18.1: Administration of Parenteral Medications Introduction

**Learning Objectives**

- Safely administer medication via the intradermal, subcutaneous, and intramuscular routes
- Maintain aseptic technique
- Select appropriate equipment
- Calculate correct amount of medication to administer
- Correctly select site using anatomical landmarks
- Modify procedure to reflect variations across the life span
- Document actions and observations
- Recognize and report significant deviations from norms

Administering medication by the parenteral route is defined as medications placed into the tissues and the circulatory system by injection. There are several reasons why medications may be prescribed via the parenteral route. Medications administered parenterally are absorbed more quickly compared to oral ingestion, meaning they have a faster onset of action. Because they do not undergo digestive processes in the gastrointestinal tract, they are metabolized differently, resulting in a stronger effect than oral medications. The parenteral route may also be prescribed when patients are nauseated or unable to swallow.

Although an injectable medication has many benefits, there are additional safety precautions the nurse must take during administration because an injection is considered an invasive procedure. Injections cause a break in the protective barrier of the skin, and some are administered directly into the bloodstream so there is increased risk of infection and rapid development of life-threatening adverse reactions.
There are four potential routes of parenteral injections, including intradermal (IM), subcutaneous (SQ), intramuscular (IM), and intravenous (IV). An intradermal injection is administered in the dermis just below the epidermis. A subcutaneous injection is administered into adipose tissue under the dermis. An intramuscular injection is administered into a muscle. Intravenous medications are injected directly into the bloodstream. Administering medication via the intravenous (IV) route is discussed in the “IV Therapy Management” chapter. This chapter will describe several evidence-based guidelines for safe administration of parenteral medications.