

XDS
Extravasation Detection System
Clinical Competency

The following steps must be performed with proficiency to demonstrate ability to use the XDS – Extravasation Detection System.

Preceptor: Please place a check mark in the blank if the skill has been properly performed.

I. Provide an explanation of the system components:

- _____ Control Room Module (CRM)
- _____ Scan Room Module (SRM)
- _____ Patient Sensor
- _____ Sensor Interface Disposable (SID)
- _____ Handi Strips Pack

II. Site Preparation

- _____ Site of the SID and catheter must be thoroughly cleaned with isopropyl alcohol or approved hospital agent.
- _____ Excessive body hair at the injection site should be shaved.

III. Application of device

- _____ Open the Patient Interface Device (PID).
- _____ Peel the Adhesive Liner Panel from the back of the Handi Strips pack and adhere it to a surface within easy reach of the work area.
- _____ Prepare the IV puncture site at the antecubital vein using Infection Control guidelines.
- _____ Insert catheter-over-needle between 1 inch and 1.25 inch in length (non-butterfly).
- _____ Connect the LPCT tubing to the catheter hub.
- _____ Secure the hub of the catheter using the HUB Handi Strip
- _____ Secure the LPCT in place on the patient's arm using the LPCT Handi Strips.
- _____ Be certain to place the LPCT Handi Strip far enough away from the connector that it will not be underneath the SID.
- _____ Remove and discard the paper release layer from the back of the SID.
- _____ Properly align the SID before affixing to the patient ensuring there is not tape between the SID and the patient's arm.
- _____ The arrows on the SID point toward the heart.
- _____ Align the junction of the catheter and hub with the appropriate catheter alignment mark on the SID.
- _____ Align the SID so that it follows the vein; ensure that the tip of the catheter is in the center of the palpation window.
- _____ Firmly adhere the SID to the patient's arm, ensuring that the SID is firmly and smoothly (no wrinkles or bubbles) secured to the patient's arm.

- _____ Hold down the small white tab on the top of the SID and peel the clear release layer from the SID.
- _____ Align the Patient Sensor to the SID using the Sensor Alignment marks (four orange squares) and firmly press into place.
- _____ Verify that the Patient Sensor has passed its system diagnostic tests (light is solid green), and then remove the Patient Sensor from the SRM Sensor Test Station
- _____ Carefully position the Patient Sensor over the alignment markings on the SID and press the Patient Sensor firmly into place. .
- _____ If Patient Sensor is misaligned, remove the Patient Sensor from the patient using a new SID. DO NOT reuse the SID.
- _____ Secure the Patient Sensor Cable using the Handi Strips.

IV. Activate The XDS System

- _____ Place the patient's arm in the final position for the injection and recheck that the sensor is secure **before** activating the system.
- _____ Instruct patient to keep arm as still as possible while the XDS System is active.
- _____ Press the **ACTIVATE/HOLD BUTTON** on Scan Room or Control Room Module.
- _____ Program the injector.
- _____ Press "ARM".
- _____ Proceed with the injection.

V. If An Alarm Sounds

- _____ If an extravasation is detected, the XDS System will sound an alarm and the injector and XDS System will automatically go into HOLD mode. Press the **Activate/Hold** button to silence the alarm.
- _____ With the injector and the XDS System both in HOLD mode, investigate the catheter site.
- _____ If an extravasation condition is detected, follow departments extravasation policy
- _____ If no extravasation condition can be verified, press the **ACTIVATE/HOLD** button on the XDS System again to resume monitoring then press the **Stellant START** button to resume the injection.
- _____ The injection can be resumed without re-activating the XDS System.

VI. After The Procedure

- _____ Press the **PATIENT COMPLETE** button on either the Scan Room or Control Room Module.
- _____ Remove the Sensor Cable Handi Strips from the Patient Sensor Cable.
- _____ Use the Tyvek Tab to peel the Sensor Interface Disposable from the patient's skin with the Patient Sensor still attached.
- _____ Remove the LPCT and remaining Handi Strips.

_____ Place gauze pad or cotton ball over the venous puncture site and secure with the Bandage Handi Strip.

_____ Starting at the opposite end of the Patient Sensor cable (to help avoid excessive stress on the cable), peel the Sensor Interface Disposable from the Patient Sensor. Discard the Sensor Interface Disposable after removal.

_____ Clean the sensor after each use using an alcohol wipe.

_____ Place the Patient Sensor in the Sensor Test Station and close the door

Name _____ Preceptor's Name _____

Date _____