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COMPUTER SYSTEMS



Photo courtesy SAP Canada

THE VALUE OF SHARED SERVICES

By Jim McIntyre and Russ LeFevre

Government organizations are under enormous pressure to maximize efficiencies, reduce costs and make effective use of limited resources. Decisions and strategies based on optimization and collaboration within and beyond the organization are more likely to be welcomed by stakeholders, who are demanding greater operational transparency across federal, provincial and municipal governments.

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Electronic medical records (EMRs) have become a key focus for governments and health care professionals worldwide as one of the most effective ways to streamline management of patient care.

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Digitizing Patient Care

Many organizations are turning to security management systems to help prevent internal breaches.

By Sam Chebib

Electronic medical records (EMRs) have been recognized by governments and health care professionals worldwide as one of the most effective ways to streamline management of patient care.

Recent international studies examining the use of EMRs indicate Australia and the U.K. have some of the highest rates of use in the world, representing from 50 to 90 per cent of physicians. North America lags far behind, despite the success physicians are experiencing using such technology in their practices, hospitals and health care facilities. In Canada, less than 10 per cent of doctors are using EMRs exclusively, according to a national physician survey.

Canadian health care professionals are faced with an increasing number of responsibilities, including the demands associated with growing patient numbers, practice management, research and government reporting requirements. Many are overwhelmed at the thought of adding to their workload the job of selecting, purchasing and implementing an EMR system.

Benefits

The initial investment in time required to adopt EMRs is apparently worthwhile for the return on investment (ROI), as health care professionals who have implemented such technology have reported tangible benefits to both the management of their practices and the treatment of patients.

Specifically, users have realized gains in productivity, a reduction in errors and improvements in proactively managing patients' health. For example, EMR systems can automatically identify potentially harmful drug interactions and allergies, which could otherwise result in serious health complications if overlooked.

Health care professionals also benefit from increased data storage, which facilitates the customization of records to patients'

health conditions and medical histories. This helps users identify potential health risks, conditions and concerns that should be taken into account in patient care.

Computer software can help lighten physicians' administrative workloads, so they can focus on treating patients.

Government support

In Canada, nearly all provincial governments have recognized the benefits of EMRs and have introduced or are in the process of introducing various strategies to increase the adoption rate by the health care sector.

Only 20 per cent of Ontario's 22,000 physicians currently use EMR systems, so in 2004, the province introduced funding through OntarioMD, a subsidiary of the Ontario Medical Association (OMA), as an incentive for physicians to adopt OntarioMD-certified systems. Eligible physicians can receive funds to offset the cost of implementation.

Dr. Catherine Faulds, a physician in London, Ont., with a roster of 2,200 patients, saw the benefits of EMRs at an early stage and has become an advocate for the technology. In June 2007, she

began using Nightingale On Demand, a web-based EMR system to help balance the management of her family practice with other professional commitments, including caring for palliative care patients at Parkwood Hospital and teaching medicine at the University of Western Ontario (UWO).

Reducing paperwork

Prior to the new technology, Dr. Faulds found additional tasks, no matter how simple, to be very time-consuming on top of her already heavy workload. This was particularly true of the paperwork required by legal and insurance professionals, which could take up to an hour per request.

"I received an average of six requests per day from lawyers and insurance firms for photocopied charts or clinical records dating back several years," she says. "I couldn't keep up with the volume of requests and the work they involved."

With the introduction of EMRs, Dr. Faulds now takes a supervisory role in administrative tasks and can focus on treating patients. She hired a part-time employee to enter patient records and nursing staff to update medication data. The time spent sending medical records to lawyers and insurance companies has been significantly reduced.

Standardization

EMR systems also make managing patient appointments easier, as standardized templates prompt the doctor to follow up on specific concerns, such as immunization or ophthalmology problems.

"The quality of our records is much-improved," says Dr. Faulds. "They are more comprehensive and the automatic prompts help jog my memory. The system recommends a template for each appointment based on the patient's medical history, which makes evidence-based medicine easier."

Templates range from basic exam forms, which cover one patient visit, to more complex flow sheets, which track numerous appointments. Flow sheets allow doctors to track specific information, such as vitals or lab results, over an extended period.

Dr. Faulds has been able to create flow sheets tailored to her hypertensive and diabetic patients, which are automatically updated with lab work results when they become available. As flow sheets provide a complete picture of a patient's history, they can be used for specialist referrals, rather than needing a referral letter and a paper chart duplicate.

Security

Protecting patient information is extremely important.

"Due to regulatory and privacy requirements, the College of Physicians and Surgeons of Ontario (CPSO) has become increasingly concerned about privacy and security issues related to patient information," says Dr. Faulds. "Paper-based patient information can be easily stolen, but EMR data is hosted in a secure, web-based environment."

According to Dr. Faulds, adopting EMRs was less daunting than initially anticipated, since she chose a vendor that hosted the system and was responsible for securing the information. This allows her to focus on patient care without worrying about technical and security matters.

In addition, choosing a hosted system that only requires an Internet connection to securely access patient information eliminates the need to invest in and maintain costly hardware.

Integration

Some EMR systems can provide integrated communication across the health care sector, linking regional organizations and networks with primary care practices, specialists, hospital and labs. This could help improve the services provided to patients and help meet government reporting requirements. Integrated EMRs can help provide health care facilities with more accurate and up-to-date



EMR systems make managing patient appointments easier, as templates prompt the doctor to follow up on concerns, such as immunization or ophthalmology problems.



This system recommends templates for appointments based on the patient's medical history. Templates range from basic exam forms to more complex flow sheets, which track numerous appointments and specific information over an extended period.

information, identify acute disease outbreaks and health care trends and make communication between a patient's circle of care, such as physicians and specialists, easier and more complete.

The more complete physicians' records are, the less likely it is for them to make incorrect diagnoses.

Dr. Faulds plans to introduce this level of integration to her practice in the future.

Practice evaluation

EMRs can provide reports about billing, finances, diagnoses, prescriptions and all other aspects of a practice, which gives physicians the ability to evaluate their performance. This can lead to administrative changes and improved task delegation.

"The system allows me to monitor disease outcomes, which is something the Ontario Ministry of Health is expected to demand more of in the future," says Dr. Faulds.

By tracking the outcomes of certain illnesses in a patient base, doctors are able to find out if there is an increase or decrease in the ailments over time.

Sam Chebib is president and CEO of Nightingale Informatix. For more information, visit www.nightingale.md.