

Standard Operating Procedure (SOP)

Aseptic Technique and Intravenous Set-Up Instructions

This SOP provides detailed **aseptic technique and intravenous set-up instructions** to ensure the prevention of contamination and infection during intravenous therapy. It covers hand hygiene, preparation of sterile equipment, proper insertion of intravenous lines, maintenance of a sterile field, and monitoring for potential complications. The aim is to maintain asepsis throughout the procedure, promote patient safety, and optimize intravenous medication administration and fluid therapy.

1. Purpose

To ensure safe and sterile intravenous (IV) therapy by adhering to aseptic techniques during IV set-up and administration procedures.

2. Scope

This SOP applies to all healthcare staff involved in the preparation and administration of intravenous therapy.

3. Responsibilities

- All staff must comply with this SOP to maintain sterility and patient safety.
- Supervisors are responsible for monitoring compliance and providing relevant training.

4. Definitions

Term	Definition
Aseptic Technique	Set of practices used to prevent contamination from pathogens and maintain a sterile environment during invasive procedures.
IV Set-Up	Process of assembling and preparing equipment for intravenous therapy and ensuring its sterility.

5. Procedure

- Hand Hygiene**
 - Wash hands thoroughly with antimicrobial soap and water or use an alcohol-based hand rub before and after the procedure.
 - Wear appropriate personal protective equipment (PPE) such as gloves and, if required, a mask and sterile gown.
- Preparation of Equipment**
 - Gather all necessary sterile equipment: IV catheter, fluid bag, administration set, dressing, antiseptic solution, tape, and sharps container.
 - Check all equipment for integrity and expiry dates.
 - Place equipment on a sterile field/tray.
- Preparation of Patient**
 - Verify patient identity using two identifiers.
 - Explain the procedure to the patient and obtain informed consent.
 - Position the patient comfortably and expose the selected insertion site.
- Skin Antisepsis**

- Clean the insertion site with an appropriate antiseptic (e.g., 2% chlorhexidine in 70% isopropyl alcohol) using a back-and-forth friction for at least 30 seconds.
- Allow the site to air dry completely.

5. Intravenous Insertion

- Open the catheter packaging aseptically.
- Apply a tourniquet proximal to the intended puncture site.
- Insert the IV catheter using sterile technique, observing for blood return.
- Secure the catheter and connect the IV administration set.

6. Maintaining Sterility

- Avoid touching any sterile part of equipment or site after antisepsis.
- Promptly cover the insertion site with a sterile, transparent dressing.
- Dispose of all sharps and used materials in appropriate containers.

7. Labeling and Monitoring

- Label the IV site with date, time, and staff initials.
- Monitor the site for signs of infection, infiltration, or other complications regularly as per protocol.

8. Documentation

- Document the procedure, including site, gauge used, number of attempts, and any complications in the patient's record.

6. Monitoring and Quality Assurance

- Routine audits of compliance with aseptic technique during IV procedures.
- Incident reporting of contamination, infection, or complications.
- Ongoing staff education and skill competency assessments.

7. References

- World Health Organization (WHO) Guidelines on Hand Hygiene in Health Care
- CDC Guidelines for the Prevention of Intravascular Catheter-Related Infections
- Institutional Policies and Procedures

Reviewed and approved by: [Name/Title]

Date of issue: [Date]