

anesthetic

Catheter for urinary retention inserted during surgery to decrease trauma to child; if inserted when child is awake, anesthetize urethra with lidocaine

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\*For further information about compounding drugs in troche or suppository form, contact Professional Compounding Centers of America (PCCA), 9901 S. Wilcrest Drive, Houston, TX 77009; 800-331-2498; [www.pccarx.com](http://www.pccarx.com).

Data from Pasero C, McCaffrey M: *Pain assessment and pharmacologic management*, St Louis, 2011, Elsevier.

Severe pain that is uncontrolled by large variations in plasma concentrations of opioids is best controlled through continuous IV infusion rather than intermittent boluses. If intermittent boluses are given, make certain the intervals between doses do not exceed the drug's expected duration of effectiveness. For extended pain control with fewer administration times, drugs that provide longer duration of action (e.g., some NSAIDs, time-released morphine or oxycodone, methadone) can be used.

## Patient-Controlled Analgesia

A significant advance in the administration of IV, epidural, or subcutaneous analgesics is the use of patient-controlled analgesia (PCA). As the name implies, the patient controls the amount and frequency of the analgesic, which is typically delivered through a special infusion device. Children who are physically able to “push a button” (i.e., 5 to 6 years old) and who can understand the concept of pushing a button to obtain pain relief can use PCA. Although it is controversial, parents and nurses have used the IV PCA system for the child. Nurses can efficiently use the infusion device on a child of any age to administer analgesics to avoid signing for and preparing opioid injections every time one is needed (Fig. 5-7). When PCA is used as “nurse- or parent-controlled” analgesia, the concept of patient control is negated, and the inherent safety of PCA needs to be monitored. Research has reported safe and effective analgesia in children when the patient, parent, or nurse controlled the PCA