

The ICAR Experience: Assessing Vermont's Infection Control Capacity

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What does the ICAR tool look like?

Acute Care Hospitals

Long-term Care Facilities

Infection Prevention and Control Assessment Tool for Long-term Care Facilities

This tool is intended to assist in the assessment of infection control programs and practices in nursing homes and other long-term care facilities. If feasible, direct observations of infection control practices are encouraged. To facilitate the assessment, health departments are encouraged to share this tool with facilities in advance of their visit.

Overview

Section 1: Facility Demographics

Section 2: Infection Control Program and Infrastructure

Section 3: Direct Observation of Facility Practices (optional)

Section 4: Infection Control Guidelines and Other Resources

Infection Control Domains for Gap Assessment

- I. Infection Control Program and Infrastructure
- II. Healthcare Personnel and Resident Safety
- III. Surveillance and Disease Reporting
- IV. Hand Hygiene
- V. Personal Protective Equipment (PPE)
- VI. Respiratory/ Cough Etiquette
- VII. Antibiotic Stewardship
- VIII. Injection safety and Point of Care Testing
- IX. Environmental Cleaning

Addressed with Core Elements of Antibiotic Stewardship

Outpatient Settings Hemodialysis Facilities

<https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html>

Infection Prevention and Control Assessment Tool for Acute Care Hospitals

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Infection Control Domains for Gap Assessment

- I. Infection Control Program and Infrastructure
- II. Infection Control Training, Competency, and Implementation of Policies and Practices
 - A. Hand Hygiene
 - B. Personal Protective Equipment (PPE)
 - C. Prevention of Catheter-associated Urinary Tract Infection (CAUTI)
 - D. Prevention of Central Line-associated Bloodstream Infection (CLABSI)
 - E. Prevention of Ventilator-associated Event (VAE)
 - F. Injection Safety
 - G. Prevention of Surgical Site Infection
 - H. Prevention of *Clostridium difficile* Infection (CDI)
 - I. Environmental Cleaning
 - J. Device Reprocessing
- III. Systems to Detect, Prevent, and Respond to Healthcare-Associated Infections and Multidrug-Resistant Organisms (MDROs)

How is Vermont doing?

Hospitals

- **Completed 11 of 14 (79%)**
 - **10 included in this analysis**
- **6 Critical Access Hospitals (CAHs)**
- **4 Acute Care Facilities**

Domains with Identified Gaps:

1. **Prevention of CAUTI**
2. **Prevention of CLABSI**
3. **Management of ventilated patients**
4. **Injection safety**

Long-term Care Facilities

- **Completed 13 of approx. 38 (34%)**
 - **12 included in this analysis**
- **7 Small Nursing Homes (<100 beds)**
- **3 Large Nursing Homes (100+ beds)**
- **1 Residential Care Facility**
- **2 Psychiatric Facilities**

Domains with Identified Gaps:

1. **Hand hygiene**
2. **Personal Protective Equipment (PPE)**
3. **Antibiotic Stewardship**
4. **Injection safety**
5. **Cleaning and disinfection procedures**



Long-term Care Facilities

All LTCFs – What questions are being asked?

Domains with Identified Gaps:

1. Hand hygiene
2. Personal Protective Equipment (PPE)
3. Antibiotic Stewardship
4. Injection safety
5. Cleaning and disinfection procedures

Types of Questions Asked:

1. Is there training and competency validation upon hire?
2. Is there training and competency validation at least annually?
3. Routinely audits (monitors and documents) adherence to recommended practices
4. Provides feedback from audits to personnel
5. Additional questions about methods and supplies

All LTCFs – What questions are we saying no to?

Domains with Identified Gaps:

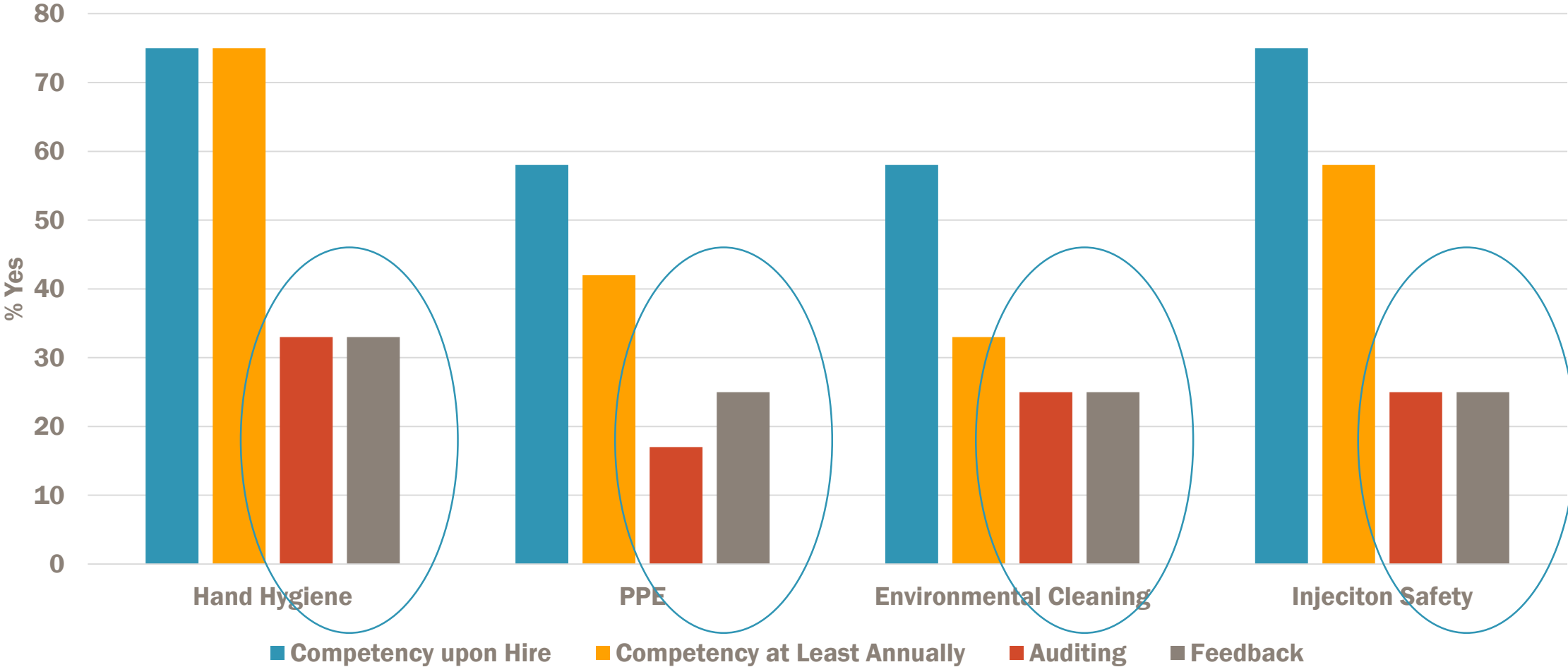
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All LTCFs – Where can we make improvements?

LTCF Competency-based Training Programs (n=12)



All LTCFs - Antibiotic Stewardship 7 Core Elements

LTCF Antibiotic Stewardship (n=12)



What is a residential care facility?

- **State licensed (Department of Licensing and Protection) & covered by Medicaid**
- **Provide housing, meals, and supportive services to adults who cannot live independently but do not require the type of care provided in a nursing home**

Residential Care Homes:

- **Provide room and board, assistance with personal care, general supervision, medication management, transportation for medical services and local community functions, laundry**
- **Level III homes must provide the additional services of nursing overview**
- **Special care units, such as dementia units, may be licensed for in Level IV facilities**

Residential Care Facility Results (n=1)

Consistent gaps with nursing homes:

- **Lacking competency-based training program for hand hygiene, PPE, environmental cleaning, and injection safety**
- **Lacking an antibiotic stewardship program**

Residential care specific gaps:

- **More overall “no” responses**
- **Infection control program infrastructure**
- **Healthcare personnel and resident safety**
- **Surveillance of MDROs and disease reporting**

Psychiatric Facilities Results (n=2)

Consistent gaps with nursing homes:

- **Lacking competency-based training program for hand hygiene, PPE, and injection safety**
- **Lacking an antibiotic stewardship program**

Psychiatric care specific gaps:

- **Infection control program infrastructure**
- **Healthcare personnel and resident safety**
- **Surveillance of MDROs and disease reporting**

Comparing Competency-Based Training by Facility Type

% Yes Responses	Nursing Homes (n=9)				Residential Care Facilities (n=1)				Psychiatric Facilities (n=2)			
	Hire	Annual	Audit	Feed-back	Hire	Annual	Audit	Feed-back	Hire	Annual	Audit	Feed-back
Hand Hygiene	78%	78%	22%	22%	100%	100%	0%	0%	50%	50%	100%	100%
PPE	67%	44%	11%	22%	0%	0%	0%	0%	50%	50%	50%	50%
Environmental Cleaning	56%	22%	11%	11%	0%	0%	0%	0%	100%	100%	100%	100%
Injection Safety	67%	44%	22%	22%	100%	100%	0%	0%	100%	100%	50%	50%

Comparing Antibiotic Stewardship by Facility Type

% Yes Responses	Nursing Homes (n=9)	Residential Care Facilities (n=1)	Psychiatric Facilities (n=2)
Leadership Commitment	56%	0%	50%
Accountability	89%	0%	50%
Drug Expertise	44%	0%	100%
Action	44%	0%	50%
Tracking	56%	50%	50%
Reporting	22%	0%	100%
Education	33%	0%	25%

How did the LTCF tool work?

Residential Care

- **Asking more of residential care facilities than previous surveys or questionnaires have**
- **Balance “no” responses with feasibility and access to resources**

Psychiatric

- **Psychiatric facilities may benefit from a more specific tool**

In the end...

- **It wasn't perfect, but the facilities appreciated it and would participate again**
- **Helped improve the relationship between facilities and the Health Department**



Mitigation

What has been done?

Phase I

- **On-site education**
 - **During ICAR visits, infection control advice is shared as the time of a “no” response and specific questions can be answered**

Phase II

- **Resources & Planning**
 - **At the end of an ICAR, we will e-mail you your results, along with a ton of resources separated by topic area**
 - **The ICAR tool produces a summary report of your “no” responses and gives guidance for prioritizing improvements**

Example ICAR Summary Report



Assessment Summary

Click to update summary tables

Infection Control Program and Infrastructure

Summary of 'No' Responses

3. Infection prevention and control program performs an annual facility infection risk assessment that evaluates and prioritizes potential risks for infections, contamination, and exposures and the program's preparedness to eliminate or mitigate such risks.

Action Items/Plans for Improvement: (check all that apply)

- Facility will conduct additional training for healthcare personnel (e.g., to correct a problem observed)
- Facility will improve regular training program, including incorporation of competency assessments
- Facility will initiate feedback program
- Facility will initiate auditing program
- Health dept. provided recommendation(s) at time of visit
- Facility will develop/update policies and procedures
- Health dept. provided resource(s)/tool(s) at time of visit
- Other (specify): [Click here to enter text.](#)

Facility Response: (check all that apply)

- Facility agrees with assessment in this domain
- Facility plans to take action to mitigate
- Other (specify): [Click here to enter text.](#)

Notes/Recommendations:

Prevention of Central line-associated Bloodstream Infection (CLABSI)

Summary of 'No' Responses

2. Hospital has a competency-based training program for **insertion** of central venous catheters.
- a. Training is provided to all personnel who are given responsibility for insertion of central venous catheters. Personnel may include, but are not limited to, physicians, physician assistants, and members of line insertion teams.
 - b. Training is provided upon hire, prior to being allowed to perform central venous catheter insertion.
 - e. Personnel are required to demonstrate competency with insertion (i.e., correct technique is observed by trainer) following each training.
 - f. Hospital maintains current documentation of competency with central venous catheter insertion for all personnel who insert central venous catheters.
6. Hospital regularly audits (monitors and documents) adherence to recommended practices for **maintenance** of central venous catheters.
- a. Respondent can describe process used for audits.
 - b. Respondent can describe frequency of audits.
 - c. Respondent can describe process for improvement when non-adherence is observed.
7. Hospital provides feedback from audits to personnel regarding their performance for **maintenance** of central venous catheters.
- a. Respondent can describe how feedback is provided.
 - b. Respondent can describe frequency of feedback.

Action Items/Plans for Improvement: (check all that apply)

- Facility will conduct additional training for healthcare personnel (e.g., to correct a problem observed)
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Facility Response: (check all that apply)

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Notes/Recommendations:

What is currently being done?

Phase III

- **Data Analysis**
 - ICAR statewide data analysis
 - ICAR Northeast regional comparison (in-progress)
 - WHONET & NHSN data
- **Educational Opportunities & Trainings**
 - MDRO Collaborative Cluster Meetings
 - Injection safety presentations
 - Share audit tools
 - Implement McGeer definitions
 - Share evidence based guidelines
 - Antibiotic stewardship contract with UVMMC

What is planned in the future plans?

- **Scheduling more initial ICARs**
- **Drug Diversion Tabletop**
- **Updating State HAI Plan**

What should we plan for the future?

- **Post ICAR follow-up phone calls or second visits?**
 - **Utilizing the observation tool?**
- **Webinars or other educational materials?**
- **An IP mentoring program?**
- **CIC study group?**

**What has
worked for
others?**



Thank You

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HAI Coordinator**

**Patsy Kelso, PhD
State Epidemiologist**



Questions?

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