Drug Shortages, Part 3

ISMP Drug Shortages Survey: Proactive Guidelines to Safely Manage Scarce Supplies

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In a recent issue of P&T, the Institute for Safe Medication Practices (ISMP) described the wide scope of the shortage of fentanyl and the other challenges that health care organizations faced. The ISMP conducted a recent national survey regarding ongoing drug shortages and their threat to patient safety. Surprisingly, only 5% of the 344 respondents had established a formal process for managing drug shortages, but many offered advice for tackling the issue head on. The recommendations below include some of the survey findings and respondents’ suggestions that can be used to develop proactive guidelines to manage drug shortages. An ongoing task force, which networks with area hospitals and meets with clinicians from high-use areas where drugs are in short supply, might be helpful in carrying out these recommendations:

- **Find out about drug shortages.**
  Assign a staff member to regularly search the literature/web sites (ASHP, FDA, etc.) for information.

- **Perform a literature search and conduct a drug use evaluation (DUE).**
  Identify clinically appropriate uses of the drug, the lowest optimal dose for current indications, strategies to decrease drug waste, alternative products, and priority uses for extreme shortages. Perform a DUE to determine how the drug is actually being used in your facility.

- **Alert departments to the shortage, possible substitutes, and potential adverse events.**
  In our survey, 92% of respondents had alerted affected departments to the fentanyl shortage (and reason/duration if known). Although over half had selected a substitute, only 27% had issued an alert listing the substitute(s), dosing information, side effects, and the phone/pager number of key pharmacy staff. Those who issued alerts used media such as email, the pharmacy newsletter, biweekly memos, posters/charts in units, or alerts in information systems that appeared automatically upon initial login. No one alerted staff to potential adverse events with substitute(s)!

- **Attempt to obtain needed supplies.**
  Call the manufacturer for information, a release date, and directions for ordering drugs on allocation or for emergency supplies. Determine if current inventory will be sufficient. If not, try to obtain an alternative from another supplier/wholesaler or order allocated or emergency supplies directly from the manufacturer. In some cases, purchasing groups can take a more active role in finding products that are in short supply, to relieve pharmacy staff of such a time-consuming job. Establish a system to check stock and reorder at the appropriate intervals.

- **Place limitations on use.**
  Based on the extent of the shortage, availability of alternatives, and results of a DUE, develop plans to restrict use and reduce waste. For example, 33% of respondents restricted fentanyl use to specific units (operating room (OR), open-heart surgery, labor and delivery, pediatrics), for certain types of pain control (epidurals, PCA), or for specific patients (neonates, those unable to tolerate morphine).

- **Remove supplies from floor stock when feasible and have pharmacy dispense the drug.**
  Several respondents removed fentanyl from automated dispensing cabinets so that the pharmacy could better control restrictions and waste.

- **Select an alternative product.**
  Obtain suggestions from the literature, Web sites, physicians who use the product, and other local hospitals (to promote
consistency for prescribers who practice at multiple sites). Select alternatives early so an education plan can be developed in case implementation is needed. Over half of respondents had selected alternatives for fentanyl, most commonly sufentanil or alfentanil for anesthesia, and morphine or hydromorphone for analgesia. Most often, respondents based selections on staff preference/familiarity, presence on the formulary, and similar pharmacology/side effects. A few respondents also based selections upon availability, cost, and similar onset of action/duration.

**Institute strategies to avoid errors with substitutes.**
To avoid errors with fentanyl substitutes, only 24% of respondents had taken precautions, most often citing staff education, use of auxiliary labels, automatic computer alerts, and anesthesi consultation if used outside the OR. A few respondents said they were repackaging larger quantities of fentanyl, which are currently available, into the smaller 2 mL vials or syringes to avoid dosing confusion (and minimize waste).

**Proactively monitor adverse events.**
Only 29% of respondents said they were monitoring adverse events with the use of fentanyl substitutes. Of those, most relied upon typical error-reporting systems. Only 25% used additional methods, such as actively pursuing information about errors, setting up hot lines, doing chart reviews, conducting focus group meetings, or having discussions during pharmacy rounds.

**Monitor and report drug shortages.**
Report shortages to the FDA (www.fda.gov/cder/drug/shortages) and ASHP’s Drug Product Shortages Management Resource Center (www.ashp.org/shortage/).

**REFERENCE**