

Healthcare-Associated Infections Advisory Committee (HAIAC) Meeting

March 20, 2019
1:00 - 3:00 pm

PSOB – Room 1B
800 NE Oregon St.
Portland, OR 97232

Agenda, materials, minutes, recordings, and transcriptions for meetings are available at:
<http://www.oregon.gov/oha/PH/DiseasesConditions/CommunicableDisease/HAI/Prevention/Pages/Meetings.aspx>.

**MEMBERS
PRESENT:**

- Joshua L. Bardfield, Supply Chain Services Manager, The Oregon Clinic, P.C. (phone)
- Genevieve Buser, MD, Pediatric Infectious Disease Physician, Providence St. Vincent Medical Center
- Paul Cieslak, MD, Medical Director, Oregon Public Health Division, Oregon Health Authority (phone)
- Kelli Coelho, RN, CASC, MBA, Executive Director, RiverBend Ambulatory Surgery Center (phone)
- Dennis Drapiza, MPH, BSN, RN, CIC, Regional Director - Northwest Infection Prevention and Control, Kaiser Permanente Northwest
- Jordan Ferris, BSN, RN, CMSRN, Nursing Practice Consultant, Oregon Nurses Association (phone)
- Lisa Freeman, Executive Director, Connecticut Center for Patient Safety (phone)

- Jon Furuno, PhD, Associate Professor, Department of Pharmacy Practice, Oregon State University/College of Pharmacy, Oregon Health and Science University
- Vicki Nordby, RN, BSN, Nurse Consultant, Marquis Companies, Inc (phone)
- Pat Preston, MS, Executive Director, Center for Geriatric Infection Control
- Kirsten Schutte, MD, Infectious Disease and Medical Director of Infection Prevention and Control, Asante (phone)

MEMBERS
EXCUSED:

- Deborah Cateora, BSN, RN, Healthcare EDU/Training Coordinator and RN Consultant, Safety, Oversight and Quality Unit (SOQ Unit), Oregon Department of Human Services
- Pamela Cortez, MBA, BSN, RN, CNE, BC, Director of Patient Safety and Clinical Support, Salem Health
- Wendy L. Edwards, RN, BSN, Patient Safety Surveyor, Health Facility Licensing and Certification, Oregon Public Health Division, Oregon Health Authority
- Laurie Polneau, RN, MHA, CPHRM, Director, Quality/Risk Management/Infection Control, Vibra Specialty Hospital Portland
- Amy Jo Walter, Infection Preventionist, Southern Coos Hospital

OTHER
PARTICIPANTS
PRESENT:

- DeAnza Britton, RN, Friendship Health Center (phone)
- Tara Buehring, MPH, Infection Preventionist, Vibra Specialty Hospital (phone)
- Sydney Edlund, MS, Director of Analytics and Research, Oregon Patient Safety Commission
- Valerie Harmon, MPH, Interim Executive Director, Oregon Patient Safety Commission

- Karen Keuneke, RN, MSN, Supervisor of Infection Prevention, Good Samaritan Regional Medical Center (phone)
- Julie Koch, RN, MSN, BSN, CIC, Manager Infection Prevention, Salem Health Hospitals and Clinics
- Shanna Middaugh, MLS, BHA, CIC, Samaritan North Lincoln Hospital (phone)
- Chris Pfeiffer, MD, MHS, Associate Professor of Medicine, Division of Infectious Diseases, Portland VA Medical Center
- Mary Post, RN, MS, CNS, CIC, Infection Prevention/Employee Health Coordinator, Shriners Hospitals for Children – Portland

OHA STAFF
PRESENT:

- Maureen Cassidy, MPH, MDRO Epidemiologist
- Diane Roy, HAI Data and Logistics Coordinator
- Monika Samper, RN, Flu Vax Coordinator and Clinical Reviewer
- Lisa Takeuchi, MPH, HAI/AR Monitoring & Prevention Epidemiologist
- Roza Tammer, MPH, CIC, HAI Reporting Epidemiologist
- Dat Tran, MD, HAI Outbreak Response Physician

ISSUES HEARD:

- Call to order and roll call
- Logistics update
- Approve December 2018 minutes
- General HAI Program updates
- Multi-drug resistant organisms (MDRO) toolkit: content and implementation
- Antimicrobial stewardship in long-term care facilities (LTCFs)
- Oregon Health Authority (OHA) National Healthcare Safety Network (NHSN) reporting requirement review
- Discussion: topics for future meetings and reports
- Public comment

- Adjourn

These minutes are in compliance with Legislative Rules. Only text enclosed in italicized quotation marks reports a speaker's exact words. For complete contents, please refer to the recordings.

Item	Discussion	Action Item
<p>Call to Order and Roll Call Genevieve Buser, Providence St. Vincent (Chair)</p>	<p>11 members (73 percent) and 9 participants present.</p>	<p>No action items</p>
<p>Logistics Update Roza Tammer, Oregon Health Authority</p>	<ul style="list-style-type: none"> ➤ HAIAC meeting accessibility efforts were effective based on survey responses from remote attendees: <ul style="list-style-type: none"> • Webinars facilitated remote attendance. • Microphones enhanced audio. • OHA welcomes suggestions. ➤ Outbreak data temporarily eliminated from agenda. <ul style="list-style-type: none"> • New guidelines being developed about type of preliminary outbreak data that can be shared in public meeting. • Presentation of outbreak data likely to resume once guidelines established. ➤ HAIAC membership updates: <ul style="list-style-type: none"> • Dennis Drapiza assumed position of: Registered Nurse with an Interest and Involvement in Infection Control. 	<p>No action items</p>

	<ul style="list-style-type: none"> • Lisa Freeman, Executive Director of Connecticut Center for Patient Safety, replaced Dee Dee Vallier as Consumer Representative. • Laurie Thompson, formerly Laurie Murray-Snyder, is retiring. • Health Insurer Representative position still vacant. 	
<p>Approve December 2018 Minutes All Committee Members</p>	<p>December 2018 meeting minutes were approved by 73 percent of members.</p>	<p>No action items</p>
<p>General HAI Program Updates Roza Tammer, Oregon Health Authority</p>	<ul style="list-style-type: none"> ➤ Annual reports: <ul style="list-style-type: none"> • 2017-2018 healthcare personnel influenza vaccination report expected to be released in April. • 2018 NHSN data for publication in HAI report will be sent to facilities three times: <ul style="list-style-type: none"> ○ For initial validation on April 8th ○ For final review after data corrected ○ To preview before publication ➤ HAI surveys: <ul style="list-style-type: none"> • Sent to hospitals March 18, 2019; hope to receive surveys from all facilities by April 22nd. • Sent to skilled nursing facilities (SNFs) October 4, 2018; preliminary data from injection safety portion of survey revealed: <ul style="list-style-type: none"> ○ 75% provide IV transfusion using central lines. ○ 96% have written policy regarding injection safety. 	<p>No action items</p>

	<ul style="list-style-type: none"> ○ 92% have written policy concerning tracking personnel access to controlled substances. ○ 41% have drug diversion program that includes consultation with person responsible for infection prevention when drug tampering suspected/identified. ○ 80% provide safe injection training to personnel upon hire; 77% offer this training at least annually. ○ 70% perform safe injection audits during resident care. ○ 85% provide safe point of care testing training to personnel upon hire; 80% offer this training at least annually. ○ 72% perform safe point of care testing audits during resident care. 	
<p>MDRO Toolkit: Content and Implementation Chris Pfeiffer, VA Portland/OHSU</p> <p>See pages 22-42 of meeting materials</p>	<ul style="list-style-type: none"> ➤ Drug-Resistant Organism Prevention and Coordinated Regional Epidemiology (DRO-PCRE) Network: <ul style="list-style-type: none"> ● Statewide network initiated in 2012 to detect, control, and prevent (MDROs) with initial focus on carbapenem-resistant <i>Enterobacteriaceae</i> (CRE). ● Network encompasses hospitals, public health institutions, and stakeholders from private, public, and academic sectors. ● Accomplishments of DRO-PCRE Network include: 	<p>No action items</p>

	<ul style="list-style-type: none"> ○ Conducted needs assessment of infection preventionists in acute and long-term care and laboratorians. ○ Built laboratory capacity to track CRE and test for carbapenemase-producing carbapenem-resistant <i>Enterobacteriaceae</i> (CP-CRE). ○ Developed HAI team response and published CRE Toolkit. ○ Mandated interfacility transfer notification of CRE and relevant bugs. ➤ DROP-CRE Team developing MDRO toolkit to: <ul style="list-style-type: none"> ● Provide recommendations about strategies to prevent transmission of MDROs and <i>Clostridioides difficile</i> (<i>C. diff</i>) during patient care. ● Unify definitions of “MDRO” for infection control purposes to facilitate inter-facility communication. ➤ Team sought expertise of stakeholders: <ul style="list-style-type: none"> ● Convened hospital epidemiologist task force. ● Presented MDRO Toolkit concepts to: <ul style="list-style-type: none"> ○ Oregon and Southern Washington Association of Professionals in Infection Control (OSWAPIC). ○ DROP-CRE Advisory Committee. ➤ Toolkit developers recognized regional approach to MDROs must be simple. <ul style="list-style-type: none"> ● No complex testing. ● No electronic reminders. ● Implementable beyond infection prevention office. 	
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- Toolkit contains:
 - General information
 - Important factors to consider for MDRO risk assessment.
 - How differences in healthcare settings impact approach to MDROs.
 - General infection prevention and control principles.
 - Guidance for policies regarding visitors and animals to healthcare facilities.
 - Pathogens
 - MRSA
 - VRE
 - Drug-resistant *Enterobacteriaceae*
 - Drug-resistant *Pseudomonas aeruginosa*
 - Drug-resistant *Acinetobacter baumannii*
 - Drug-resistant *Stenotrophomonas maltophilia*
 - *C. difficile*
- Topics covered for each organism include:
 - Background and epidemiology.
 - Laboratory information and definitions.
 - Strategies to prevent transmission.
 - Cleaning and disinfection information.
 - Related regulations and requirements.
 - Infection prevention recommendations.

Comments and Questions

Question

- Genevieve Buser: Does asterisk apply to both colonized and infected patients? If patient has actively draining wound but wound not infected, would you still strongly recommend standard plus contact precautions? (Dr. Buser is referring to MRSA example on page 38 of meeting materials: Suggested Isolation Precautions for ACH & LTACH.)

Chris Pfeiffer: Yes.

Question

- Julie Koch: What do you recommend for outpatient departments?

Chris Pfeiffer: Standard precautions. For CP-CRE, considered augmenting outpatient requirements, but CDC states standard precautions, so difficult to require additional precautions. We stress to facilities with CP-CRE patient importance of adhering to standard precautions and cleaning room.

Question

- Jon Furuno: What is dissemination plan for toolkit?

Maureen Cassidy: Plan to post toolkit on our website; will not likely print copies due to possibility of edits and revisions.

Chris Pfeiffer: Send toolkit to hospital infection prevention contacts and long-term care facility colleagues; also hold webinars to discuss toolkit.

Maureen Cassidy: Laboratories.

Roza Tammer: Could do a Lunch and Learn webinar.

Question

➤ Jon Furuno: What settings would toolkit have most utility?

Genevieve Buser:

- Infectious disease and all non-hospital healthcare settings
- Ambulatory clinics – reach through the boards or Dr. Paul Lewis' (Multnomah County Health Officer) email lists for clinician alerts

Maureen Cassidy:

- Ambulatory surgery centers
- Dialysis facilities
- Other healthcare facility contact lists

Jon Furuno:

- Contacts we send our surveys to
- Trade groups

Roza Tammer:

- Health Alert Network (HAN)
- Oregon Nurses Association (ONA)
- Licensure boards
- Office of Rural Health
- Oregon Patient Safety Commission (OPSC)
- HealthInsight
- Oregon Ambulatory Surgery Center Association
- Oregon Partners in Healthcare Quality

	<p>Mary Post:</p> <ul style="list-style-type: none"> • Oregon Medical Association (OMA) for distribution to members • DHS administrator alerts heeded by many long-term care facilities <p>Kirsten Schutte: Northwest Safety and Quality Partnership</p> <p><u>Comment</u></p> <p>➤ Jon Furuno: May want to determine usage of toolkit.</p> <ul style="list-style-type: none"> • Collect data on how many times toolkit accessed and downloaded from website. • Ask if and when facilities use toolkit in next survey. <p>Mary Post: Or, do they reference the toolkit and has it catalyzed policy changes.</p> <p>Jon Furuno: Really want to know how we can improve document.</p> <p><u>Question</u></p> <p>➤ Genevieve Buser: How can we encourage facilities to perform gap analysis based on toolkit?</p> <p>Julie Koch: Include gap analysis template in toolkit.</p> <p>Genevieve Buser: Offer accreditation/recognition that would meet requirements of regulatory boards, facility administrators, etc.</p>	
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	<p>Julie Koch: Or just a statement encouraging facilities to perform their own gap analysis.</p> <p>Chris Pfeiffer: Develop an implementation guide.</p> <p><u>Question</u></p> <p>➤ Genevieve Buser: What is your one-liner on extended spectrum beta-lactamases (ESBLs)?</p> <p>Chris Pfeiffer: Labs are not reliably reporting ESBLs so essentially ignored. Most would qualify as an Oregon extensively drug-resistant <i>Enterobacteriaceae</i> (XDR-E) anyway because of resistance patterns.</p>	
<p>Antimicrobial Stewardship in Long-Term Care Facilities (LTCFs) Pat Preston, Center for Geriatric Infection Control</p> <p>See pages 43-87 of meeting materials</p>	<p><u>Guidance for antibiotic stewardship</u></p> <p>➤ Many resources and guidelines for antibiotic stewardship available through groups/agencies such as:</p> <ul style="list-style-type: none"> • Centers for Disease Control and Prevention (CDC). • Centers for Medicare and Medicaid Services (CMS). • US Department of Human Services, Agency for Healthcare Research and Quality (AHRQ). • Oregon Health Authority. • DROP-CRE Network. • Infectious Disease Society of America (IDSA). <p>➤ Facilities should primarily follow CMS regulations to avoid citations and cessation of patient admissions.</p> <p><u>Four groups responsible for antibiotic stewardship</u></p> <p>➤ CMS - collaborates with CDC and AHRQ</p>	<p>No action items</p>

	<ul style="list-style-type: none">• LTCFs must meet Requirements of Participation (RoPs) to take part in Medicare or Medicaid programs.• RoPs contain four F-Tags under regulatory section 483.80 Infection Control:<ul style="list-style-type: none">○ F880 Infection Prevention and Control.○ F881 Antibiotic Stewardship Program.○ F882 Infection Preventionist Qualifications/Role.○ F883 Influenza and Pneumococcal Immunizations.• F881 Antibiotic Stewardship Program mandates facilities to:<ul style="list-style-type: none">○ Establish protocols to review signs, symptoms, and lab reports to determine if antibiotic indicated or adjustments needed.○ Identify assessment tools or management algorithms for infections such as:<ul style="list-style-type: none">▪ SBAR (Situation, Background, Assessment, Recommendation) for urinary tract infection (UTI).▪ Loeb minimum criteria for initiation of antibiotics.○ Develop process for periodic review of antibiotic use by prescribing practitioners.• Education on Antibiotic Stewardship:<ul style="list-style-type: none">○ AHRQ website provides toolkit on how to start program.○ CDC collaborated with CMS to offer online training course; F-Tag 881 not covered.	
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	<ul style="list-style-type: none">➤ Providers - contend with competing recommendations<ul style="list-style-type: none">• Medical directors asked to follow Infectious Diseases Society of America (IDSA) practice guidelines published in American Journal of Infection Control (AJIC).• Medical directors obligated to join American Medical Directors Association (AMDA); guidelines for medical directors published in ADMA journals.<ul style="list-style-type: none">○ Journal of American Medical Directors Association (JAMDA) March 2018 issue provides official guidelines for antibiotic stewardship.○ Annals of Long-Term Care offers articles on antimicrobial stewardship including directives for developing program.• Journal of American Medical Association (JAMA) published informative piece on four moments of antibiotic decision making.➤ Nurses - drivers of antibiotic usage<ul style="list-style-type: none">• Antibiotic stewardship information useful to nurses available in journal articles (see pages 63-84 of meeting materials):<ul style="list-style-type: none">○ Integrating bedside nurses into antibiotic stewardship--co-authored by AHRQ (Infection Control and Hospital Epidemiology (ICHE)).○ Antibiotic stewardship targets in outpatient setting (AJIC).○ Recommendations to minimize treatment for asymptomatic urinary tract infections (ICHE).	
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	<ul style="list-style-type: none"> ○ Optimizing treatment of respiratory tract infections through nurse-initiated polymerase chain reaction (PCR) testing (AJIC). ○ Prevalence of <i>C. difficile</i> infection in LTCFs, acute care hospitals, and clinics (AJIC). ○ Inappropriate prescribing of antibiotics after diagnosis of <i>C. difficile</i> and impact on reoccurrence (AJIC). ○ Methicillin-resistant and methicillin-susceptible <i>Staphylococcus aureus</i> bloodstream infections (CDC, Morbidity and Mortality Weekly Report (MMWR)). ● Valuable tools to aid nurses in reducing antibiotic usage: <ul style="list-style-type: none"> ○ CDC and Stone's indications to treat UTIs. ○ Loeb minimum criteria for initiation of antibiotics. ○ AHRQ's SBAR tool for UTI assessment. ➤ Pharmacists <ul style="list-style-type: none"> ● F757 requires pharmacist to review antibiotic medications. ● Consulting pharmacists at commercial pharmacy services advised/told guidelines for prescribing antibiotics by corporate leadership; LTCF policies not considered. ● Majority of pharmaceutical companies headquartered outside Oregon; hinders influence of agencies such as 	
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	<p>Oregon's Quality Improvement Organization (QIO) HealthInsight and Oregon Patient Safety Commission.</p> <p><u>Comments and Questions</u></p> <p><u>Comment</u></p> <p>➤ John Furuno: About 35-50% of antibiotics in nursing homes initiated in hospital. When patient discharged from hospital, difficult for nursing homes to determine if antibiotics should be continued and length of treatment due to limited information. LTCFs often restart entire antibiotic course initiated in hospital.</p> <p>Pat Preston: Hospital emergency departments (EDs) prescribe significant amount of antibiotics to LTCF residents due to identification of white blood cells commonly found in colonized residents.</p>	
<p>OHA NHSN Reporting Requirement Review</p> <p>Roza Tammer, Oregon Health Authority</p>	<p>➤ OHA mandates hospitals report HAI outcome measures listed below for units/care areas specified in Oregon Administrative Rules (OARs):</p> <ul style="list-style-type: none"> • Central line-associated bloodstream infections (CLABSIs). • Catheter-associated urinary tract infections (CAUTIs). • Laboratory-identified methicillin-resistant <i>Staphylococcus aureus</i> (MRSA). • Laboratory-identified <i>Clostridium difficile</i> infections (CDI). 	<p>Send questions and comments to Roza Tammer.</p>

<p>See pages 88-101 of meeting materials</p>	<ul style="list-style-type: none"> • Surgical site infections (SSIs) resulting from following procedures: <ul style="list-style-type: none"> ○ Coronary artery bypass graft (CBGB). ○ Knee prosthesis (KPRO). ○ Colon surgery (COLO). ○ Hip prosthesis (HPRO). ○ Abdominal hysterectomy (HYST). ○ Laminectomy (LAM). ➤ Oregon's trend data indicates hospitals need to improve in three HAI categories based on 2014 national standardized infection ratios (SIRs) and 2013 Health and Human Services (HHS) targets: <ul style="list-style-type: none"> ○ CLABSIs in neonatal intensive care units (NICUs). ○ <i>Clostridioides difficile</i>. ○ KPRO SSIs. ○ HPRO SSIs. ➤ Should OHA expand or reduce HAI reporting requirements? Possible additions: <ul style="list-style-type: none"> • New measures such as: <ul style="list-style-type: none"> ○ Antimicrobial use and resistance (AU/AR). ○ Lab-based surveillance of MDROs. ○ Central line insertion practices (CLIP). • New hospital locations for CLABSI and CAUTI. • New procedure types or outpatient procedures for SSIs. • New variables such as race, ethnicity, or date of birth. • New outcome or process measures for: 	
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	<ul style="list-style-type: none"> ○ Ambulatory surgery centers. ○ Outpatient dialysis facilities. ○ Long-term care facilities. ○ Inpatient rehabilitation facilities. ○ Inpatient psychiatric facilities. 	
<p>Discussion: Topics for future meetings and reports All members</p>	<ul style="list-style-type: none"> ➤ Genevieve Buser: Hospital presentation on lessons learned from recent measles outbreak. ➤ Julie Koch: Guidance on mapping hospital care areas to NHSN location codes; care in place complicates mapping. ➤ Mary Post: Explore requiring hospital day surgery units and ambulatory surgery centers to report SSIs; inpatient surgeries shifting to outpatient settings. 	No action items
Public comment	No public comment	No action items
Adjourn		

Next meeting will be June 19, 2019 1:00 pm - 3:00 pm, at Portland State Office Building, Room 1B

Submitted by: Diane Roy

Reviewed by: Dat Tran

Roza Tammer

OHA NHSN Reporting Requirement Review

Roza Tammer, MPH, CIC
Healthcare-Associated Infections Program
HAIAC
March 20, 2019



PUBLIC HEALTH DIVISION
Acute and Communicable Disease Prevention Section

Mandatory HAI reporting requirements

Measure – Device-associated infections	General trend (new baseline)
<ul style="list-style-type: none"> • Central line-associated bloodstream infections (CLABSIs) <ul style="list-style-type: none"> • Adult, pediatric, and neonatal ICUs • Adult and pediatric medical, medical/surgical, and surgical wards 	<ul style="list-style-type: none"> - ACH decreasing, SIR <1 - CAH increasing, SIR >1
<ul style="list-style-type: none"> • Catheter-associated urinary tract infections (CAUTIs) <ul style="list-style-type: none"> • Adult and pediatric ICUs • Adult and pediatric medical, medical/surgical, surgical, and inpatient rehabilitation wards 	<ul style="list-style-type: none"> - ACH steady, SIR approx. 1 - CAH steady, SIR <1

Mandatory HAI reporting requirements

Measure – LabID Events	General trend (new baseline)
<ul style="list-style-type: none"> Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) bloodstream infections 	<ul style="list-style-type: none"> - ACH increasing, SIR <1 - CAH stable, SIR >1
<ul style="list-style-type: none"> <i>Clostridium difficile</i> infections (CDI) 	<ul style="list-style-type: none"> - ACH decreasing, SIR <1 - CAH decreasing, SIR <1

Mandatory HAI reporting requirements

Procedure – Surgical site infections	General trend (new baseline)
<ul style="list-style-type: none"> Coronary artery bypass graft (CBGB) 	- Adults increasing, SIR <1
<ul style="list-style-type: none"> Knee prosthesis (KPRO) 	- Adults stable, SIR >1
<ul style="list-style-type: none"> Colon surgery (COLO) 	- Adults stable, SIR <1
<ul style="list-style-type: none"> Hip prosthesis (HPRO) 	- Adults decreasing, SIR >1
<ul style="list-style-type: none"> Abdominal hysterectomy (HYST) 	- Adults increasing, SIR >1
<ul style="list-style-type: none"> Laminectomy (LAM) 	- Adults increasing, SIR <1

NHSN requirements in other states

- New Hampshire
 - Hospitals: CLABSI in all ICU; CLIP in all ICU; CAUTI in all ICU; SSI following CABG, COLO, HYST, KPRO; and HCP flu vaccination
 - ASCs: SSI following BRST, HER, and FX
- Pennsylvania
 - Hospitals: All HAI associated with any inpatient location using the Patient Safety Module
- Alaska
 - May “view reports made by facilities bound by CMS rule concerning certain HAIs”

Next steps

- Today: Discuss changes to reporting requirements proposed by Oregon infection preventionists
 - How to expand or reduce existing reporting requirements to ensure they best support and align with our existing and future priorities?
 - Within what timeline(s) should these changes take place?
- After today: Send your thoughts and feedback to the HAI Program
- September: Review proposals and vote!

Changes to reporting requirements proposed by Oregon IPs

- Remove laminectomy from hospital SSI reporting
- Add Non-Ventilator-Associated Pneumonia (PNEU) event to hospital reporting
- Add Antibiotic Use/Antibiotic Resistance to hospital reporting

- Add ambulatory surgery center SSI reporting requirements for high volume/high risk procedures
 - Hernia
 - Breast
 - Cholecystectomy
 - Cataract and other eye procedures
 - Joint procedures (E.g., hip, knee)
 - Laminectomy

National ACH SSI data - 2017

Adult SSIs with SIR >1	Pediatric SSIs with SIR >1
CRAN – Craniotomy	CRAN – Craniotomy
CSEC – Cesarean section	CSEC – Cesarean section
FX – Open reduction of fracture	FX – Open reduction of fracture
KTP – Kidney transplant	KTP – Kidney transplant

National ACH SSI data - 2017

Adult SSIs with SIR >1	Pediatric SSIs with SIR >1
AMP – Limb amputation	
APPY – Appendix surgery	
BILI – Bile duct, liver, or pancreatic surgery	
CEA – Carotid endarterectomy	
FUSN – Spinal fusion	
KPRO – Knee arthroplasty	
NECK – Neck surgery	
OVRY – Ovarian surgery	
PACE – Pacemaker surgery	
PRST – Prostate surgery	
PVBY – Peripheral vascular bypass surgery	
XLAP – Abdominal surgery	
	HPRO – Hip arthroplasty
	LTP – Liver transplant
	THOR – Thoracic surgery

Thank you!

Roza Tammer, MPH, CIC
Healthcare-Associated Infections (HAI) Reporting Epidemiologist

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2018 OHA NHSN Reporting

Lisa Takeuchi
Healthcare-Associated Infections Program
HAIAC
June 19, 2019



PUBLIC HEALTH DIVISION
Acute and Communicable Disease Prevention Section

Objectives

- Review national 2017 HAI data
- Preview Oregon's 2018 HAI data
- Discuss format and considerations for HAI Report

Refresher on the SIR

- The standardized infection ratio (SIR) is the summary measure used to track HAIs at the national and state level

$$SIR = \frac{\# \text{ observed infections}}{\# \text{ predicted infections}}$$

- SIR > 1.0: more HAIs observed than predicted
- SIR < 1.0: fewer HAIs observed than predicted
- SIR = 1.0: # HAIs observed same as # predicted
- NOTE: If the # predicted infections < 1.0, an SIR will not be calculated

2017 National and State Data, CDC Acute Care Hospitals

HAI Type	# of facilities	2017 Oregon SIR	2017 National SIR	2017 OR SIR vs. 2017 National SIR
CLABSI (central line-associated bloodstream infections)	36	0.72	0.81	 -7%
CAUTI (catheter-associated urinary tract infections)	36	1.02	0.88	 16%
SSI: HYST (surgical site infections: hysterectomy)	33	1.16	0.89	 31%
SSI: COLO (surgical site infections: colon surgery)	33	0.8	0.91	 -12%
MRSA bloodstream infections	35	0.77	0.86	 -11%
<i>Clostridioides difficile</i> infections	35	0.83	0.80	 3%



SIR increase or decrease is not significantly different than comparison group.



SIR is significantly higher (worse) than comparison group.

<https://www.cdc.gov/hai/data/portal/progress-report.html>

Oregon's 2018 HAI Data

- Internal validation (April 1 – May 27, 2019)
 - Two opportunities for facilities to review their data
 - OHA conducted data quality checks
 - OHA 'froze' data on May 27, 2019
-

2018 HAI Outcome Measures

- Stratified by facility type:
 - CLABSI – adult & pediatric ICUs and wards, neonatal ICUs
 - CAUTI – adult & pediatric ICUs and wards (including IRFs)
 - *C. difficile* LabID events
 - MRSA BSI LabID events
- Stratified by age group (adult/peds):
 - SSI – CBGB, COLO, HPRO, HYST, KPRO, LAM
- Dialysis bloodstream infections

2018 Oregon HAI Data: Acute Care Hospitals

LEGEND

Page 34

- ▼ Statistically fewer infections
- ▽ Fewer infections (not statistically significant)
- ▲ Statistically more infections
- △ More infections (not statistically significant)
- ✓ Met 2020 HHS target
- ✗ Did not meet 2020 HHS target

• CLABSI SIRs

- In adult and pediatric ICUs: **0.46** ▼ ✓
- In neonatal ICUs: **0.62** ▽ ✗
- In adult and pediatric wards: **0.54** ▼ ✗

• CAUTI SIRs

- In adult and pediatric ICUs: **0.84** ▽ ✗
- In adult and pediatric wards: **0.95** ▽ ✗
- In inpatient rehabilitation units: **1.45** △ ✗

• MRSA BSI SIR (facility-wide): **0.72** ▼ ✗

• CDI SIR (facility-wide): **0.71** ▼ ✗

2018 Oregon HAI Data: Critical Access Hospitals

LEGEND

Page 35

- ▼ Statistically fewer infections
- ▽ Fewer infections (not statistically significant)
- ▲ Statistically more infections
- △ More infections (not statistically significant)
- ✓ Met 2020 HHS target
- ✗ Did not meet 2020 HHS target

- **CLABSI SIRs**

- In adult and pediatric ICUs: **#s too small**
- In adult and pediatric wards: **0.0** ▼ ✓

- **CAUTI SIRs**

- In adult and pediatric ICUs: **0.40** ▽ ✓
- In adult and pediatric wards: **1.07** △ ✗

- **MRSA BSI SIR (facility-wide): 1.14** △ ✗

- **CDI SIR (facility-wide): 0.51** ▼ ✓

2018 Oregon HAI Data: Surgical Site Infections

LEGEND

-  Statistically fewer infections
-  Fewer infections (not statistically significant)
-  Statistically more infections
-  More infections (not statistically significant)
-  Met 2020 HHS target
-  Did not meet 2020 HHS target

Procedure Type	Adult SIR			Pediatric SIR		
CBGB	0.82			--		
COLO	0.72			0.40		
HPRO	1.09			--		
HYST	0.74			--		
KPRO	1.27			--		
LAM	0.79			0.0		

2018 Oregon HAI Data: Dialysis Facilities

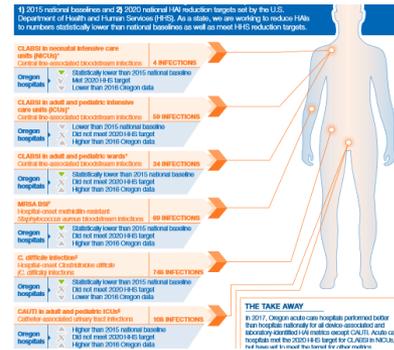
LEGEND

-  Statistically fewer infections
-  Fewer infections (not statistically significant)
-  Statistically more infections
-  More infections (not statistically significant)

HAI Type	2018 SIR	2017 National SIR (from Dialysis Compare)	2018 OR SIR vs 2017 National SIR
Bloodstream Infections	0.55 	0.81	 -32%

Presenting 2018 HAI Data

- Data censoring considerations
- Timing of reports
- Information to include
- Format and display of data



» Health Care-Associated Infections: 2016 Oregon Annual Report



Goals for Annual Report

- Clarity
- Brevity
- Utility

- Allows patients to use data to make healthcare choices
- Allows healthcare facilities to use data to improve patient safety

Data Censoring

- Is there concern for patient identification with small numbers?
- Is it useful to present small numbers?

Note:

- Exemptions have been removed this year but facilities with <50 central line days and <20 procedures could request exemptions from reporting CLABSIs and SSIs, respectively in 2018
- For SSIs, many critical access hospitals have <20 procedures

Procedures Performed	Procedure Type	Observed Infections	Predicted Infections	SIR
82	COLO	1	2.27	0.442
2	KPRO	0	0.02	*
345	LAM	1	2.21	0.453
2	HPRO	0	0.01	*
1	COLO	0	0.05	*
1	KPRO	0	0.01	*
1	HPRO	0	0	*

Example: 2017 SSI Data for Pediatrics

Considerations for HAI report

- Annually, OHA publishes an 'executive summary' and aggregate/facility-specific data online
- 2016 HAI pdf report also provided:
 - Trend data (last year before the new 2015 baseline)
 - Recommendations for providers, patients, and families to minimize healthcare-associated infections risk

How often should we produce a HAI report?

What information should the report include?

- Prior reports included recommendations
- Should we discuss HAI Program activities?
 - Based on prior discussion with HAIAC, did not include in the pdf report but included a link to our website
- Other NHSN information e.g., facility characteristics or antimicrobial stewardship metrics?
- Other topics?

Paper or web-based report?

- Need for printed reports?
- Web-based report
 - Interactive – expand and collapse sections of interest, links to other pages on our website
 - Include graphs and tables/maps
 - Allows us to better track traffic and use of the report

The screenshot shows the Oregon Health Authority website page for Healthcare-Associated Infections (HAI) Publications and Maps. The page has a dark blue header with the Oregon Health Authority logo and the text "Healthcare-Associated Infections" and "Oregon Public Health Division". Below the header is a breadcrumb trail: "Public Health Division > Diseases and Conditions > Communicable Disease > Healthcare-Associated Infections > HAI Publications and Maps". The main content area is titled "HAI Publications and Maps" and contains a list of links and a section titled "On this page:" with a list of reports.

Healthcare-Associated Infections

Learn about HAIs

For the Public

For Health Professionals

For Health Care Facilities

On this page:

- Healthcare Worker Influenza Vaccination Report
- HAI Summary Report
- CD Summary Articles
- Published Articles
- CRE Toolkit
- Surveys
- Special Studies
- Archived Reports

Questions?

Lisa Takeuchi

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Injection Safety and Needle Use in Jackson County, Oregon

Roza Tammer, MPH, CIC

Healthcare-Associated Infections Reporting Epidemiologist

Healthcare-Associated Infections Advisory Committee

June 18, 2019



Background

- 2015: Oregon Public Health Division (OPHD) investigated a prolotherapy clinic after a case of acute hepatitis C was linked to injections at an affiliated California clinic
- No cases identified in Oregon residents
- Investigation suggested incomplete understanding of injection and needle use practices in outpatient and alternative care settings
- Funding from CDC to develop a survey for licensed healthcare personnel (HCP), businesses, and facilities providing health-related services
- Project goals
 1. Assess needle use and injection practices
 2. Develop resources for healthcare facilities
 3. Engage healthcare personnel in educational activities

Background

- Perception
 - Injection safety is a fundamental skill that HCP should already be well-versed in
 - Additional education is unnecessary
- Reality
 - Delivery injectable treatments/medications involve complex competencies requiring multiple skills
 - Simple slip-ups or misunderstandings can cause serious harm
 - Patient morbidity and mortality
 - Repercussions for healthcare facilities, providers, systems
 - Survey data show HCP self-report observing unsafe injection practices in their own facilities(1)
 - Outbreak investigations confirm these practices occur(2)

Methods

- Survey development including pilot
- Toolkit development
- Round 1 of survey distribution (mailed)
 - Previously purchased lists of licensed HCP
 - Licensed facilities from two state-level survey agencies
 - Web-based search for relevant businesses
- Preliminary analysis
- Round 2 of survey distribution (mailed)
 - Same process as round 1
- Round 3 of survey distribution (emailed)
 - Newly purchased lists of licensed HCP

Survey recruitment language

The Oregon Health Authority is surveying all facilities and businesses in your area that provide health-related services.

- Goal: to understand needle use and injection practices performed in your area to inform educational activities.
- Those completing the survey should be familiar with needle use and injection practices (such as a nurse manager or primary administrator). You may not personally be involved in these tasks, but your responses should reflect the overall practices of the business/facility.
- This survey is non-regulatory.

48 questions on facility demographics, types of services/providers; procedures/practices regarding injection and needle-based care, education, and communications

Injection and Needle Safety Toolkit

Although injections and needle use in professional settings are generally safe, unsafe practices do happen and may cause serious harm.

Unsafe practices, like reusing vials or syringes, have the potential to spread disease by cross-contaminating body fluids. Since 2001, more than 150,000 people in the U.S. have been notified of potential exposure to viral hepatitis and HIV due to lapses in injection and needle safety.

Do your part. Three ways to help stop these infections:

1. Sign up to join the Oregon One and Only Campaign mailing list! Email Roza.P.Tammer@state.or.us for more information.
2. Learn about best practices by using this toolkit.
3. Share what you learn from the toolkit with those in your workplace.

Disclaimer: The resources below contain overlapping information on best practices, but are by no means comprehensive, as new resources continually emerge. In addition, the links provided do not serve as an endorsement of the organizations.

Toolkit:

<https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/COMMUNICABLEDISEASE/HAI/PREVENTION/Pages/one-and-only.aspx>

Evaluation:

<https://www.surveymonkey.com/r/QLPN728>

Toolkit Contents

For the Public

- What to know about receiving healthcare involving needles
- At-home injections and needle use

For Health Professionals

- Guidelines and Recommendations
- Aseptic Technique
- Needle Safety
- Medication and Treatment Management
- Diabetes Care
- Reports of Disease Transmission
- Specialty Specific Resources
- Additional Resources
- References

Feedback

- We want to hear from you! Let us know what you think about this toolkit by completing this quick feedback form.

Selected results

- Response rate of about 9% (of about 3,064 potential respondents)
- N=272 responses complete enough to include in the analysis
- Analysis was performed using Fisher's Exact Test in SAS Version 9.4
- Missing responses were not included in analysis
- Due to small quantity of acupuncture data, only inpatient versus outpatient practices were statistically assessed

Business/facility type (non-acupuncture)		Acupuncture
Inpatient	Outpatient	
47.8% (n=130)	50.0% (n=136)	2.2% (n=6)

Respondent facility/business type

Facility Type	Inpatient	Outpatient
Acupuncture clinic	1.5% (n=2)	0% (n=0)
Dental clinic	10.0% (n=13)	16.2% (n=22)
Hospital	60.8% (n=79)	0.7% (n=1)
Long-term care (such as nursing home, assisted living facility, or skilled nursing facility)	8.5% (n=11)	5.1% (n=7)
Primary care clinic	3.8% (n=5)	16.9% (n=23)
Specialty clinic	3.8% (n=5)	14.7% (n=20)
Urgent care clinic	0% (n=0)	1.5% (n=2)
Wellness center	0.8% (n=1)	1.5% (n=2)
Other	10.8% (n=14)	43.4% (n=59)

- 71% inpatient settings part of larger hospital/health system, versus 22% of outpatient and 17% of acupuncture

Provider and service types

- Common types of licensed providers and service types delivered included
 - CNA, DO, LPN, MD, NP, PA, RN, and licensed acupuncturists (LaC)
 - Biopsy, blood draw/phlebotomy, chemotherapy, CT and MRI scans, dialysis, endoscopy, injection, intravenous infusion, pain management, point-of-care testing involving fingerstick, specimen collection from sterile body site, surgery, transfusion, and acupuncture

Injectable medications/treatments

- Majority of respondents reported administering injectable medications/treatments, including 97% of inpatient settings and 74% of outpatient settings
- Mean number of patients/clients who receive at least one injection of any type per day
 - Outpatient: **12.7**; acupuncture **52.0**; inpatient: **112.6**
- Medications/treatments commonly administered by injection or infusion included antibiotics, fluids, anesthesia, pain medications, sedatives, insulin, anticoagulants, vaccines, antipsychotics, opiate antagonists, steroids, birth control, TB serum, sedatives, vitamins, and hormones

Practice duties amongst HCP by setting

Duty	Nurse	MD/DO, PA, NP	Other***
Mix/reconstitute medications for injection	Inpatient*	Outpatient	Inpatient*
Draw up medications or add to infusion bags	Inpatient*	Outpatient	Inpatient*
Administer injections	Inpatient*	Inpatient*	Outpatient*
Administer majority of injections	Inpatient*	Outpatient*	Outpatient
Insert peripheral intravenous catheters	Inpatient*	Inpatient*	Outpatient

***Other: Dental hygienists, dentists, medical assistants, pharmacists, and others

*Statistically significant result

Injection and needle-based practices by setting

Practice	Inpatient	Outpatient	Acupuncture
Administer injectable medications	97%	25%	0%
Use safety syringes*	76%	46%	-
Administer injections involving blood/body fluids	34%	59%	-
Administer compounded medications	34%	17%	17%
Mix/reconstitute injectable medications less than an hour before administration*	47%	34%	17%
Draw up injectable medications less than an hour before administration*	54%	51%	17%
Have two-step process for checking injectable medications	56%	40%	0%
Provide care using needles that does not involve injectable medications	9%	5%	50%

*Statistically significant result

Injection and needle-based practices by setting

- Most inpatient and outpatient facilities reported “never” using vials of medication on more than one patient
 - Outpatient facilities were statistically significantly more likely to “ever” do so than inpatient facilities
 - Examples of this practice were drawing doses of medication/treatment (e.g. local anesthetic, vaccine) from a multi-dose vial
- Inpatient facilities commonly administer anesthesia; most outpatient facilities do not
 - Inpatient facilities administer anesthesia at a variety of levels; outpatient facilities most likely to administer local (regional) anesthesia
- Provide care using needle that does not involve injection
 - Inpatient 9%; Outpatient 5%; Acupuncture 50%

Education and situational awareness

- Most inpatient and outpatient settings provided education on needle use/injection practices once per year; most acupuncture settings reported this never doing so
- Inpatient settings were statistically significantly more likely than outpatient settings to provide training/education about drug diversion
- Inpatient settings were statistically significantly more likely than outpatient settings to offer assistance to staff with substance use issues
- Inpatient settings were more likely than outpatient settings to receive general information about clusters of disease, outbreaks, or injection/needle related patient/client notifications

Educational interests by setting

Topic	Inpatient	Outpatient	Acupuncture
Aseptic technique	32%	24%	17%
Blood glucose monitoring and insulin administration	25%	14%	0%
Injection and needle safety and disease transmission, including outbreaks	38%	29%	0%
Medication/treatment management and storage	30%	24%	0%
Medication/treatment administration	30%	21%	0%
Medication/treatment preparation	29%	19%	0%
Medication vial use	22%	21%	0%
Medication compounding	15%	7%	0%
Needlestick injury	42%	8%	33%
Waste disposal	36%	29%	0%

Conclusions and limitations

- Survey provided tangible benefits for fostering safe injection practices and needle use in Oregon
 - Small sample size and large volume of questions allow for hypothesis generation – outpatient settings less likely to adhere to best practices
 - Results confirm ongoing need for education, though facilities/businesses/providers may not recognize this need
- Outpatient facilities likely underrepresented
- Methods established when project was funded included mailed surveys
 - Low response rates
 - Incomplete responses

Ongoing work and next steps

- Additional analyses (e.g., by health system engagement)
- Data sharing, final report preparation, publication
- Injection Safety and Needle Use Toolkit
 - Posted to HAI Program website in May 2018
 - 1,456 total views and 1,153 unique views as of May 2019
 - Continuing to expand to include new information and resources
 - Plan to review and update on a recurring basis
 - No actionable feedback from evaluation so far
- Continued training (e.g., infection preventionists, state surveyors)
 - Continue to provide in-person and remote education/training
 - New materials and approaches

Join the Oregon One & Only Campaign

Who can be a member? Anyone!

- Professional and nonprofit organizations
- Healthcare systems and facilities
- Provider groups
- Private companies
- Individuals interested in promoting injection safety

What do members do?

- Raise awareness
- Share materials
- Receive updates



162 members
statewide!

To join, email roza.p.tammer@state.or.us

January 19, 2019



OREGON ONE AND ONLY CAMPAIGN

Issue 1

In this issue:

- Happy birthday to Oregon Administrative Rule 333-019-0061
- Free injection safety resource highlight
- HAI Lunch and Learn Series
- Updates to our Safe Injections and Needle Use Toolkit
- Membership update
- Contact us

Greetings,

Thank you for partnering with us to help end infections from unsafe injection practices and needle use! We hope these quarterly newsletters will support you in the work.

Please feel free to share this information with your patients, clients, and colleagues.

Thank you for your commitment to patient safety!

Respectfully,
The Oregon Health Authority Healthcare-Associated Infections Program

Happy birthday to Oregon Administrative Rule 333-019-0061!

On January 1, 2018, we authored a rule requiring all licensed healthcare providers to adhere to standard precautions. Find the rule [here](#).

Free injection safety resource highlight

This Injection Safety Checklist is a great resource from the CDC's One and Only Campaign to help assess facility practices. Consider printing a few copies for your facility or sharing with your infection prevention colleagues. Access the checklist [here](#)!



Learn webinar series
More about the basics of infection control and injection on outpatient settings, policy, and oncology. Browse our and register [here](#).

Safe Injections and

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Membership update

We now have 86 members including you! Please share this resource with your colleagues.

Contact us

Email [Roza Tammer](#),
HAI Reporting
Epidemiologist.

Find us online

[Injection safety website](#),
[One and Only Campaign page](#) or
[Facebook](#)



References

- (1) Kossover-Smith R; Coutts K; Hatfield K; Cochran R; et al. One needle, one syringe, only one time? A survey of physician and nurse knowledge, attitudes, and practices around injection safety. American Journal of Infection Control 45(9):1018-1023. Available at [https://www.ajicjournal.org/article/S0196-6553\(17\)30680-6/fulltext?rss=yes](https://www.ajicjournal.org/article/S0196-6553(17)30680-6/fulltext?rss=yes)
- (2) Guh A; Thompson N; Schaefer M; Patel P; Perz, J. Patient Notification for Bloodborne Pathogen Testing due to Unsafe Injection Practices in the US Health Care Settings, 2001-2011. Medical Care Journal 50(9):785-791. Available at <https://www.ncbi.nlm.nih.gov/pubmed/22525612>

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