

CLINICAL DECISION SUPPORT TOOLS IMPROVING CANCER CARE

ROBERT C. STILLMAN, MA, RN, CPHIMS

OBJECTIVES: *To describe the clinical decision support tools and advancements in health information technology currently utilized at a National Cancer Institute designated cancer center to aid in achieving the Institute for Healthcare Improvement Triple Aim project.*

DATA SOURCES: *Published literature, Web sites.*

CONCLUSION: *Advances in health information technology facilitate increasing quality and satisfaction with care, improving the health of populations, and reducing the cost of care. New technology includes integration of the oncology electronic medical record (EMR), smart IV pumps, EMR after-hours nurse triage protocols, and bio-repository data warehouses.*

IMPLICATIONS FOR NURSING PRACTICE: *Cancer patients, oncology nurses, and oncologists have an increasing amount of clinical decision support tools available to help achieve the Institute for Healthcare Improvement's Triple Aim.*

KEY WORDS: *clinical decision support, pump integration, smart pump, nurse triage, protocols, bio-repository.*

In attempting to arrive at the truth, I have applied everywhere for information, but in scarcely an instance have been able to obtain hospital records fit for any purposes of comparison. If they could be obtained, they would enable us to decide many other

questions besides the ones alluded to. They would show subscribers how their money was being spent, what amount of good was really being done with it, or whether the money was not doing mischief rather than good. . . .¹ p 187...

Robert C. Stillman, MA, RN, CPHIMS: *The Ohio State University Wexner Medical Center, James Cancer Hospital and Solove Research Institute, Columbus, OH.*

Funding and Conflict of Interest: This work did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sector. Robert C. Stillman MA, RN, CPHIMS, is employed by The Ohio State University Wexner Medical Center, James Cancer Hospital and Solove Research Institute; the author has received honoraria from HIMSS for work unrelated to this article.

Address correspondence to Robert C. Stillman, MA, RN, CPHIMS, The Ohio State University Wexner Medical Center, James Cancer Hospital and Solove Research Institute, 420 W. 12th Ave Tzourganis, 340 Columbus, OH 43210. e-mail: robert.stillman@osumc.edu

© 2018 Elsevier Inc. All rights reserved.

0749-2081

<https://doi.org/10.1016/j.soncn.2018.03.007>

The words of Florence Nightingale hold just as true today as they did when she wrote them more than 150 years ago. Today's oncology nurses are challenged with reviewing, documenting, and analyzing data in medical records that accurately illustrate the value and quality of the care delivered to cancer patients. Health care reform has required our profession to be visible participants in promoting cost-conscious, safe, and quality care across the treatment continuum. The health care paradigm is moving from volume-based "sick-care" to value-based health and wellness. Patients are increasingly viewed as consumers, with easy access to quality and patient satisfaction data, intensifying the competitiveness among hospital systems for a slice of the declining revenue stream. The patient experience is front and center, and new hospitals look like and offer the same amenities as luxury hotels. In spite of this, cancer patients are presenting with more acute illnesses and symptoms than ever before. Diagnosing and treating cancer patients requires a multitude of specialties coordinating complex care.

In Florence Nightingale's era, maintaining individual health records was a revolutionary idea as a method to track a patient's progress, aggregate data, and track quality. The medical record itself was an advanced tool to allow nurses to better care for patients. In short, she foreshadowed the concept of decision support. Today, our generations of nurses are experiencing a revolution in health care technology, with the same goal of advancing care and adopting models of decision support to promote the Institute for Healthcare Improvement (IHI) Triple Aim.

The IHI, a non-profit organization started in the late 1980s as part of the National Demonstration Project on Quality Improvement in Health Care, was led by Dr Donald Berwick and a group of reform-minded individuals committed to the redesign of health care into a system without errors, waste, delay, and unsustainable costs.² In the late 1990s, IHI's mission gained prominence with the renowned *100,000 Lives Campaign*, a nationwide initiative dedicated to significantly reducing morbidity and mortality in American health care and addressing the seminal report from the Institute of Medicine, which estimated as many as 98,000 people die in US hospitals because of medical injuries each year.^{3,4} The IHI Triple Aim continues today with the original mission of improving health care through three mechanisms: (1) improving the patient care experience (including

quality and satisfaction); (2) improving the health of populations; and (3) reducing the per capita cost of health care. The Triple Aim philosophy is based on the belief that new designs within health care are developed to simultaneously promote the Triple Aim.² The components of the Triple Aim are dependent on each other. For example, improving care can increase costs if the improvements are associated with new and effective, but costly, technologies.²

The 2009 American Recovery and Reinvestment Act (ARRA),⁵ The Health Information Technology for Economic and Clinical Act (HITECH),⁶ and Meaningful Use⁷ have pushed nursing into adapting to a new culture in health care technology that has historically lagged far behind other industries in the US. This new era of nursing documentation digitization traces its roots to Florence Nightingale's vision for improving patient care. The modern vision for oncology nursing decision support in our clinics and hospitals, using technology and electronic medical records (EMRs), holds great promise to meet the principles of the IHI Triple Aim.

CLINICAL DECISION SUPPORT SYSTEMS

Clinical decision support systems (CDSS) are key to minimizing human error and alerting clinicians to correct treatment decisions. CDSSs are information systems used to improve clinical decision-making and patient outcomes. Reminders for preventive care, order sets, evidence-based suggestions for disease management, and alerts for drug prescribing are the primary support functions provided by CDSS.⁸ These systems analyze data specific to the individual patient to optimize health. CDSS is most often used to improve care for patients with chronic illnesses or care processes that are prone to error, such as medication prescription ordering and administration.

Oncology nursing is a specialty with extremely sophisticated care needs. Cancer patients have to live with chronic and life-threatening conditions related to the disease and need to manage the side effects of treatments such as chemotherapy and radiation. These treatments carry a significant risk of toxicities, requiring the health care team to use every tool possible to reduce the risk of error. The prevalence of digital tools available in hospitals is rapidly increasing. CDSS is key among these tools to aid the oncology nurse in optimizing the care

Download English Version:

<https://daneshyari.com/en/article/8581445>

Download Persian Version:

<https://daneshyari.com/article/8581445>

[Daneshyari.com](https://daneshyari.com)