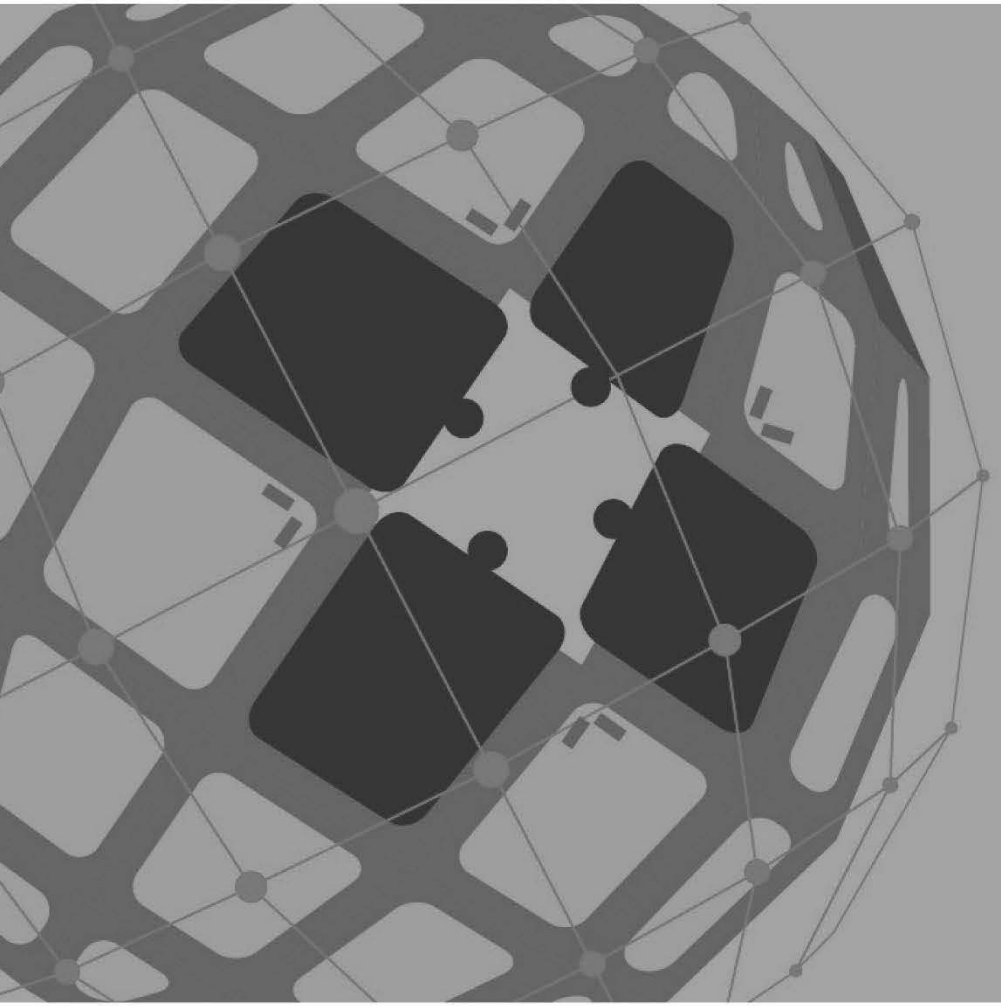
Real Time
MEDICAL SYSTEMS



Reduce HAIs and Improve Patient Outcomes Through Technology

Presented by:

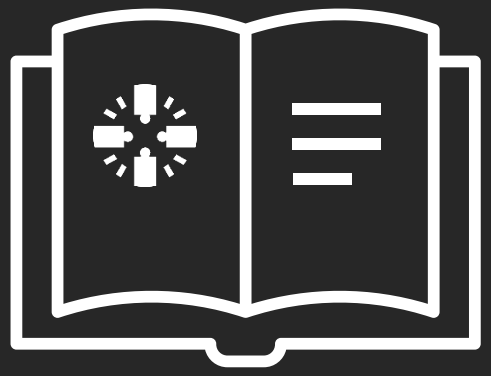
Michele Self, MA, CCC SLP, CMAC
Clinical Account Specialist, Real Time Medical Systems

Today's Presenter

Michele Self, MA, CCC SLP, CMAC

Clinical Account Specialist
Real Time Medical Systems

With over thirty years of experience in the post-acute industry, Michele Self has served as VP of Clinical Reimbursement for 3 large multi-state organizations, as well as Regional Director of Operations, managing over 15 SNFs. Michele specializes in post-acute care reimbursement, PDPM, Managed Care and State Case mix reimbursement, MDS and RAI processes, and Quality Measures. As a Clinical Account Specialist for Real Time Medical Systems, Michele provides support to new and existing customers on the advanced account specialist team, utilizing her expertise to assist with education and product development regarding reimbursement, MDS, and QM changes.



Learning Objectives

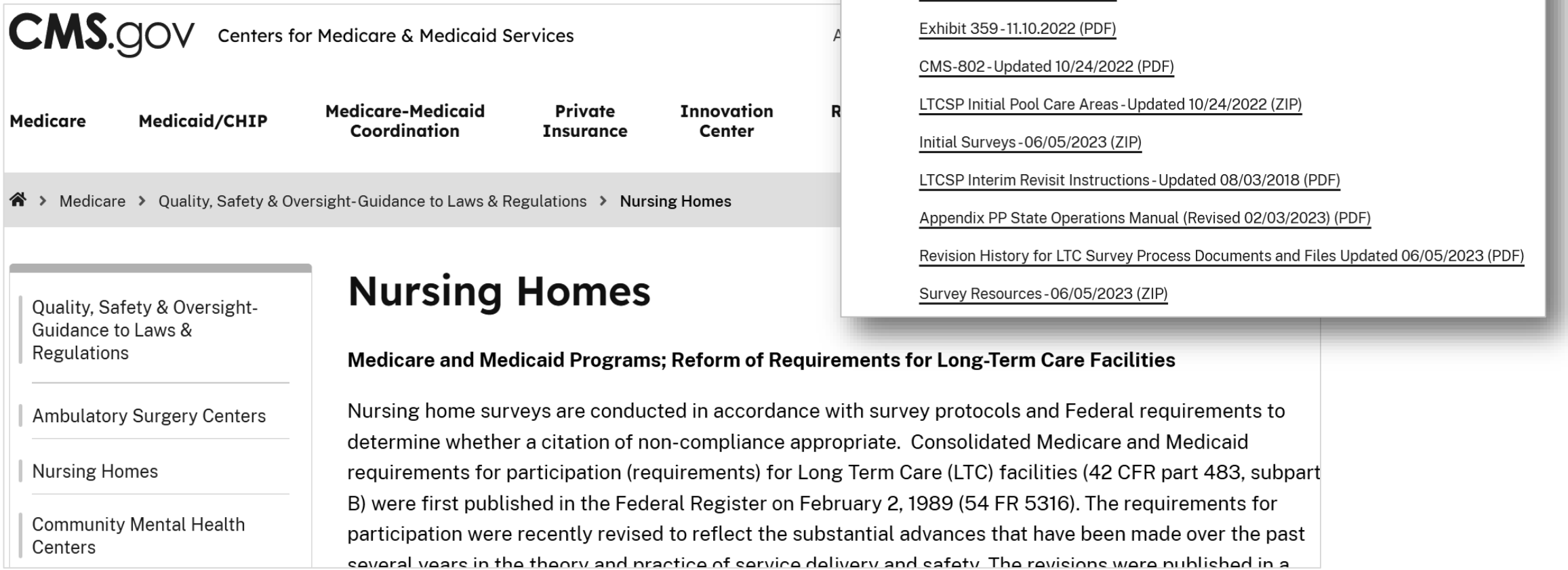
- Infection Control: What's New & Survey Preparation Review
- Learn how to leverage technology and data analytics to strengthen Infection Prevention and Control efforts
- Understand strategies for early identification of HAIs, proactive interventions, and avoiding HAI-related hospitalizations
- Illustrate how live data analytics can be utilized to help reduce regulatory burden and improve HAI reporting percentages

Real Time MEDICAL SYSTEMS

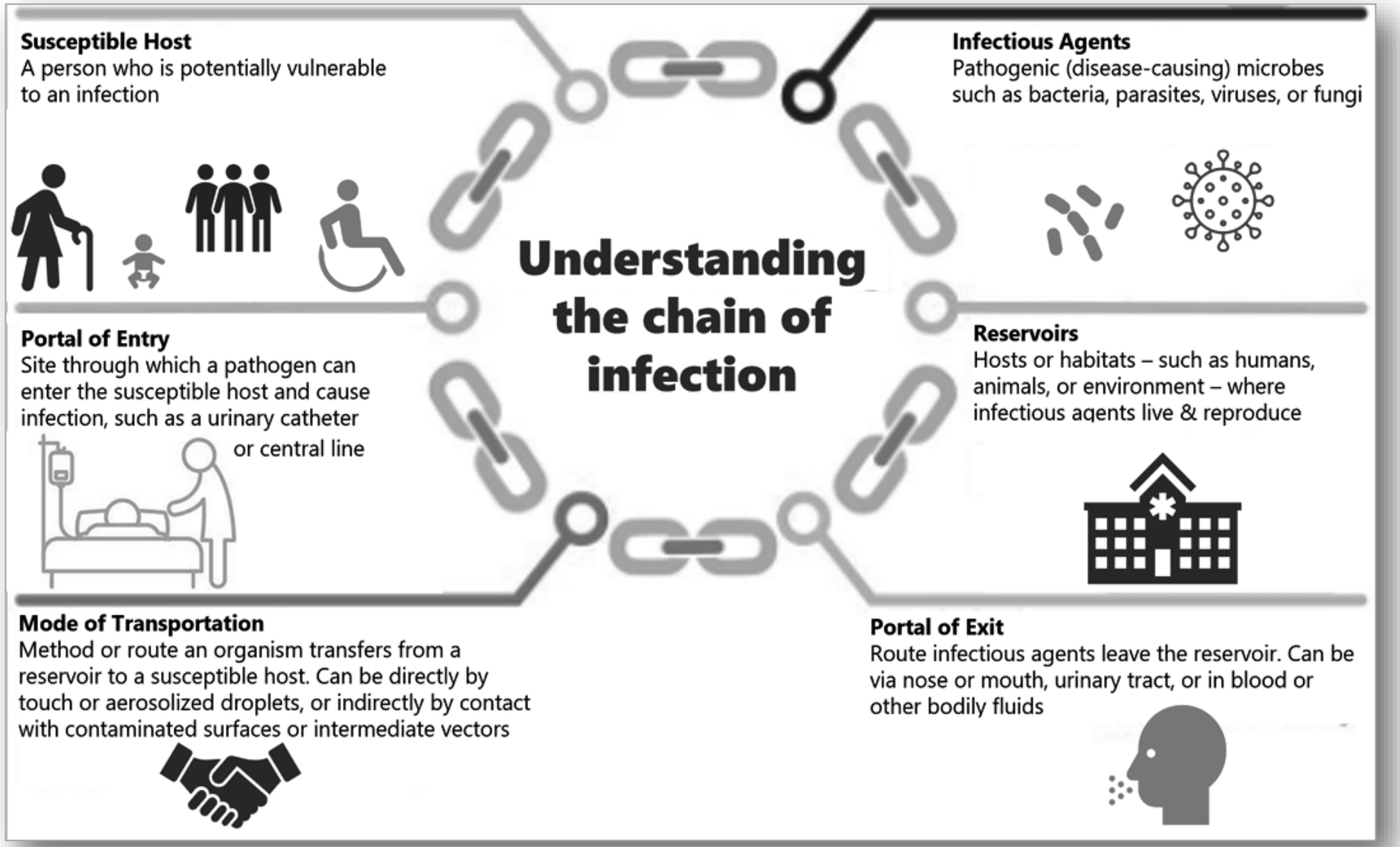
Infection Control: What's New & Survey Preparation Review

- Infection Control Deficiencies Among Top 3
- Revised – SOM (CMS)
- Revision History for LTC Process (CMS Reform of Requirements for LTC)
- Revised CE Pathway – Infection Control
- Revised CE Pathway – UTI
- CDC Health Advisory - Increase in Extensively Drug-Resistant Shigellosis
- Update your Clostridioides Difficile Resources; Review Policies & Procedures (CDC)
- C. Auris Continues to Spread Among Nursing Home Residents (CDC)
- Strengthened Enhanced Enforcement for Infection Control Deficiencies and Quality Improvement Activities in Nursing Homes (CMS)

Navigating CMS Resources

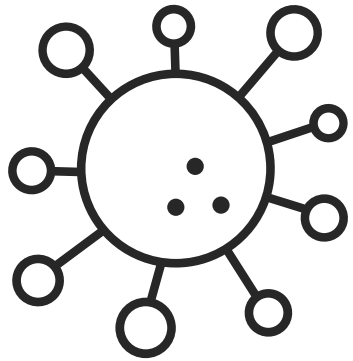


Understanding the Chain of Infection



HAI's – What Defines Them and What They Mean

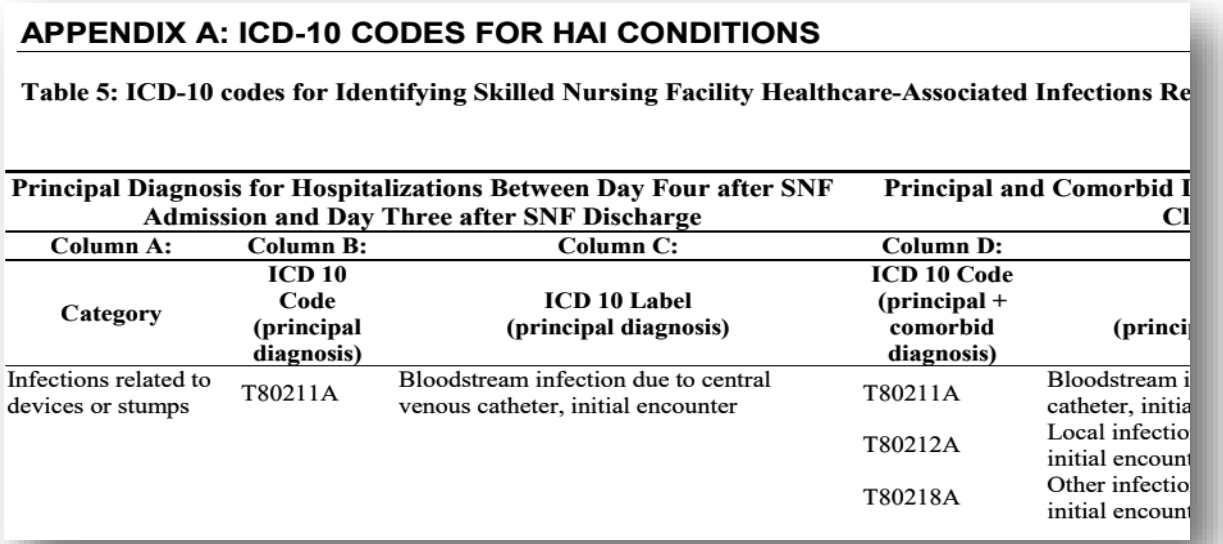
- Infections that develop in health care settings are known as Healthcare-Associated Infections, or HAIs
- HAIs are especially significant in long-term care (LTC) settings, as they have been estimated to account for 1.6 million to 3.8 million infections and 388,000 deaths annually
- HAIs are costly for LTC facilities: $38 million to $137 million annually for antimicrobial therapy and $673 million to $2 billion for hospitalizations
- CAUTI is a common, costly, and potentially life-threatening HAI for LTC residents
- An estimated 7 – 10% of all LTC residents have urinary catheters, including 12% of all new admissions at the time of transfer from acute care facilities to LTC facilities



AHRQ - Toolkit To Reduce CAUTI and Other HAIs in Long-Term Care Facilities

HAIs – Knowledge and Tools to Improve

- Skilled Nursing Facility Healthcare-Associated Infections Requiring Hospitalization for the Skilled Nursing Facility Quality Reporting Program
- The purpose of the SNF HAI measure is to estimate the risk-standardized rate of HAIs that are acquired during SNF care and result in hospitalization in one composite score. Unlike other HAI measures that target specific infections, this measure targets all HAIs that are serious enough to require transfer to an acute care hospital.

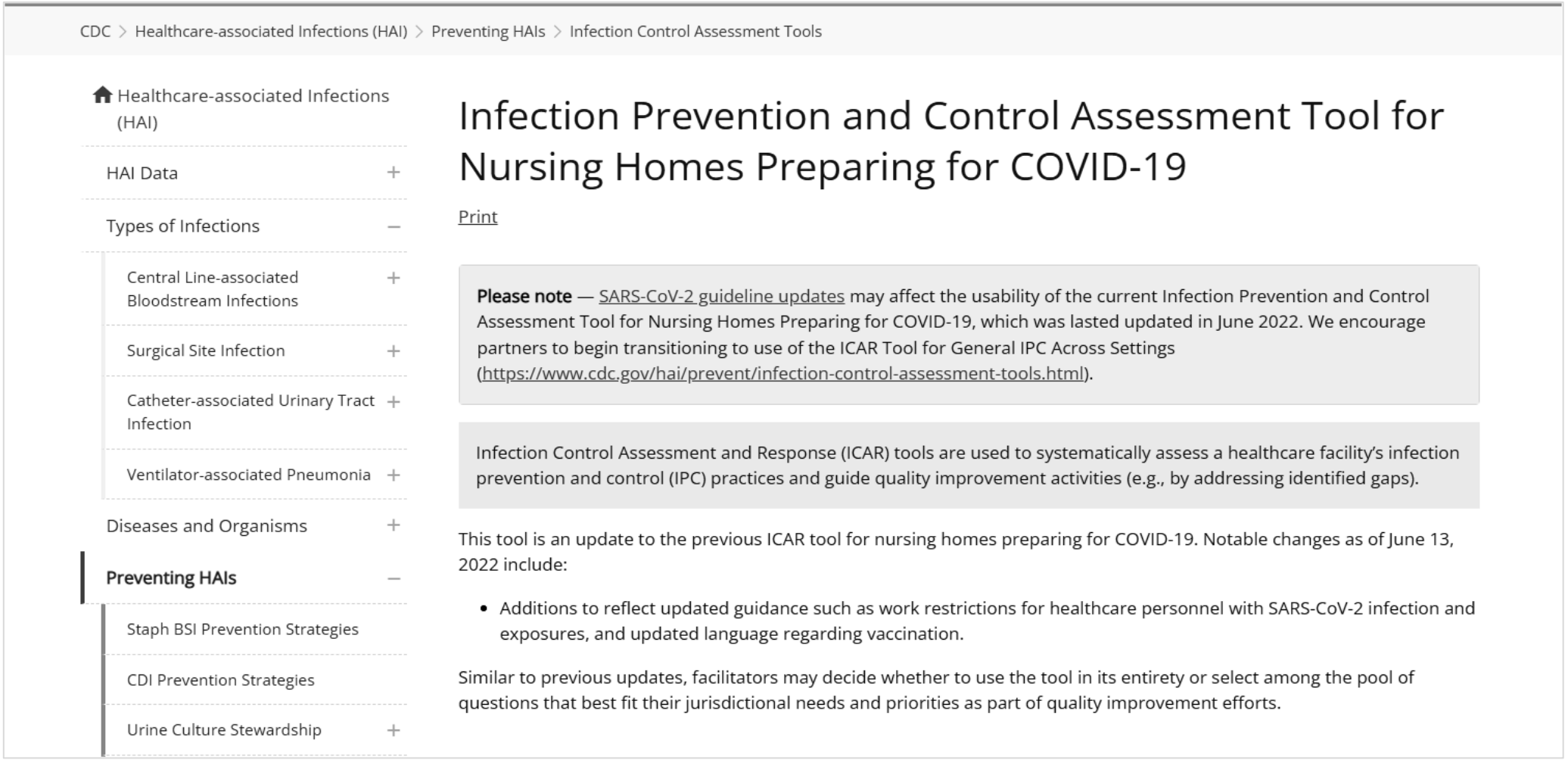


APPENDIX A: ICD-10 CODES FOR HAI CONDITIONS

Table 5: ICD-10 codes for Identifying Skilled Nursing Facility Healthcare-Associated Infections Re

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid I Cl	
Column A:	Column B:	Column C:	Column D:	
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	(princi
Infections related to devices or stumps	T80211A	Bloodstream infection due to central venous catheter, initial encounter	T80211A	Bloodstream i catheter, initia
			T80212A	Local infectio initial encount
			T80218A	Other infectio initial encount

HAI's – Knowledge and Tools



CDC > Healthcare-associated Infections (HAI) > Preventing HAIs > Infection Control Assessment Tools

- Healthcare-associated Infections (HAI)
- HAI Data +
- Types of Infections –
  - Central Line-associated Bloodstream Infections +
  - Surgical Site Infection +
  - Catheter-associated Urinary Tract Infection +
  - Ventilator-associated Pneumonia +
- Diseases and Organisms +
- **Preventing HAIs** –
  - Staph BSI Prevention Strategies
  - CDI Prevention Strategies
  - Urine Culture Stewardship +

Infection Prevention and Control Assessment Tool for Nursing Homes Preparing for COVID-19

Print

Please note — SARS-CoV-2 guideline updates may affect the usability of the current Infection Prevention and Control Assessment Tool for Nursing Homes Preparing for COVID-19, which was lasted updated in June 2022. We encourage partners to begin transitioning to use of the ICAR Tool for General IPC Across Settings (https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html).

Infection Control Assessment and Response (ICAR) tools are used to systematically assess a healthcare facility's infection prevention and control (IPC) practices and guide quality improvement activities (e.g., by addressing identified gaps).

This tool is an update to the previous ICAR tool for nursing homes preparing for COVID-19. Notable changes as of June 13, 2022 include:

- Additions to reflect updated guidance such as work restrictions for healthcare personnel with SARS-CoV-2 infection and exposures, and updated language regarding vaccination.

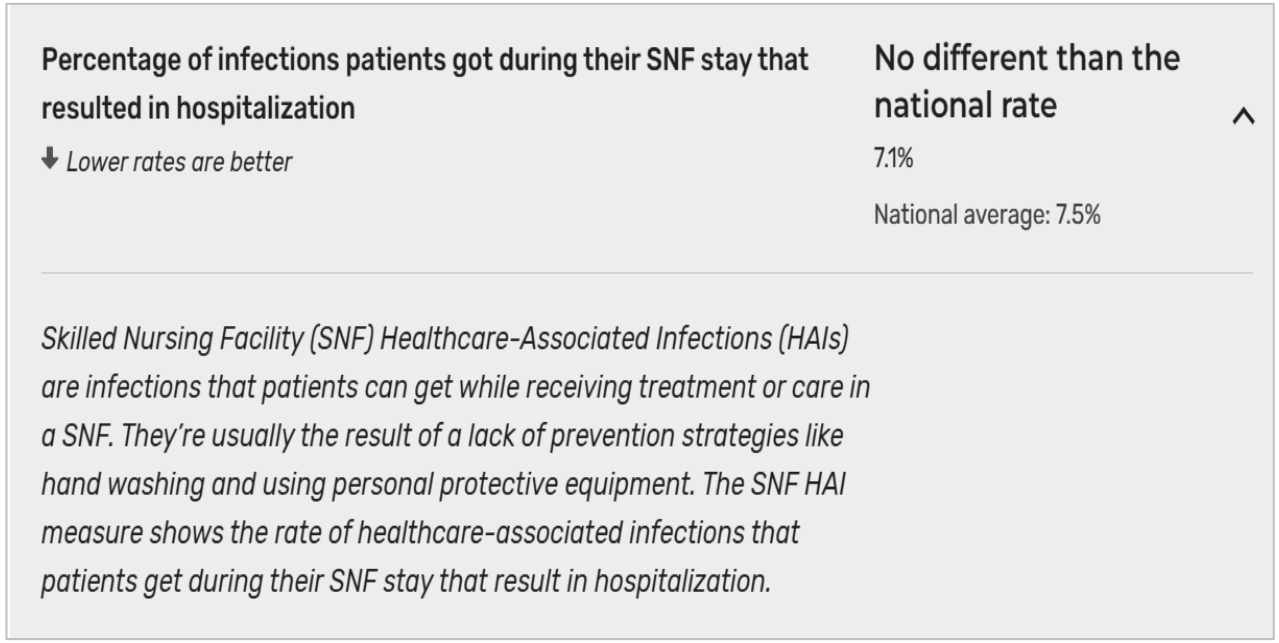
Similar to previous updates, facilitators may decide whether to use the tool in its entirety or select among the pool of questions that best fit their jurisdictional needs and priorities as part of quality improvement efforts.

https://www.cdc.gov/hai/prevent/infection-control-assessment-tools/nursing-homes.html

QRPs, QMs, and Care Compare

QM Considerations

- Percentage of short-stay residents who were re-hospitalized after a nursing home admission
- Percentage of short-stay residents who have had an outpatient emergency department visit
- Number of hospitalizations per 1,000 long-stay resident days

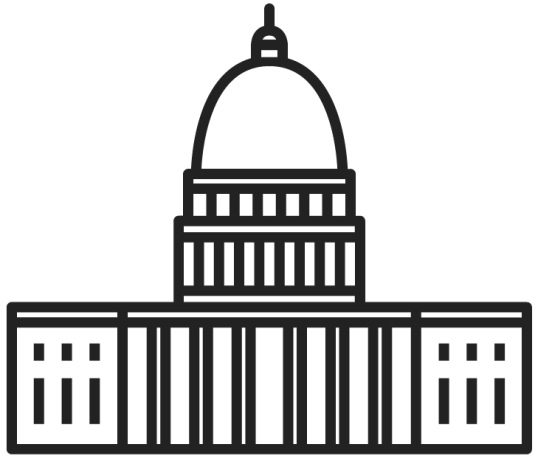


- Number of outpatient emergency department visits per 1,000 long-stay resident days
- Percentage of long-stay residents with a urinary tract infection
- Percentage of long-stay residents who have or had a catheter inserted and left in their bladder

The Regulations

- F880* – Infection Control
- F881 – Antibiotic Stewardship
- F882 – Infection Preventionist
- F883 – Influenza and Pneumococcal Immunizations
- F884* - COVID-19 Reporting to CDC – NHSN
- F887 – COVID – 19 Immunizations Residents

denotes 2 of top 3 cited deficiencies



Regulatory Requirements

F880

(Rev. 211; Issued: 02-03-23; Effective: 10-21-22; Implementation: 10-24-22)

§483.80 Infection Control

The facility must establish and maintain an infection prevention and control program designed to provide a safe, sanitary, and comfortable environment and to help prevent the development and transmission of communicable diseases and infections.

§483.80(a) Infection prevention and control program.

The facility must establish an infection prevention and control program (IPCP) that must include, at a minimum, the foll

§483.80(a)(1) A s ling infections and communicabl uals providing services under a c l according to §483.70(e) and fol

§483.80(a)(2) Wr include, but are not limited to:

"Healthcare-associated infection (HAI)" refers to an infection that residents acquire, that is associated with a medical or surgical intervention (e.g., podiatry, wound care debridement) within a nursing home and was not present or incubating at the time of admission.

Can’t Miss This Tool – CMS-20054 (6/2023)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

Infection Prevention, Control & Immunizations

Infection Control: This facility task must be used to investigate compliance at F880, F881, F882, F883, *and* F887. For the purpose of this task, “staff” includes all facility employees (regardless of clinical responsibilities or resident contact), licensed practitioners, adult students, trainees, and, volunteers; and individuals who provide care, treatment or other services for the facility and/or its residents, under contract or by other arrangement. The infection prevention and control program (IPCP) must be facility-wide and include all departments and contracted services. If a specific care area concern is identified, it should be evaluated under the specific care area, such as for pressure ulcers, respiratory care, catheter care,

Infection Surveillance:

- ☐ The facility prohibits employees with a communicable disease or infected skin lesions from direct contact with residents or their food, if direct contact will transmit disease. Staff are excluded from work according to national standards.
- ☐ The facility has established/implemented a surveillance plan, based on a facility assessment, for identifying, tracking, monitoring and/or reporting of infections, communicable diseases and outbreaks among residents and staff. Interview staff and review the surveillance plan to determine how the staff monitors residents to identify possible infections and communicable diseases.
- ☐ The plan includes early detection, management of a potentially infectious, symptomatic resident that requires laboratory testing and/or the implementation of appropriate TBP/PPE (the plan may include tracking this information in an infectious disease log).
- ☐ The plan uses evidence-based surveillance criteria (e.g., CDC NHSN Long-Term Care or revised McGeer Criteria) to define infections and the use of a data collection tool.
- ☐ The plan includes ongoing analysis of surveillance data and documentation of follow-up activity in response.
- ☐ The facility has a process for communicating at time of transfer to an acute care hospital or other healthcare provider the diagnosis to include infection or multidrug-resistant organism colonization status, special instructions or precautions for ongoing care such as transmission-based precautions, medications [e.g., antibiotic(s)], laboratory and/or radiology test results, treatment, and discharge summary (if discharged).

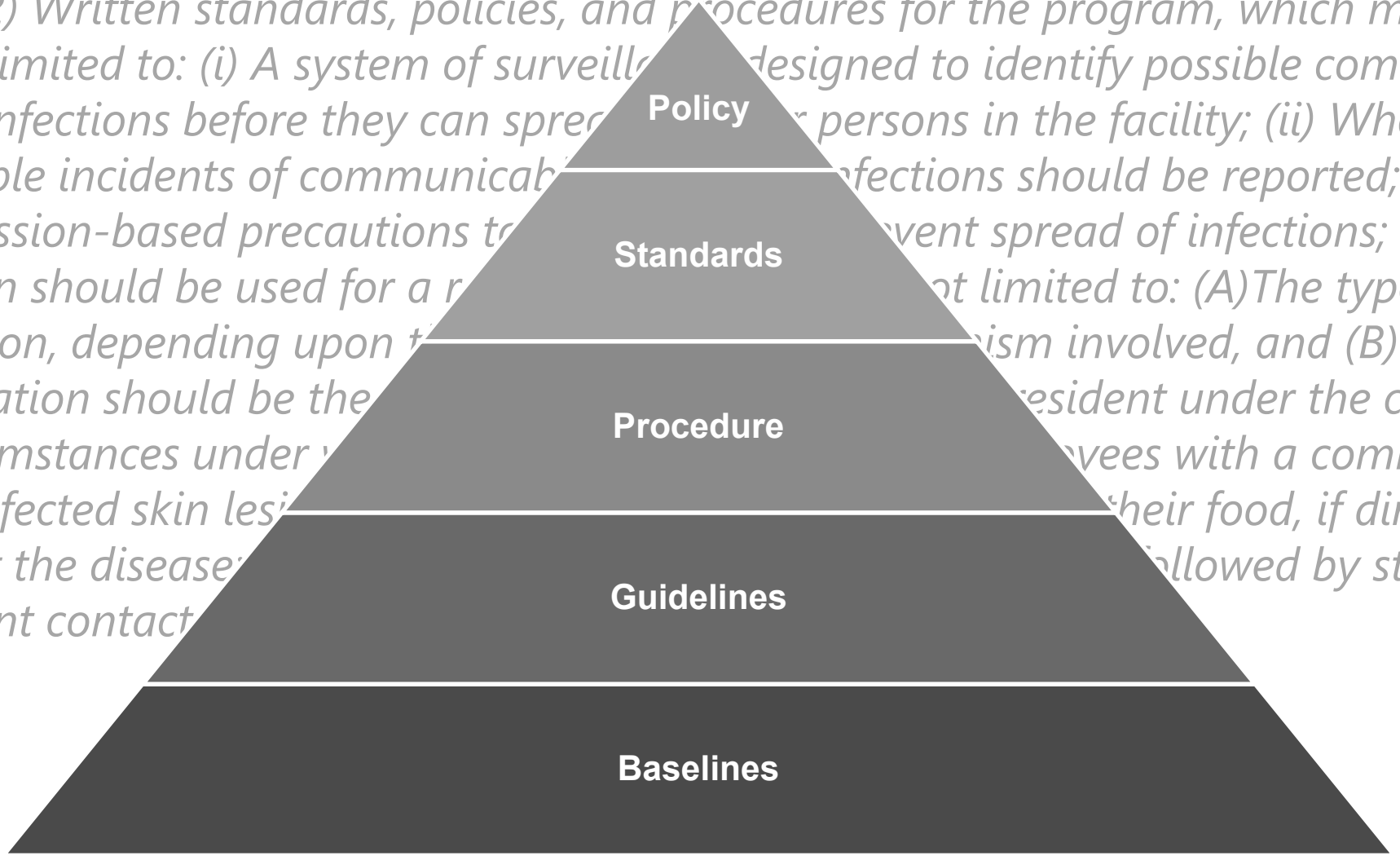
Focu

- S

Immunizations pathway with the exceptions of CE#4 (Water Management), CE#5 (Laundry Services), and CE#6 (Antibiotic Stewardship Program).

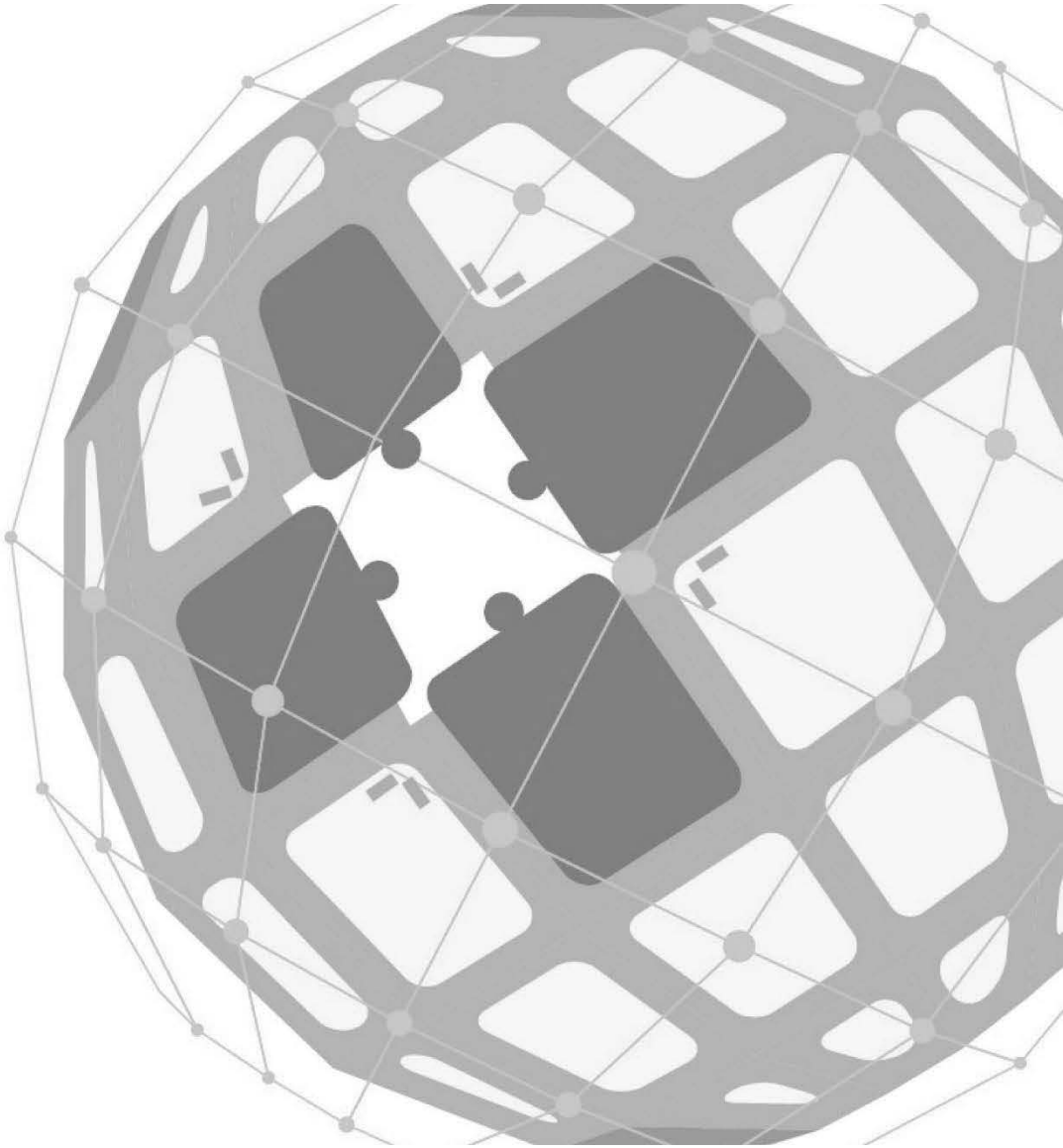
Policy and Procedure Considerations

§483.80(a)(2) Written standards, policies, and procedures for the program, which must include, but are not limited to: (i) A system of surveill designed to identify possible communicable diseases or infections before they can spre persons in the facility; (ii) When and to whom possible incidents of communicab fections should be reported; (iii) Standard and transmission-based precautions t vent spread of infections; (iv) When and how isolation should be used for a r t limited to: (A)The type and duration of the isolation, depending upon t ism involved, and (B) A requirement that the isolation should be the esident under the circumstances. (v) The circumstances under vees with a communicable disease or infected skin les heir food, if direct contact will transmit the disease llowed by staff involved in direct resident contact



HAI Strategies

Early identification, proactive interventions, and avoiding HAI-related hospitalizations



Enhanced Barrier Precautions (EBP)

EBP are indicated for nursing home residents with any of the following:

- Infection or colonization with an MDRO when Contact Precautions do not otherwise apply
- Wounds and/or indwelling medical devices

EBP is not limited to outbreaks or specific MDROs

A message from:

Dear Valued Staff:

You will soon see an increase in the circumstances when we are asking you to wear a gown and gloves while caring for residents. This is based on new recommendations from the Centers for Disease Control and Prevention to protect our residents and staff from multidrug-resistant organisms (MDROs), which can cause serious infections and are hard to treat. These new recommendations are called Enhanced Barrier Precautions, or EBP.

WHY are we implementing Enhanced Barrier Precautions at this facility?

Studies have shown that more than 50% of nursing home residents have MDROs on or in their body, especially in wounds or medical devices like urinary catheters. Most of the time people never know they are carrying these germs, but under certain conditions they can cause serious infections.

These germs can be transferred from one resident to another on staff hands, if they aren't cleaned between caring for residents, and on staff clothing during activities involving a lot of physical contact with the resident. A gown and gloves can keep these germs from getting on staff clothing and, in combination with cleaning hands with alcohol-based hand sanitizer, can prevent transfer to other residents.

This approach focuses our efforts on the residents and activities that pose highest risk for spread of MDROs.

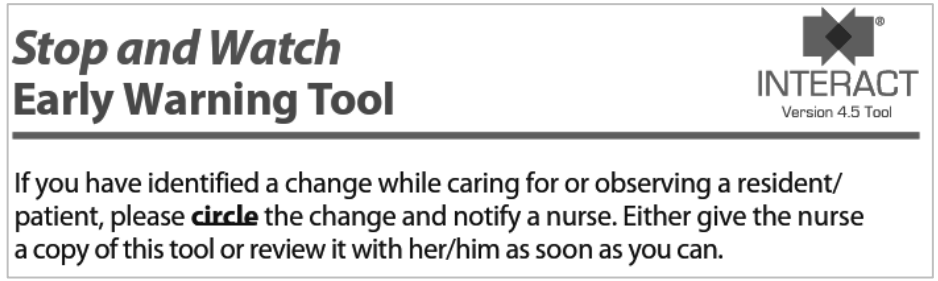
Enhanced Barrier Precautions

- Hand washing
- Use of gown and gloves during high-contact resident care activities
- No private room required
- Residents can participate in group activities
- Intended to be used for resident's entire length of stay

Enhanced Barrier Precautions

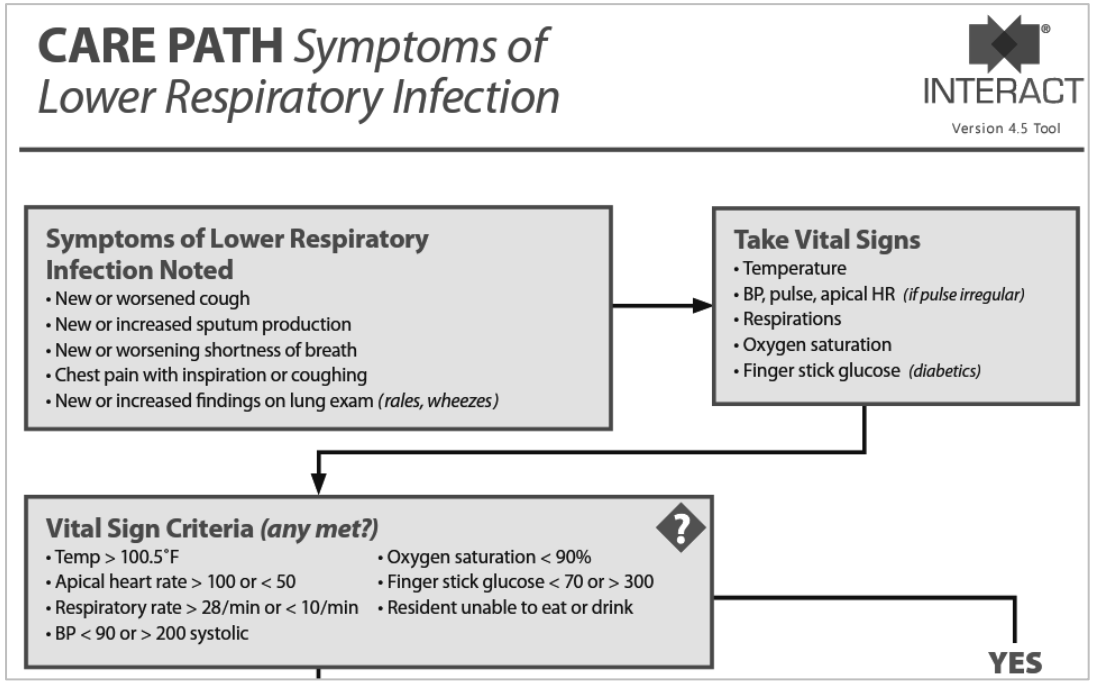
How do you Communicate? Questions to Ask:

- Does our staff know what to watch for?
- Do we have or use tools such as Interact to guide the team?
- How do we identify potential s/s of infectious processes?
- Where do we document?
- Do our policies and procedures reflect our surveillance process and meet the requirements?
- Does our Morning Meeting include surveillance updates and outcomes?
- Do we hold q shift huddles?
- What is our training process, do we meet the requirements as it relates to our Facility Assessment?
- How do we find the data we need in our EHR?
- Do we present IC outcomes, including HAI rates, to the QAPI committee per the requirements?



Clinical Pathway Implementation

- Identifying risk and change of condition
- Standard evaluation tool across care lines
- Provide thorough and accurate assessments
- Care planning and Advance Care Planning
- Quality Process Improvement
- Documentation



INTERACT Guidance on Management of Possible Sepsis

Many skilled nursing facilities (SNFs) have requested an INTERACT "Care Path" for Sepsis, because this condition has been reported to be a common cause of hospital admissions and readmissions.

The INTERACT Program currently includes 10 Care Paths for the most common symptoms and signs that present as acute changes in condition, and that often result in hospital transfer. Because of the nature of the SNF population, any one of these symptoms or signs could be associated with an infection and possible sepsis. Moreover, sepsis is difficult to diagnose in the SNF setting and published criteria for infections vary.

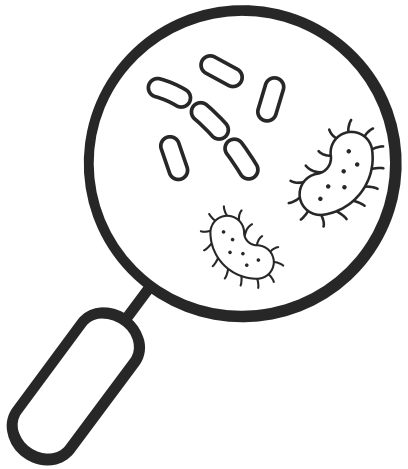
Surveillance

What is Surveillance?

- Ongoing, systematic collection, analysis, interpretation, and dissemination of data
- A core activity of an Infection Prevention and Control Program

What is Comprehensive Surveillance?

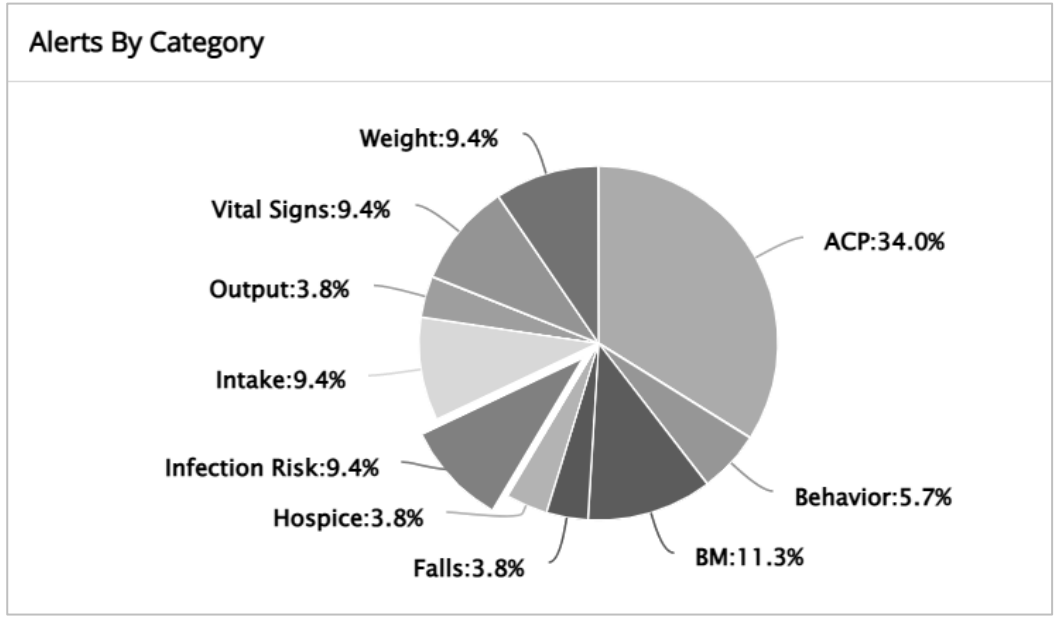
- Tracking every infection event that occurs among the facility's entire resident population
  - Provide a detailed understanding of all infection events
  - Effective in small facilities or those caring for a homogeneous population
  - Manual data collection can take up significant staff time and resources
  - May reduce opportunities for analyzing infection data and implementing prevention activities



Centralized Surveillance Data Monitoring

				Resident Counts			Covid 19 Dx			Keywords			Temperature >= 99.2			Respirations greater than 20			Pulse greater than 100			O2 93 or less		
Date	Fac Id	State	County	Total Residents	Delta in Residents from prior day	Delta in Residents from 7 days ago	Active Count COVID-19 Dx	Delta of Active COVID-19 Dx prior day	Delta of Active COVID-19 Dx 7 days ago	# Keywords Triggered	Delta in Keywords from prior day	Delta in Keywords from 7 days ago	Temp >= to 99.2	Delta in Temp from prior day	Delta in Temp from 7 days ago	Respirations greater than 20	Delta in Respirations from prior day	Delta in Respirations from 7 days ago	Pulse greater than 100	Delta in Pulse from prior day	Delta in Pulse from 7 days ago	O2 93 or less	Delta in O2 from prior day	Delta in O2 from 7 days ago
8/11/2020	1835	AR	Lonoke	48	0	0	17	0	7	0	-1	-2	4	3	0	8	7	2	4	3	2	12	6	7
8/10/2020	1835	AR	Lonoke	49	0	0	17	0	11	1	1	-1	1	0	-4	1	-1	-7	1	-3	-3	6	-3	1
8/9/2020	1835	AR	Lonoke	49	0	0	17	0	11	0	-1	-2	1	1	-5	2	-15	-4	4	-1	-2	9	-2	4
8/8/2020	1835	AR	Lonoke	49	0	-1	17	0	10	1	1	-2	0	-3	-6	17	4	1	5	0	-2	11	1	6
8/7/2020	1835	AR	Lonoke	49	0	-1	17	0	10	0	0	-2	3	-5	-2	13	3	3	5	0	-1	10	-4	5
8/6/2020	1835	AR	Lonoke	48	0	-2	16	6	9	0	-1	-3	8	0	5	10	0	-1	5	0	1	14	1	7
8/5/2020	1835	AR	Lonoke	48	0	-1	10	0	3	1	-1	-2	8	4	4	10	4	-4	5	3	-3	13	8	8
8/4/2020	1835	AR	Lonoke	49	0	0	9	3	2	2	0	0	4	-1	0	6	-2	-15	2	-2	-2	5	0	2
8/3/2020	1835	AR	Lonoke	49	0	-1	6	0	2	2	0	-8	5	-1	1	8	2	0	4	-2	-1	5	0	0
8/2/2020	1835	AR	Lonoke	49	0	-2	6	0	2	2	-1	-7	6	0	5	6	-10	-9	6	-1	1	5	0	2
8/1/2020	1835	AR	Lonoke	49	0	-2	6	0	2	3	1	-1	6	1	4	16	6	3	7	1	1	5	0	0
7/31/2020	1835	AR	Lonoke	49	-1	-2	6	-1	2	2	-1	-3	5	2	2	10	-1	7	6	2	5	5	-2	4
7/30/2020	1835	AR	Lonoke	49	0	-1	7	0	7	3	0	-1	3	-1	2	11	-3	5	4	-4	1	7	2	6
7/29/2020	1835	AR	Lonoke	49	0	-1	4	0	4	3	1	1	4	0	4	14	-7	3	8	4	6	5	2	2
7/28/2020	1835	AR	Lonoke	51	0	1	4	0	4	2	-8	-1	4	0	3	21	13	18	4	-1	1	3	-2	1
7/27/2020	1835	AR	Lonoke	51	0	1	4	0	4	10	1	5	4	3	2	8	-7	5	5	0	1	5	2	3
7/26/2020	1835	AR	Lonoke	51	0	1	4	0	4	9	5	2	1	-1	0	15	2	-1	5	-1	2	3	-2	2
7/25/2020	1835	AR	Lonoke	51	0	1	3	0	3	4	-1	1	2	-1	2	13	10	10	6	5	3	5	4	3
7/24/2020	1835	AR	Lonoke	50	0	-1	0	0	0	5	1	1	3	2	3	3	-3	1	1	-2	-1	1	0	-1
7/23/2020	1835	AR	Lonoke	50	0	-1	0	0	0	4	2	3	1	1	1	6	-5	-2	3	1	0	1	-2	0
7/22/2020	1835	AR	Lonoke	50	0	-1	0	0	0	2	-1	0	0	-1	0	11	8	5	2	-1	-3	3	1	1
7/21/2020	1835	AR	Lonoke	50	0	0	0	0	0	3	-2	3	1	-1	-2	3	0	1	3	-1	-2	2	0	0
7/20/2020	1835	AR	Lonoke	50	0	0	0	0	0	5	-2	5	2	1	2	3	-13	2	4	1	0	2	1	0
7/19/2020	1835	AR	Lonoke	50	0	-1	0	0	0	7	4	5	1	1	-1	16	13	9	3	0	-1	1	-1	1

Monitoring Components – What Are You Watching For?



Resident	Risk Level	Unit	Room Bed	Admitted Date	Primary Physician	Alert Message	Alert Period	Suggested Interventions
Deshner, Otis (68632)	High	B	02378-C	01/20/2023	Dr. Ela Powal	Temp of 101.2 degrees was documented on 04/29/2023 21:41, which is greater than or equal to 99.5 degrees.	04/30/2023	▫ Monitor temperature q4 for next 72 hours ▫ Assess for cognitive changes that may indicate early UTI get UA ▫ Consider CXR with new cough ▫ Assess mouth and skin for any open areas or new lesions ▫ Notify MD, PA, NP with results ▫ Update care plan and directives if appropriate

Key Words – Mining the Data

Keyword/Phrase
Bronchial breathing
Burning
c-diff
C–difficile
Change in level of consciousness
Change in LOC
Change in Mental Status

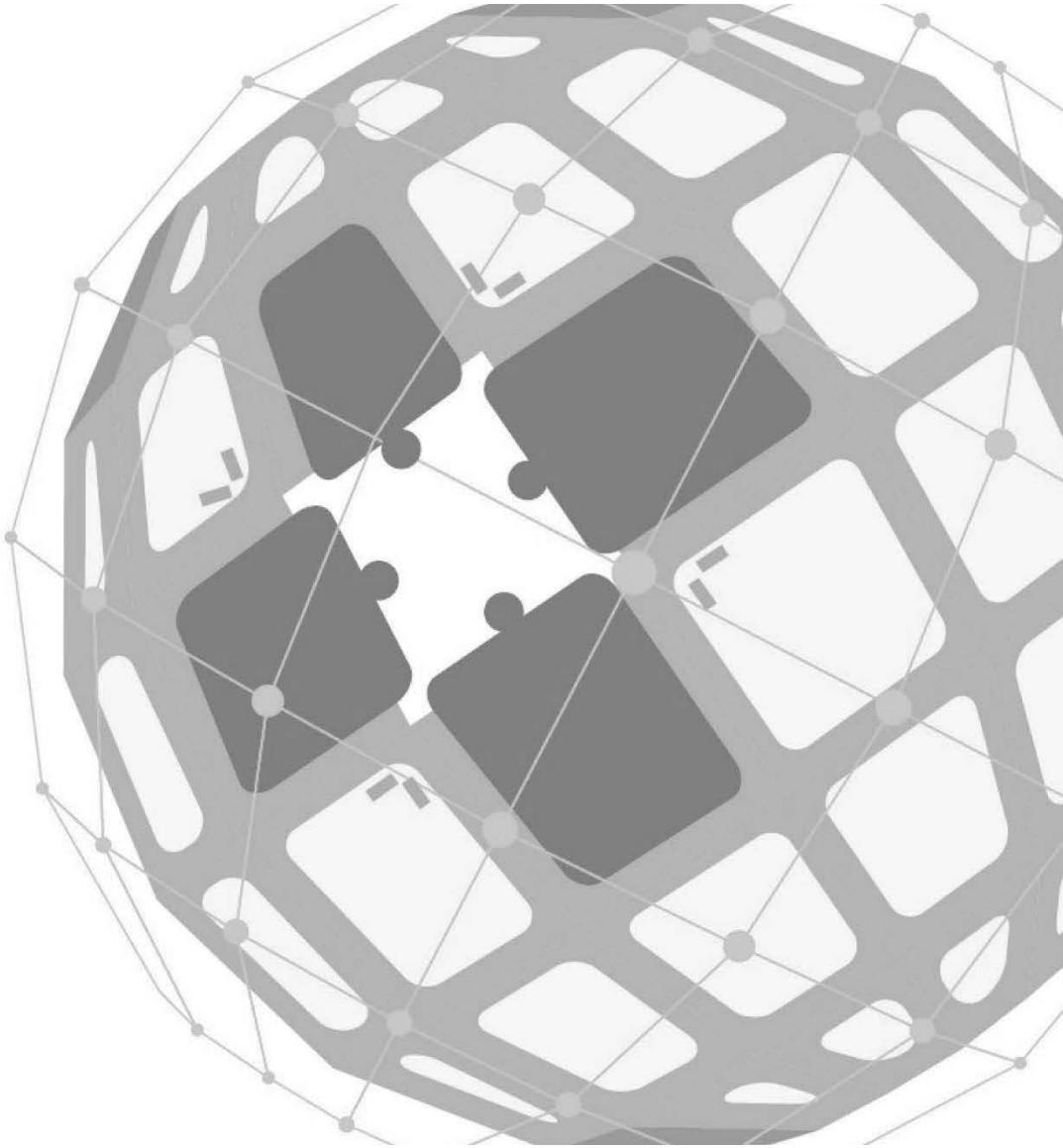
Lungs with rhonchi upper lobes, non-productive cough.

Abd. Soft, non distended, 2 episodes of loose stools this shift.

Noted with urinary frequency and c/o burning with urination.

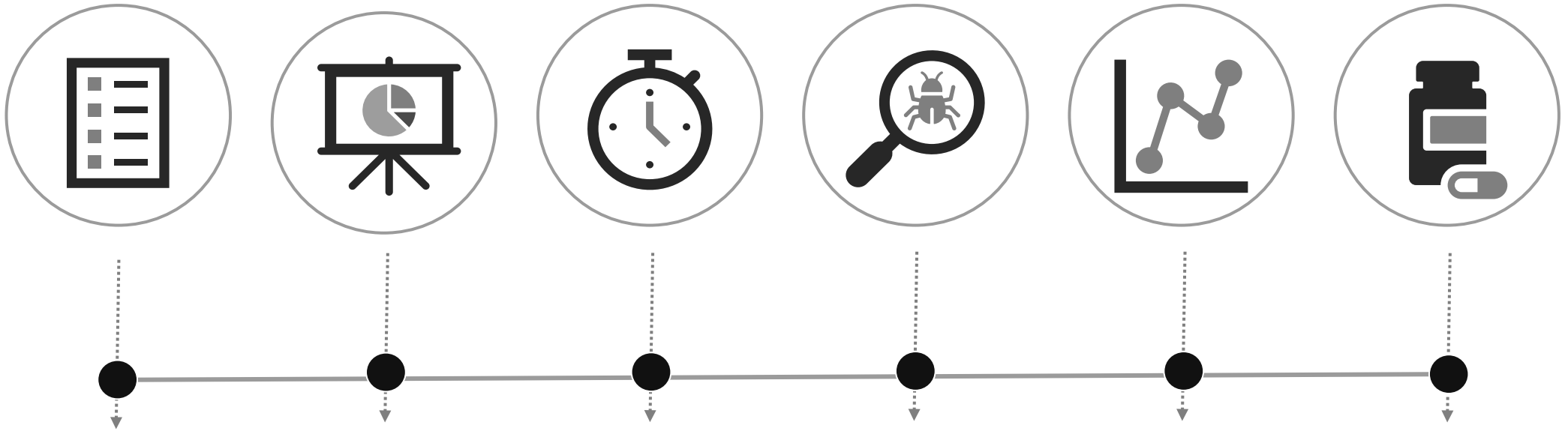
Audible wheezing. pox 86% room air. O2/2L reapplied. Flu swab pending. no change of MS.

Utilizing Technology & Data to Strengthen IPC Efforts



Technology Today & IPC

Through exploration of your Electronic Health Record and Information Technology:



Easily develop a consistent and complete data collection process

Facilitate data summary, analysis, and calculations of your surveillance rates

Save time with a centralized monitoring system

Identify and isolate infection trends

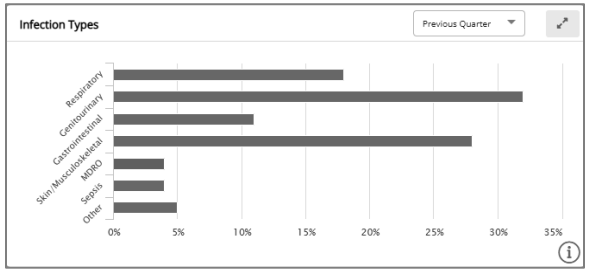
Easily demonstrate through use of charts and graphs types of infections, location of infections

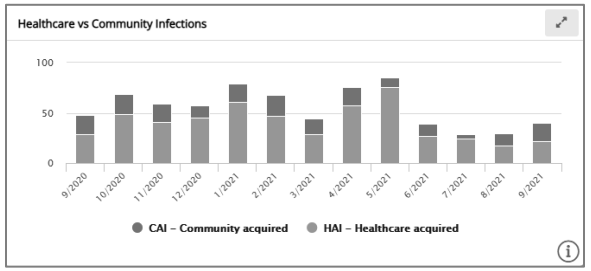
Monitor the required components of your Antibiotic Stewardship Program

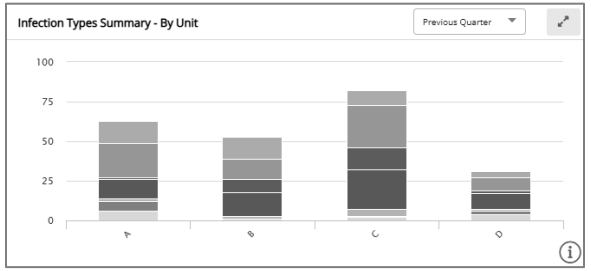
Trends & Collaboration: Automated Infection Control & Antibiotic Surveillance

- Early identification of s/s infections
- Mapping and locating
- Implement measures to prevent spread of infection
- Track and trend all infections, including outbreaks
- Establish daily antibiotic surveillance
- Simplify infection reporting (CMS RoPs, ICP)
- Support physicians with identifying sepsis and ATB metrics

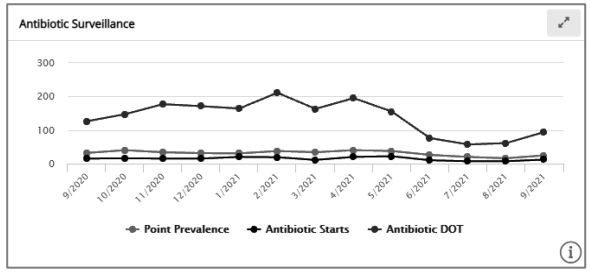
Infection Control

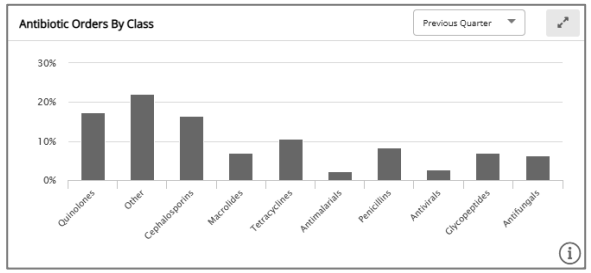


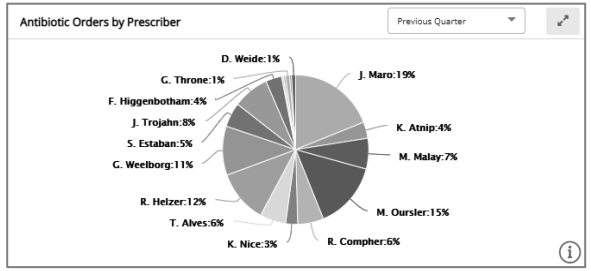




Antibiotic Surveillance

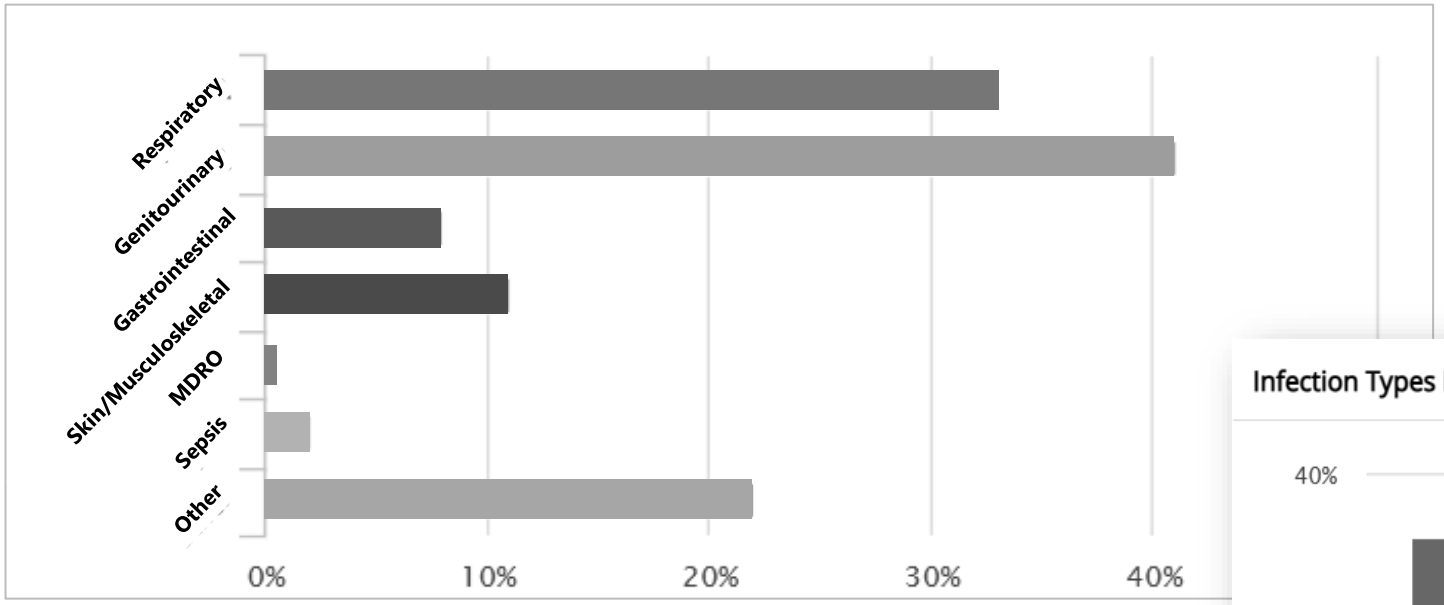


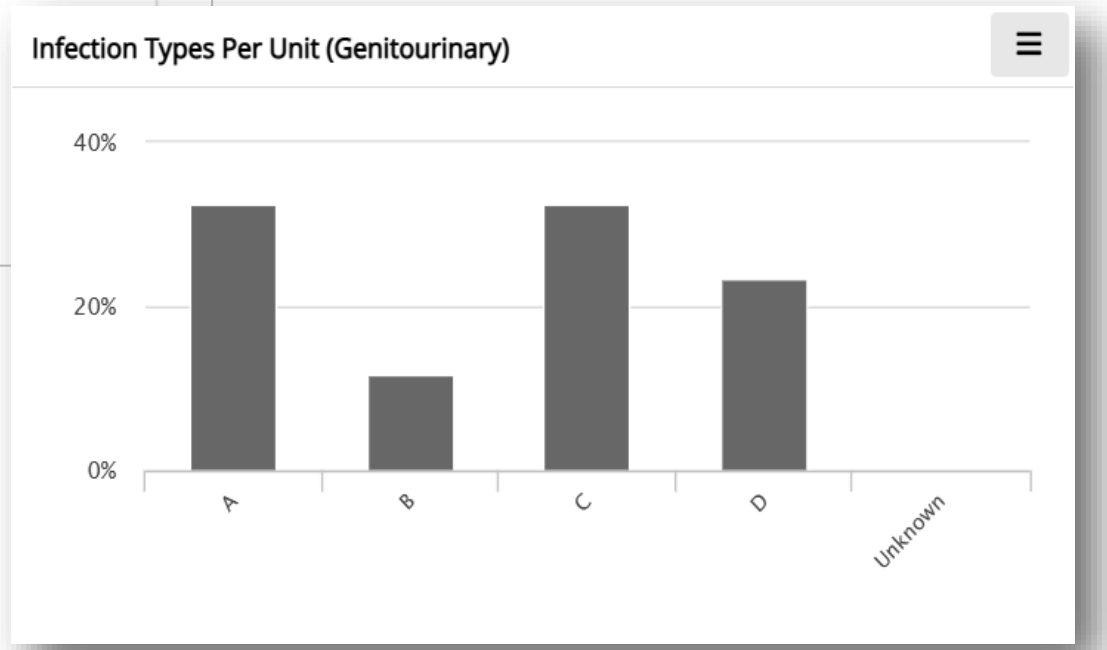




Active Surveillance | Infection by Type

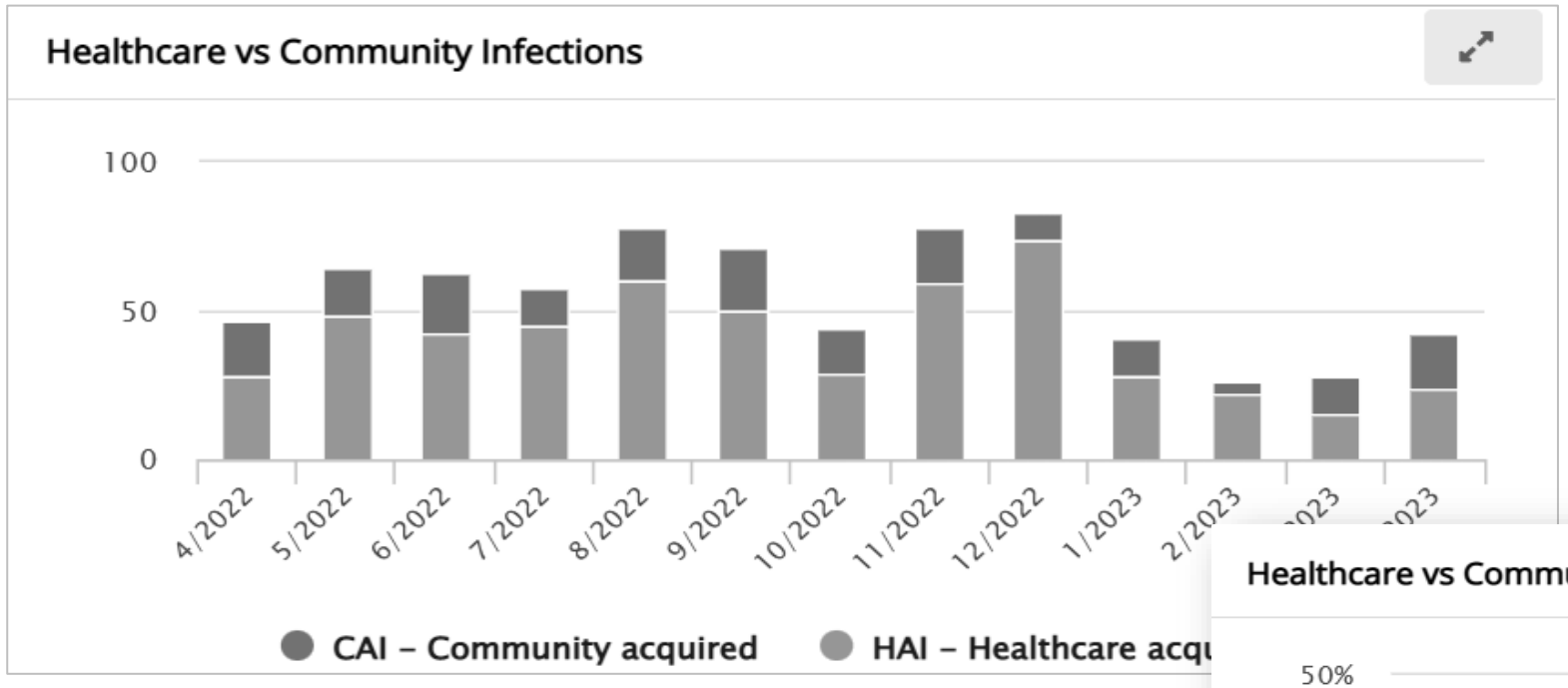
Infection by Type

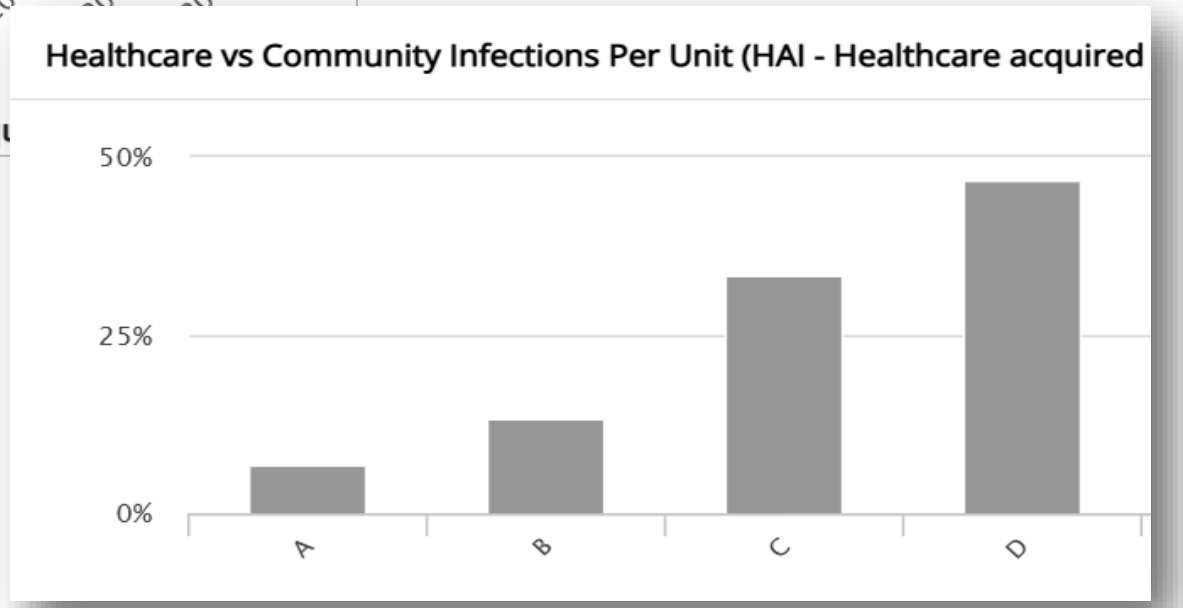




- Establish Tracking
- Identifying Mapping (Location)
- Create an Action Plan

Active Surveillance | HAI vs. CAI

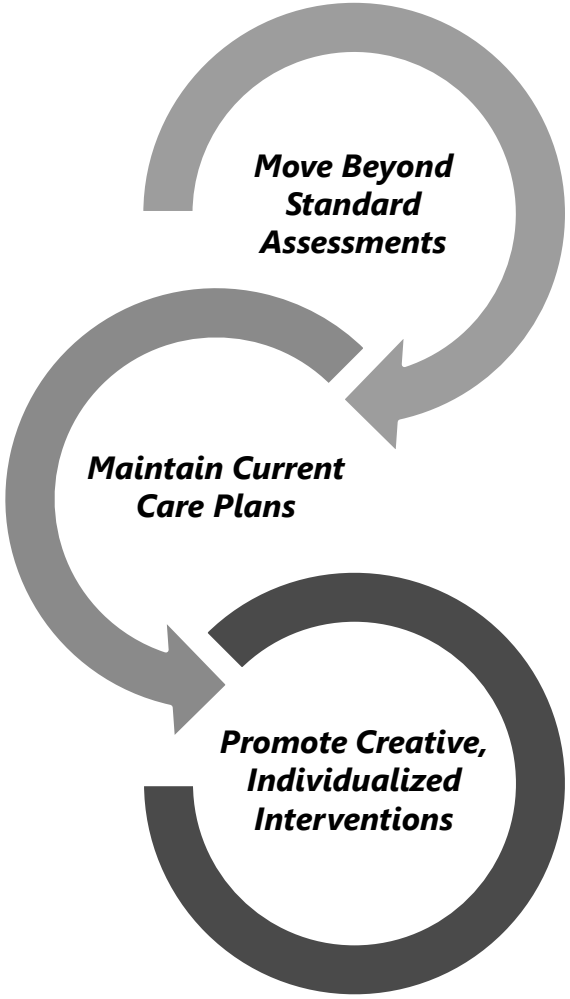




- Identify Problem Areas
- Measure Progress of Prevention Areas
- Reporting Requirements

Infections = Increased Resident Risk

- Improved patient outcomes – avoid declines
- Move beyond the basics
- Focus on:
  - Weights and Hydration
  - Falls
  - Pressure Ulcers
  - Incontinency Management
  - ADL and Mobility Declines
  - Pain Management

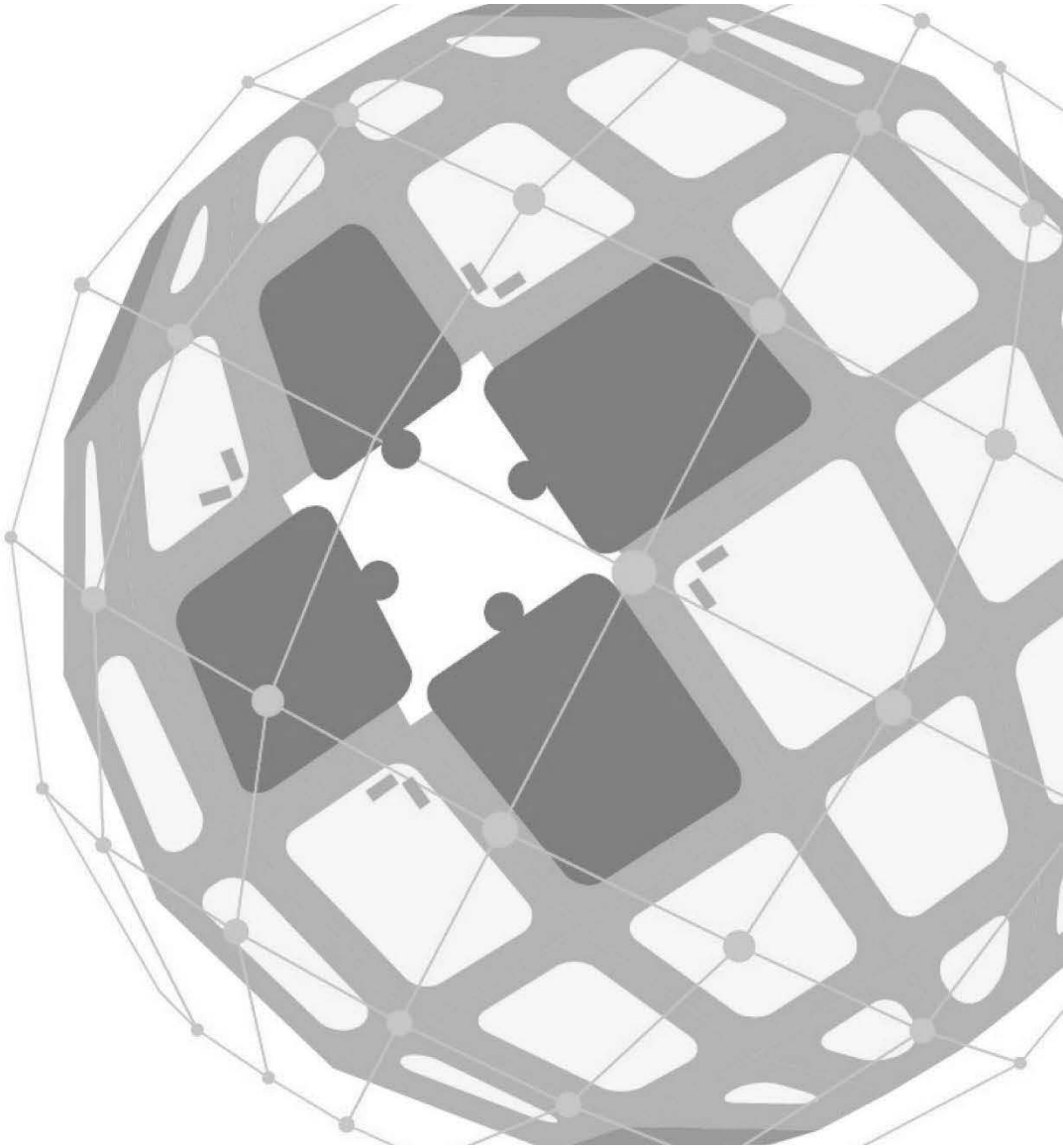


Daily Preparation

Data analytics support care to review: Recognize infections

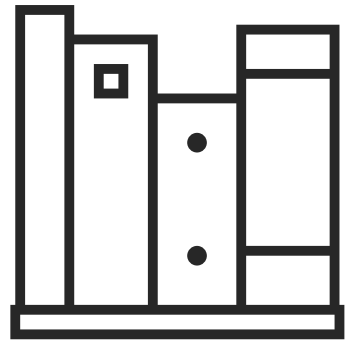
- Risk assessments
- Keyword highlights
- Subtle resident specific baseline changes
- Treatment interventions
- Regulatory Standards for Care
- Changes in function
- Intake declines

The Resources You Need!



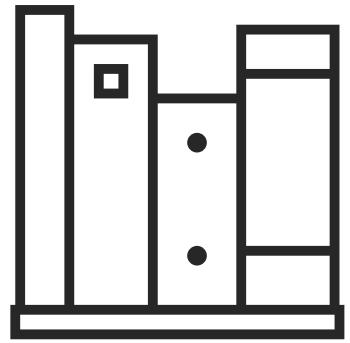
Enhanced Barrier Precautions

- Implementation of Personal Protective Equipment (PPE) Use in Nursing Homes to Prevent Spread of Multidrug-resistant Organisms (MDROs)
- Frequently Asked Questions about Enhanced Barrier Precautions in SNFs
- Enhanced Barrier Precautions Letter for Nursing Home Leadership (CDC)
- Containment Letter for Nursing Home Staff (CDC)
- Implementation & Use of Enhanced Barrier Precautions in SNFs (CDC)
- Introduction to Enhanced Barrier Precautions in Nursing Homes (CDC)
- Considerations for Use of Enhanced Barrier Precautions in SNFs



Additional Resources

- Healthcare Facility Toolkit for Response to Candida auris
- CDC – HAI
- Pathway Interact
- AHRQ - Toolkit To Reduce CAUTI and Other HAIs in Long-Term Care Facilities
- How SNFs Are Strengthening Infection Prevention Through Post-Acute Analytics



Questions? Let's Discuss!

Michele Self, MA, CCC SLP, CMAC
Clinical Account Specialist
Real Time Medical Systems
michele.self@realtimemed.com | 317-258-1534

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