



Infection Prevention Training for Outpatient Healthcare Settings

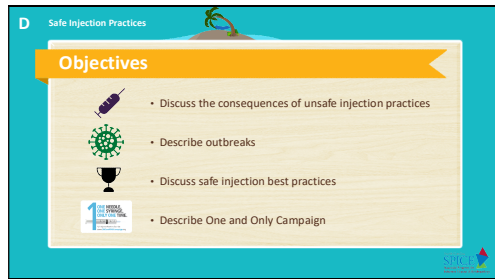
Module D- Safe Injection Practices HANDOUT

Rev 2023

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D Safe Injection Practices


Outbreaks in Outpatient Settings

Outbreaks and patient notifications have occurred in a variety of settings including:

- Primary care clinics
- Pediatric offices
- Cosmetic surgery centers
- Pain remediation clinics
- Cancer (oncology) clinics
- Pain Management clinic HBC and HCV transmission resulted in over 2,000 patient notifications

Infection Prevention breaches included but may not have been limited to the following:

- Reuse of syringes
- Failure to properly reprocess reusable equipment
- Lack of aseptic technique while preparing medications
- Reuse of single dose vials
- Drug diversion by a healthcare provider




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D Safe Injection Practices

NC Viral Hepatitis Outbreaks

Healthcare Setting	Breach in Infection Prevention
Long Term Care	Assisted blood glucose monitoring (ABGM) Exposed - 504 Infections - 31 Deaths - 6
Cardiology Clinic	Syringe reuse and contaminating multi-dose vials Exposed - 1200 Infections - 5



Reported To CDC 2008-2017




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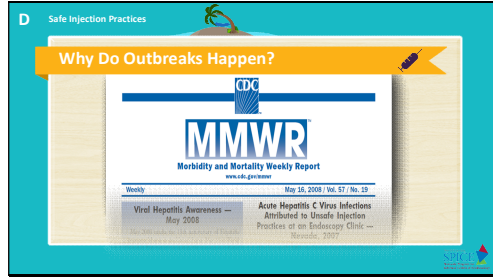
Knowledge Check

Which of the following statements is correct?

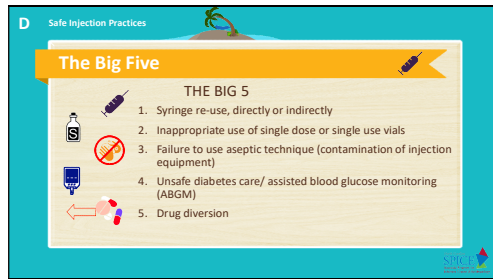
- A. CDC reports that most outbreaks occur in the hospital
- B. Outbreaks of HIV are the most common type of outbreak
- C. CDC reports that most outbreaks occur in non-hospital settings and are associated with breaches in infection prevention, including unsafe injection practices



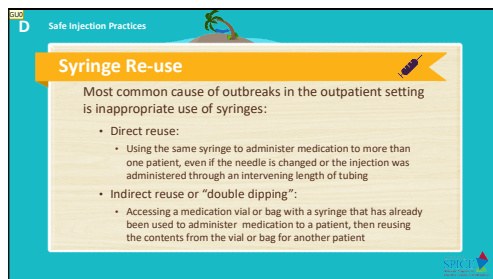
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D Safe Injection Practices

Syringe Re-use

Double Dipping

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Endoscopy Center, Nevada (2008)

- 9 clinic-associated hepatitis C virus cases
- 106 possible clinic-associated cases
- 63,000 potential exposures
- \$16–21 million total cost

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D Safe Injection Practices

Dangerous Misperceptions

- ✗ 1. Changing the needle makes a syringe safe for reuse.
- ✗ 2. Syringes can be reused as long as an injection is administered through an intervening length of IV tubing.
- ✗ 3. If you don't see blood in the IV tubing or syringe, it means that those supplies are safe for reuse.

Once they are used, both the needle and syringe are contaminated and must be discarded!

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Inappropriate Use of Single-dose/Single-use Vials

- Vials labeled as single use:
 - NO PRESERVATIVE**
 - Can be accessed one time only and for one patient only and remaining contents must be discarded
- CDC is aware of at least 19 outbreaks involving single dose vial use
 - All occurred in outpatient setting with almost half in pain remediation clinics

www.cdc.gov/injectionsafety/CDCPosition-SingleUseVial.html

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D Safe Injection Practices

Single Dose Vials: CDC Position Statement, 2012

- Vials labeled by the manufacturer as "single dose" or "single use" should only be used for a single patient
- Ongoing outbreaks provide ample evidence that inappropriate use of single-dose/single-use vials causes patient harm.
- Leftover parenteral medications should never be pooled for later administration
- In times of critical need, contents from unopened single dose vials can be repackaged for multiple patients in accordance with standards in United States Pharmacopeia General Chapter <797>



www.cdc.gov/injectionsafety/CDCPosition-SingleUseVial.html

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When Failure To Use Aseptic Technique Happens!


- Two women diagnosed with HBV infection, receiving chemotherapy at the same physician practice
- Multidisciplinary team investigation
- Office closed; physician license suspended
- 2,700 patients notified
- 29 outbreak-associated cases of HBV



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New Jersey – Oncology Office



IV bags used as sources of fluid to flush catheters for multiple patients

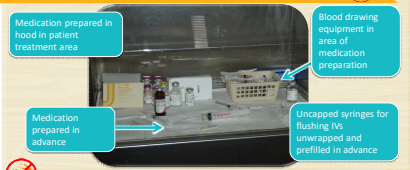
IV bags with stoppers removed



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D Safe Injection Practices

New Jersey – Oncology Office






Medication prepared in hood in patient treatment area

Medication prepared in advance

Blood drawing equipment in area of medication preparation

Uncapped syringes for flushing IVs unwrapped and pre-filled in advance

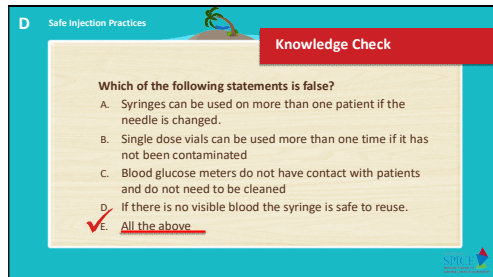
 Prohibit the use of aseptic technique



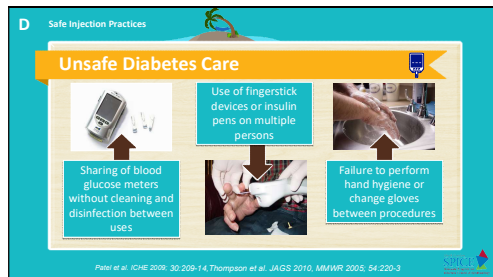
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D Safe Injection Practices



Drug Diversion

5. Drug diversion

When prescription medicines are obtained or used illegally, it is called drug diversion. Healthcare personnel who steal prescription medicines or controlled substances for their own use put patients at risk.

CDC and state and local health departments have assisted in investigations.


- Substandard care delivered by an impaired provider
- Denial of essential pain medication or therapy
- Risks of infection
 - Bloodborne pathogen
 - Bacterial contaminants

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D Safe Injection Practices

Year	Cases	Outbreak
2010	22	HCV infections associated with an emergency department nurse
2012	6	Spilngemona pseudomobilitis bacteremia associated with a nurse at a cancer center
2013	7	HCV infections associated with a nurse at a hospital
2014	5	Serratia marcescens bacteremia associated with a nurse in a post-anesthesia care unit at a hospital
2012	45	HCV infections associated with a radiology technician at hospitals in NH, Kansas and Maryland
2011	25	Gram negative bacteremia associated with a nurse at a Minnesota hospital
2009	18	HCV infection associated with a surgical technician at a Colorado hospital
2008	5	HCV infections associated with a radiology technician at a Florida hospital
2006	9	Achromobacter xylosoxidans bacteremia associated with a nurse at an Illinois hospital
2004	16	HCV infections associated with a certified registered nurse anesthetist at a Texas hospital
1999	26	Serratia marcescens bacteremia associated with a respiratory therapist at a Pennsylvania hospital
1992	45	HCV infections associated with a surgical technician at a Texas ambulatory surgical center
1985	1	Pseudomonas pickettii bacteremia associated with a pharmacy technician at a Wisconsin hospital



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D Safe Injection Practices




Safe Injections: Best Practices

Misuse of single-dose/single-use vials

- Never administer medications from the same syringe to multiple patients
- Do not reuse a syringe to enter a medication vial or solution
- Limit the use of multi-dose vials and dedicate them to a single patient whenever possible

Syringe reuse (direct and indirect)

- Do not administer medications from a single dose vial or IV solution bag to more than one patient, more than one time

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Safe Injections: Best Practices

Failure to use aseptic technique

- Use aseptic technique when preparing or administering medications
 - Keep contaminated items and surfaces away from the preparation area.
 - Designate a 'clean' medication preparation area that is not adjacent to contaminated items
 - Perform hand hygiene before handling medications.

Unsafe diabetes care

- Use insulin pens and lancing devices for only one patient
- Dedicate glucometers to a single patient. If they MUST be shared, clean and disinfect after each use

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Safe Injections: Best Practices

Drug Diversion

- Institute drug diversion monitoring systems and security measure to assist in averting and/or identifying diversion activity.

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Most Outbreaks are Never Detected

Asymptomatic infection

Long incubation period, difficult to identify single healthcare exposure

Under-reporting of cases

Under-recognition of healthcare as risk

Barriers to investigation, resource constraints


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D Safe Injection Practices

Survey of Physician and nurse Practices around injection safety

- 370 Physicians
- 320 Nurses
- Eight States Included
 - NC, NY, NJ, Nevada, Colorado, Tennessee, Wisconsin, Montana
- Types of healthcare settings:
 - Acute care, long term care, outpatient settings


<https://www.sciencedirect.com/science/article/pii/S01966553173068062via%3Dihub>



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D Survey findings

Topic Is Acceptable Practice	Physician Response	Nurse Response
Reuse of syringe for > one patient	12.4%	3.4%
Reentering a vial with a used needle/syringe	12.7%	6.7%
Using SDVs for multiple patients	34%	16.9%
Using source bags as diluent for multiple patients	28.9%	13.1%



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D Safe Injection Practices

Knowledge Check

True or False?

Because there have been so many outbreaks, ALL healthcare providers do the right thing every time with safe injection practices.

True



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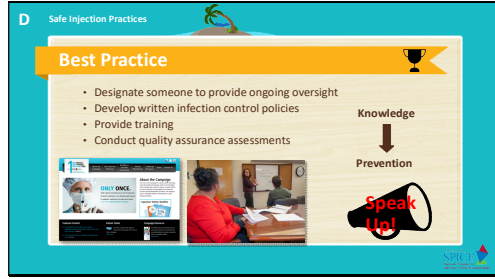
D Safe Injection Practices

Best Practice

- Designate someone to provide ongoing oversight
- Develop written infection control policies
- Provide training
- Conduct quality assurance assessments

Knowledge
↓
Prevention


Speak Up!



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D Safe Injection Practices

One and Only Campaign



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D Safe Injection Practices

Campaign Resources

- Print Materials
- Audio & Visual
- Social Media
- Toolkits



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