Bold Bugs, Broken Drugs, and Risky Sticks

Keeping Residents Safe when Care Presents Perils

Oregon Public Health Division
Healthcare-Associated Infections HAI Program
Objectives

• Public health roles
  – Oregon Health Authority (“the state”)
  – Local health departments (“the county”)
  – Individual facilities (you!)

• Our shared work
  – Surveillance
    • Required reporting: Infections & outbreaks
    • What’s around the bend for long-term care facilities?
    • Data for action at your facility
  – Prevention
    • Injection safety
    • Antimicrobial stewardship
    • Interfacility transfer communication
    • *Clostridium difficile* collaborative

• Future opportunities for collaboration
What do you think the public health program does?

1. Helps my facility
2. Hinders my facility
3. Some of both
4. Something else
What does public health do?

“We’re the government, but not *that* part of the government.”

– Bill Keene
epidemiologist extraordinaire
Our Partners
We protect Oregonians’ health

- **Surveillance**
  - Births, deaths, diseases, demographics, emerging infections
  - Carbapenem-resistant *Enterobacteriaceae* (CRE)

- **Reporting**
  - Communicable disease reporting
  - National Health Safety Network (NHSN) for healthcare-associated infections (HAIs)

- **Support regulations to prevent disease**
  - Tobacco, Environmental Health Code

- **Prevention and response**
  - Vaccines, collaborations, outbreaks, coordination, expertise
What is the role of Local Health Departments?

- Know their community
- Interview cases
- Investigate outbreaks
- Perform public health roles for the community
  - Vaccines, Women Infants & Children
  - Prevent chronic disease
  - Environmental health

http://oregonclho.org/
What is the role of healthcare facilities and providers?

- **Prevent**
  - Be aware of best practices and current recommendations
  - Practice infection prevention
  - Practice antimicrobial stewardship

- **Be alert**
  - Eyes and ears of public health
  - Clusters of illness? Similar exposures?
  - Novel disease or presentation?

- **Test**
  - Cultures important to link cases

- **Report**
  - Reportable diseases
  - Outbreaks
SURVEILLANCE

HCW Influenza Vaccination
What types of surveillance does your facility currently do?

Surveillance = to keep close watch over something or someone

- Gastrointestinal illness
- Respiratory illness
- Catheter-associated urinary tract infections
- Catheter use
- Falls
- Medical errors
- Antibiotic use
- Staff illness
- *C. difficile* infections
- Residents with multi-drug resistant organisms (MDROs)
Fun fact #1

How does your facility perform HAI surveillance? (N = 135)

- Monitors infectious syndromes: 85%
- Maintains a list of HAI: 80%
- Routinely reviews laboratory reports: 75%
- Reviews provider notes: 70%
- Calculates rates: 65%
- Uses standard criteria: 60%
- Calculates rates of CDI: 55%
- Calculates rates by device days: 50%
- Uses new antibiotic starts: 40%

Source: 2015 Oregon HAI Survey of SNFs
Surveillance saves lives

It matters what we count; what we count matters

Examples of surveillance in action

- Invasive candidemia (yeast in blood)
  - Added injection drug use to data collection following an outbreak

- Carbapenem-resistant *Enterobacteriaceae*
  - Reviewed and education more than 400 cases since December 2011
  - Performed in-depth investigation on 18 carbapenemase-producers
  - Performed surveys to assess for transmission

- Non-tuberculous mycobacteria
  - Identified clusters of surgical site infections associated with poor aseptic technique
  - Identified clusters associated with tattoo artists using water cooler water

- Carbapenem-resistant *Acinetobacter baumannii*
  - Identification led to trace-back to super-spreader patient and establishment of interfacility transfer communication process
What can I do to improve surveillance?

• Add to your daily **huddles**: New illnesses? Antibiotic starts/stops?
  – Map healthcare-associated infections by room to catch trends

• Get to know who does your **pharmacy** reviews
  – Do they review antibiotic starts, stops, doses, **and indications**?

• Get to know your **providers**
  – Do they use criteria for symptomatic urinary tract infection?
  – Are they ruling out **asymptomatic** bacteriuria?
  – Are they sending cultures prior to antibiotics?
  – Are they narrowing antibiotics based on susceptibilities?
REPORTING
Do you think reporting events positively change practice?

For example, does having to report the number of falls per month, lead to practice changes which decrease falls in your facility?

1. Yes, reporting has led to positive changes in our facility’s practice

2. No, reporting does not lead to positive change our facility’s practice

3. Maybe

4. Other
Fun Fact #2

Infection surveillance data is shared with... (N = 135)

- Charge nurses and resident care managers: 85%
- Facility or corporate leadership: 78%
- Facility nursing and nursing aide staff: 65%
- On-site facility physician(s): 60%
- Private outside physicians providing care to residents: 15%
- Residents and resident families: 10%
- Other (please specify): 5%
- Not applicable, infection surveillance data is not... 0%
## HAI reporting requirements for LTCFs

<table>
<thead>
<tr>
<th>HAI MEASUREMENT TYPE</th>
<th>LONG-TERM CARE FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CMS REQUIREMENTS&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>ANNUAL SURVEY</td>
<td>N/A</td>
</tr>
<tr>
<td>HEALTHCARE WORKER INFLUENZA VACCINATION</td>
<td>N/A</td>
</tr>
<tr>
<td>DIALYSIS EVENT</td>
<td>N/A</td>
</tr>
<tr>
<td>OTHER</td>
<td>All minimum data set (MDS) elements required by the Skilled Nursing Facility Prospective Payment System</td>
</tr>
</tbody>
</table>
What we count matters

HCW Vaccination Rates

Influenza Vaccination Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospitals</th>
<th>Ambulatory Surgery Centers</th>
<th>Skilled Nursing Facilities</th>
<th>Dialysis Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2012</td>
<td>51%</td>
<td>47%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2012-2013</td>
<td>54%</td>
<td>67%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2013-2014</td>
<td>56%</td>
<td>77%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2014-2015</td>
<td>57%</td>
<td>79%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2015-2016</td>
<td>68%</td>
<td>88%</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Healthy People 2020 Goal (90%)
Updated interactive maps: 2014-15

Legend

HCW Flu Vaccinate Rates: SNF only
- >90% vaccinated
- 75-89% vaccinated
- 50-74% vaccinated
- <50% vaccinated
Healthcare worker influenza vaccination by facility

1. 2014-2015 Healthcare Worker Influenza Vaccination Rates: All Facility Types
2. 2014-2015 Healthcare Worker Influenza Vaccination Rates: Hospitals Only
4. 2014-2015 Healthcare Worker Influenza Vaccination Rates: Skilled Nursing Facilities

Collectively, skilled nursing facilities did not meet the HP2015 goal of 75% vaccination. Although rates have steadily increased since reporting began in 2011, progress has been minimal.

Healthcare Worker Influenza Vaccination Rates: SNFs

Examples of reporting in action

- **Hepatitis associated with medical care**
  - Reviewed outpatient practice, and notified >1,200 Oregonians
  - Reviewed dialysis center practice

- **Group A streptococcal disease**
  - Report of resident cases in facility led to survey that found carriage in 30% residents and 20% of staff

- **Influenza/respiratory disease**
  - Local health department helps identify contacts for prophylaxis, decreasing morbidity and death
  - Local health departments assisted 59 facilities during 2015

- **Norovirus/gastrointestinal disease**
  - Assisted 81 facilities during 2015
National Health Safety Network (NHSN)

- CDC’s NHSN is largest HAI reporting system in the US

- For healthcare facilities
  - Share data with HCWs, leadership, other partners
  - Meet Centers for Medicaid and Medicare Services (CMS) reporting requirements
  - Benchmark against national standards

- For patients
  - Public access to quality metrics via CMS Compare: https://www.medicare.gov/nursinghomecompare/search.html

- For state and national agencies
  - Identify emerging areas of concern
  - Measure progress towards goals

http://www.cdc.gov/nhsn/
NHSN for long-term care facilities

- Modules for
  - UTI
  - MDRO/C. difficile
  - HCW vaccination
  - Process measures
    - Hand hygiene
    - Contact precautions
  - HCW bloodborne pathogen exposure
- CMS requirements ahead?
NHSN: Training & analysis options

National Healthcare Safety Network (NHSN) Training

Our mission is to offer learning opportunities in a variety of formats that enhance the knowledge and skills of NHSN facility- and group-level participants and their partners in order that they may effectively use the data obtained from the surveillance system to improve patient and healthcare personnel safety.

Objectives

- Convey NHSN data collection methods, submission requirements, and analysis options to participants so that they may acquire, submit, and disseminate high quality, actionable data.
- Prepare participants to use the NHSN reporting application accurately and efficiently.
- Enhance participants’ and their partners’ understanding of data quality and the value of adverse event monitoring.
- Encourage collaboration among participants and partners to improve the patient and healthcare personnel safety across the spectrum of care.

COURSE CATALOG
Course descriptions for NHSN components, modules and events.

PATIENT SAFETY COMPONENT TRAINING
Self-paced training for specific module and events.

Long-term Care Facility (LTCF) Component

Laboratory-identified (LabID) Event Module:
Clostridium difficile Infection (CDI) Event Reporting
Multidrug-Resistant Organism (MDRO) Event Reporting

http://www.cdc.gov/nhsn/training/
Examples of NHSN data in action

• Targeted Assessment for Prevention (TAP) strategy
  – Estimate absolute number of infections need to prevent

• Healthcare worker influenza vaccination rates
  – Used by facilities to benchmark progress

• Data validation highlights areas to improve surveillance methods
  – CLABSI, 2012
  – *C. difficile* LabID events, 2013

• Case identification for surgical site infection cluster linked to vendor
Executive summary: Health care-associated infections in Oregon hospitals — 2014

Health care-associated infections (HAIs) can have devastating consequences for patients. The summary below shows how 2014 data from 61 Oregon hospitals compares to: 1) recent HAI data for the U.S. as a whole; and 2) national HAI reduction targets set for 2013 by the U.S. Department of Health and Human Services (HHS).

**CLABSIs**
Central line-associated bloodstream infections 35 infections
A CLABSI occurs when germs enter the blood along a tube (central line) placed in a large vein.
- Oregon hospitals: ✔ Performed statistically better than the U.S. hospitals ✔ Exceeded national reduction target set by HHS

**MRSA bloodstream infections (MRSA BSIs)**
Hospital-onset MRSA BSI 61 laboratory-identified events
An MRSA BSI is a difficult to treat infection caused by germs that enter the body through wounds or medical devices.
- Oregon hospitals: ✔ Performed statistically better than the U.S. hospitals ✔ Exceeded national reduction target set by HHS

**C. Difficile infections**
Hospital-onset C. Difficile 732 laboratory-identified events
C. difficile spreads to patients from unclean hands and surfaces in hospitals, leading to colon infection and diarrhea.
- Oregon hospitals: ✔ Performed statistically better than the U.S. hospitals ✔ Did not meet national reduction target set by HHS

**CAUTIs**
Catheter-associated urinary tract infections 182 infections
CAUTIs occur when germs travel up a urinary catheter that was not put in correctly, not kept clean, or left in too long.
- Oregon hospitals: = Performed statistically equal to the U.S. hospitals ✔ Did not meet national reduction target set by HHS

**SSIs**
Surgical site infections
An SSI occurs when germs enter a surgical wound during or after surgery. The data below are for deep incisional and organ space SSIs only.
- Coronary artery bypass graft (heart surgery) 10 SSI
  - Oregon hospitals: ✔ Performed statistically equal to the U.S. hospitals ✔ Exceeded national reduction target set by HHS
- Laminectomy (back surgery) 30 SSI
  - Oregon hospitals: No recent national comparison available ✔ Exceeded national reduction target set by HHS
- Colon surgery 101 SSI
  - Oregon hospitals: ✔ Performed statistically equal to the U.S. hospitals ✔ Did not meet national reduction target set by HHS
- Abdominal hysterectomy surgery 25 SSI
  - Oregon hospitals: ✔ Performed statistically equal to the U.S. hospitals ✔ Did not meet national reduction target set by HHS
- Hip replacement surgery 56 SSI
  - Oregon hospitals: = Performed statistically equal to the U.S. hospitals ✔ Did not meet national reduction target set by HHS
- Knee replacement surgery 41 SSI
  - Oregon hospitals: = Performed statistically equal to the U.S. hospitals ✔ Exceeded national reduction target set by HHS

**THE TAKE AWAY**
In 2014, Oregon hospitals exceeded national targets for reducing bloodstream infections and infections following heart, back and knee surgeries. More work is needed to prevent C. difficile infections, catheter-associated urinary tract infections and infections following colon, hysterectomy and hip surgeries.
What can I do to improve reporting?

- **Post** the reportable disease posters
- **Educate** staff that outbreaks of disease in facilities are reportable to your local public health department
- **Implement** National Health Safety Network reporting
  - Health Insight and HAI program working to enroll skilled nursing facilities
    - *C. diff* LabID event
    - CAUTI
    - Hand hygiene
    - Personal protective equipment use
  - [http://www.cdc.gov/nhsn/ltc/](http://www.cdc.gov/nhsn/ltc/)

Health Insight contact: Leah Brandis, LBrandis@healthinsight.org
SUPPORT PREVENTION
Safe injection practices

• Over 50 US outbreaks (1998-2014) due to unsafe injections
• >700 patients infected
• >150,000 patients notified of potential exposure
• Inappropriate use and maintenance of fingerstick devices and glucometers one of several causes

http://www.oneandonlycampaign.org/
Insulin pen reuse incidents

Reuse of insulin pens for multiple patients, reportedly after changing needles

- 2008: 185 patients notified, NY hospital
- 2009: 2,114 patients notified, TX hospital
- 2011: 2,401 patients notified, WI outpatient and hospital
- 2013: multiple incidents, NY and NC, including 2 VA Medical Centers and a private hospital
Fingerstick or lancing devices

- Used to prick skin and obtain blood drop
- Reusable Devices: devices resemble a pen and have the means to remove and replace lancet after each use
  - Never use on more than one person
  - If used, should be by individuals who self-monitor
- Single-use auto-disabling fingerstick devices
  - Devices that are disposable and prevent reuse through an auto-disabling feature
  - Should be used in settings where assisted monitoring of blood glucose is performed

A simple rule for safe care: Fingerstick devices should never be used for more than one person.
Blood glucose monitors

- Blood glucose meters measure glucose levels
- Whenever possible, blood glucose meters should be assigned to an individual person and not be shared
- If meters must be shared, the device should 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.

A simple rule for safe care:
If shared, blood glucose meters should be cleaned and disinfected after every use.
Insulin administration

• Insulin Pens: Intended for use by a single person
  – Pens have an insulin reservoir, or an insulin cartridge for an individual to self-administer several doses
  – Needle must be changed before each injection

• Insulin Vials: Multidose vials of insulin should be dedicated to a single person whenever possible.
  – If the vial must be used for more than one person it should be stored and prepared in a dedicated medication preparation area outside of the patient care environment
  – Always enter vial with new needle and syringe and dispose immediately after use in approved sharps container.

A simple rule for safe care:
Injection equipment (e.g., insulin pens, needles and syringes) should never be used for more than one person
60 second check

- 1 insulin pen = 1 resident
- Label, check name
- Not damaged
- Expiration
- Recheck name
- Storage
Process-specific resources

BE AWARE DON’T SHARE

Insulin pens that contain more than one dose of insulin are only meant for one person.

Insulin pens should never be used for more than one person.

They are only approved for use on individual patients, even when the needle is changed or when there is leftover medicine. No exceptions.

ONE INSULIN PEN, ONLY ONE PERSON

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.

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.
DON'T DO IT
Sharing Insulin Pens and Other Injection Equipment Harms Patients

In 2009, in response to reports of improper use of insulin pens in hospitals, the Food and Drug Administration issued an alert reminding healthcare providers that insulin pens are meant for use on a single person only and are not to be shared. Unfortunately, there have been continuing reports of patients placed at risk of bloodborne and bacterial pathogen transmission through sharing of insulin pens.

A SIMPLE RULE
Injection equipment (e.g., insulin pens, needles and syringes) should never be used for more than one person.

ONE NEEDLE, ONE SYRINGE, ONLY ONE TIME.

About the Safe Injection Practices Coalition
The Safe Injection Practices Coalition (SIPC) is a partnership of healthcare-related organizations led by the Centers for Disease Control and Prevention. The SIPC developed the One & Only Campaign—a public health effort to eliminate unsafe medical injections by raising awareness of safe injection practices.

For a list of SIPC partners, for more information about the campaign, and to view additional resources including videos and other materials, please visit:
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.

What Every Healthcare Provider Needs To Know

BE AWARE DON'T SHARE
ONE INSULIN PEN, ONLY ONE PERSON
Materials available for order free of charge

One & Only Campaign Materials For Order Via CDC-INFO

- Safe Injection Practices DVD
  - Item 22-0087
- Rx for Safe Injections Poster
  - Item 22-0096
- It's Elementary Poster
  - Item 22-0697
- Provider Brochure
  - Item 22-0762
- Patient Brochure
  - Item 22-0701
- Injection Safety Infographic
  - Item 22-1504
- Single-Dose & Multi-Dose Vial Infographic
  - Item 22-1599
- Injection Safety Pocket Card
  - Item 22-0713
- Logo Poster for General Public
  - Item 22-0599
- Injection Safety Dangerous Misperceptions Flyer
  - Item 22-1178
- Injection Safety Healthcare Provider Checklist
  - Item 23-1176
- Injection Safety Fact Sheet
  - Item 23-1502
- Injection Safety Healthcare Provider Toolkit
  - Item 22-1177

You Can Order 3 Ways

SCAN
Scan with your smartphone to access the ordering page

CALL
1-800-CDC-INFO

CLICK
www.cdc.gov/pubs/CDCInfoOnDemand.aspx
Select Injection Safety – One & Only Campaign to order materials.
Drug diversion: Not just a hospital problem

Drug diversion* spreads infection from healthcare providers to patients

Healthcare provider with Hepatitis C or other bloodborne infection tampers with injectable drug

Contaminated injection equipment and supplies present in the patient care environment

Exposure of patient results from use of contaminated drug or equipment for patient injection or infusion

*Drug diversion occurs when prescription medicines are obtained or used illegally by healthcare providers.

For more information, visit CDC.gov/injectionSafety/drugdiversion
Why? Increasing opioid use

Figure 2. Rates of opioid overdose deaths, opioid sales, and opioid substance abuse treatment admissions, United States, 1999-2010
Context: Substance abuse in HCW tracks with population at large

- 10-12% of physicians will develop substance use disorder during careers\textsuperscript{1,2}

- 5 year British Medical Journal (BMJ) study found that physicians with substance use disorders are
  - 87% male
  - 36\% abused opioids
  - 50\% abused alcohol
  - 14\% history of IDU

- Less data on non-physician HCW substance abuse, but diversion documented in these HCWs

1. Hughes, JAMA, 1992
Mechanisms of diversion

- **False documentation** (e.g., medication not administered to the patient or “wasted” and instead used by the HCW)

- **Scavenging** of wasted medication (e.g., removal of residual medication from trash or used syringes)

- **Theft by tampering** (e.g., removal of medication from a container or syringe and replaced with similarly appearing solution that may be administered to patients)
Risks to patients

• Patient safety is compromised whenever drug diversion by HCWs occur

• Harms can include
  – Failure to receive prescribed medication (including pain management)
  – Exposure to substandard care from an impaired HCW
  – Exposure to potentially life-threatening infections

Training video resources

http://www.oneandonlycampaign.org/content/audio-video
What steps can I take today to improve injection safety?

1. Write or review protocols based on best practice for  
   a. Blood glucose monitoring 
   b. Insulin pen use 
   c. Narcotics administration

2. Teach protocols; practice technical steps

3. Observe, provide feedback; adjust practice; repeat

4. Review for new hires; periodic refreshers  
   a. “Train the trainer” concept perpetuates bad practice  
   b. Competency big focus of regulators
DROP-CRE Network

- Drug-Resistant Organism Prevention and Coordinated Regional Epidemiology Network
- Multi-drug resistant Gram-negative bacteria
- Detection = Lab reporting
- Protection = Specialized testing at Oregon State Public Health Lab
  - Carbapenemase testing in-house
- Prevention
  - Education of patients and providers
  - Interfacility transfer communication
  - Toolkit
Antimicrobial stewardship

The Core Elements of Antibiotic Stewardship for Nursing Homes

Leadership commitment
Demonstrate support and commitment to safe and appropriate antibiotic use in your facility

Accountability
Identify physician, nursing and pharmacy leads responsible for promoting and overseeing antibiotic stewardship activities in your facility

Drug expertise
Establish access to consultant pharmacists or other individuals with experience or training in antibiotic stewardship for your facility

Action
Implement at least one policy or practice to improve antibiotic use

Tracking
Monitor at least one process measure of antibiotic use and at least one outcome from antibiotic use in your facility

Reporting
Provide regular feedback on antibiotic use and resistance to prescribing clinicians, nursing staff and other relevant staff

Education
Provide resources to clinicians, nursing staff, residents and families about antibiotic resistance and opportunities for improving antibiotic use

Oregon Health Authority
CDI collaborative

- Detection = surveillance = testing
- Protection = contact precautions
- Environment = sporocidal
- Antibiotic stewardship
  - Indication, drug, dose, duration
  - Colonization vs. infection
  - Prevention: UTI prevention, catheter care
- Interfacility transfer communication
  - Communicate, communicate, communicate

**Inter-facility Infection Control Transfer Form**

SENDING FACILITY TO COMPLETE FORM and COMMUNICATE TO ACCEPTING FACILITY

*Please attach copies of latest culture reports with susceptibilities, if available*
Onset of CDI after hospital discharge to LTCF

Day 7

by day 30 = 51% of all cases

Rebecca Smith, NYC EIP CDI Surveillance Update, CDC, 2011
Fun fact #3

How does your facility communicate MDRO or CDI at transfer?
(N = 133)

- Our staff tells the staff at the receiving facility during resident sign-over: 60%
- We document into a specific MDRO field or "flag" on transfer documents: 30%
- We use a specific MDRO interfacility transfer communication form: 20%
- MDRO documentation is always part of the physician discharge summary: 15%
- Non-MDRO-specific medical chart or transfer documentation: 10%
- Our facility does not have a reliable way to communicate MDROs on transfer: 5%
- Other: 0%

Source: 2015 Oregon HAI Survey of SNFs
Interfacility transfer communication

- Rule since January 1, 2014
- Healthcare facilities, including
  - Hospitals
  - Birthing centers
  - Dialysis
  - Ambulatory surgery centers
  - Nursing homes, CBC
- Report the receiving facility
  - Readily available, any disease using infection control, MDRO
- Receiving facility reports back
  - If present on admission

http://tinyurl.com/oregonift
# Inter-facility Infection Control Transfer Form

**SENDING FACILITY TO COMPLETE FORM and COMMUNICATE TO ACCEPTING FACILITY**

*Please attach copies of latest culture reports with susceptibilities, if available*

<table>
<thead>
<tr>
<th>Patient/Resident Last Name</th>
<th>First Name</th>
<th>Date of Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Print or place Patient Label*

<table>
<thead>
<tr>
<th>Sending Facility Name</th>
<th>Sending Facility Unit</th>
<th>Sending Facility Phone #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the patient/resident currently on antibiotics?  □ NO  □ YES  DX: __________________________

Does the patient/resident have pending cultures? □ NO □ YES

Is the patient/resident currently on precautions? □ NO □ YES

**Type of Precautions (check all that apply)**  □ Contact □ Droplet □ Airborne □ Other: __________________________

<table>
<thead>
<tr>
<th>Does patient currently have an infection, colonization OR a history of a multidrug-resistant organism (MDRO)?</th>
<th>Colonization or history</th>
<th>Active infection on treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Check if YES</td>
<td>Check if YES</td>
</tr>
<tr>
<td><strong>MRSA</strong> (methicillin-resistant <em>Staphylococcus aureus</em>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VRE</strong> (Vancomycin-resistant <em>Enterococcus</em>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C. diff</strong> (<em>Clostridium difficile, CDI</em>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acinetobacter spp.</strong>, multidrug-resistant</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gram-negative organism resistant to multiple antibiotics</strong> (e.g., <em>E. coli, Klebsiella, Proteus spp.</em>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CRE (carbapenem-resistant <em>Enterobacteriaceae</em>)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong>**:**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Culture report with multiple antibiotics marked resistant (R); send copy of report with susceptibilities.
**Other: lice, scabies, shingles, norovirus, influenza, tuberculosis, etc.
Our facility notifies a receiving facility of a resident’s MDRO or CDI status upon discharge from our facility.

Transferring facilities notify our facility of a resident’s MDRO or CDI status upon admission.

Our administration supports interfacility transfer communication of MDROs and CDI.

Our facility would admit a new resident with a known CDI infection.

Our facility would admit a new resident with a known CRE infection.
Fun fact #4: Increasing acuity of care

Type of Resident Services Delivered, % (N = 139)

- Long-term general nursing
- Management of hospice/palliative care residents
- Skilled nursing/short-term (subacute) rehabilitation
- IV infusions using central lines
- Management of residents with a tracheostomy
- Long-term dementia
- Management of bariatric residents
- Dedicated staff to provide wound care
- Management of residents with a tracheostomy
- 24-hour a day on-site supervision by RN
- Long-term psychiatric (non-dementia)
- Other comments (please specify)
- Other (please explain below)
- Pediatric care
- None of above
- Management of residents on a ventilator

Source: 2015 Oregon HAI Survey of SNFs
What types of infection risks are present in your facility?
Fun fact #5

HCW Influenza Vaccination Rates, Oregon SNFs, 2011–2014

Source: 2015 Oregon HAI Survey of SNFs
Strategies to promote vaccination

Healthcare worker influenza vaccination

![Graph showing the use of promotional strategies in SNFs: 2012 & 2013.](image)

Source: 2013 Oregon HCW Influenza Vaccination Report
What can I do to improve prevention?

1. Perform an infection control risk assessment
   a. Minimum Expectations, Tools
   b. Pick a policy (e.g., blood glucose monitoring, urine catheter use)

2. Review policies
   a. Do they support infection prevention best practice?
   b. Interfacility transfer, safe injection, antibiotic stewardship

3. Review education
   a. Are new hires and current hires getting taught best practice?

4. Review practice
   a. Observe and give feedback
How do I know I have a problem?

- **EDUCATE:** Encourage staff to communicate what they are seeing

- **ASK:** Daily huddles with care staff
  - Residents with diarrhea without other cause?
  - Residents with vomiting?
  - Residents with influenza-like illness? (sore throat, fever, cough)
  - Other spontaneous infections? (e.g., cluster of cellulitis)

- **LOOK:** Nursing evaluation when change in status
  - Assess patient
  - Confirm meets infection criteria
  - Collect appropriate pre-treatment testing, if indicated
What if I notice a cluster?

• Reach out to your local health department
  – www.healthoregon.org/diseasereporting

• Gather information: Line List
  – Name, DOB, room (all ill, whether or not lab confirmed)
  – Dates of onset of illness
  – Key symptoms (fever, vomiting, diarrhea, rash, pneumonia, cellulitis)
  – Outcomes
  – Vaccination status

• Tools available here:
What happens if I report a cluster?

- Local public health coordinates with Director of Nursing to:
  - Gather info (line list)
  - Identify pathogen (samples tested at public health laboratory)
  - Form a plan to halt outbreak (isolation, cleaning, prophylaxis, etc.)
  - Determine source
- Local public health may contact other facilities
  - E.g., hospital which performed surgeries, outpatient dialysis center
- Residents are usually not contacted
  - Some diseases need a resident’s specific risk factors
- Local public health may ask to review resident’s charts
  - Depends on the pathogen
- Follow-up to ensure plan completed, outstanding issues, prevention
What’s the benefit of reporting a cluster?

- Prevent other residents from becoming ill
- Prevent staff from becoming ill
- Identify the issue and improve the system
  - Blame-free
  - Root cause analysis
  - Swiss cheese framework
- Compliance with legislative mandate
Infection Control Assessment Tools

The basic elements of an infection prevention program are designed to prevent the spread of infection in healthcare settings. When these elements are present and practiced consistently, the risk of infection among patients and healthcare personnel is reduced.

The Infection Control Assessment Tools were developed by CDC for awardees under the Epidemiology and Laboratory Capacity (ELC) Infection Control Assessment and Response (ICAR) Program to assist health departments in assessing infection prevention practices and guide quality improvement activities (e.g., by addressing identified gaps). These tools may also be used by healthcare facilities to conduct internal quality improvement audits.

Assessment tools were developed for the following healthcare settings: acute care (including hospitals and long-term acute care hospitals), outpatient, long-term care, and hemodialysis. Select the assessment tool below that is specific to your setting.

- Infection Control Assessment Tool for Acute Care Hospitals [PDF - 433 KB]
- Infection Control Assessment Tool for Long-term Care Facilities [PDF - 253 KB]
- Infection Control Assessment Tool for Outpatient Settings [PDF - 337 KB]
- Infection Control Assessment Tool for Hemodialysis Facilities [PDF - 578 KB]

NOTE: For Outpatient settings, the previously released Guide to Infection Prevention for Outpatient Settings and its companion Checklist (available at: http://www.cdc.gov/hai/settings/outpatient/outpatient-care-guidelines.html) have been revised and made consistent with the Outpatient Settings Infection Control Assessment Tool. While the same infection prevention elements are included in both the checklist and assessment tool, the facility demographics sections differ slightly. The assessment tool is intended for health department use to complete ELC activities whereas the checklist is intended primarily for healthcare facility use.
## Infection control self-assessment tools

### VIII. Injection Safety and Point of Care Testing

<table>
<thead>
<tr>
<th>Elements to be assessed</th>
<th>Assessment</th>
<th>Notes/Areas for Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A.</strong> The facility has a policy on injection safety which includes protocols for performing finger sticks and point of care testing (e.g., assisted blood glucose monitoring, or AMBG).</td>
<td>○ Yes ○ No</td>
<td></td>
</tr>
<tr>
<td><strong>B.</strong> Personnel who perform point of care testing (e.g., AMBG) receive training and competency validation on injection safety procedures at time of employment.</td>
<td>○ Yes ○ No</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> <em>If point of care tests are performed by contract personnel, facility should verify that training is provided by contracting company</em></td>
<td></td>
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</tr>
<tr>
<td><strong>C.</strong> Personnel who perform point of care testing (e.g., AMBG) receive training and competency validation on injection safety procedures within the past 12 months.</td>
<td>○ Yes ○ No</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> <em>If point of care tests are performed by contract personnel, facility should verify that training is provided by contracting company</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What can I do to improve response?

• Get to know the infection preventionists at your referring hospitals
  – They want to know you!
  – Great resources and pulse of what’s going on in region
  – Interfacility communication of infectious diseases

• Get to know your public health partners
  – [www.healthoregon.org/diseasereporting](http://www.healthoregon.org/diseasereporting)

• Get to know your policies and procedures for dealing with infectious diseases
EDUCATION
Educational opportunities

Bloodborne Pathogens Training

Safe Injection Practices: Protecting Yourself and Your Patients

A Bloodborne Pathogens Training Activity

View Training  |  View Text Transcript
Download the latest version of Flash to view this training.
(Thank you for your patience as this training downloads)
View training as a video on YouTube
Thank you for your collaboration to improve care for Oregonians!

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Questions?
Follow up?

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