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Impact of Technology on Quality and Safety in the Clinical Setting

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INTRODUCTION

Technology has made many advances in healthcare throughout the years. “Nationwide efforts, including the Medicare and Medicaid Electronic Health Record (HER) Incentive Programs, supported the expansion of health IT that enables the sharing of clinical information” (American Hospital Association, 2018, para. 1).

“Healthcare information technology (HIT) has been defined as ‘the application of information processing involving both computer hardware and software that deals with the storage, retrieval, sharing, and use of health care information, data, and knowledge for communication and decision making’” (Alotaibi et al., 2017, para. 3).

SIGNIFICANCE

- “The benefits of health information technology… improved medication safety through increased legibility, which potentially decreases the risk of medication errors…” (ACOG, 2015, para. 2).
- Many different errors have occurred prior to the introduction to technology in healthcare, such as medication errors, wrong patient, loss of patient chart, errors being made based on the legibility of the patients’ charts, etc. In turn, “hospitals and heath systems have significantly increased their use of health IT for quality improvement and patient safety as system capabilities have expanded” (American Hospital Association, 2018, p. 1).
- “Ninety-seven percent have electronic prescribing of medication and integrated computerized provider order entry” (American Hospital Association, 2018, p. 2).

POSITION STATEMENT

Technology and the impact on healthcare has improved the quality and safety of the patients in the clinical setting mostly because of “the use of alerts to warn health care providers of potential problems” (ACOG, 2015, para. 7).

“Health information technology presents numerous opportunities for improving and transforming healthcare which includes; reducing human errors, improving clinical outcomes, facilitating care coordination, improving practice efficiencies, and tracking data over time” (Alotaibi et al., 2017, para. 4).

SUPPORT FOR POSITION

- Technology in healthcare has created the ability to share clinical information between other healthcare professionals. “Advantages include sharing images and patient records, supporting clinicians through improved access to data and best practices for care, and contributing to patient safety through tools such as medication reconciliation” (American Hospital Association, 2018, p. 1).
- The use of this technology not only helps to ensure the accuracy of the medications being prescribed but also that the right patient is verified with the use of barcoding and scanning.

(RMSOMEGA Healthcare, 2021)

IMPLICATIONS FOR PRACTICE

- Technology in the clinical setting has helped by giving alerts to abnormal test results in a patient’s chart, which in turn is improving the quality and safety of patient care.
- “The potential to improve patient safety exists through the use of medication alerts, clinical flags and reminders, better tracking and reporting of consultations and diagnostic testing, clinical decision support, and the availability of complete patient data” (ACOG, 2015, para. 3).
- Orders being placed by physicians can be read and received efficiently by nurses because of the implementation of health information technology.
- “Bar code medication administration systems are electronic systems that integrate electronic medication administration records with bar code technology. These systems are intended to prevent medication error by ensuring that the right patient receives the right medication at the right time” (Alotaibi et al., 2017, para. 13).
- “Hospitals and health systems increasingly use EHRs and other health IT tools to support patient safety and improve care delivery. These tools have varying capabilities, but core functions include capturing clinical information – such as physician and nursing notes, test results, prescriptions, and problem lists – and ongoing monitoring and analysis of patient status indicators and outcomes” (American Hospital Association, 2018, p. 1).

(Health Europa, 2019)

CONCLUSION

The impact of technology on quality and safety in the clinical setting has greatly benefitted healthcare and patient care. The use of technology for medication calculations, reducing medication errors, and having alerts in place for any abnormal tests has greatly improved the quality and safety of the patients in the clinical setting. Technology continues to make new advances everyday in healthcare; each time reducing the risk of patient harm or errors.

“Numerous studies have considered the outcomes of implementing an electronic medical record on healthcare quality and patient safety, with a majority of studies showing favorable results… The metaanalysis showed that organizations which implemented electronic health records had a 30% higher guideline adherence, a reduction in medication errors by 54%, and a reduction in adverse drug reactions by 36%” (Alotaibi et al., 2017, para. 24).

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