

# Injection Safety & Competency Validation & Surveillance Part #2

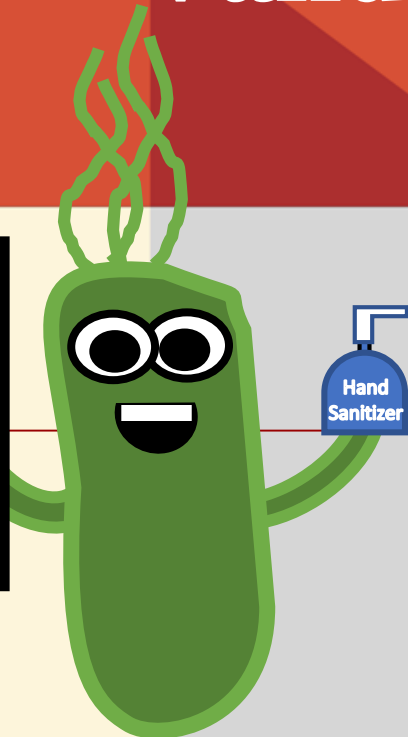
**Peggy Pass RN, MS, CIC, FAPIC**

**Prevention and Health Promotion Administration**

**Chief, Division of Infection Prevention & Control**

**January 10, 2019**

**LTC  
Webinar  
Series  
Webinar  
#8**



# Competency Validation

- We have covered the following topics in Webinars 2-8:
  - Standard Precautions
  - Personal Protective Equipment
  - Hand Hygiene
  - Transmission-based Precautions
  - Injection Safety
  - Environmental Cleaning – in Webinar #9

# Competency Validation Rubric

	STRONG COMPETENCY STATEMENTS		WEAK COMPETENCY STATEMENTS	
	4 The competency statement...	3 The competency statement...	2 The competency statement...	1 The competency statement...
<b>Relevance to content area</b> To what extent does this competency statement align with standards, leading students to conceptual understanding of content?	... aligns with national, state, and/or local standards/frameworks; areas may be combined or clustered for learning.  ... articulates, in a clear and descriptive way, what is important in understanding the content area.  ... connects the content to higher concepts across content areas.	... aligns with national, state, and/or local standards/frameworks; areas may be combined or clustered for learning.  ... states what is important in understanding the content area.  ... addresses conceptual content.	... has beginning alignment with national, state, and/or local standards/frameworks.  ... is either too abstract or too specific in its content area focus .  ... is so detailed in language that it obscures the connection to higher concepts.	... has little evidence of alignment with standards or frameworks  ... focus on content is factual in nature without connection to concepts .
<b>Enduring concepts</b> To what extent does this competency statement reflect enduring concepts?	... includes skills that are transferable across content areas and applicable to real-life situations.  ... requires an understanding of relationships between/among theories, principles, and/or concepts.	... includes skills that are transferable across content areas with real-life connections.  ... is based on concepts supported by topics and/or facts.	... is a statement specific to program/resource used.  ... is based on topics applicable to the course.	... is limited to scope and sequence of textbook/program/resource  ... is specific to facts in content

<p><b>Learner Centric</b> To what degree are student voice and choice inherent in the design to demonstrate the competency?</p>	<p>... communicates expectations for the learner in language that requires learner agency.</p> <p>... ensures the locus of control for design and demonstration of the competency is within the learner.</p>	<p>... communicates expectations for the learner in language that invites learner agency.</p> <p>... invites students to participate in the design of their demonstration of the competency.</p>	<p>... communicates expectations for the learner in language that is clear to the learner.</p> <p>... directs student learning through specificity of language and structure with limited student agency.</p>	<p>... identifies what is expected of the learner.</p> <p>... limits student learning through prescriptive language and structure by preventing student agency.</p>
<p><b>Relative to Assessment</b> To what extent does the competency statement promote opportunities for students to demonstrate evidence of learning?</p>	<p>... defines what is to be measured in clear and descriptive language.</p> <p>... promotes multiple and varied opportunities to demonstrate evidence of learning in interdisciplinary fashion.</p>	<p>... defines what is to be measured.</p> <p>... promotes either multiple or varied opportunities to demonstrate evidence of learning.</p>	<p>... is disconnected from the product of learning.</p> <p>... implies limited opportunities to demonstrate evidence of learning.</p>	<p>... lacks description of what is to be measured.</p> <p>... limits evidence of learning to recall.</p>





<p><b>Cognitive Demand</b></p> <p>What depth of knowledge does this competency standard promote?</p>	<p>... requires deep understanding of content as well as application of knowledge to a variety of settings.</p> <p>... asks students to create conceptual connections and exhibit a level of understanding beyond the stated facts or literal interpretation and defend their position or point of view through application of content.</p> <p>... promotes complex connections through creating, analyzing, designing, proving, or developing.</p>	<p>... reflects academic rigor and implies opportunities for students to apply knowledge in a variety of ways.</p> <p>... asks students to create conceptual connections and exhibit a level of understanding that is beyond the stated facts or literal interpretation.</p> <p>... promotes deep knowledge using reasoning, planning, interpreting, hypothesizing, investigating, or explaining.</p>	<p>... is limited in academic rigor and/or opportunities to apply knowledge.</p> <p>... asks students to show what they know in ways that limit their ability to build conceptual knowledge.</p> <p>... requires engagement of mental practices such as identifying, defining, constructing, summarizing, displaying, listing, or recognizing.</p>	<p>... asks for routine or rote thinking or basic recall, and lacks opportunities to apply knowledge</p> <p>... asks students to show what they know in simplistic ways.</p> <p>... requires recall of information, facts, definitions, and terms such as reciting, stating, recognizing, listing, reproducing, memorizing or performing simple tasks or procedures.</p>
<p><b>Universal Construct</b></p> <p>To what degree are the universal constructs reflected in the competency?</p>	<p>... demands demonstration of universal constructs, appropriate dispositions, and employability skills along with proficiency in the academic content.</p> <p>... requires students to transfer their learning (knowledge, skills, and dispositions) to complex situations in and/or across content areas and/or beyond the classroom.</p>	<p>... includes the universal constructs, appropriate dispositions, or employability skills along with proficiency in the academic content.</p> <p>... promotes the transfer of learning to situations in and/or across content areas and/or beyond the classroom.</p>	<p>... is limited in its requirement for students to display the universal constructs along with proficiency in the academic content.</p> <p>... asks students to demonstrate important dispositions and employability skills but does not challenge students to extend them beyond the content area or classroom.</p>	<p>... has little evidence that the universal constructs are necessary for proficiency or evaluated alongside content knowledge.</p> <p>... limits connections to the universal constructs or related dispositions and employability skills required for success beyond the classroom.</p>

# **“You can’t manage what you can’t measure”**



*Competency Validation*

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**Injection Safety**

# *One Needle, One Syringe, Only One Time*

## Three things every provider needs to know about injection safety

1. Needles and syringes are single use devices. They should not be used for more than one patient or reused to draw up additional medication.
2. Do not administer medications from a single-dose vial or IV bag to multiple patients.
3. Limit the use of multi-dose vials and dedicate them to a single patient whenever possible.

Source: Centers for Disease Control and Prevention (CDC).  
[http://www.cdc.gov/injectionsafety/providers/provider\\_faqs.html](http://www.cdc.gov/injectionsafety/providers/provider_faqs.html)





# Injection Safety Guidelines

from the  
Centers for Disease  
Control and Prevention

This material was developed by CDC. The *One & Only Campaign* is made possible by a partnership between the CDC Foundation and Lilly USA, LLC.

## Injection Safety Guidelines From CDC

- Follow proper infection control practices and maintain aseptic technique during the preparation and administration of injected medications (e.g., perform hand hygiene).
- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Never enter a vial with a used syringe or needle.
- Do not use medications packaged as single-dose or single-use for more than one patient.
- Do not use bags of intravenous solution as a common source of supply for more than one patient.
- Limit the use of multi-dose vials and dedicate them to a single patient whenever possible.
- Always use facemasks when injecting material or inserting a catheter into the epidural or subdural space.

Adapted from: Guideline for isolation precautions: preventing transmission of infectious agents in health care settings 2007. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. Available at: <http://www.cdc.gov/hicpac/pdf/isolation/isolation2007.pdf>

# Injection Safety

## DANGEROUS MISPERCEPTIONS

Here are some examples of dangerous misperceptions about safe injection practices.



### Myth

Changing the needle makes a syringe safe for reuse.



### Truth

Once they are used, both the needle and syringe are contaminated and must be discarded. A new sterile needle and a new sterile syringe should be used for each injection and each entry into a medication vial.

# Injection Safety

## DANGEROUS MISPERCEPTIONS

Here are some examples of dangerous misperceptions about safe injection practices.



Mvth	Truth
Syringes can be reused as long as an injection is administered through IV tubing.	Syringes and needles should never be reused. The IV tubing, syringe, and other components represent a single, interconnected unit. Distance from the patient, gravity, or infusion pressure do not ensure that small amounts of blood won't contaminate the syringe once it has been connected to the unit.
If you don't see blood in the IV tubing or syringe, it means that those supplies are safe for reuse.	Germs such as hepatitis C virus and staph or MRSA are invisible to the naked eye, but can easily infect patients even when present in microscopic quantities. Do not reuse syringes, needles, or IV tubing.

# Injection Safety

## DANGEROUS MISPERCEPTIONS

Here are some examples of dangerous misperceptions about safe injection practices.



### Myth

It's okay to use leftover medicine from use single-dose or single-use vials for more than one patient.



### Truth

Single-dose or single-use vials should not be used for more than one patient regardless of how much medicine is remaining.

**Injection Safety is Every Provider's Responsibility!**

The *One & Only Campaign* is a public health effort to eliminate unsafe medical injections. To learn more about safe injection practices, please visit [OneandOnlyCampaign.org](http://OneandOnlyCampaign.org).

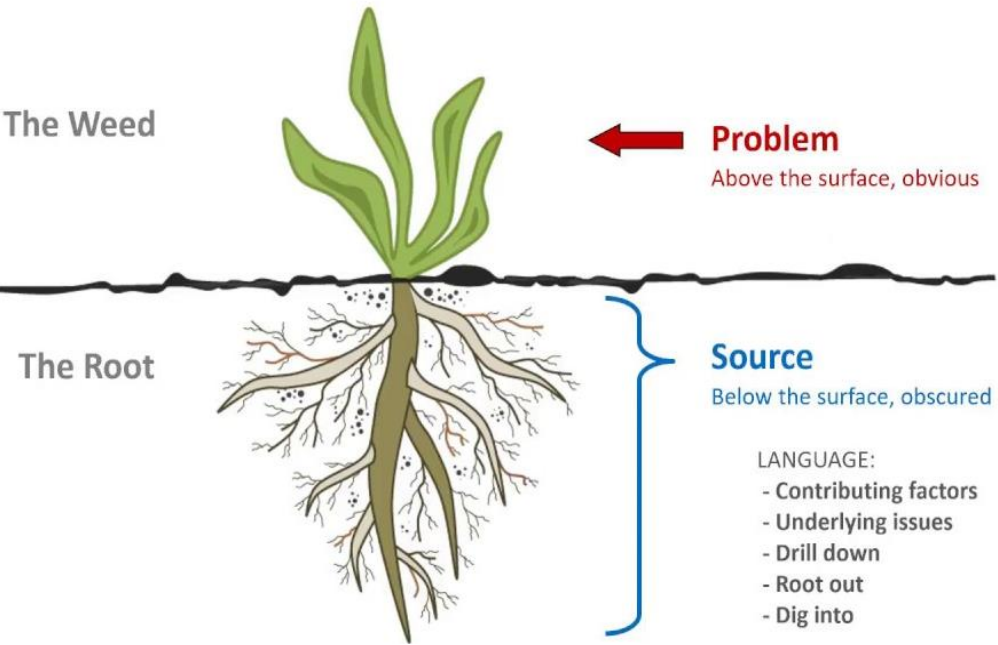
For the latest news and updates, follow us on Twitter @injectionsafety and Facebook/OneandOnlyCampaign.



This material was developed by CDC. The *One & Only Campaign* is made possible by a partnership between the CDC Foundation and Lilly USA, LLC.



# Root Cause Analysis - The Concept

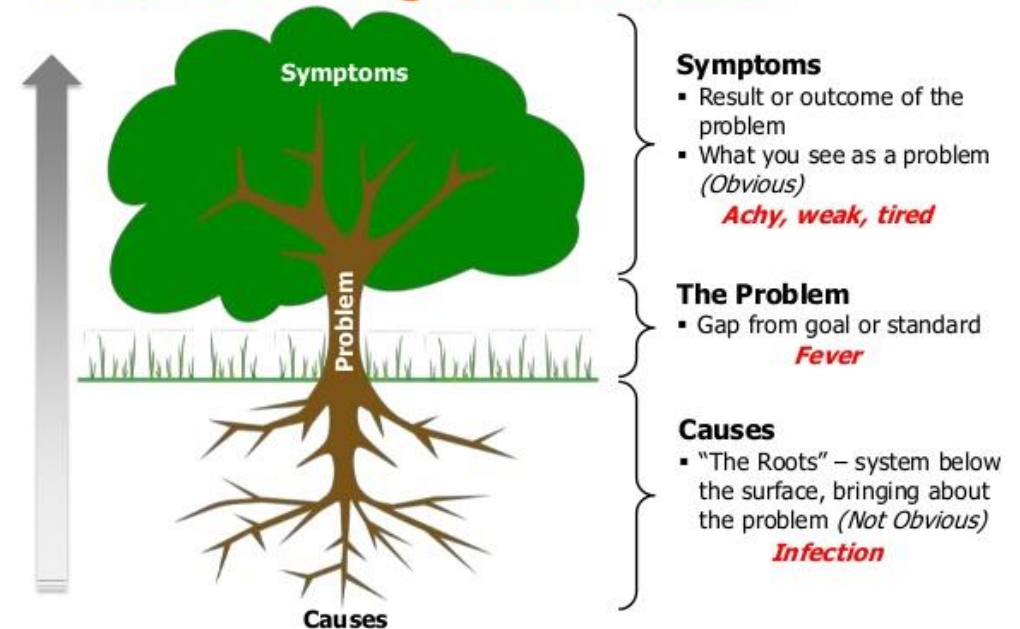


Incident Ratio Model –  
Heinrich's Triangle



# Unsafe Injection Practices: Outbreaks, Incidents, and Root Causes

## Understanding Root Causes



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# SINGLE-DOSE OR MULTI-DOSE?

## NOT ALL VIALS ARE CREATED EQUAL.

Dozens of recent outbreaks have been associated with reuse of single-dose vials and misuse of multiple-dose vials. As a result of these incidents, patients have suffered significant harms, including death. CDC and the One & Only Campaign urge healthcare providers to recognize the differences between single-dose and multiple-dose vials and to understand appropriate use of each container type.

*This information can literally save a life.*

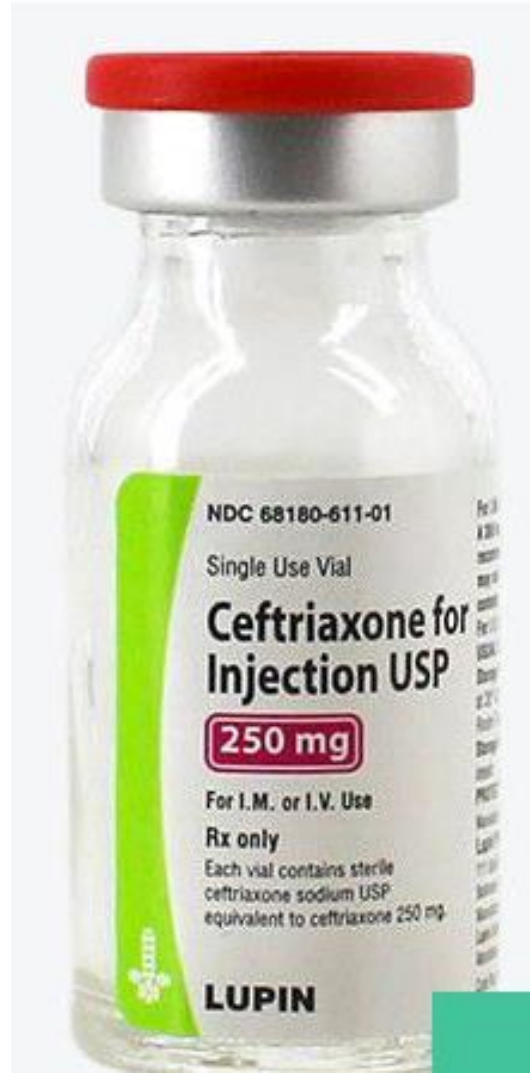


**1 ONE NEEDLE,  
ONE SYRINGE,  
ONLY ONE TIME.**



Safe Injection Practices Coalition  
[www.ONEandONLYcampaign.org](http://www.ONEandONLYcampaign.org)

# Examples of Single Dose Vials





# Examples of Multi-Dose Vials

## MULTI-DOSE VIAL

DISCARD \_\_\_\_\_ days after opening or reconstituting.

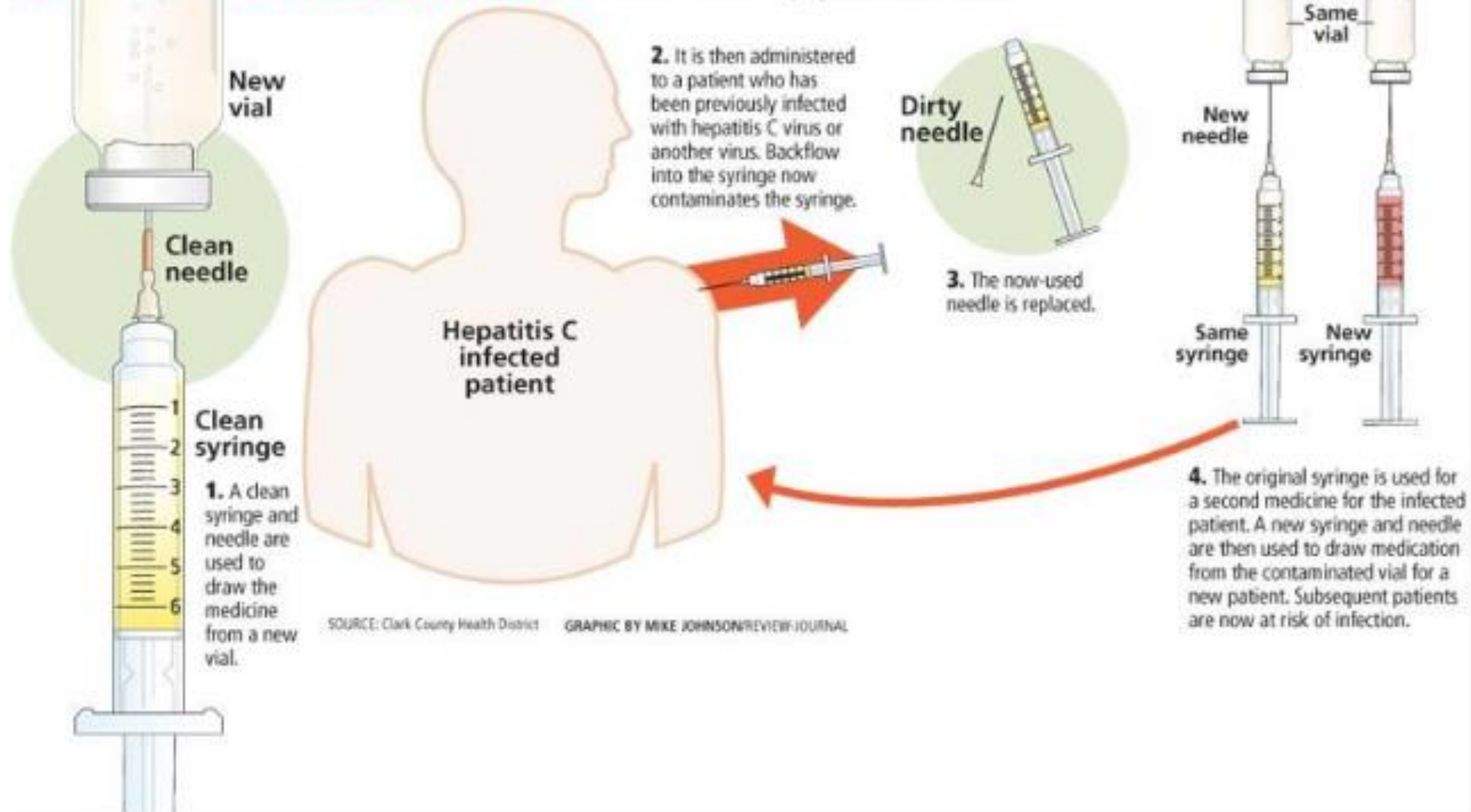
Date Opened:





# UNSAFE INJECTION

Reuse of syringes combined with the use of vials for multiple patients undergoing anesthesia can transmit infectious diseases. The syringe does not have to be used on multiple patients for this to occur.



Multi-dose vial contamination with HCV

Source: Web image Clarke County Health Dept./Mike Johnson



About the Campaign

Safe Injection Practices

Healthcare Provider Information

Patient Information

Campaign Resources

News

Contact Us

## Audio & Video

Watch the *One & Only Campaign's* Newest Videos!

Note: If YouTube is blocked, [click here](#) to view the videos.

Check Your Steps! Make Every Injection Safe



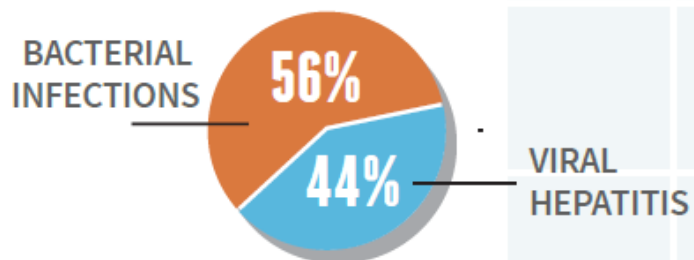
Click [here](#) to access "A Bloodborne Pathogens Training Activity." The SIPC created this training to remind healthcare providers that the measures they take to protect themselves from bloodborne pathogens and other infection exposures.

# THE PATIENT

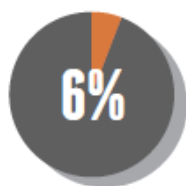
WE ARE ALL PATIENTS.

## 50 OUTBREAKS AND COUNTING

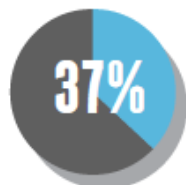
Since 2001, at least 50 outbreaks involving unsafe injection practices were reported to CDC



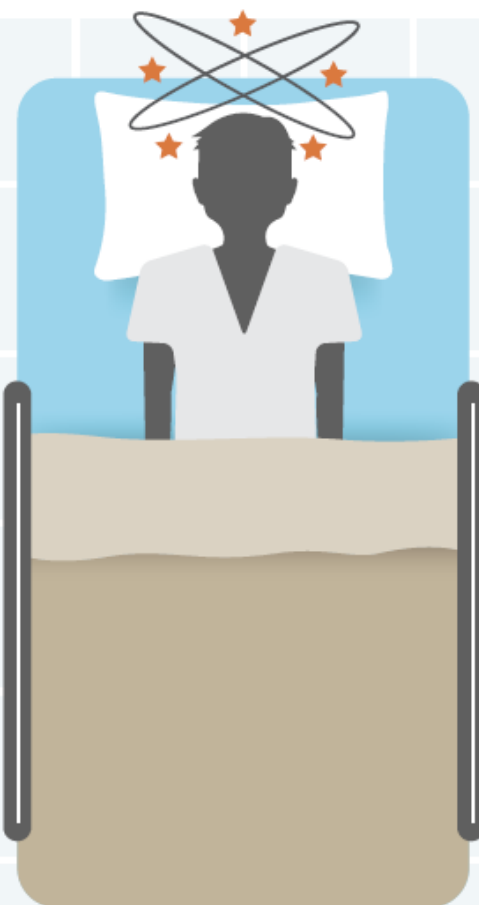
- 90% (n=45) occurred in outpatient settings
- Many hundreds of infected patients
- Over 150,000 patients notified and tested



6% of U.S. health professionals have admitted to using single-dose vials for **more than one patient.**



A recent study showed that 37% of new hepatitis infections in older adults may be due to unsafe medical injections.



## 3 QUESTIONS EVERY PATIENT SHOULD BE ENCOURAGED TO ASK:

As a provider, be prepared to answer your patients' questions about safe injection practices.



Did you wash your hands?



Did you use a clean needle and syringe to draw up this medication?



Is this medication from a single-dose vial? Have you used this vial of medication on another person?

# THE PROVIDER

## DO YOU MULTI-DOSE?



**A SINGLE-DOSE VIAL (SDV)** is approved for use on a **SINGLE** patient for a **SINGLE** procedure or injection.



**SDVs typically lack an antimicrobial preservative.** Do not save leftover medication from these vials. Harmful bacteria can grow and infect a patient.

**DISCARD** after every use!

**SIZE DOES NOT MATTER!**



SDVs and MDVs can come in any shape and size. **Do not assume** that a vial is an SDV or MDV based on size or volume of medication. **ALWAYS check the label!**



**A MULTIPLE-DOSE VIAL (MDV)** is recognized by its FDA-approved label. Although MDVs can be used for more than one patient when aseptic technique is followed, **ideally even MDVs are used for only one patient.**



**MDVs typically contain an antimicrobial preservative** to help limit the growth of bacteria. Preservatives have no effect on bloodborne viruses (i.e. hepatitis B, hepatitis C, HIV).



**Discard MDVs** when the beyond-use date has been reached, when doses are drawn in a patient treatment area, or any time the sterility of the vial is in question!

**FAQs Regarding Safe Practices for Medical Injections:**

[www.oneandonlycampaign.org/content/healthcare-professional-faqs](http://www.oneandonlycampaign.org/content/healthcare-professional-faqs)



# THE MANAGER

INFECTIONS CAN BE COSTLY.



## EDUCATE YOUR TEAM!

Make sure your team uses single-dose and multiple-dose vials properly. Misuse of medicine puts your practice and patients at risk.



## RISKY BUSINESS

*First, do no harm.* Improper reuse of SDVs has caused patient infections and deaths.



## REALIZE WHAT'S AT STAKE

- A person's life and well-being
- Accreditation status
- Clinic license or certification



## HAVE YOU CONSIDERED...?

### Do you have enough supplies to ensure safe injections ?

Adequate injection supplies (e.g. syringes, appropriate medications in right-sized vials when possible, personal protective equipment such as gloves and facemasks) should always be available.

### Is your medication preparation area separate from the patient care area?

Facilities should have a designated clean medication area where injections are drawn up and labeled immediately before each individual patient. This space should be away from patient care areas and where any used or soiled equipment and materials might be.

### Are you purchasing the safest available medication?

Think about safety when you re-supply clinic medications. Request the smallest vials that meet individual patient needs. Use FDA-approved, manufactured medications. Consult with pharmacists and others to learn whether pre-filled syringes or other “ready-to-deliver” unit-dose packaging is available.

### Do you arrange infection control training for your healthcare personnel?

In addition to the OSHA-mandated bloodborne pathogen training, job-specific training on infection control, including safe injection practices, should be provided upon hire and at least annually for healthcare personnel.

# SAFETY STEPS

FOLLOW THESE INJECTION SAFETY STEPS FOR SUCCESS!

## BEFORE THE PROCEDURE

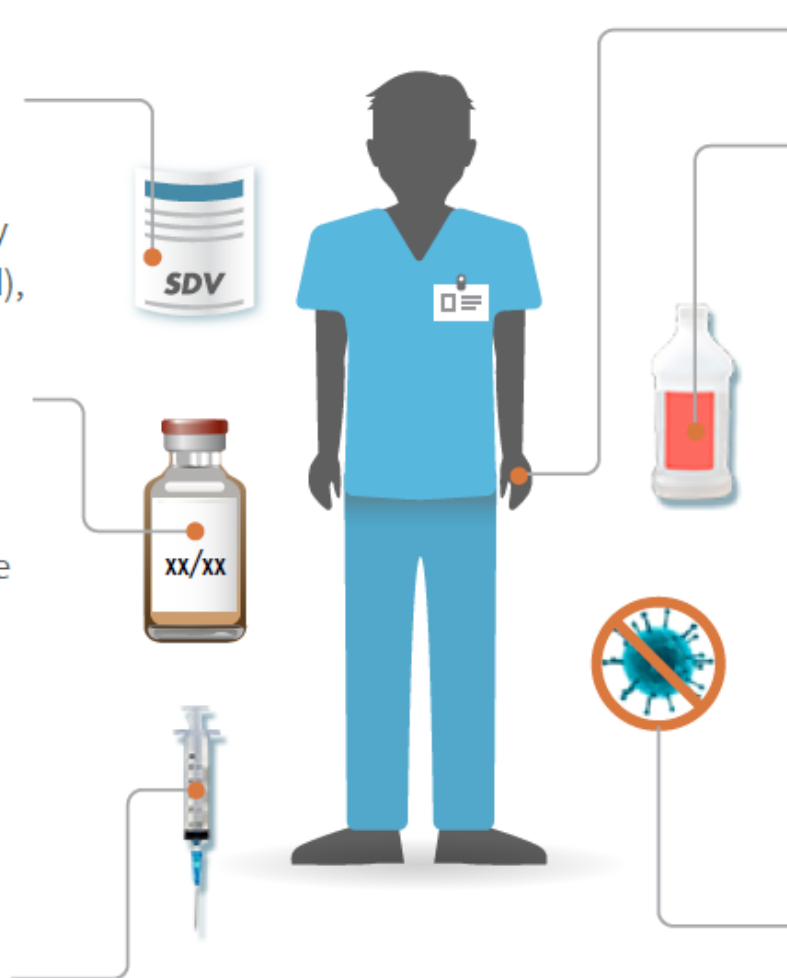
Carefully **read the label** of the vial of medication.

- If it says single-dose and it has already been accessed (e.g. needle-punctured), **throw it away**.
- If it says multiple-dose, **double-check the expiration date** and the beyond-use date if it was previously opened, and visually inspect to ensure no visible contamination.
- When in doubt, throw it out.

## DURING THE PROCEDURE

Use aseptic technique.

- Use a new needle and syringe for every injection.



- Be sure to clean your hands immediately before handling any medication.
- Disinfect the medication vial by rubbing the diaphragm with alcohol.
- Draw up all medications in a clean medication preparation area.

## AFTER THE PROCEDURE

Discard all used needles and syringes and SDVs after the procedure is over.

**MDVs should be discarded when:**

- the beyond-use date has been reached
- doses are drawn in a patient treatment area
- any time vial sterility is in question

**FAQs Regarding Safe Practices for Medical Injections:**

←

→

CDC https://www.cdc.gov/injectionsafety/providers/provider\_faqs\_multivials.html

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Preventing Unsafe Injection Practices

Drug Diversion +

Infection Prevention during Blood Glucose Monitoring and Insulin Administration +

Publications +

Meetings +

The One & Only Campaign

Patient Notification Toolkit +

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[CDC's HAI site](#)

[2007 Guideline for Isolation](#)

2. Can multi-dose vials be used for more than one patient? How?

Multi-dose vials should be dedicated to a single patient whenever possible. If multi-dose vials must be used for more than one patient, they should only be kept and accessed in a dedicated medication preparation area (e.g., nurses station), away from immediate patient treatment areas. This is to prevent inadvertent contamination of the vial through direct or indirect contact with potentially contaminated surfaces or equipment that could then lead to infections in subsequent patients. If a multi-dose vial enters an immediate patient treatment area, it should be dedicated for single-patient use only.

3. What are examples of the "immediate patient treatment area"?

Examples of immediate patient treatment areas include operating and procedure rooms, anesthesia and procedure carts, and patient rooms or bays.

4. Our hospital uses bar code technology that requires scanning of medication vials and drawing up medication in the patient room. If multi-dose vials (e.g., insulin) are dedicated for single-patient-use only, can they be accessed in the patient room?

Ideally, from an infection control perspective, all medication preparation should occur in a dedicated medication preparation area (e.g., nurses station), away from immediate patient treatment areas. However, if there is a need to access multi-dose vials in the patient room (e.g., for the purposes of bar-coded medication administration) the vial must be dedicated for single-patient-use only, the patient should be housed in a single-patient room, and all medication preparation should be performed in a designated clean area that is not adjacent to potential contamination sources (e.g., sink, used equipment). Following medication preparation, the vials should be stored, in accordance with manufacturer's instructions, in a manner to prevent inadvertent use for more than one patient and/or cross-contamination.

5. When should multi-dose vials be discarded?

Medication vials should always be discarded whenever sterility is compromised or questionable.

In addition, the United States Pharmacopeia (USP) General Chapter 797 [\[16\]](#) recommends the following for multi-dose vials of sterile pharmaceuticals:

- If a multi-dose has been opened or accessed (e.g., needle-punctured) the vial should be dated and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial.
- If a multi-dose vial has **not** been opened or accessed (e.g., needle-punctured), it should be discarded according to the manufacturer's expiration date.

The manufacturer's expiration date refers to the date after which an unopened multi-dose vial should not be used. The beyond-use-date refers to the date after which an opened multi-dose vial should not be used. The beyond-use-date should never exceed the manufacturer's original expiration date.

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2:16 PM 1/7/2019

# IMAGINE IT WAS YOU!

AT THE END OF THE DAY WE'RE ALL PATIENTS.

Knowing how to properly identify single-dose and multiple-dose vials will prevent infections and can save lives. Following basic safe injection procedures is not something to take for granted – there is too much at stake. Educate yourself and those around you.

Do your part to make healthcare safe...

***One injection at a time.***



**1 ONE NEEDLE,  
ONE SYRINGE,  
ONLY ONE TIME.**



Safe Injection Practices Coalition  
[www.ONEandONLYcampaign.org](http://www.ONEandONLYcampaign.org)



# Infection-Control Audit Tool



## II. Injection Practices (injectable medications, saline, other infusates)

Observations are to be made of staff who prepare and administer medications and perform injections (e.g., anesthesiologists, certified registered nurse anesthetists, nurses).

Practices to be Assessed	Was Practice Performed?	Manner of Confirmation
A. Needles are used for only one patient	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Observation <input type="radio"/> Interview <input type="radio"/> Both
B. Syringes are used for only one patient	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Observation <input type="radio"/> Interview <input type="radio"/> Both
C. Medication vials are always entered with a new needle	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Observation <input type="radio"/> Interview <input type="radio"/> Both
D. Medication vials are always entered with a new syringe	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Observation <input type="radio"/> Interview <input type="radio"/> Both
E. Medications that are pre-drawn are labeled with the time of draw, initials of the person drawing, medication name, strength and expiration date or time	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Observation <input type="radio"/> Interview <input type="radio"/> Both

Note: A "No" answer should result in citation as a deficient practice in relation to 42 CFR 416.48(a), Administration of Drugs

## Injection Safety Competency Validation

### Point of Care Testing

Type of validation: Return demonstration	<input type="checkbox"/> Orientation <input type="checkbox"/> Annual <input type="checkbox"/> Other
--	---

Employee Name: \_\_\_\_\_ Job Title: \_\_\_\_\_

Medication Preparation	Competent		N/A
	YES	NO	
1. Perform hand hygiene prior to preparing or administering medications			
2. Injections are prepared using aseptic technique in a clear area free from contamination or contact with blood, body fluids, or contaminated equipment			
3. Needles and syringes are used for only one patient (this includes manufactured prefilled syringes and cartridge devices)			
4. Rubber septum on medication vial is disinfected with alcohol prior to piercing			
5. Medication vials are entered with a new needle and new syringe, even when obtaining additional doses for same patient			
6. Single-dose or single-use medication vials, ampules, and bags/bottles of intravenous solution are used for only one patient			
7. Medication administration tubing and connectors are used for only one patient			
8. Multi-dose vials are dated when first opened and discarded within 28 days unless manufacturer specifies a different (shorter or longer) date for that opened vial			
9. Multi-dose vials are dedicated to individual patients whenever possible (e.g., insulin vials, lidocaine, etc.)			
10. Multi-dose vials to be used for more than one patient are kept in a centralized medication area and do not enter the immediate patient treatment area (e.g., operating room, patient room/cubicle)			
11. Insulin pens dedicated to only one patient			
12. Medication is administered within 1 hour of preparation			

Point of Care Testing (e.g., glucometer, PT/INR)	Competent		N/A
	YES	NO	
13. Perform hand hygiene			
14. Don gloves			
15. Single-use, auto-disabling fingerstick device used for one patient only & discarded into sharps container			
16. Individual patient dedicated glucometer (preferred) is stored to avoid cross-contamination and inadvertent use on additional patients (ideally, in the patient room)—best practice is to clean/disinfect prior to storage per manufacturer's instructions			
17. Shared glucometers/equipment must be cleaned and disinfected after every use per manufacturer's instructions (if the manufacturer does not specify how the device should be cleaned and disinfected, then it should not be shared)			
18. Gloves removed			
19. Hand hygiene performed			

Comments or follow up actions:



# Surveillance Part #2

**Peggy Pass RN, MS, CIC, FAPIC**

**Prevention and Health Promotion Administration**

**Chief, Division of Infection Prevention & Control**

**January 10, 2019**



**MARYLAND**  
Department of Health



# LTC Surveillance Definitions

## Updated McGeer

- Gastrointestinal
- Respiratory
- Skin and Soft Tissue
- Urinary

## NHSN

- *C. difficile*
- MDRO
- Urinary

# Important Factors to Consider With All Definitions

1. All symptoms must be new or acutely worse AND
2. Noninfectious causes of signs and symptoms should be considered before a diagnosis of infection is made, eg. Are there other causes of diarrhea besides an infection? YES Could the diarrhea be a side effect of some sort of medication the patient is on? Try to rule that out first, check the meds, perhaps talk to the provider about it; or could the resident be dehydrated and demonstrating some cognitive deficits? YES
3. Identification of infection should not be based on a single piece of evidence – using standardized definitions (McGeer or NHSN LTC specific definitions) takes this into account

# Updated McGeer Definition – Gastrointestinal Tract Infection

## Norovirus gastroenteritis

**Must fulfill both 1 AND 2:**

### **1. MUST HAVE 1 of the following:**

- Diarrhea:  $\geq 3$  liquid or watery stools above what is normal for the resident within a 24-hour period OR
- Vomiting:  $\geq 2$  episodes in a 24-hour period, **AND**

### **2. MUST HAVE the following:**

- Stool specimen for which norovirus is positive detected by electron microscopy, enzyme immunoassay, or molecular diagnostic testing, such as PCR

## Comments

In the absence of lab confirmation, an outbreak (2 or more cases occurring in a LTCF) of acute gastroenteritis due to norovirus infection may be assumed if all Kaplan Criteria present as below:

- Vomiting in  $>50\%$  of affected persons
- A mean or median incubation period of 24-48 hours
- A mean or median duration of 12-60 hours
- No bacterial pathogen identified in stool culture

# Updated McGeer Definition – Gastrointestinal Tract Infection

## Example

- Mrs. Q had diarrhea Monday night and Tuesday morning and was vomiting at lunchtime on Tuesday. Her symptoms began to resolve by Wednesday morning.
- Mrs. Q's roommate began vomiting Tuesday morning and had 3 bouts of watery stool Tuesday evening into Wednesday morning. Her symptoms began to resolve Thursday morning.
- Stool cultures were collected on both Mrs. Q and her roommate. Mrs. Q's sample was positive for norovirus via PCR. Her roommate's sample was inconclusive for Norovirus, but negative for bacterial pathogens.

## Criteria Met?

- Does the example meet McGeer criteria for norovirus? **NO**

Mrs.Q had only 2 episodes of diarrhea-once Mon night and once Tuesday morning-need =>3 “liquid” or “watery” stools-so does not meet the number necessary in 24 hours and may not meet the consistency definition either; and Mrs. Q only vomited once-at lunchtime on Tuesday which does not meet the required =>2 times in a 24 hour period



# GI Norovirus Definition Answers:

- Does the example meet McGeer criteria for an outbreak of norovirus?

**NO**, Mrs. Q does not meet the definition of a case of Norovirus, her roommate did have 3 occurrences of watery stool within a 24 hour period, so she met #1 of the definition, but her PCR test for Norovirus was inconclusive—so she did not meet #2—so she did not meet the definition of a case of Norovirus either.

- Should you call the local health department to report an outbreak? **NO**

There is no outbreak.

# NHSN Definition – Urinary Tract Infection

## Catheter-associated Symptomatic Urinary Tract Infection (CA-SUTI)

- One or more of the following signs/symptoms and laboratory/diagnostic testing:
  1. Fever – Single temperature  $\geq 37.8^{\circ}\text{C}$ , or  $>37.2^{\circ}\text{C}$  on repeated occasions, or an increase of  $>1.1^{\circ}\text{C}$  over baseline
  2. Rigors
  3. New onset hypotension, with no alternate non-infectious cause
  4. New onset confusion/functional decline with no alternate diagnosis AND leukocytosis  $>14,000$  cells/mm<sup>3</sup> or left shift
  5. New or marked increase in suprapubic tenderness
  6. New or marked increase in costovertebral angle pain or tenderness
  7. Acute pain, swelling, or tenderness of the testes, epididymis, or prostate
  8. Purulent discharge from around the catheter insertion site

# NHSN Definition – Urinary Tract Infection continued

## Catheter-associated Symptomatic Urinary Tract Infection (CA-SUTI)

- Any of the following:
  1. If urinary catheter removed within the last 2 days:
    - Specimen collected from clean catch voided urine and positive culture with no more than 2 species of microorganisms, at least 1 of which is a bacterium of  $>10^5$  CFU/mL
    - Specimen collected from in/out straight catheter and positive culture with any number of microorganisms, at least one of which is a bacterium of  $\geq 10^2$  CFU/mL
  2. If urinary catheter in place:
    - Specimen collected from indwelling catheter and positive with any number of microorganisms, at least one of which is a bacterium of  $\geq 10^5$  CFU/mL
- Note – Fever can be used to meet CA-SUTI criteria even if the resident has another possible cause for the fever (i.e., pneumonia)

# NHSN Definition – Urinary Tract Infection

## Example

- Mr. A has a fever of 38°C, he is complaining of pain and tenderness in his testes, and has an indwelling catheter.
- A urinary specimen was collected from the indwelling catheter. The specimen was positive for *K. pneumoniae* and *E. coli*. The *E. coli* was greater than 100,000 cfu/mL.

## Criteria Met?

Does the example meet NHSN criteria for CA-SUTI?

**Yes**



# **2 Updated Slides from Webinar #1-Regulations**

1-Bloodborne Pathogen Standard

2-Tuberculosis Exposure

# **Bloodborne Pathogen Standard**

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- OSHA's Bloodborne Pathogen Standard 29 CFR 1910.1030
- In 1991, the Occupational Safety and Health Administration (OSHA) issued a Bloodborne Pathogen Standard to protect workers from occupational exposure to Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), and other Bloodborne pathogens.

# **Bloodborne Pathogen Standard**

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[https://www.osha.gov/SLTC/bloodbornepathogens/bloodborne\\_quickref.html](https://www.osha.gov/SLTC/bloodbornepathogens/bloodborne_quickref.html)

What is the Bloodborne Pathogens standard?

OSHA's Bloodborne Pathogens standard (29 CFR 1910.1030) as amended pursuant to the Needlestick Safety and Prevention Act of 2000, prescribes safeguards to protect workers against the health hazards caused by bloodborne pathogens. Its requirements address items such as exposure control plans, universal precautions, engineering and work practice controls, personal protective equipment, housekeeping, laboratories, hepatitis B vaccination, post-exposure follow-up, hazard communication and training, and recordkeeping. The standard places requirements on employers whose workers can be reasonably anticipated to contact blood or other potentially infectious materials (OPIM), such as unfixed human tissues and certain body fluids. For more information click the links above.

# Tuberculosis Control Plan

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- 29 CFR Part 1910
- Occupational Exposure to Tuberculosis; Proposed Rule; Termination of Rulemaking Respiratory Protection for *M. tuberculosis*; Final Rule; Revocation



## Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Facilities, 1994



**Please note:** *This report has been corrected and replaces the electronic PDF version that was published on December 30, 2005.*



**Morbidity and Mortality Weekly Report**

Recommendations and Reports

December 30, 2005 / Vol. 54 / No. RR-17

**Guidelines for Preventing the Transmission  
of *Mycobacterium tuberculosis*  
in Health-Care Settings, 2005**

<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5417a1.htm>



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# Written Plan – this will continue thru March

- Document surveillance process(see handout we sent to gather your information)
- Include
  - Program description: Written policies and protocols.
  - Objectives of surveillance for infections. Ex., all infections, site specific infections, specific microorganism infections, other.
  - **Components of the process, i.e., how surveillance is conducted, who's responsible, frequency.**
  - **Identification of significant organisms/infectious diseases.**
  - Communication.
  - **Role of the Infection Control Committee (or QA, PI, etc.) in determining surveillance strategies.**
  - Examples of Forms.



## All Cause Harm Prevention In Nursing Home Change Package

*January 2019*

# What is a Change Package?

- Created by the Centers for Medicare & Medicaid Services (CMS) and the Medicare Quality Innovation Network-Quality Improvement Organizations (QIN-QIOs)
- A collection of best practices, ideas and strategies shared from high performing nursing homes across the country
- Developed from a series of nursing home visits across the country to see how leaders and direct care staff approached quality
- Overall Goal: instill quality and performance improvement practices and eliminate Healthcare-Acquired Conditions (HACs)
- Menu of strategies, change concepts, and specific actionable items

# The Foundational Change Package

## Introduced concept implementing change with 7 core strategies, change concepts & actionable items

- Lead with a sense of purpose
- Recruit and retain quality staff
- Connect with residents in celebration of their lives
- Nourish teamwork and communication
- Be a continuous learning organization
- Provide exceptional compassionate care that treats the whole person
- Construct solid business practices that support your purposes





# Foundational Change Package Content

## Provided Change *Bundles*

- Avoidance of Unnecessary Antipsychotics in Dementia Care
- Improving Mobility
- Reducing Health Care-Acquired Infections/*C. difficile*
- QAPI Success

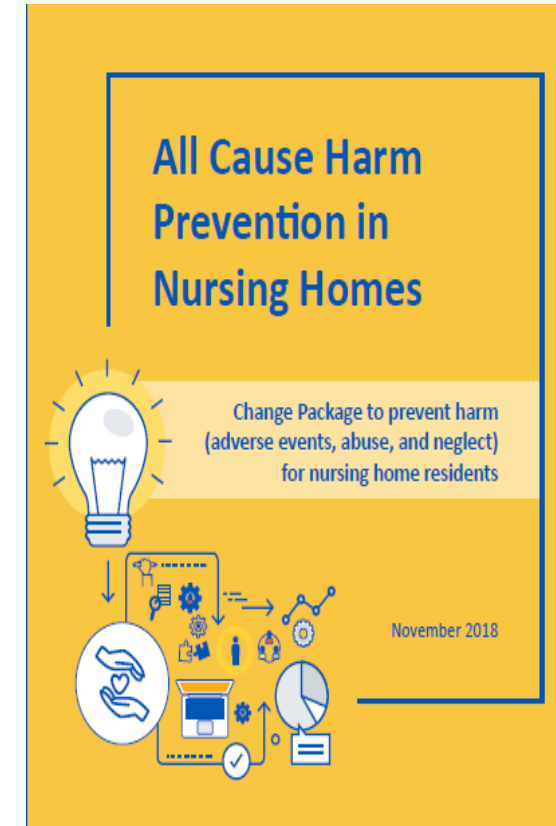


# All Cause Harm Prevention in Nursing Homes Change Package

*Introducing!*

**Goal:** Prevent harm  
(adverse events, abuse & neglect)  
for nursing home residents

✓ Covers a wide range of strategies  
and actions to promote resident safety



[http://www.hqi.solutions/wp-content/uploads/2018/11/All-Cause-Harm-C2\\_Change\\_Package\\_20181107\\_FNL\\_508.pdf](http://www.hqi.solutions/wp-content/uploads/2018/11/All-Cause-Harm-C2_Change_Package_20181107_FNL_508.pdf)

# All Cause Harm Prevention in Nursing Homes Change Package

## Specific harms and adverse events related to:

Medication

Resident Care

Infection

Abuse and Neglect

## Each section covers:

Pre-admission practices

Admission practices

Ongoing care practices and monitoring

Foundational/ongoing education topics to consider

Resources



# Sample Content

## Foundational and Ongoing Education Topics to Consider

- ☐ Educate staff on infection prevention policies and test for competency, including, but not limited to:
  - o Standard precautions (i.e., hand hygiene, proper selection and use of personal protective equipment, safe injection practices, respiratory hygiene/cough etiquette, environmental cleaning and disinfection, and reprocessing of reusable medical equipment)
  - o Transmission-based precautions.
  - o Antibiotic stewardship.
    - Educate clinicians about resistance and optimal prescribing.
  - o Causes, risks, assessment, treatment, and prevention of:
    - Pneumonia/upper respiratory infections.
    - Aspiration.
    - Non-catheter and catheter-associated urinary tract infections.
    - Surgical site assessment and wound care.
    - *Clostridium difficile* infection prevention and management.
- ☐ Preventing transmission of infections from healthcare workers to residents through occupational health policies that include but are not limited to influenza immunization and following work restrictions when ill.
- ☐ Educate residents and family on infection prevention and control (e.g., refrain from visiting when ill, hand hygiene).

## Pre-Admission Practices

- ☐ Assess for any current infections and how they are being managed/treated.
- ☐ Review the type of antibiotics being used, the route they are being administered, how long they have been used, and when the stop date is.
- ☐ Obtain any recent or pending laboratory (e.g., culture) or radiology results. If the results are not yet available, establish a process to obtain and review the results.
- ☐ Notify the infection preventionist and enter applicable information in the facility infection surveillance and tracking system.

EVENTS RELATED TO INFECTION

# Sample Content

## Ongoing Care Practices and Monitoring

- ☐ Develop and implement organizational evidence-based infection prevention and control policies.
- ☐ Use 'care paths' or decision tools to guide nurses in monitoring signs and symptoms of infection (such as for symptoms of UTI or respiratory infections) and for contacting the provider with specific information to aid the provider in determining appropriate tests, diagnosis, and management.
  - o Use standardized communication tools (e.g., SBAR) to communicate information to the physician
- ☐ Use criteria/guidelines to support physician/practitioner diagnosis of infection and initiation of antibiotics.
- ☐ With any new/suspicion of infection:
  - o Ensure infection prevention and control nurse notified and involved.
  - o Notify resident and family members of infection, treatment plan, and transmission-based precautions (if necessary).
  - o Ensure appropriate radiology/labs/culture obtained to confirm infection. Ensure final result is obtained.
  - o Ensure appropriate initiation of antibiotics (e.g., standardized criteria for infection is met).
  - o Ensure appropriate room and roommate.
  - o Ensure appropriate signage, equipment, and supplies are available.
  - o Update the plan of care and nursing assistant assignment sheet with any interventions.
  - o At daily stand up/IDT meeting review new infections, antibiotic use, precautions, and interventions.
  - o Add infections, antibiotic use, precautions and interventions to the 24-hour report and ensure this information is reviewed with all staff at shift change (appropriate staff and IDT team members should review 24-hour reports back to the last day worked in order to ensure they are aware of changes).
  - o Enter applicable information in the facility's surveillance plan and tracking program (e.g., track which residents have infections, signs and symptoms of infection, any transmission based precautions, lab/culture results, antibiotics prescribed, time-out or reassessment of antibiotic, stop date of antibiotic).



# Clinician Assessment/Communication

## Ongoing Care Practices and Monitoring

- ☐ Develop and implement organizational evidence-based infection prevention and control policies.
- ☐ Use 'care paths' or decision tools to guide nurses in monitoring signs and symptoms of infection (such as for symptoms of UTI or respiratory infections) and for contacting the provider with specific information to aid the provider in determining appropriate tests, diagnosis, and management.
  - o Use standardized communication tools (e.g., SBAR) to communicate information to the physician

## Suspected UTI SBAR

[Nursing Home Name] \_\_\_\_\_  
[Street] \_\_\_\_\_  
[City, State, ZIP] \_\_\_\_\_ Facility Phone/Fax \_\_\_\_\_  
Resident Name \_\_\_\_\_ Date of Birth \_\_\_\_\_  
Physician/NP/PA \_\_\_\_\_ Physician/NP/PA Phone/Fax \_\_\_\_\_  
Nurse \_\_\_\_\_ Date/Time \_\_\_\_\_  
How was information provided to clinician? ☐ Phone ☐ Fax ☐ In Person ☐ Other \_\_\_\_\_

## S – Situation (use this information to complete Section A&R)

- ☐ I am contacting you about a suspected UTI for above resident.

### Current Assessment (check all that apply):

- ☐ Increased urgency
- ☐ Increased frequency
- ☐ Hematuria
- ☐ Rigors (shaking, chills)
- ☐ Delirium (sudden onset of confusion, disorientation, dramatic change in mental status)

Vital Signs: BP \_\_\_\_\_ / \_\_\_\_\_ Pulse \_\_\_\_\_ Resp. rate \_\_\_\_\_ Temp. \_\_\_\_\_

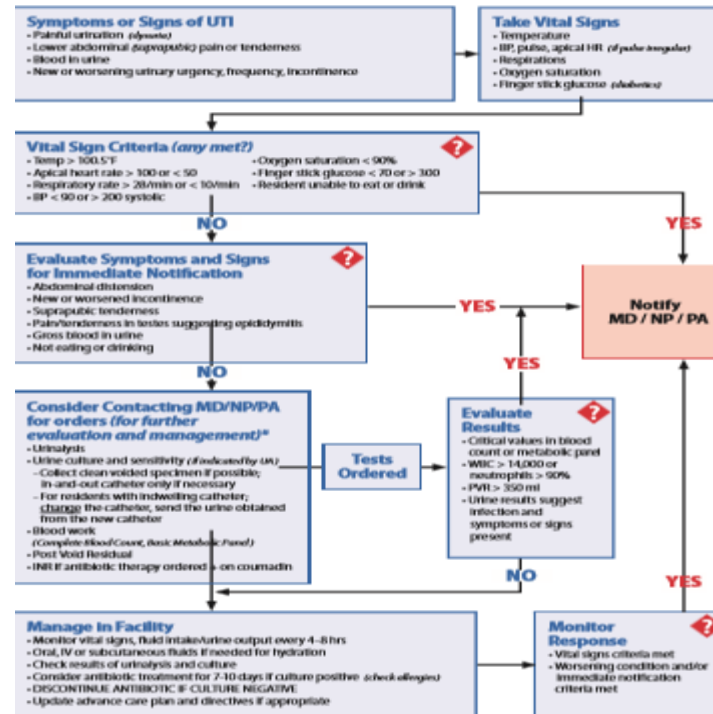
### Resident Complaints (check all that apply):

- ☐ Dysuria (painful, burning, difficult urination)
- ☐ Suprapubic pain
- ☐ Costovertebral tenderness (flank pain/tenderness)

### Recent Urinalysis Results (within the last 10 days) If Available:

UA results that were obtained on \_\_\_\_\_ (date) due to \_\_\_\_\_ (reason).

## CARE PATH Symptoms of Urinary Tract Infection (UTI) (in residents without an indwelling catheter)



# Advantages

## What can a Change Package do for you?

- Improve residents' quality of life and care
- Stimulate creative and critical thinking
- Provide strategies, change concepts and actionable items that lead to improvement
- Promote **lasting change**



# Tie It All In

**Utilize the Change Package through ALL steps of the QAPI process along with evidenced-based resources:**

- Casper Report
- HQI Quality Measure Report & Tip Sheet
- INTERACT Care Path
- QAPI Toolkit:
  - Performance Improvement Project
  - PDSA
- Evidenced Based Tools:
  - McGeer, Loeb
  - Infectious Disease Society of America



# Final Thoughts

- Review the practices listed within the Change Package and compare to practices currently in place
- Document your success stories and share them with your residents, staff, families and colleagues
- Utilize complementary resources such as literature reviews and evidence-based tools and resources



# Save The Date

**All Cause Harm Prevention in Nursing Homes:**

**Applying strategies from the new CMS Change Package**

**DATE:** Thursday, January 24, 2019

**TIME:** 3:00pm-4:00pm ET

**LOCATION:** WebEx

REGISTER for the event:

<https://qualitynet.webex.com/qualitynet/onstage/g.php?MTID=efe52a812df425e04d326423a2bae4cb7>





# HQI December Newsletter



## Antibiotic Stewardship Tips



Using an Antibigram to Choose the Right Antibiotic

Carbapenem-resistant Enterobacteriaceae

Use the Drug Regimen Review to Support Your Antibiotic Stewardship Program

Minimum Criteria for Common Infections Toolkit

Antibiotic Recommendations for *C. diff*

Prescriber Communication Influences Antibiotic Use

QAPI in Action Antibiotic Stewardship: Asking the Right Questions

**Access Here! <http://qin.hqi.solutions/resource-center/>**



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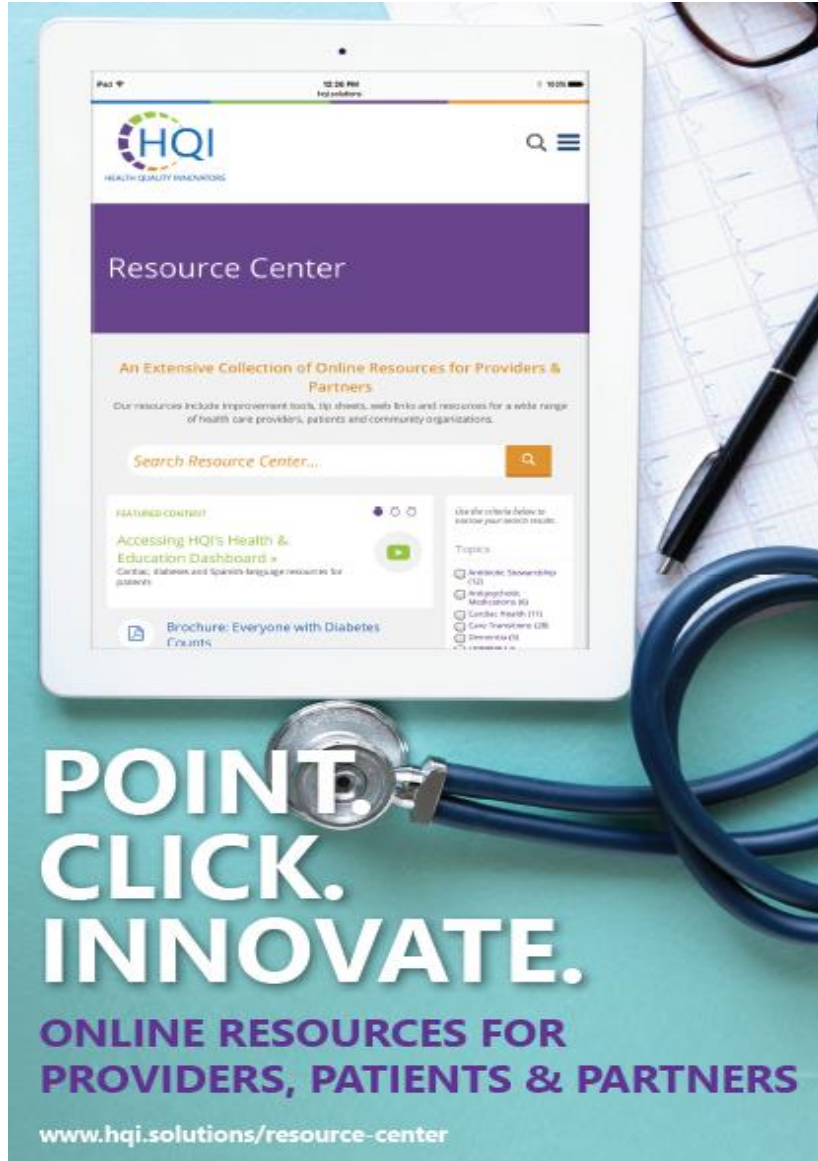
# Nursing Home Staff Competency Assessment Toolkit

## Available Now!

- The Centers for Medicare & Medicaid Services (CMS) has released a **Nursing Home Staff Competency Assessment Toolkit** designed to help nursing home frontline and management staff evaluate their skills.
- Identify areas where your nursing home is doing well, versus where your facility might need support.
- Three competency assessments in print and electronic formats:
  1. Certified Nursing Assistants (CNA)/Certified Medication Technicians (CMT)
  2. Licensed Practical/Vocational Nurses (LVN/LPN) and Registered Nurses (RN)
  3. Assistant directors of nursing (ADON), directors of nursing (DON) and administrators

<https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/LTC-CMP-Reinvestment.html>

# Need a Hand?



The image shows a tablet displaying the HQI Resource Center website. The website has a purple header with the HQI logo and the text "Resource Center". Below the header, there is a section titled "An Extensive Collection of Online Resources for Providers & Partners" with a search bar. The main content area features a "FEATURED CONTENT" section with a video thumbnail titled "Accessing HQI's Health & Education Dashboard" and a "Brochure: Everyone with Diabetes Counts". To the right of the featured content, there is a "Topics" list with checkboxes for "Academic Scholarship (12)", "Analgesic Use (10)", "Cancer Health (11)", "Care Transitions (10)", and "Dementia (1)".

**POINT.  
CLICK.  
INNOVATE.**

**ONLINE RESOURCES FOR  
PROVIDERS, PATIENTS & PARTNERS**

[www.hqi.solutions/resource-center](http://www.hqi.solutions/resource-center)

## IT HAS NEVER BEEN EASIER TO ACCESS HQI'S RESOURCE CENTER

Health Quality Innovators (HQI) recently launched a new online resource center. Now clinicians, partners and patients have easy access to a wide range of quality improvement resources at no cost.

### Benefits include



**No log-in needed:** You can access all our tools and resources; no password or username required.



**Multiple ways to search:** Either type in your search term(s) or sort by topic, audience or media type.



**A wealth of materials covering all settings:** You will find videos, webinar recordings, tip sheets, patient education materials and more. Materials cover all settings and address a wide range of topics from quality improvement basics to strategies for engaging patients and families.

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This material was prepared by Health Quality Innovators (HQI), the Medicare Quality Innovation Network-Quality Improvement Organization for Maryland and Virginia, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. HQI11SOW20190101-160845



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