4.09 HEALTH INFORMATION TECHNOLOGY

Introduction

Health information technology (Health IT) is comprised of a range of digital tools used within the health care systems to collect, store, analyze, and share medical data. In today's healthcare systems, health IT is an invaluable component for delivery of high-quality and safe care. Recognizing the role of health IT, the Institute of Medicine (now the National Academies of Medicine), in 1999, issued reports highlighting the potential of the electronic health record (EHR) in reducing medical errors through electronic order entry, facilitating care coordination, and improving clinical efficiencies. Despite these benefits, hospitals were slow to adopt these technologies until Congress passed the Health Information Technology for Economic and Clinical Health (HITECH) Act in 2009. Under this act, standards were set for 'meaningful use' of health IT and substantial resources and incentives were provided to eligible hospitals and providers to offset EHR implementation costs. The result over the past decade has been widespread adoption of the EHR across the United States, although children's hospitals remain at the slower end of the adoption curve. Pediatric hospitalists use health IT systems for clinical care, education, quality improvement (QI), patient safety efforts, and for research and thus play a critical role in implementing and optimizing health IT use within hospital systems.

Knowledge

Pediatric hospitalists should be able to:

- Describe the unique role of health IT in providing care to hospitalized children and the importance of careful design and implementation of health IT systems within hospitals and hospital systems that care for children.
- Describe the impact of the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule on health IT security and the importance of secure storage and retrieval of protected health information.
- Explain the value of clinical decision support in rendering patient care.
- Compare and contrast the influence of health IT systems on practice management, clinical decision-making, QI initiatives, safety initiatives, and research in the healthcare setting.
- List resources that can be accessed to address questions about information systems, such as local system super users, hospital IT support, vendor support lines, online access to other healthcare providers who use the system, and others.
- Delineate how staff dedicated to health IT support quality and safety efforts and data retrieval.
- List information resources and tools available to support lifelong learning in dynamic health IT.
- Discuss the importance of pediatric hospitalists in developing, modifying, and evaluating changes to health IT systems on an ongoing basis to optimize workflow and patient care.
- Recognize that dependence on technology for some clinical tasks is an unintended consequence that has arisen since the institution of the EHR.
- Give examples of human errors that can occur when using an EHR, such as medication entry errors, documenting in the wrong patient record, and others.
- Identify problems of a poorly designed EHR and describe how pediatric hospitalists can partner with hospital systems to mitigate these problems.
- Cite common risks that may occur when utilizing an EHR designed for adult aged patients and review actions to mitigate these risks for pediatric patients.

Skills

Pediatric hospitalists should be able to:

- Demonstrate proficiency with the local EHR or computerized provider order entry system.
- Access and use web-based educational resources for continuing education and enrichment of trainee learning experiences.
- Utilize local health IT systems for clinical care, education, QI and patient safety initiatives, and research in an effective and efficient manner.
- Assist in or champion the creation, ongoing maintenance, and optimization of electronic order sets and documentation templates.
- Assess and assist with improving and optimizing clinical decision support tools, including rules and alerts, to meet the changing needs of the health care system and hospitalized children.
- Use hospital health IT system downtime procedures to provide safe continued medical care to patients in the event of a system failure or shutdown.
- Demonstrate best practices in use of the EHR, such as use of "navigators" and order sets, importing relevant medical records where available, and avoiding potentially risky practices such as copy-paste where appropriate.
- Educate trainees on correct use of the EHR and edit and attest to trainee notes as appropriate.

Attitudes

Pediatric hospitalists should be able to:

- Exemplify accountability by adhering to regulations around proper use of health IT.
- Acknowledge the value of collaboration with healthcare providers, patients and the family/caregivers, and hospital administration to ensure the successful functioning of health IT systems.
- Advocate for the proper alignment of health IT system choices with clinical needs, particularly for pediatric-specific needs in predominantly adult healthcare systems.
- Realize the importance of communicating effectively with health IT system managers and leaders.
- Recognize and respect patient confidentiality by using the security-directed features of information systems.

Systems Organization and Improvement

In order to improve efficiency and quality within their organizations, pediatric hospitalists should:

- Lead, coordinate, or participate in appropriate hospital and health systems committees to assist in developing and optimizing health IT solutions to improve quality, safety, and workflow efficiencies.
- Partner with hospital leaders and administration to optimize use of the EHR to improve clinical documentation and develop performance measures and dashboards for the hospitalist practice and the hospital system.
- Collaborate with family advisory groups, hospital administration, healthcare providers, and community partners to support and enhance the use of the EHR by patients and the family/caregivers.
- Partner with hospital administration and healthcare providers to integrate new technologies that improve pediatric hospital medicine practice and care delivery to the hospitalized child, such as clinical decision support tools, telemedicine, health information exchange, registries, and others.
- Seek opportunities to improve the role of health IT in managing costs and supporting quality and clinical research, as applicable.

References

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