

From the Editor-in-Chief

Leadership for the Information Age: The Time for Action is Now

Dr. Lynn Nagle, the Senior Nursing Advisor for Canada Health Infoway, writes the column on nursing informatics for this journal. She and I have both been involved in the development and now the implementation of HOBIC (Health Outcomes for Better Information and Care), a province-wide initiative funded by the Ontario Ministry of Health and Long-Term Care: I am the executive lead and Lynn is the informatics lead. HOBIC seeks to bring online functionality to nurses that supports systematic assessment of patients on eight outcomes upon admission and discharge in acute care, chronic hospital care, long-term care and home care, and quarterly for people in residential settings. There is strong research evidence that nurses make a difference in how well patients do on these outcomes. Nurses can now access the results of their assessments online throughout a patient's stay, compare them to other patients of similar age or gender and begin to set benchmarks for improving these outcomes. Unit managers and chief nursing officers receive an array of monthly reports on the admission and discharge status of patients – information that can also be reviewed on the basis of gender and age group. HOBIC will be a critical component of the electronic health record when it is wholly adopted throughout Ontario.

Over the course of the implementation, Lynn and I have come to recognize the critical role that leadership plays in valuing the information that HOBIC brings. We have also pondered how leaders and nurses might use that information most effectively. Therefore, I asked Lynn to join me in writing this expanded editorial on the subject. Lynn's column will return in the next issue of *CJNL*.

If you were to ask nurses in clinical practice in most healthcare organizations in Canada what information they have access to about their patients, they might very well answer that they have lots of information. To some extent, that is true: they have nursing admission assessments covering a myriad of details about patients' lives and health, nurses' notes, physicians' notes, drug orders and their administration history, test results and notes made by other disciplines involved in their patients' care. Yet, rarely is there information about patients' previous experiences with healthcare or what their health status was when they exited the system on previous occasions. In most organizations – whether they provide acute, chronic

or home care – the information is on paper, and nurses (and all other healthcare providers) have to search through it to find what they are looking for.

The electronic health record (EHR) is designed to be a repository of key health information about every person who uses the healthcare system. The EHR has been slow to evolve in Canada and the United States; relative to several other G8 nations, we have a long way to go. Recent days have seen a flurry of promises in both countries about introducing the EHR. In the United States, President Obama announced the creation of the EHR nationally within the next five years as part of his USD\$819-billion stimulus package. In Canada's own economic stimulation package, Canada Health Infoway, the organization responsible for bringing the nation's EHR infrastructure to reality, is to receive an additional CAD\$500 million to continue to develop the EHR. This sum will bring the total amount invested to date to CAD\$2.1 billion. While this is a great deal of money, public health reporter André Picard, in a recent column in the *Globe and Mail*, noted that the actual cost of introducing the EHR is more likely to approach CAD\$10 billion. Others have speculated that the total is more likely to approximate CAD\$14–15 billion.

In most organizations, EHRs are not fully functional when they are first rolled out. Rather, they are usually introduced in component blocks that eventually constitute the complete EHR. Diagnostic imaging is a good example of this in Canada. Considerable investment across the country has taken us from film to digitized radiographic images that are typically available through results review applications. There are also EHR components that electronically present other information – such as laboratory results, transcribed reports and consult notes – to clinicians. The extent to which this information is available online varies among healthcare organizations, and its use often depends upon the ongoing availability of paper reports. With some notable exceptions, EHR applications that require the active use and engagement of all the health professions are just beginning to emerge. Specifically, applications supporting clinician order entry and clinical documentation are proving to be the most challenging and difficult to design and implement. Although the science to guide this (significantly disruptive) change to practice environments remains somewhat limited, documented and anecdotal evidence suggests that full engagement and representation of the perspectives of the eventual users of an application are highly correlated with achieving success in this work.

Unfortunately, nursing clinical documentation has not been an early component of the EHR, but it will eventually have the most impact on nursing practice. It is therefore, time for the profession to start building towards this eventuality and to take charge of directing the data elements and measures that nurses need to have included in the EHR. This work will necessitate an informed and energetic leadership – hence the point of this editorial.

In our experience with HOBIC, we have become aware of the magnitude of the leadership challenge, and found that the necessary leadership skills are not always understood nor available. The EHR has the potential to make information accessible that nurses have never had before. Because they have not been information users in the past, nurses often do not know how to use information when they get it. This statement is not an indictment of nurses; it simply points to the reality that for the most part, nurses have worked in an information-free zone. Paper charts provide much data and information about patients, but these are not well integrated or easily accessible and interpreted; rather, they appear as a series of isolated facts. So, while nurses may think they have lots of information available to them, they lack information in a form that assists in decision-making about the best care for their patients.

As with almost everything that is new, if you have not experienced it, you do not know what you are missing or how it can change your life. Imagine life now without email and cell phones. These tools have changed our access to information – how we receive, convey and use it and the times at which we use it. Not only is more information available to us (sometimes more than we want or need), but it is available in different forms, at different speeds and under different rules about who controls it than previously. Add Internet access into the equation and you will appreciate the complexity of information management today. For nurses, the introduction of the EHR means an exciting array of possibilities to inform and enhance practice. But crucial to this new information milieu are nurse leaders who understand, embrace, advance and support those possibilities.

Nurse leaders must determine what information we want to see in the EHR from a nursing perspective and the form it should take. Further, we must delineate the essential components of information that reflect what we do, how frequently we need to record these details and how and when we require access to them. The components of nursing documentation in the EHR will undoubtedly emerge as a matter of course. But without nursing input and leadership in the decisions that will set the course for EHRs for many years to come, we may find ourselves mired in decades of information management tools that neither enhance nor support nursing practice.

In his column, Picard (2009) emphasized that the transition to the EHR will not be easy. Nurses will need to be educated in how to contribute to the EHR, and how to access and use its information. It will change workflow and will require the acquisition of new skills. The concept of what constitutes information will also change. The magnitude of the change is akin to the magnitude of learning to practise on the basis of evidence. Although the concept of evidence-based nursing is now more than a decade old, nurses are still in the very early stages of understand-

ing, embracing and routinely practising on this basis. And while evidence-based practice can be advanced through the integration of information management tools such as the EHR, this will not occur without systems designed to do so.

This point brings us back to leadership. We need leadership at several levels to ensure that nursing as a profession moves to a meaningful and beneficial adoption of the EHR. Specifically, we need (1) leadership in developing the basic clinical documentation infrastructure that will support nurses using the EHR, and (2) leadership to direct and guide information use in management and practice. The senior nursing leader in every organization must become informed about EHR basics and how best to assert the nursing perspective. This leader also must become an aggressive salesperson for early nursing involvement within the organization's EHR initiative. Unfortunately, nursing often gets relegated to the end of the queue when setting priorities for representation in the EHR. Given that nursing is central to healthcare and accounts for a significant portion of the healthcare budget, the profession should have a prominent voice in this matter, but this so far has not happened. The nursing leader must also "sell" the EHR to the nursing staff. They have to understand why this system is good for nursing and why making the change is worth the effort in both the short and the long run. Enthusiasm for the EHR, and for developing the knowledge and skills necessary to using it well, is crucial if the shift is ever to happen. Because the technology is costly, nursing must show that investment earlier, rather than later, is beneficial for the hospital or home care organization.

Decisions must be made at the organizational level about the basic sets of information that should be included and how the information will be standardized. Unlike most other health professionals, nurses have not embraced standardized scales for assessing patients, except for such measures as blood pressure and temperature. We have lagged far behind in standardized assessments of other dimensions of well-being, and are more likely to use qualitative descriptions than numeric scales to describe our patients. (A major exception is the 0–10 pain assessment used almost universally in acute care hospitals but less commonly in residential settings.) Perhaps nurses feel that standardized scales dehumanize patients. How we use information is as much, if not more likely, to dehumanize as how we gather it.

Every organization must identify standardized, valid and reliable measures to describe the elements of patients' health and well-being to be captured in the EHR to serve nurses and nursing care. The best approach would be to identify at a local, provincial or even national level, those assessments that nurses should conduct universally and the measures that would enable them to do this. The era is past when each health facility collected its own data in its own way; nurses must agree upon a universal data set to support their practice. Surely the information that

nurses require to plan patient care doesn't differ from Vancouver to Victoria or from Edmonton to Winnipeg. Imagine how much smoother the healthcare process would be if we had standardized Canadian patient admission and discharge assessments and standardized clinical documentation systems! Achieving this level of standardization requires national leadership on an order that we have not seen to date. A reasonable place to start might be to establish a national EHR Planning Committee under the auspices of one of our national organizations or Canada Health Infoway.

While getting the infrastructure in place is a challenge, a bigger one might be convincing nursing staff to embrace and use the information that the EHR brings. This involves turning nurses into true knowledge workers by creating a culture of information-based nursing practice. Again, the most important catalyst in creating such a culture is leadership. Nurse managers, educators, clinical nurse specialists and other local nursing leaders must appreciate the value of information and demonstrate enthusiasm and skill in applying it in planning and evaluating nursing care. They must communicate this enthusiasm to nursing staff and help them value and acquire expertise in using information. Creating a range of approaches that recognize different learning styles and preferences will help nurses use the technology and apply the standardized measures. But this is the easy part; incorporating the information into everyday planning and evaluation of patients will require much more practice and reinforcement. Nurse leaders may accomplish this by asking staff about their patients' status as revealed through the assessments and by helping them to benchmark goals for patients based on the available information relative to other patients with similar demographics and health status. Further, nurse leaders will have to hold nursing staff accountable for assisting patients to reach the benchmarked goals. Finally, all nurses today must have access to the Internet. That many still don't is outrageous. Access to the information available on the Web is now as fundamental to good nursing practice as access to hand-washing equipment.

Once the right information is embedded in the clinical documentation system, it can be manipulated to serve numerous needs. Nurses can track any given patient's progress against other patients with similar characteristics. Nurse managers can follow the progress of patients cared for on their units and identify those who are not doing as well as research and benchmarks indicate they should. Similarly, nurse executives will be able to track how well patients across their organization are doing.

The lag in introducing informatics into patient care is mirrored in the educational programs that prepare students to become nurses. A major initiative is required to educate faculty members about informatics and the EHR. The same leadership imperatives apply to them as well. Deans, directors and chairs of curriculum

committees must take responsibility to ensure that their programs inculcate students in the demands and use of all elements of the EHR to support nursing practice. Such learning will imbue the future nurse as a true knowledge worker. Students who have learned standardized assessments in their programs could then easily move into any clinical environment in the country. A major barrier to students' acquisition of skills is that many settings that currently use a clinical documentation system deny students access to elements of the EHR. This, too, will have to change.

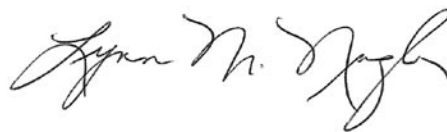
The EHR can either overtake nursing, or nurses can take over the aspects of the EHR that are relevant for them. A successful "takeover" would ensure that the EHR includes the information that nurses require to plan and deliver care. Nurse leaders and leadership are critical to this success at every level of nursing – nationally, provincially and locally. The time for action is now!

References

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Dorothy Pringle, OC, PhD
Editor-in-Chief



Lynn Nagle, RN, PhD
Assistant Professor, Lawrence S. Bloomberg
Faculty of Nursing, University of Toronto;
Senior Nursing Advisor, Canada
Health Infoway