1.11: Preparing for Administration

Monitoring the Effects

As medications are administered, the nurse should perform careful patient assessments, trend the assessment results, and monitor for side effects or toxic adverse effects. Drug dosages should be evaluated for potency in action. **Potency** refers to the amount of the drug required to produce the desired effect. A drug that is highly potent may require only a minimal dose to produce a desired therapeutic effect, whereas a drug that has low potency may need to be given at much higher concentrations to produce the same effect. Consider the example of opioid versus non-opioid medications for pain control. Opioid medications often have a much higher potency in smaller doses to produce pain relief; therefore, the overall dose required to produce a therapeutic effect may be much less than for other analgesics.

The nurse preparing to administer medications must also be cognizant of drug selectivity and monitor for potential side effects and adverse effects. The **selectivity** of a drug refers to how readily the drug targets specific cells to produce an intended therapeutic effect. Drugs that are selective will search out target sites to create a drug action, whereas non-selective drugs may impact many different types of cells and tissues, thus potentially causing side effects. A **side effect** occurs when the drug produces effects other than the intended effect. A side effect, although often undesirable, is generally anticipated by the provider and is a known unintended consequence of the medication therapy. Conversely, there are occasional occurrences of unanticipated effects that are dangerous to the patient. These dangerous occurrences are known as **adverse effects**. Adverse effects are relatively unpredictable, severe, and are reason to discontinue the medication. [1]

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