

7th Edition

# Essentials of **NURSING INFORMATICS**



Virginia K. Saba

Kathleen A. McCormick

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# Essentials of Nursing Informatics

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# Essentials of Nursing Informatics

SEVENTH EDITION

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# FOREWORD

In the years since the previous edition of *Essentials in Nursing Informatics* was published, U.S. hospitals have achieved nearly universal adoption of electronic health record (EHR) systems. Physician offices are only slightly behind in joining the digital ranks, and health professionals across the nation now utilize EHR systems in daily practice. The “HITECH Act” has forever changed health informatics, and we now face new challenges in improving usability, interoperability, and learning capability of these systems. With the rise of artificial intelligence and a need to reduce documentation burden required by current EHR systems, we see significant opportunity and responsibility for healthcare providers to address these challenges. Nurse informaticists are at the center of this transformational opportunity.

Historically, care teams communicated primarily through written notes in the patient chart. Paper represented a technical barrier, as the best patient care is dependent on data availability over time, across locations, and among healthcare team members—including the patient. Access to the most accurate and complete information remains vital, and nursing informaticists are leading much of the work being done to improve the speed, accuracy, and utility of clinical information.

We have made progress in gaining nearly instant access to patient data and evidence-based decision support that enables nurses, physicians, and other clinicians to make better decisions about patient care. These technologies, however, require continued optimization of the technology, the interoperability, and the workflow to drive improvement in user experience, reduce documentation burden, and improve patient outcomes.

The accelerating demands for gathering and using data to improve patient care and clinical operations have increased awareness of informatics as a core skill, intensifying the need for clinicians to better understand these increasingly ubiquitous technologies. This edition incorporates updated teaching aids to help educators develop more sophisticated users of technology, who are equipped to improve processes and workflows that result in safer, more effective, and efficient patient care.

As the specialty that integrates nursing science, computer science, and information science to manage and communicate data, information, and knowledge—and

ultimately, build wisdom—into nursing practice, nursing informatics is uniquely positioned to help lead the optimization journey that will simplify data capture, promote sharing of data in a mobile environment, and create high-performing, patient-centric clinical information systems.

The vision for a better future of healthcare is tightly associated with the future of health information technology, and data are the fuel for this journey. Thus, nurse informaticists are critical healthcare leaders for the 21st century, experts in the right place at the right time, bringing the clinical, technical, and leadership skills together to create effective partnerships among their numerous constituencies—leadership teams, clinicians, data scientists, information technologists, and more. Their role is central in advancing value and science-driven healthcare, and so their work in moving healthcare informatics from data management to decision support is essential.

In the 15 years since the call for EHRs was made in the 2004 Presidential State of the Union message, we have witnessed rapid evolution of health information technology and its use in healthcare systems. The next 15 years will bring the increasing convergence of data from myriad sources outside of the formal healthcare setting into the context of clinical care. We will move up the analytic hierarchy from descriptive to diagnostic, predictive, and ultimately prescriptive and autonomous systems. Thus, the future of this field promises both challenge and opportunity for prepared participants.

Just as the field has evolved, so has nursing informatics. Its practitioners have already provided tremendous energy, insight, and leadership in helping to establish the necessary infrastructure and in driving gains in healthcare technology competency, information literacy, and better healthcare outcomes. Now more than ever, we believe nursing informatics holds great promise to enhance the quality, continuity, value, and experience of healthcare.

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