

## **Nursing Informatics in Healthcare**

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Nursing informatics applies information and communication technologies to the field of nursing in order to improve patient care, healthcare data, and electronic health records

(Buchanan et al., 2021). To aid in the collection of health care implications, the field of nursing informatics has placed an emphasis on digital health-based information and relied on managed service systems to make judgments on keeping track of a patient's medical coverage. To enhance patient safety in multilingual and multicultural settings, nurses and other healthcare providers worked together to build an effective nursing informatics system (Wang et al., 2021). Nursing informatics, on the other hand, is one of the most promising sectors of the American healthcare industry. Experts in nursing informatics are in great demand because of the field's potential to boost productivity, enhance communication, remove barriers to timely, accurate data, and reduce costs.

### **The nurse Informaticist Role**

Combining the accuracy of nursing with the speed and organization provided by the analytical sciences is the goal of a nurse informaticist, who is a registered nurse with the knowledge and expertise to utilize electronic medical records and standardize data. Assessment results are recorded in electronic medical records (EMRs), and a nurse informaticist's responsibility is to facilitate the system of computer-based provider order entries (CPOE) recordings of assessment findings, together with other data such as patient progress, nurses' comments, and drug-related notes (Buchanan et al., 2021). The nurse informaticist takes the lead in increasing multidisciplinary team performance and addressing unmet medical needs. The highest-recommended healthcare professionals are known as nursing informaticists, who are in charge of keeping track of patient data, doing research on the availability of medical standards, and evaluating the effectiveness of healthcare workers from a variety of backgrounds. As early medical techniques hinder unsuccessful therapies by notifying practitioners of interdisciplinary units to the risks of causing harm impacts of probable deliberate hazards like patient-associated

illnesses caused by toxic medication combinations, for example, nursing informaticists may better detect patients with multiple critical illnesses by incorporating long-term and preventative measures into early medication approaches (Ye et al., 2021).

Nursing informatics and IT advancements have far-reaching consequences for healthcare delivery across the world. Healthcare delivery worldwide benefits greatly from advances in nursing informatics and information technology. Integrating technology to enhance patient care and outcomes in clinical settings is a key focus for nurses today (Jedamzik, 2019). A patient's health may be evaluated using nursing informatics, which is based on research and practice in the field of nursing. Evidence suggests that nursing informatics might benefit doctors by drawing attention to inefficient forms of communication and providing a straightforward platform for collecting and analyzing patient data. Incorporating nurses as part of a team may assist health system executives and doctors accept new solutions since nurses are often strong transformational leaders who can effectively oversee cultural change. Using patient health data and automated provider ordering, nurse informaticists have helped reduce medical errors, service disruptions, and healthcare costs (Jedamzik, 2019). When it comes to patients and healthcare systems, nurse informaticists are information communicators who put a premium on data transformation (Jedamzik, 2019).

### **Nurses Collaborations with Interdisciplinary Teams**

Helpful strategies and cooperation of nurses with multidisciplinary groups are essential for patient safety and optimal health, and the nursing staff ensures this through regular assessments of innovations in management for patient security and health maintenance. Providing high-quality care and information to patients over time requires regular interaction with patients and their families, as well as participation in an ongoing project including a wide

range of medical care members and providers (Ye et al., 2021). One technique to evaluate the efficacy of nursing care for very ill patients is to observe how well they protect against drug-related risks.

It is advised that nurses retain records of their patients' illnesses, organized according to their qualifications, as part of their continuing education, as well as their degree of professional competence and the success with which they treat their patients. It centers on the steps done by medical staff to ensure the proper execution of diagnostic orders, keep track of prescription expiry dates, and reach other agreements for operations or objectives related to healthcare safety programs. The doctor-patient communication is one use of nursing informatics. Fostering professional connections among nursing staff and being the first to feel the impact of technological advancements in quality standards by sharing data with other CNOs and medical professionals like nurses, doctors, and pharmacists to offer improved medical care in an environment characterized by such factors.

### **Importance of Nurse Informaticist in Health Care Settings**

To better their patients' health, clinical nursing informaticists need to implement a strategy that makes use of individualized technological solutions (Jedamzik, 2019). Only in collaborative treatment settings, where nurses' knowledge and state-of-the-art technology are seamlessly interwoven, might this synergy be really effective. For informatics to be successfully applied, a number of factors must come together, including healthcare promotion, the appropriate use of cutting-edge technology, a solid internet connection, and several modes of communication. For 400 years, nurses have played a crucial role, making significant contributions each and every month.

The ability to save and access private data, connect health care providers, provide precise diagnoses, grow the range of medical the profession's capacity to gather data, make technology available via a web browser, encourage a healthy and productive lifestyle, and use automation are examples of the quality level and need for informatics in a healthcare setting. The present-day informatics nurses often establish teams to better serve patients and healthcare facilities in need of a variety of services. You may show initiative, save money, and enhance patient care with the use of modern technology and statistical modeling if you join the medical community today (Ye et al., 2021). The information they gather will allow them to do all of this and more. The fundamental requirements for nursing informatics competence center on automated searches and applied skills, informatics knowledge programs, and associated abilities (Ye et al., 2021). Nurse informatics need is assessed by administration faculty, and nurse education programs within collaborative groups ensure patients get the proper drug at the right time (Chanie et al., 2022).

### **Evidence-based Strategies to Protect Health Information**

Included are the guidelines nurses must follow to ensure the integrity of both paper and electronic patient records, as well as the framework for doing so. Some examples of such rules include discussing the standards of care by openly admitting the medical condition and their records in restaurants and in-patient units, making such information available to those unfamiliar with the situation or dealing with common and neighborhood areas, and so on. Evidence-based work with managerial guidance and oversight, human contacts, and technical assistance enables the manipulation of procedures. Patients are protected against potential injury by using preventive principles (Chanie et al., 2022).

The ultimate goal of nursing informatics is to reduce the number of pharmaceutical failures and the number of patients who are exposed to unsafe drugs, as is widely agreed upon. For instance, the goal of nursing informatics is to expand digital information access for patients by resolving strategic challenges with health coverage data (Khezri et al., 2019). In major institutions, better health outcomes for patients have been linked to increased emphasis on the security of digital patient data. Effective methods for protecting patient data include implementing data processing regulations, restricting access to sensitive data, minimizing hazards connected with digital data devices, and performing regular risk assessments.

In addition to allowing the use of protected health information in clinical decision making, administrative processes, research, and patient care, HIPAA has successfully protected patients' right to privacy while addressing private medical data with their physicians and other treating professionals. Without the patient's written or signed agreement, health organizations cannot reveal individually identifiable information (unless in certain circumstances, such as during treatment or surgery) (Buchanan et al., 2021). If a security board or other carefully chosen organizational group determines that collecting PHI without patient consent presents no risk to the study, then researchers may do so.

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