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The Role of Health Administration in Reducing Medication Errors in Long-Term Care Settings

Apryl Terry and Dr. Marjan Assefi*
North Carolina Agriculture and Technical State University

***Corresponding author:** Dr. Marjan Assefi, North Carolina Agriculture and Technical State University

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Abstract

Medication Errors in long-term care facilities remain a serious concern for patient safety. Many of the residents in these facilities take several medications a day, which can increase the risk of medication errors during administration or documentation. Research shows that medication errors often occur due to poor communication, heavy workloads, shortage of staff, unsafe ratios of residents to nurses/medication aides, and unclear reporting procedures. With certain medication prone to being administered incorrectly and staff being too comfortable when handing medication. It can become a serious safer concern for the resident which can lead to patient harm and even hospitalization. This shows that being able to lower the percentage of medication errors is not only important for the residents but for the facility as well.

Health administration contributes to helping reduce these errors by creating the systems and policies used in facilities. Federal oversight and internal policies can influence how medication safety is observed and how errors are addressed when they occur. Administration is responsible for making sure that staff not only had proper training, but clear guidelines and an effective reporting system set in place. By improving these areas, facilities will be able to identify issues and prevent medication errors more effectively. Being able to understand the impact of administrative decisions on medication safety is a crucial step in improving the quality of care for residents in long-term care settings.

Keywords
Health Administrations; Residential; Medication Errors; Longterm Care.

Introduction

Medication errors are a common issue in both hospitals and long-term care facilities, occurring every 1 in 5 doses administered. More than 7 million patients are affected by the errors yearly, with approximately 1.5 million experiencing harm and anywhere from 7,000-9,000 patients' deaths occurring in the United States. According to [1], 91% of these errors come from prescribing and administration, 37.6% during administration, 1.6% during dispensing, and other causes such as wrong dosage and unauthorized medications. These statistics show just how common medication errors are and how they can happen at different stages of the medication process.

Residents in these facilities are at high-risk with many of them having multiple chronic conditions and as a result they receive multiple medications each day. This increases the chance of errors when you're managing multiple medications at once or in a busy/understaffed environment. Medication errors can also happen when similar medications are spelled similarly or even the sound the same, this is one of the reasons as to why there are certain abbreviations that are banned because it has caused health care professionals to misinterpret the actual meaning [2]. These errors can also happen if the unsafe patient-to-nurse ratios and non-important interruptions. Being able to reduce these errors does not just focus on being responsible as an individual, it also depends on how the facility is managed. Health administrators have an important role by making sure staff have clear procedures and policies, training, safer ratios, reporting systems, and guidelines in place. By improving these areas the number of medication errors can be reduced and improve overall patient care and safety.

Background

When most people think of medication errors, they think of just administering the wrong drug or dosage, and while that does play a part in mediation errors that's not the only reason. When looking at medication errors they can happen in five different stages from a pharmaceutical standpoint. They are prescribing, transcribing, dispensing, administering, and monitoring [3]. These five stages have their own risk and certain mistakes that can affect the patient at any point. When it comes to prescription errors this can occur from the wrong drug, dose, route, illegible handwriting, or failure to not allergies when prescribing a medication. Transcribing errors can come from misinterpreted abbreviations or having incorrect entry of details into the electronic health record. Dispensing errors include things like the wrong drug, incorrect quantity, wrong dosage, or even failing to check side effects. Administration errors happen when administering the wrong medication at the wrong time, to the wrong patient, or even the wrong route. And monitoring errors occur when the healthcare provider fails to monitor things like side effects and/or drug effectiveness [4]. Because there are multiple ways in which a medication error can happen, especially when taking a look at the 5 stages in which they can occur there is always a chance for something to go wrong.

Polypharmacy is also one of the major reasons as to why medication errors happen. This is when the patients are taking multiple medications at once, this makes it harder to manage medications correctly and also increases the risk of confusion and making a mistake (citation). Ratio and staffing issues can also affect how medication is administered, especially when the nurse is responsible for more patients than what can be handled safely [5]. Busy environments, interruptions during medication rounds, poor communication and human errors such as fatigue or stress can also lead to errors. Medication errors are more likely to not get reported due to fear of being disciplined or feeling guilty, this makes it harder for facilities to identify and fix these issues [2,6].

Patterns and High-Risk Medications

As discussed, medication errors can happen in several different ways depending on where the mistake occurs. The most common type of errors includes giving the wrong dose, missing a medication, the wrong route, and/or giving it at the wrong time. These mistakes often happen during the administrating stage, when the patients are receiving the medication, this is why this stage is where most of the medication errors occur. Making the stage the one that requires the most attention because even small distractions can lead to major errors. In many cases, these errors are preventable but due to lack of proper check and a heavy workload they unfortunately still occur [6]. While these types of errors are common, the actual medication itself can be the reason for the mistake.

Certain medications are considered high-risk because of how they affect the body and how carefully they need to be managed, these are commonly known as narcotics. These medications can include medications like insulin, opioids, methotrexate, and anticoagulants just to name a few [7]. Even small mistakes with these medications can lead to major harm, which is why they require extra attention. Additionally, medications that look-alike and even sound-alike can increase the risk of being administered incorrectly, especially if the names are confusing or misread. Not knowing the difference between mL and mg can also cause errors especially when dealing with liquid medications. Because of this, extra measures are often needed when handling these types of medications [8]. When it comes to the different types of medications, the timing and even environment in which medications are given can also increase the risk of errors.

In a lot of these cases medication errors are more likely to happen during certain times, mainly during shift changes or busy periods. During these times communication between staff might not always be accurate and information can easily be misinterpreted. High workloads and time windows of when the medication needs to be given also increase the chance of a mistake, these patterns suggest the medication errors are often linked to facility-based issues and not just individual actions [9]. Knowing when and why these errors happen can help facilities make changes in order to reduce them.

Regulatory Oversight (CMS)

Regulatory agencies are government authorized agencies that set and enforce standards that ensure safety and customer protection. In regards to healthcare the Centers for Medicare and Medicaid Services (CMS) is one of the main organizations involved when setting these standards for facilities. According to the UC Davis PSNet Editorial Team [10]. These regulations focus on areas like proper medication

management, documentation and patient safety. Facilities are regularly inspected to make sure they are meeting these requirements; this is typically when the State will come in and observe the workflow of the facilities for a few hours and provide feedback to the facility on anything that they need to improve on or implement. Failure to meet these standards can result in penalties or other consequences, like being fined or shut down.

Even though these regulations are in place they unfortunately do not completely prevent medication errors. Following procedures do not always address everyday challenges that matter and what staff must go through like high workloads, time constraints, unsafe ratios, and communication issues. Because of these issues, improving medication safety depends not only on being able to meet regulation stands but also how the facility is managed and the systems that are put in place that support the staff and help reduce errors [10].

Administrative Role and Prevention

Health administrators play an important role when it comes to reducing medication errors, by improving how care is organized and delivered within a facility. Their responsibilities are making sure staff are properly trained, maintaining safe patient-to-nurse ratios, creating clear policies for medication administration, and providing a safe environment for healthcare providers to report any errors that occur. The lack of experience and gaps in clinical knowledge can increase the risk of medication errors, which make it important for all staff to have some level of experience when handling medication and if not then are trained effectively on it [11]. When these areas are not managed correctly it increases the risk of medication errors. At the same time, facilities that focus on organization, communication, and support their staff will have better patient outcomes and few errors. This shows that by improving how the facility operates can directly impact medication safety.

One strategy that can be used to prevent medication errors is by following the “Six Right” of medication administration. This includes the right patient, right medication, right dose, right route, right time, and right documentation. These guidelines were designed to make sure that medication is given correctly and safely [12]. When using the Six Rights to check before, during, and putting away medication, the nurse can become lackadaisical and not use the guidelines to help prevent any errors from happening. Which is why it's important to always double check before continuing. Just by knowing the Six Rights and even using them is not enough to fix stressful working conditions or time constraints. Administrators are needed to make sure that staff have the time, training, resources, and support to follow these steps regularly.

This means that facilities must focus on how these strategies will be implemented into daily practice. For example, [13], found that having electronic medication systems can improve accuracy when administering medication. By providing real-time patient information and reducing medication errors, the only downside is if the internet goes down then so does the system. Barcode medication systems can also help prevent errors before the medication is given, this system will be very beneficial when handling high-risk medication. By using this system healthcare providers will be able to see which medication is for that specific resident that was scanned, the only con is that administration would have to make sure the search

barcode matches up with medication because if marked wrong that would cause more errors [14]. Having the extra safety check will help make sure that the correct medication is being given to the correct patient.

In order to improve medication safety facilities should implement strict strategies that can be used regularly with all staff members. This includes having a checklist like the Six Rights, regular training, having step-by-step procedures for medication administration, and knowing what steps to take if a medication was given incorrectly. By standardizing these procedures helps reduce variation and ensures that all staff follow the same safety practices. Taking proactive approaches in long-term care settings are important to reduce harm and improve medication safety [15]. When you combine these guidelines, having proper training, supportive stems, and evolving technology. Facilities can create a safer and more organized medication process. Which can lead to fewer errors and better patient outcomes.

Discussion

Medication errors in long-term care facilities are affected by multiple factors, including how medications are handled, the type of mediations being used, and the environment where care is being provided. When looking at the different stages of the medication process, including common error types and high-risk medications, it becomes very clear that these errors don't always happen randomly. Instead, they tend to happen in situations that could be deemed predictable, for instance during busy shifts, when staff are overwhelmed, when communication is unclear and during shift changes. The issues that can happen during shift handoffs can increase chances of medication errors, which further shows how important communication and timing are in preventing mistakes [9].

When looking at all the causes and different factors it shows that medication errors are not just caused by individual mistakes but are often connected to how care is organized within a facility. Factors such as staffing levels, training, communication, and overall workflow all contribute to how much errors are more or less likely to happen. Because of this, focusing only on individual responsibility will not solve the problem entirely. Instead, we should focus more attention on improving how things are set up and making sure that staff have the support they need to safely carry out their responsibilities.

In order to reduce my education errors, it will require using multiple strategies at the same time. This includes following structured guidelines like the Six Rights, improving communication between staffing, knowing the correct medication abbreviations, knowing the correct dosage, and using technology to support medication administration. When these approaches are consistently applied, they can help reduce errors and help lead to better patient outcomes over time.

Conclusion

Medication errors continue to be a serious concern in long term care facilities, especially because many residents are taking multiple medications daily. These errors can occur at different stages of the medication process and are often influenced by factors such as heavy workload, communication, the use of high-risk medication, and shift changes. While these challenges make medication safety more difficult many of these errors are preventable when the right systems and procedures are in place. Health administrators play an important role in reducing medication errors by improving training,

communication, staffing, and the use of safety tools. With strategies such as following the Six rights, using technology like electronic medication systems and creating a supportive environment can help reduce mistakes and improve patient safety. When facilities focus on these areas and consistently apply these strategies, they are more likely to create a safer environment for residents and improve the overall quality of care.

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