

Leveraging Technology to Reduce Dose Omissions

Care in long-term care environments is increasingly complex. And one of the most significant contributors to the challenges of resident care is medication administration, especially when complicated treatment regimens are required that increase the risk of errors.

While administration of drugs is highly regulated, adverse events still occur. In fact, an Office of Inspector General report revealed that one in three skilled nursing facility residents were harmed by an adverse event in the first 35 days of their stay. And unintentional dose omission is the second leading type of these incidents.



Downsides of Delays

For many medications, a missed dose does not pose significant problems, but can still impact efficacy that leads to suboptimal treatment. However, with some drugs, delays in administration can have profoundly negative impact on residents, resulting in serious injury that necessitates readmission or even causes death. Among these time-dependent or stat medicines are:

- Anticoagulants
- Insulin
- Antibiotics

When serious adverse reactions result due to dose delays of these drugs, not only is resident care and quality of life impacted, but staff morale may degrade as well.

Factors Behind Omissions

Drug omissions can occur during both prescribing, as well as, throughout any stage of the medication-use process. Several factors increase the chance of avoidable missed doses during the administration phase, including:

- Refusal by residents

- Lack of availability
- Nursing staff getting called away
- Inability to administer by prescribed route and delay in identification of alternative route

The majority of these errors are not the result of staff incompetence but are due to fragmented processes or ineffective systems.

Advances in Technology, and Care

In one study, the unavailability of a medication was the leading cause of omissions, responsible for 38% of incidents (source). To address these events, technology advancements are available that can enhance resident safety by helping to ensure timely administration.

eMAR technology can provide significant advantages during administration to prevent omissions, including:

- detecting potential omissions when drug was administered but not documented
- enabling nursing staff to immediately see all new orders
- sending alerts with dose reminders to nurses

In addition to eMAR, other advancements can help prevent omissions by ensuring continued access to medication therapy. On-site medication dispensing units are increasingly used at facilities to reduce missed doses of oral, solid medication. These systems promote the timely administration of medication through immediate availability of drugs. In addition, they also enhance resident safety through the dispense of resident-specific medication, verification and other security measures, and automatic inventory replenishment.

Dose omission can have serious consequences for residents, staff and communities. PharMerica can help with RxNow automated on-site dispensing cabinets to reduce nonadherence; and eMAR that can help prevent omissions and improve care. Contact us at info@PharMerica.com or 800-564-1640 to learn more.