

Assessment 3 - Exploration of Regulations and Implication for Practice

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Computerized Physician Order Entry

Computerized Physician Order Entry (CPOE) is a system used in healthcare facilities that allows doctors to enter and transmit patient treatment and medication orders electronically, rather than using paper forms or verbal orders. CPOE systems can improve patient safety by reducing errors and increasing the speed and accuracy of order processing. They can also improve efficiency and communication among healthcare providers. An example of using a computerized physician order entry (CPOE) system in nursing would involve the implementation of this system in a hospital or other healthcare facility. The CPOE system would be used to electronically enter and process physician orders for medications, lab tests, and other treatments (Fischer et al., 2020). It is a system that allows physicians, nurses, and other healthcare providers to enter patient treatment and medication orders electronically rather than using paper forms or verbal orders.

CPOE is designed to improve patient safety by reducing errors and increasing the speed and accuracy of order processing. It can also help to improve overall efficiency and communication among healthcare providers. CPOE systems typically include a user-friendly interface that allows providers to enter orders quickly and easily and also include a variety of built-in checks and alerts to help prevent errors. Some systems also include decision support tools that provide providers with information about potential drug interactions or allergies and also provide alerts for duplicate therapy or other potential problems. CPOE can be integrated with other electronic health record (EHR) systems, such as electronic prescribing, lab results, and radiology reports. This allows healthcare providers to view all of a patient's information in one place, which can help improve the coordination of care. This essay is based on an analysis of the computerized physician order entry, safety issues, stakeholders, and goals of this informatics model.

The computerized physician order entry system in nursing helps the nurse electronically enter and process physician orders for medications, lab tests, and other treatments. CPOE systems can also increase efficiency by streamlining the order-entry process and allowing for real-time tracking of orders. They can also provide valuable data for quality improvement and research. Additionally, the use of a CPOE system can facilitate the implementation of clinical decision support systems (CDSS), which can help to improve the quality of care by guiding diagnosis, treatment, and other clinical decisions (Ejaz et al., 2022). Implementing a CPOE system can be a complex and time-consuming process that requires significant investment in terms of cost and resources, including hardware, software, and staff training. It's also important to have a change management process in place to ensure that the staff is comfortable with the new system and can work efficiently with it. Studies have associated the use of CPOE with improvements in safety, efficiency, and reimbursement, allowing more incentives and ambulatory care for people (Nuckols et al., 2014). For instance, the use of the CPOE helps the nurses regulate the information and provide handy information on time without depending on the patients to carry their reports with them all the time or remember their medical history. For example, when a doctor accurately and timely enters information into CPOE, it simplifies order processing and check-up dates, allows for on-time care, and allows nurses to access the history and treatment details to provide the right care without exposing the patient to potentially harmful medications.

Computerized physician order entry (CPOE) systems are designed to improve patient safety by reducing errors and increasing the speed and accuracy of order processing. However, despite the many benefits of CPOE, some safety issues must be considered. One major safety issue with CPOE systems is the potential for errors caused by human factors, such as poor user interface design or a lack of user training. For example, if the system is

difficult to navigate or the instructions are not clear, this can lead to confusion and errors. This can be particularly problematic for healthcare providers who are not familiar with the system or who are not adequately trained to use it (Classen et al., 2020). Also, there is the potential for errors caused by system design or functionality. For example, if the system does not include built-in checks or alerts to prevent errors, this can lead to medication errors or other mistakes. Additionally, if the system cannot detect or alert for potential drug interactions or allergies, it can put patients at risk for adverse reactions. Similarly, system failure can be a potential issue, as the system could go down and the provider would have to fall back on the paper-based system, which could introduce errors and delay the process. Lastly, CPOE systems are vulnerable to hacking and data breaches, which can put patient privacy and confidentiality at risk, which can have serious legal and ethical implications (Setareh et al., 2022; Poly et al., 2020).

Similarly, another risk that can prevail in the use of CPOE is HIPAA, as the nurses should follow the guidelines of HIPAA to ensure the safety of the patient's private records from being accessed by unauthorized distributions, even to families or other patients. Thus, nurses must be more vigilant and ethically profound when discussing cases, such as maintaining the confidentiality of the case, avoiding gossiping in hospital corners, resisting curiosity and not disclosing information without the patient's permission, and providing the patient with the necessary information to make an informed decision. Also, it is expected of the nurses to be vigilant about the use of the record and not leave their systems unprotected or unsupervised. Likewise, it is expected of the nurses to be non-judgmental toward the medical history and state of the patient in order to provide risk-free care.

There are a lot of stakeholders involved in the CPOE process, from patients to doctors to nurses to management; every individual plays a significant role in the whole process.

Patients are the ultimate recipients of the CPOE system, as it is designed to improve patient safety, increase the speed and accuracy of order processing, and provide a more comprehensive view of the patient's information. Patients have the right to expect safe and efficient care, and CPOE can help ensure that they receive it by providing seamless services. Similarly, the physicians also entail the primary status on the ladder, as they are responsible for entering and transmitting patient treatment and medication orders. They need to be trained on the system and have to make sure that the information they enter is accurate, complete, and well-formatted to avoid errors and misinterpretations. Likewise, this transmission and information process is also associated with the nurses, as they are the key individuals responsible for the accurate documentation, orders, or any other related information in the patient's electronic health record (EHR). They need to be trained on the system and have to be able to use it efficiently to ensure patient safety and improve clinical workflows. Similarly, the hospital management, such as the administration and IT departments, are also prime stakeholders in the process, as they are responsible for the whole management. They need to be able to understand the system's capabilities and limitations, as well as its financial and legal implications, to make informed decisions. Similarly, studies have highlighted that there are a few critical barriers to adaptation to the process of CPOE that the physician and nurse have to bear due to incorrect information being added up or due to any man-made error (Nathan et al., 2013).

It is worth noting that the CPOE outcomes are also influenced by many factors, such as the goals of the projects, the level of support and training provided to the healthcare providers, and how much information they can foresee and utilize based on the information provided in the CPOE. Through the use of CPOE, a few factors are kept in mind and result in influential outcomes when it comes to utilizing the technology. First of all, the use of the CPOE ensures the safety of the patients as it is designed to reduce errors, increase the speed

and accuracy of order processing, and reduce the risk of medication errors, playing a significant role in preventing adverse drug interactions or overdose of any particular drug by keeping the complete record of the patient (Cerqueira et al., 2021). This study highlighted that CPOE also reduces pharmaceutical costs as it moves medications to preferred medication tiers and steers treatment toward evidence-based choices. Similarly, CPOE systems can help to streamline the process of ordering and documenting patient treatments and medications, which can increase efficiency and reduce the risk of errors. This can lead to faster turnaround times for orders and improved clinical workflows. One of the more obvious benefits of CPOE is its ability to provide a more comprehensive view of the patient's information, which can improve communication and collaboration among healthcare providers. This can lead to better coordination of care and more accurate and complete patient information. Last but not least, this model also ensures better patient satisfaction as it allows them to have complete one-click access to their medical records, reducing the hassle of carrying multiple files around during doctor visits and reporting the complete history, and improving the overall patient experience by reducing the risk of errors and increasing the speed and accuracy of order processing. This can lead to better patient satisfaction and improved trust in the healthcare system (Sutton et al., 2020).

Computerized Physician Order Entry (CPOE) is a widely adopted initiative in healthcare practice that aims to improve patient safety and increase the efficiency of order processing. However, it's crucial to critically analyze this initiative in terms of safe practice, ethical considerations, regulatory considerations, and standards of practice. In terms of safe practice, CPOE systems are designed to reduce errors and increase the speed and accuracy of order processing, which can help improve patient safety. However, proper implementation and maintenance of the system are crucial for ensuring its safety. For example, if the system is not properly secured, it can lead to data breaches and a loss of patient privacy.

Furthermore, if the system is not properly maintained, it can lead to system downtime and errors (Srinivasamurthy et al., 2021).

CPOE systems have the potential to have a significant impact on both the patient-provider relationship and the overall healthcare system. There's a need to consider ethical issues such as patient autonomy, informed consent, and privacy. For example, it's essential to ensure that patients are aware of the system's capabilities and limitations so that they can provide informed consent for its use. Similarly, CPOE systems are subject to a variety of legal and regulatory requirements. This includes compliance with regulations related to data security, patient privacy, and data sharing. It's important to ensure that the system is compliant with all relevant regulations and that it meets the standards set by accrediting bodies. However, recent studies have highlighted that CPOE systems can raise ethical concerns related to the privacy and security of patient data as well as the potential for unintended errors and bias in the processing of orders (Hayavi-Haghighi et al., 2021). CPOE systems can raise ethical concerns related to the autonomy and informed consent of patients, as well as the potential for unintended consequences and conflicts of interest in the use of these systems. Concerns regarding the accountability and transparency of these systems, as well as the potential for unintended consequences and conflicts of interest in the use of these systems, are often raised.

CPOE systems are subject to a variety of legal and regulatory requirements. This includes compliance with regulations related to data security, patient privacy, and data sharing. It's important to ensure that the system is compliant with all relevant regulations and that it meets the standards set by accrediting bodies. To ensure current standards of practice, CPOE is subject to a number of regulatory requirements. While CPOE systems are designed to improve the standard of care in healthcare practice, However, it's important to ensure that

the system is being used in a way that aligns with current standards of practice. For example, it's crucial to ensure that the system is being used to support the provision of evidence-based care and that it is not being used to replace the judgment of healthcare providers. Similarly, the CPOE system in a hospital was associated with a significant reduction in medication errors and adverse drug events. The study also found that the system improved the efficiency of care delivery and communication between healthcare providers (Amir & Khan, 2022).

In conclusion, computerized physician order entry (CPOE) systems are increasingly being adopted in healthcare facilities as a means to improve the quality and safety of care. These systems have been shown to significantly reduce medication errors and adverse drug events, improve prescribing patterns and communication between healthcare providers, and increase the overall efficiency of care delivery. Several studies have been conducted and have shown that CPOE systems have resulted in a reduction in medication errors and adverse drug events, and improve prescribing patterns and communication between healthcare providers. However, it is important to consider the safety, ethical, regulatory, and standard of care aspects when implementing CPOE systems. Safety concerns include the potential for system malfunctions and errors, user errors, and inadequate training of staff. Ethical concerns include issues of privacy, security, and potential discrimination. Moreover, regulatory compliance and adherence to standards of care must be considered when implementing CPOE systems. While the CPOE has the potential to improve the quality of care and maintain the safety of care, it is important to purposefully regulate the risks and benefits of implementation and to ensure that the systems are designed and implemented in a way that promotes patient safety, ethical considerations, regulatory compliance, and adherence to standards of care.

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