

Domain 8: Informatics and Healthcare Technologies

Sub-competency	Progression Indicators (Observable Behaviors)	
	Developing	Developed (Competent)
8.1 Describe the various information and communication technology tools used in the care of patients, communities, and populations.		
8.1g Identify best evidence and practices for the application of information and communication technologies to support care.	Appraise best-practice guidelines for the use of ICT in healthcare settings.	Select and apply evidence to improve ICT best practices in diverse clinical environments.
8.1h Evaluate the unintended consequences of information and communication technologies on care processes, communications, and information flow across care settings.	Identify and summarize potential unintended consequences of ICT on patient care outcomes. Describe the potential impact of information and communication technologies on clinical decision-making and workflow efficiency.	Assess ICT-related challenges and propose evidence-based solutions. Address ICT challenges when planning and evaluating patient care strategies.
8.1i Propose a plan to influence the selection and implementation of new information and communication technologies.	Summarize key organizational considerations for selecting new ICT solutions. Demonstrate initial planning steps for introducing a new ICT solution into a clinical environment.	Collaboratively develop a comprehensive implementation strategy for an ICT innovation.
8.1j Explore the fiscal impact of information and communication technologies on health care.	Identify essential cost factors associated with ICT implementation.	Analyze the cost-effectiveness of various ICT solutions in different clinical settings.
8.1k Identify the impact of information and communication technologies on workflow processes and healthcare outcomes.	Describe how ICT influences clinical workflow efficiency. Recognize ICT-driven patient care outcomes and their influence on clinical decision-making.	Analyze the relationship between ICT integration and changes in healthcare delivery processes. Modify patient care plans based on the evaluation of ICT impact and healthcare outcomes.
8.2 Use information and communication technology to gather data, create information, and generate knowledge.		
8.2f Generate information and knowledge from health information technology databases.	Retrieve and organize relevant clinical data from health information technology (HIT) databases.	Analyze multifaceted data across HIT databases to identify patterns or correlations that inform clinical decision-making.

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8.2g Evaluate the use of communication technology to improve consumer health information literacy.	Assess whether health information provided through technology aligns with health literacy best practices. Identify potential barriers to technology adoption.	Synthesize information and communication technology to enhance data flow, interoperability, and scalability for population-level interventions. Propose information and communication technology interventions based on the synthesis of literacy improvement, engagement rates, and health outcomes.
8.2h Use standardized data to evaluate decision-making and outcomes across all systems levels.	Analyze data to identify trends in patient outcomes. Analyze data to identify areas for operational improvements. Examine epidemiological data to recommend evidence-based public health interventions.	Use standardized datasets to justify clinical reasoning. Utilize standardized data to recognize patterns and opportunities for quality improvement.
8.2i Clarify how the collection of standardized data advances the practice, understanding, and value of nursing and supports care.	Provide examples of how standardized data enhances patient safety, efficacy, and satisfaction. Articulate pathways from data collection to improved health outcomes.	Justify the use of standardized data collection to support evidence-based care planning. Communicate the impact of standardized data analysis to interprofessional team members during decision-making processes.
8.2j Interpret primary and secondary data and other information to support care.	Differentiate between primary and secondary data sources. Analyze primary and secondary datasets to identify care requirements and inform decision-making.	Synthesize primary and secondary data to understand patient and population health needs comprehensively. Recognize the limitations of available data and its implications for care planning.

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8.3 Use information and communication technologies and informatics processes to deliver safe nursing care to diverse populations in a variety of settings.		
8.3g Evaluate the use of information and communication technology to address needs, gaps, and inefficiencies in care.	Define the role of ICT in improving care access, utilization, and delivery. Identify opportunities for improving the patient-technology interface.	Assess current technology use in healthcare settings to enhance care efficiency and facilitate patient access. Propose strategies to optimize the use of ICT in healthcare service delivery.
8.3h Formulate a plan to influence decision-making processes for selecting, implementing, and evaluating support tools.	Assess the needs and goals of stakeholders when selecting healthcare technologies. Conduct a needs assessment to identify gaps in existing processes and technology. Analyze available tools and resources.	Develop a strategic plan aligning stakeholder needs, organizational goals, and available resources. Advocate for change and communicate implementation plans to decision-makers. Establish a quality improvement monitoring system to evaluate the effectiveness of implemented tools.
8.3i Appraise the role of information and communication technologies in engaging the patient and supporting the nurse-patient relationship.	Assess patient preferences, cultural considerations, and access to technology resources. Determine the effectiveness of various technological tools in improving patient engagement, self-management, and adherence to treatment plans.	Evaluate the quality and frequency of nurse-patient communication facilitated by technology. Analyze how technology impacts the quality of the nurse-patient relationship.
8.3j Evaluate the potential uses and impact of emerging technologies in health care.	Assess the effectiveness of new technologies in improving patient engagement, self-management, and treatment adherence. Examine the ethical, legal, and social implications of adopting emerging technologies in healthcare.	Identify areas where emerging technologies can enhance healthcare delivery. Evaluate the feasibility of implementing emerging technologies.

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8.3k Pose strategies to reduce inequities in digital access to data and information.	Analyze barriers to accessing digital health tools and information. Implement initiatives targeting populations most affected by digital health inequities.	Design educational programs to improve patient utilization of digital health tools. Propose strategies to enhance the availability and accessibility of necessary healthcare technology.
8.4 Use information and communication technology to support documentation of care and communication among providers, patients, and all system levels.		
8.4e Assess best practices for the use of advanced information and communication technologies to support patient and team communications.	Evaluate the effectiveness of various communication technologies used within the healthcare team.	Recommend evidence-based strategies to optimize information and communication technologies for enhancing provider collaboration, patient outcomes, and care coordination.
8.4f Employ electronic health, mobile health, and telehealth systems to enable quality, ethical, and efficient patient care.	Utilize telehealth platforms to conduct patient assessments, provide education, and deliver care to remote or underserved populations.	Incorporate technologies to ensure adherence to ethical guidelines, patient safety protocols, and regulatory standards for care delivery.
8.4g Evaluate the impact of health information exchange, interoperability, and integration to support patient-centered care.	Analyze the benefits and challenges of implementing a health information exchange within a healthcare organization, considering its impact on patient data access, care coordination, and workflow efficiency.	Evaluate interoperability among EHR systems to enhance patient data sharing and facilitate care transitions across various healthcare settings.
8.5 Use information and communication technologies in accordance with ethical, legal, professional, and regulatory standards, and workplace policies in the delivery of care.		
8.5g Apply risk mitigation and security strategies to reduce misuse of information and communication technology.	Educate healthcare staff on recognizing and reporting phishing attempts and cybersecurity threats that may compromise patient data or organizational systems.	Implement relevant risk mitigation strategies to minimize data breaches and ensure compliance with security regulations.
8.5h Assess potential ethical and legal issues associated with the use of information and communication technology.	Identify ethical concerns related to artificial intelligence in healthcare.	Analyze the legal and ethical implications of using patient data for research, ensuring adherence to privacy regulations, data security standards, and institutional review board protocols.
8.5i Recommend strategies to protect health information when using communication and information technology.	Suggest improvements to existing security protocols within a clinical setting.	Develop and present best practices for healthcare professionals to uphold patient privacy and confidentiality when utilizing communication and

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		information technology, aligning with legal and ethical standards.
8.5j Promote patient engagement with their personal health data.	Facilitate patient engagement with digital health tools.	Incorporate educational resources and workshops to empower patients to navigate and utilize their health data to make informed healthcare decisions.
8.5k Advocate for policies and regulations that support the appropriate use of technologies impacting health care.	Research state and federal regulations related to telehealth practices, identifying barriers to equitable access and opportunities for advocacy to enhance healthcare delivery.	Advocate for policies supporting artificial intelligence's ethical and effective integration in healthcare.
8.5l Analyze the impact of federal and state policies and regulation on health data and technology in care settings.	Examine the implications of recent state regulations regarding telehealth prescribing practices and their effect on patient access to care, medication safety, and interprofessional collaboration.	Evaluate the impact of current policies on health information exchange and interoperability, considering their potential to improve patient care coordination, reduce costs, and promote innovation in health information technology.