

Module 5, Session 4: Injection Safety



Preparation Checklist

Materials Required for this Session:

- ☐ Facility Trainer Binder - Module 5, Session 4
- ☐ Facility-specific material: Policies and procedures (P&Ps) relevant to the session, including any sharps safety or medication preparation and administration related training and audits, and audits results.
- ☐ Copy of Facility's most recent completed *Infection Control Assessment and Response (ICAR) tool: Domain XI*
- ☐ *Facility Trainer Attendance Log* (provided in Session Appendix)
- ☐ *Facility Trainer Assessment Tracker* (provided in Session Appendix)
- ☐ **Participant Notebooks** with Module 5 Session 4 handouts (provided in Session Appendix):
 - *Injection Safety Pre-Session Assessment*
 - *Injection Safety Post-Session Assessment*
 - *Module 5, Session 4: Participant Resources*
 - *Session Follow-Up Task List*
- ☐ Medication demonstration supplies – medication vial (normal saline is okay for simulation), antiseptic, syringe, needle, hub for injection/medication administration.
- ☐ Flip chart/white board and markers
- ☐ Blank name tags/tents and markers
- ☐ Extra pens

Resources used for this session:

- Centers for Disease Control and Prevention (CDC) Injection Safety
 - <http://www.cdc.gov/injectionsafety/>
 - CDC Dialysis Safety: Audit Tools and Checklists <http://www.cdc.gov/dialysis/prevention-tools/audit-tools.html>
 - *Injection Safety: Medication Preparation & Administration Audit Tool*
 - *Hemodialysis Injection Safety: Medication Preparation & Administration Checklists*
- CDC: Injection Safety: The One & Only Campaign
 - <http://www.cdc.gov/injectionsafety/1anOnly.html>
 - *Sharps Safety for Healthcare Professionals Brochure*
- *CDC Frequently Asked Questions (FAQs) Regarding Safe Practices for Medical Injections*
 - <http://www.cdc.gov/injectionsafety/PDF/FAQs-Safe-Practices-for-Medical-Injections.pdf>
- *CDC Injection Safety Guidelines*
 - http://www.cdc.gov/injectionsafety/PDF/SIPC_PocketCard.pdf

Preparing for the Session:

Before the Facility Trainer begins this session, the following tasks should be completed:

- Notify participants about the session, at least two weeks prior, include the location, date, and time of the session.
- Assemble Module 5, Session 4 handouts for participants to add to their **Participant Notebook**.
- Assemble P&Ps needed for review.
- Make copies of recent ICAR Domain XI, and highlight areas with gaps in policy, to be added to the **Participant Notebook**.
- Gather demonstration equipment including: medication vial (normal saline is okay for simulation), antiseptic, syringe, needle, hub for injection/medication administration.
- Set up the classroom with handouts and blank name tags at each participant's place.
- Have the Facility Trainer's Binder ready before beginning the session.

Tasks to be done as participants arrive:

- Ask participants to sign in using the *Facility Trainer Attendance Log*.
- Give each participant Module 5, Session 4 handouts to be inserted into their **Participant Notebook**.
- Prompt participants to complete the *Pre-Session Assessment*.

Tasks to be done after completion of the session:

- Write notes about the session on the "Notes and Homework" page. Include: which policies need to be developed or updated and any action plans that were developed and require follow-up.
- Complete the *Facility Trainer Assessment Tracker* with Pre- and Post-Session Assessment scores.
- Address areas of concerns, successes, questions, need for follow-up, staff members to check in with, etc.

Facility Trainer Brief

Learning Objectives

At the close of Module 5, Session 4 the participants will be able to:

- Understand the facility's P&Ps related to sharps safety.
- Discuss the role of sharps in infection control and disease transmission.
- Understand the facility-specific audit results and implications.
- Demonstrate proper medication preparation and administration technique.

Module 5, Session 4: Overview

Session four focuses on sharps safety. The Facility Trainer leads a discussion on the importance in properly handling of sharps and how improperly using sharps can affect infection control and cause disease transmission. Sharps safety includes, but is not limited to, medication preparation, medication administration, and disposal of sharps. The Facility Trainer will lead a discussion and educate staff on best practices, including CDC recommendations. This session will include a simulation of appropriate medication preparation and administration, and participants will validate proficiency through return demonstration.

The participants review facility level P&Ps, medication preparation and administration audits, and the facility ICAR Domain XI. The participants will familiarize themselves with the auditing process, the results of recent audits, and they will implement a plan to ensure timely auditing and improved performance based on audit results.

Module 5, Session 4 is divided into these five parts:

Part 1: Introduction and Overview (5 minutes)

Participants will take the *Pre-Session Assessment* to evaluate their current knowledge. During this section, the Facility Trainer will introduce and identify the objectives of the session.

Part 2: Keeping staff and patients safe (5 minutes)

The Facility Trainer will lead the participants through a discussion on the importance of properly handling sharps in infection control and disease transmission.

Part 3: Demonstration and Simulation (30 minutes)

The Facility Trainer will review CDC recommendations and demonstrate both proper medication preparation and administration. The participants will engage in simulations of both skills. The Facility Trainer will verify staff competency through return demonstration.

Part 4: Audits and Facility Policy (10 minutes)

The Facility Trainer and participants will review the facility's most recent ICAR Domain XI and audits. The Facility Trainer will summarize the CDC recommendations for routine auditing. The participants will then engage in an open discussion to identify gaps that exist between facility practices and CDC recommendation for audits. Together, participants and the Facility Trainer will work on an action plan to mitigate any gaps.

Part 5: Wrap-Up and To-Do List (5 minutes)

The Facility Trainer will summarize the session, reinforce the key messages, emphasize any action plans that were developed, and open the floor for questions and discussion. Participants will complete a *Post-Session Assessment*.

Key messages




These are the key messages for this session. They should be reinforced throughout this program.

- Safe injection practices are important for staff and patient safety.
- Dangerous injection practices can cause disease transmission and increase rates of infection.
- Evaluating and training staff is essential to ensure that they understand and implement proper injection safety in practice at the facility.
- Regular audits and observations can help facilities identify gaps in practice and guide the Facility Trainer in determining facility needs for training.

Classroom Presentation

Part 1: Introduction

Estimated Time: 5 Minutes

Welcome!	Notes
<p>As participants arrive, ask them to complete a <i>Pre-Session Assessment</i> and to sign into the <i>Facility Trainer Attendance Log</i>.</p> <p>Welcome participants to the training session.</p> <p> Present: Welcome to Module 5, Session 4: <i>Injection Safety</i>, a part of the infection control program. In hemodialysis, we handle sharps and medications every day. Practicing safe handling of sharps and medications plays a vital role in infection control and in keeping patients and staff safe. Together we will review the basic principles of safe practice, understand how to utilize CDC resources, and review the auditing process. During this session, we will engage in a simulation of medication preparation and administration.</p> <p> Ask participants to introduce themselves by stating their name, position in the facility, and goals for attending. Encourage participation of all attendees.</p>	
Objectives	Notes
<p> Present: Before we begin, I will highlight the key messages we will address throughout the session. These are for you to keep in mind as you implement what you have learned into your practice:</p> <ul style="list-style-type: none">• Safe injection practices are important for staff and patient safety.• Dangerous injection practices can cause disease transmission and increase rates of infection.• Evaluating and training staff is essential to ensure that staff understand and implement proper injection safety in practice.• Regular audits and observations can help facilities identify gaps in practice and guide them in determining future training needs.	



Ask: Before we move on, does anyone have any questions regarding the goals of this session?



Open Responses

Part 2: Keeping Staff and Patients Safe

Estimated Time: 5 Minutes

Risks of sharps exposure

Notes



Refer participants to *CDC: Injection Safety: The One & Only Campaign* - <http://www.cdc.gov/injectionsafety/1anOnly.html>

- Sharps Safety for Healthcare Professionals Brochure



Present: Injection safety includes, but is not limited to, proper medication preparation, injection administration, use of safety devices, and disposal of sharps to reduce the risk of contamination and disease transmission for patients and staff. This brochure addresses workplace safety and the implications of sharp safety for healthcare providers. Take note of the staggering statistics – when an injury occurs with a contaminated sharp, the injured person has:

- 1 in 5 chance of getting Hepatitis B (if not vaccinated).
- 1 in 50 chance of getting Hepatitis C.
- 1 in 300 chance of getting HIV.

Sharp injuries can occur in many different instances, such as:

- During patient care (insertion or withdrawal of needle, needs into IV lines, passing of sharps).
- After use of sharps (recapping and transferring of sharps or processing of specimen).
- During disposal (improper containers or use of containers), during clean-up from a procedure, or sharps not disposed of and found in linens, on floor, in regular waste containers.

Important to injection safety is the one and only campaign. This ensures safe injection practices by stressing the importance of “one needle, one syringe, only one time”

Preventing Disease Transmission	Notes		
<div data-bbox="190 289 254 363" data-label="Image"></div> <p>Refer Participants CDC Injection Safety Guidelines http://www.cdc.gov/injectionsafety/PDF/SIPC_PocketCard.pdf</p> <p>CDC FAQs Regarding Safe Practices for Medical Injections http://www.cdc.gov/injectionsafety/PDF/FAQs-Safe-Practices-for-Medical-Injections.pdf</p> <div data-bbox="190 581 254 644" data-label="Image"></div> <p>Present: There are a number of safe measures that should be part of regular practice. CDC Recommendations, which are critical to patient safety, include:</p> <ul style="list-style-type: none"> • Always use aseptic technique during the preparation and administration of injections. • Never administer medications from the same syringe to more than one patient – even if the needle is changed or the injection is through the intervening length of IV tubing. • Never enter a medication vial/bag/bottle with a used needle or syringe. • Never use single-dose or single use medications for more than one patient. <div data-bbox="190 1085 254 1148" data-label="Image"></div> <p>Ask: Are these recommendations followed by our facility?</p> <div data-bbox="190 1190 254 1253" data-label="Image"></div> <p>Open Responses</p> <table border="1"> <tr> <td data-bbox="203 1320 316 1438"></td><td data-bbox="332 1308 1024 1459"> <p>Notes to the Facility Trainer</p> <p>If these recommendations are not routinely followed, develop an action plan to ensure they are implemented consistently. If necessary, develop new P&Ps.</p> </td></tr> </table>		<p>Notes to the Facility Trainer</p> <p>If these recommendations are not routinely followed, develop an action plan to ensure they are implemented consistently. If necessary, develop new P&Ps.</p>	
	<p>Notes to the Facility Trainer</p> <p>If these recommendations are not routinely followed, develop an action plan to ensure they are implemented consistently. If necessary, develop new P&Ps.</p>		

Medication Preparation	Notes
<div data-bbox="203 489 316 604" data-label="Image"> </div> <div data-bbox="505 331 849 363" data-label="Section-Header"> <p>Notes to the Facility Trainer</p> </div> <div data-bbox="341 373 1008 541" data-label="Text"> <p>The time variation is due to simulation. The Facility Trainer performs a demonstration of skills and each participant must perform a return demonstration/simulation of the skills in order to verify competency.</p> </div> <div data-bbox="341 552 1008 762" data-label="Text"> <p>If the Facility Trainer chooses, the return demonstration can be held until after completion of the presentation, when the Facility Trainer can dismiss staff. Participants can be taken aside one by one to demonstrate competency of the skill. However, this must be completed immediately after the session.</p> </div>	
<div data-bbox="191 825 256 888" data-label="Image"> </div> <div data-bbox="181 867 1036 930" data-label="Text"> <p>Refer participants CDC Dialysis Safety: Infection Prevention Tools http://www.cdc.gov/dialysis/prevention-tools/index.html</p> </div> <div data-bbox="256 940 976 1003" data-label="List-Group"> <ul style="list-style-type: none"> • Hemodialysis Injection Safety: Medication Preparation & Administration Checklists </div> <div data-bbox="191 1045 256 1108" data-label="Image"> </div> <div data-bbox="181 1087 1040 1318" data-label="Text"> <p>Present: There are many steps to proper medication preparation, some of which vary depending on the source of medication. However, the CDC checklist provides an overview to keep in mind while preparing medications. Medications should be prepared as close to the time of administration as possible. The steps to proper medication preparation include:</p> </div> <div data-bbox="256 1329 1040 1890" data-label="List-Group"> <ol style="list-style-type: none"> 1. Medication preparation is clean – it should be clear of contamination and separated from the patient treatment area (a separate medication preparation room is ideal), 2. Inspect medication vial and discard if sterility is not confirmed - always make sure the vial is contamination free, prior to the expiration date, and properly labeled, 3. Perform Hand Hygiene, 4. Prepare medication aseptically, 5. Disinfect rubber septum of vial with alcohol, 6. Withdraw medication using a new needle and syringe, every time, 7. Label medication appropriately, and 8. Discard single-dose vials and store multi-dose vials appropriately – multi-dose vials should be stored in designated clean areas per manufacturer's guidelines for specific medication. </div>	

****Demonstrate the proper medication technique with simulation (sample vial with normal saline or sterile water is appropriate), and walk staff members through the process step-by-step.**



Ask participants to return-demonstrate the proper medication preparation technique. *Have participants take turns coming up to the simulation station. Observe their technique, make recommendations, and give reminders of the previously mentioned recommendations.*



Notes to the Facility Trainer

Assist participants when needed and reinforce proper technique. Make note of any participants who will need follow-up and reinforcement.

Medication Administration



Refer participants CDC Dialysis Safety: Infection Prevention Tools <http://www.cdc.gov/dialysis/prevention-tools/index.html>

- Hemodialysis Injection Safety: Medication Preparation & Administration Checklists



Present: There are many steps in ensuring proper medication administration. As a reminder, medications should be prepared as close to the time of administration as possible, carried from the preparation area to the patient while avoiding contamination, and the six rights of medications administration should be reviewed – right patient, right medication, right dose, right route, right time, right documentation. The steps to proper medication administration include:

1. Perform proper hand hygiene,
2. Put on new, clean gloves,
3. Scrub injection port with antiseptic – chlorhexidine, povidine-iodine, tincture of iodine, solutions 70% alcohol are acceptable and antiseptics,
4. Attach syringe and administer medication aseptically,
5. Discard syringe in appropriate sharps container,
6. Remove gloves, and
7. Perform hand hygiene.

****Demonstrate the proper medication administration technique with simulation (sample vials with normal saline or sterile water is appropriate, syringes and injection port) and walk staff members through the process step-by-step**



Ask participants to return-demonstrate the proper medication administration technique. *Have participants take turns coming up to the simulation station. Observe their technique, make recommendations, and give reminders of the previously mentioned recommendations.*



Notes to the Facility Trainer

Assist participants when needed and reinforce proper technique. Make note of any participants who will require follow-up and reinforcement.

Part 4: Audits and Facility Practice

Estimated Time: 5 Minutes

At Our Facility

Notes



Refer participants to the facilities P&Ps related to auditing, training of staff, facility ICAR Domain XI, and any recent audits.

CDC Dialysis Safety: Infection Prevention Tools

<http://www.cdc.gov/dialysis/prevention-tools/index.html>

- *Injection Safety: Medication Preparation & Administration Audit Tool*



Present: In order to improve our infection control, we need to review the practices already in place so we can identify inconsistencies in our audits and the CDC recommendations. Currently, the CDC has not established a recommendation for the frequency that audits should occur. The CDC states that both medication preparation and medication injection audits and observations should be performed regularly.



Notes to the Facility Trainer

Open the floor for a live Q&A with open responses to evaluate what is occurring at the facility and/or what needs to occur. Lead an open discussion using the questions below. The following section highlights the questions to be discussed and the text in *italics* serves as suggestions to be addressed in order to eliminate inconsistencies.



Write on a white board/flip chart/poster throughout the discussion and record main points, audit results, any gaps identified and

any “To-Do’s” identified. Have patients write on their *Session Follow-Up Task List* and note what they need to complete after the session to assist in improving sharps safety training.



Ask: Are we performing regular sharps safety audits? Are we using the CDC tool? Do we have a record of the data collected? Who performs these audits? Who is reviewing the results?

If gaps are identified, develop a plan to implement monthly audits, utilize the CDC tools, and create a system to track obtained data.



Open Responses



Ask: How is our performance on these audits? What did we do well? Where is there room for improvement? What are some barriers preventing optimal scores on the audits?

Discuss where the staff excelled and where gaps were found. Provide data from the audits to help participants to notice trends, improvements, or set-backs.



Open Responses



Ask: Are sharps containers conveniently located both for preparation and after administration? Do we regularly change sharps containers when they are 2/3 full?

Discuss if there are sufficient number of sharp disposal containers in the facility. Discuss P&P related to changing containers and discuss a system for ensuring that the contained are changed appropriately.



Ask: Does the facility have **AND** utilize safety devices?

Discuss barriers to safety device use and encourage/reinforce importance of avoiding sharps injury.



Ask: Does the facility have a clean medication area that is separate from the treatment area? Is there a separate room? Do we keep the medication preparation area free of contamination and cleaned according to the P&Ps?

Discuss any barriers to clean medication preparation areas.





Ask: What is the facility practice for flushes? Do we draw from patients' bags? Are there pre-filled syringes? Are we drawing flushes from a multi-dose container?

Discuss if flushes are prepared according to CDC recommendations and in accordance to sharps safety. If the facility is using a multi-dose vial – reinforce proper technique and emphasize: 1 needle, 1 syringe, 1 time concept.

	Notes to the Facility Trainer If action is required after the previous discussion, consider developing an action plan to update or create new P&Ps).
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Part 5: Wrap Up and To-Do List

Estimated Time: 5 Minutes

To-Do	Notes
<p> Present: In order to keep patients and staff safe sharp safety must be a priority – this includes, but is not limited to, proper preparation, proper administration, and proper disposal. Additionally, it is important that we participate in regular audits and share the feedback with the facility staff so we can identify gaps as well as areas of improvement.</p> <p>Today we have established a list of activities we need to follow-up on and actions to take moving forward. Before closing the session we will review our “To-Do” list.</p> <p> Write on a white-board the “To-Do” list while having participants write on the <i>Session Follow-Up Task List</i> for items they need to complete. For each item addressed, include personnel to complete each task, specific tasks to be completed, and deadlines to complete tasks by. Items that need to be addressed, depending on your facility’s needs and what has been established in the session, include:</p> <ul style="list-style-type: none">• P&Ps related to medication audits, sharps disposal and changing of containers• Reporting of audits• Making supplies available to patients	



Ask: Does anyone have any questions regarding the session content or action plan moving forward?



Open Responses

Closing

Notes



Present and summarize the key points:

- Safe injection practices are important for staff and patient safety.
- Unsafe injection practice can cause disease transmission and increase rates of infection.
- Evaluating and training staff is essential to ensure that they understand and implement proper injection safety in practice at the facility.
- Regular audits and observations can help facilities identify gaps in practice and guide the facility in determining its needs for training.



Address questions or concerns.



Present: Thank you all for coming and for your continuing commitment to the facility and to infection control program. Please take the *Post-Session Assessment* before leaving.



Refer participants to *Injection Safety Post-Session Assessment* – have each participant complete the *Post-Session Assessment* and turn it into Facility Trainer.

Dismiss the group.

Session Appendix

- *Facility Trainer Attendance Log*
- *Facility Trainer Assessment Tracker*
- *Injection Safety Pre-Session Assessment*
- *Injection Safety Post-Session Assessment*
- *Module 5, Session 4: Participant Resources*
- *Session Follow-Up Task List*

Infection Control in Hemodialysis

Training Curriculum: Module 5, Session 4

Injection Safety Pre-Assessment

Date:	
Participant Name:	
Facility:	

- Safe injection practices are important for staff and patient safety; dangerous injection practice can cause disease transmission and increase rates of infection.
 - True
 - False
- When an injury occurs with a contaminated sharp, the injured person has: (select all that apply)
 - A 1 in 5 chance of getting Hepatitis B (if not vaccinated)
 - A 1 in 100 chance of getting an antimicrobial resistant infection
 - A 1 in 50 chance of getting Hepatitis C
 - A 1 in 300 chance of getting HIV
- The CDC recommends monthly audits for medication preparation and injection safety.
 - True
 - False
- Which of the following statements are true regarding injection safety: (select all that apply)
 - Aseptic techniques should be used during preparation and administration of injections
 - As long as it is the same patient, it is okay to reuse a needle or syringe, for that patient
 - Single-dose or single use vials can be used for more than one patient if the vial was accessed with a new needle and syringe
 - A used needle or syringe should never be used to enter a medication vial
- Sharp injuries can occur in many instances including during patient care, after use of sharps, and during disposal of sharps.
 - True
 - False

Infection Control in Hemodialysis

Training Curriculum: Module 5, Session 4

Injection Safety Post-Assessment

Date:	
Participant Name:	
Facility:	

1. Safe injection practices are important for staff and patient safety; dangerous injection practice can cause disease transmission and increase rates of infection.
 - a. True
 - b. False
2. When an injury occurs with a contaminated sharp, the injured person has: (select all that apply)
 - a. A 1 in 5 chance of getting Hepatitis B (if not vaccinated)
 - b. A 1 in 100 chance of getting an antimicrobial resistant infection
 - c. A 1 in 50 chance of getting Hepatitis C
 - d. A 1 in 300 chance of getting HIV
3. The CDC recommends monthly audits for medication preparation and injection safety.
 - a. True
 - b. False
4. Which of the following statements are true regarding injection safety: (select all that apply)
 - a. Aseptic techniques should be used during preparation and administration of injections
 - b. As long as it is the same patient, it is okay to reuse a needle or syringe, for that patient
 - c. Single-dose or single use vials can be used for more than one patient if the vial was accessed with a new needle and syringe
 - d. A used needle or syringe should never be used to enter a medication vial
5. Sharp injuries can occur in many instances including during patient care, after use of sharps, and during disposal of sharps.
 - a. True
 - b. False

Infection Control in Hemodialysis

Training Curriculum: Module 5, Session 4

Participant Resources

Date:	
Participant Name:	
Facility:	

- Centers for Disease Control and Prevention (CDC) Injection Safety
 - <http://www.cdc.gov/injectionsafety/>
- CDC Dialysis Safety: Audit Tools and Checklists
 - <http://www.cdc.gov/dialysis/prevention-tools/audit-tools.html>
 - *Injection Safety: Medication Preparation & Administration Audit Tool*
 - *Hemodialysis Injection Safety: Medication Preparation & Administration Checklists*
- CDC: Injection Safety: The One & Only Campaign
 - <http://www.cdc.gov/injectionsafety/1anOnly.html>
 - *Sharps Safety for Healthcare Professionals Brochure*
- *CDC Frequently Asked Questions (FAQs) Regarding Safe Practices for Medical Injections*
 - <http://www.cdc.gov/injectionsafety/PDF/FAQs-Safe-Practices-for-Medical-Injections.pdf>
- *CDC Injection Safety Guidelines*
 - http://www.cdc.gov/injectionsafety/PDF/SIPC_PocketCard.pdf

Infection Control in Hemodialysis

Training Curriculum: Module 5, Session 4

Session Follow- Up Task List

Date:	
Participant Name:	
Facility:	

Personal To-Do Items:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Facility-Wide To-Do Items:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Additional Comments:
