive officer (CEO), chief operating officer, and chief financial officer (CFO), as well as from its facility administrators and its directors of nursing (DONs).

A significant barrier to implementing new technologies is that some staff members express fear and distrust concerning computers and electronic systems. When staff are kept up to date about what is expected of them and provided the proper training to be successful, they can actually enjoy being a part of the new concepts they are being required to learn. This lesson, simply put, is that providers need to remove the mystery and sophistication from technology and communicate how to use it in meaningful ways.

Forming A Team
In every implementation project, there must be a team within the company to make critical decisions about where to begin and how to follow through. The team must include representatives of the CEO, CFO, and key operations staff from the nursing facilities, and they must meet as often as necessary—sometimes two or three days a week during this initial phase. These are the people who must learn everything they can about how the software operates, so that they can make educated deci-
sions about how the setup of the software should be done.

Decisions must also be made about how and when the software should be used as well as how management can ensure that staff are using the technology frequently and appropriately. These team members are the people who will help to train and support the frontline staff, who will be called upon to use the system on a daily basis.

Once the management team has decided on a software purchase, the training team is selected, and a pilot facility is chosen. This is followed by defining which staff members in the facility will be given software access and when staff training is to be completed.

After the first two or three installations are complete, the team reviews the results and setup for the next facilities is defined.

The implementation team moves forward with a training plan for a larger number of facilities, with everyone in the loop kept updated at all times. This includes central office staff, field nurses, regional directors, administrators, DONs, facility supervisory teams, staff nurses, and CNAs. It is also important to keep housekeeping, laundry, and maintenance aware of what is happening in their buildings.

The key to success is communication. Great care must be taken to include all staff as part of the implementation project. Everyone must work diligently to decrease the amount of stress on facility staff, as they acknowledge the problems with the new system and work out solutions in a quick and positive manner.

For More Information

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- For more information about HL7, visit www.hl7.org.