

Drug Errors Related to COVID-19

Several medication administration issues have arisen during the coronavirus pandemic. The following drug errors and concerns have been reported.

Remdesivir

Remdesivir has been used to treat COVID-19 patients through the U.S. Food and Drug Administration (FDA) emergency use authorization (EUA) program. An initial loading dose of 200 mg is typically administered followed by 100 mg doses. The drug is available in two dosage forms: lyophilized powder for injection and a solution for injection. The label for the lyophilized powder lists the total drug amount as 100 mg per vial. The injectable solution label lists the per mL strength (5 mg/mL) with the total volume below (Contents: 21.2 mL). Yet another label for injectable solution lists the total dose per total volume first (100 mg/20 mL) with the per mL amount (5 mg/mL) below it. Two factors have resulted in mistakes:

1. Confusion with the labeling of the injectable solution vial, which does not include the total dose (100 mg) contained in the vial.
2. Confirmation bias – for example, a technician, having just prepared the loading dose of 200 mg, used two vials to prepare subsequent doses. The pharmacist did not catch the error as there were no barcodes available to scan the vials. The 200 mg doses were also erroneously labeled 100 mg doses.

To prevent these errors:

- Add a printed barcode label to each remdesivir container to facilitate product and dose verification.
- Placing an auxiliary label on remdesivir injectable solution vials to indicate the total amount of drug (100 mg) contained.
- Provide prescribers, pharmacy staff, and nurses with [fact sheets](#) and/or [pharmacy guides](#) provided by the manufacturer.

Bypassing the Barcode Medication Administration (BCMA) System

The COVID-19 pandemic often required the reassignment of staff to different units. Some of these clinicians, such as operating room nurses, are not familiar with BCMA and would bypass the system to administer medications, resulting in errors. Redeployed nurses require orientation to the newly assigned unit including the patient population, technologies, processes and medications.

Telehealth Issue

Many clinics are providing telehealth visits for patients who can't be seen in person during the pandemic. One issue that has arisen is the inability to obtain an accurate weight, resulting in wrong doses of weight-based drugs. One example involved a cancer patient who had not been seen for months and lost a significant amount of weight. Her chemotherapy plan used her previous weight from four months prior. The nurse double-checked the order and noticed the patient's body surface area (BSA) had decreased 7% compared to the BSA on her chemotherapy treatment plan. The order was changed

Reference

1. Institute for Safe Medication Practices. (2020). *Nurse Advise-ERR*. Retrieved from Institute for Safe Medication Practices: <https://www.ismp.org/nursing/medication-safety-alert-june-2020>

however it resulted in a two-hour delay. The institution is changing the electronic health record to require an updated weight before prescribing, dispensing, and/or administering weight-based medications. Clinicians should also ask the patient about recent weight loss or gain during telehealth visits.

Automated Dispensing Cabinet (ADC)

Medication errors can occur when clinicians enter only a few letters in an ADC drug name search. One patient received a dose of verapamil instead of versed when a nurse used the override feature on the ADC and selected the wrong drug. She also did not use the bedside barcode scanning system since the medication was a verbal order and had not been entered into the electronic health record. The institution is assessing its verbal order practices and plans to phase out their use except in emergencies. They are also auditing the ADC override practices and plan to restrict their use. One recommendation to help reduce these errors is to increase the number of letters needed (minimum of five) when searching for drugs in the ADC.

Missed Doses

There have been several reports of missed doses of albuterol inhalers due to communication issues between nurses and respiratory therapists. Missed drug doses have also occurred due to the need to consolidate medication administration times in order to limit the frequency that nurses enter patients' rooms.

Reference

1. Institute for Safe Medication Practices. (2020). *Nurse Advise-ERR*. Retrieved from Institute for Safe Medication Practices: <https://www.ismp.org/nursing/medication-safety-alert-june-2020>