

Medication Safety in Ambulatory Surgery Centers

Medication errors and adverse events are a serious and persistent patient safety and liability issue across healthcare settings. An analysis of more than 3,000 malpractice cases found that medication-related cases — in comparison with other malpractice cases — involve a larger percentage of deaths, more frequently close with an indemnity payment, and close with a considerably higher average payment.¹

In recent years, more care has shifted to outpatient settings, including ambulatory surgery centers (ASCs). In fact, more than half of all outpatient surgical procedures in the United States are performed at ASCs, and the number of these procedures is expected to increase about 15 percent by 2028.²

Medication safety is imperative in perioperative care, but ASCs may face challenges if they lack the human and technological resources of inpatient facilities. The following risk tips can help ASC leaders and care providers review their medication policies and practices and identify opportunities to improve quality, safety, and efficiency.³



Ensure that all of the ASC's medication policies and procedures comply with state and federal regulations and accreditation standards, and incorporate safety strategies and best practices from professional organizations.



Support a nonpunitive culture of safety in which providers and staff members are encouraged to report medication errors and near misses and view them as learning opportunities.



Make sure adequate patient information is readily available and accessible prior to commencing medical or surgical procedures (e.g., history and physical, current medications, nonpharmacological interventions, allergies, patient's current weight in metric units, preoperative screening results, test results, etc.).

Reconcile the medications a patient is currently taking with any medications prescribed during the perioperative period. Medication reconciliation should occur prior to or during admission, during any transfers of care, and before discharge. Any errors or ambiguous information should be resolved as soon as possible.



Screen patients prior to surgery to determine whether they are at risk for respiratory depression (e.g., if they are opioid naïve, have obstructive sleep apnea, are female, have multiple comorbidities, etc.). Document the findings from screenings in patient's electronic health records (EHRs).



Verify that appropriate monitoring is in place for patients who are receiving moderate and deep sedation, general anesthesia, regional anesthesia, and intravenous opioid analgesia.



Ensure that important drug information is readily available throughout the medication process, including safe dosage ranges that take into account patient-specific factors.

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Use clinical decision support (e.g., via your EHR system) and partner with remote or onsite pharmacists to help verify the appropriateness of pre- and postprocedural medication orders prior to drug administration.



Develop a process to halt a patient's current medications if necessary prior to a medical or surgical procedure. Make sure the process includes steps to restart or assess the appropriateness of these medications following the procedure.



Put in place policies and protocols to identify and manage potential adverse events following medical or surgical procedures, such as hyponatremia and malignant hyperthermia. Ensure appropriate supplies and medications are on hand to treat complications.



As much as possible, streamline and standardize medication information and drug orders to ensure consistency. Do not allow verbal orders except in emergency situations or during sterile procedures. When verbal orders are used, make sure a closed-loop communication technique is in place to avoid errors and confusion.



Implement best practices in medication inventory management and storage to avoid errors with look-alike/sound-alike medications and high-alert drugs (e.g., configuring medication carts, trays, and cabinets so that labels are clearly visible; segregating high-alert medications from the rest of the inventory; and including warning labels on drugs that induce respiratory arrest).



Label containers (e.g., syringes, bowls, basins) with medications and solutions on the sterile field immediately after filling. Do not label empty containers in anticipation of use. Labels should remain on all medications until the point of administration.



If possible, use profiled automated dispensing cabinets to direct providers to patient-specific medication profiles and limit medications to those reviewed and approved by pharmacists.



Develop protocols for the safe storage, handling, preparation, administration, and disposal of hazardous medications or products. Monitor staff members who are routinely exposed to hazardous drugs and products as a result of their job responsibilities.

Procure and implement medical devices and technologies (e.g., smart infusion pumps) to standardize and improve medication processes. Develop policies to ensure the consistent use and maintenance of devices and technologies.



Assess medication preparation and procedural areas to identify and correct any environmental hazards (e.g., poor lighting, lack of adequate counter surface, limited storage, potential for interruptions, poor temperature control, etc.).



Develop a robust training program for staff members that covers the ASC's medication safety policies and procedures, strategies for preventing medication errors, safe techniques for medication preparation and administration, considerations for hazardous materials and high-alert medications, information about new medications added to the formulary, etc. Assess staff members' competency with medication safety policies and procedures at least annually.



Provide patients and their families/caregivers with preoperative and postoperative education about medication safety. Use language and materials that take into account patients' health literacy and comprehension levels. Document the provision of all patient education in the patient's EHR.



Assess workflows and identify strategies to improve quality and address vulnerabilities in the medication process, such as using independent double-checks for high-alert medications.

Resource

For more detailed guidance, see the Institute for Safe Medication Practices' *Guidelines for Safe Medication Use in Perioperative and Procedural Settings.*

Endnotes

¹ CRICO Strategies. (2016). *Medication-related malpractice risks: CRICO 2016 CBS Benchmarking Report*. Retrieved from www.candello.com/Insights/Candello-Reports/Medication-Related-Report

² Morse, S. (2022, August 17). Ambulatory surgery centers compete with hospitals for outpatient dollars. *Healthcare Finance*. Retrieved from www.healthcarefinancenews.com/news/ambulatory-surgery-centers-compete-hospitals-outpatient-dollars

³ The risk tips in this publication are adapted from the following resources: Institute for Safe Medication Practices. (2022). *ISMP guidelines for safe medication use in perioperative and procedural settings.* Retrieved from www.ismp.org/resources/guidelines-safe-medication-use-perioperative-and-procedural-settings; Ubaldi, K. (2019). Safe medication management at ambulatory surgery centers. *AORN Journal, 109*(4), 435–442. https://doi.org/10.1002/aorn.12635

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