Pain Scales Don’t Weigh Every Risk

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PROBLEM: Managing pain has never been more complicated. For instance, a wide variety of analgesics are available for this purpose: dosage forms range from lollipops to patches; delivery vehicles include implantable devices and patient-controlled analgesia (PCA); and varying routes of administration abound.

But in our noble efforts to alleviate pain, has safety been compromised? Although the literature suggests that patients are undertreated for pain, error reports over the past few years reveal a glimpse of perhaps overly aggressive attempts to ensure that patients experience no discomfort.

The Institute for Safe Medication Practices (ISMP) received a report about a 24-year-old woman who died of fentanyl toxicity less than 24 hours after giving birth by cesarean section. She had received several doses of intravenous (IV) fentanyl before and after the birth. That evening, she fed and cared for her daughter. In the early morning, she again complained of pain, and the dose of IV fentanyl was increased. She asked for a blanket 30 minutes later, but she was discovered to be in cardiac arrest within half an hour.

Although this scenario is an example of what can go wrong with pain management, clinicians at several hospitals have conveyed their concerns about an alarming increase in the oversedation of patients who are receiving pain medications. Problems with pain management can be linked to insufficient patient monitoring. Too often, pain scores are elicited from patients, but these scores are not closely associated with each dose of analgesic. Respiratory rates are counted, but their depth and quality are not always considered. Treatment and monitoring might not be altered for patients with a history of sleep apnea. The cumulative effects of narcotics given at the end of a surgical procedure, and then again in a post-anesthetic care unit (PACU), are not always considered, especially after the patient has been transferred to a nursing unit.

An equally serious difficulty is that many clinicians prescribe a virtual cornucopia of pain-management options consisting of multiple routes and dosages linked only to the patient’s assessment of pain. For example, acetaminophen 650 mg by mouth every four hours might be prescribed for a patient with a score of 1 to 3 on the pain scale; codeine 30 mg by mouth might be ordered every four hours with a score of 4 to 6; IV morphine 2 mg might be given every three hours with a score of 7 to 8; and IV morphine 4 mg every four hours might be prescribed with a score of 9 to 10.

Therefore, if patients with a low threshold for pain report discomfort on the high end of the scale, the nurse might administer morphine at the higher dose without carefully considering the patient’s clinical status and cumulative effects of drug therapy. Similarly, if patients with a high threshold for pain rate their discomfort on the low end of the pain scale, the nurse might simply administer acetaminophen.

Although clinicians should not substitute their judgment for a patient’s self-report of pain, perhaps we have left too little room to integrate patients’ assessment of their pain with the clinician’s objective evaluation of the patient’s response to the medication and, most important, safety considerations.

SAFE PRACTICE RECOMMENDATIONS: The following strategies may be helpful in improving pain management:

• Organizations need to know how well they are managing pain. In addition to evaluating patient satisfaction, the institution’s personnel should look for episodes of oversedation by monitoring adverse drug reaction (ADR) reports, investigating all uses of narcotic-reversal agents, and reviewing patient records to determine the effectiveness of pain-management therapy.
• Hospitals can hold focus groups with clinicians, especially nurses, to discuss the many challenges of managing pain and the careful monitoring of patients.
• Organizations should determine the variables to be considered in selecting the most effective and safest pain-management therapy according to patients’ pain assessment scores as well as their cultural and ethnic beliefs, clinical observations, and patient-monitoring parameters.
• The variety of analgesics prescribed to patients should be reduced, and the medications and methods of delivery that are commonly used should be evaluated. For example, IV morphine 4 mg is often prescribed, but fluctuating peak-and-trough levels make pain management difficult. IV hydromorphone (Dilaudid, Abbott) 1 to 4 mg is also commonly ordered, but it is equivalent to 8 to 32 mg of morphine. PCA is often prescribed without thought for one-hour or four-hour limits. Promethazine (Phenergan, Wyeth) or hydroxyzine (Atarax, Pfizer) may be added to the regimen; these drugs increase sedation but not analgesic efficacy. Nonsteroidal anti-inflammatory drugs (NSAIDs) and nonpharmacological approaches are often underused.
• Orders with dosage ranges should be eliminated, and specific dosages should be linked to patients’ overall responses to therapy and clinical status, not just to their self-assessment of pain.
• Pharmacists should play a more active role in caring for patients with pain. An ISMP survey showed that doing so was associated with the lowest incidence of pharmacy interventions. Yet pain management is ready for expanded clinical pharmacy services because of the dire consequences of errors when continued on page 231
powerful narcotics are used. Even if a physician-driven, pain-management service is available, it might be best to consider having both a pharmacist and a nurse join the team to broaden the coverage to more routine types of pain management and to enhance patient assessment and monitoring.

REFERENCES

The reports described in this column were received through the USP–ISMP Medication Errors Reporting Program (MERP). Errors, close calls, or hazardous conditions may be reported on the ISMP (www.ismp.org) or the USP (www.usp.org) Web site or communicated directly to ISMP by calling 1-800-FAIL SAFE or via e-mail at ismpinfo@ismp.org.