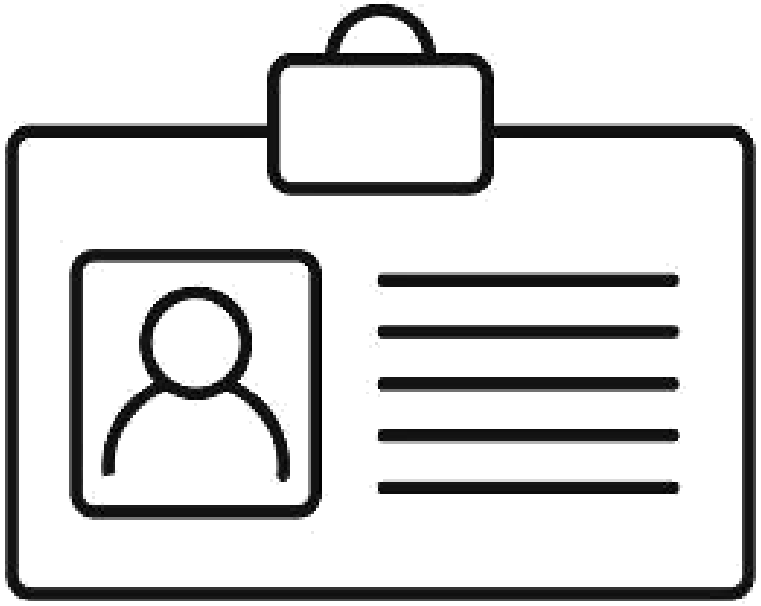
ALLIANT HEALTH SOLUTIONS

Georgia Department of Public Health:
Strike & Support Team GMDA Summer Meeting
Antibiotic Stewardship, Infection Prevention, and More
August 7, 2022

Meet the Team



Presenter:

Swati Gaur, MD, MBA, CMD, AGSF
Medical Director, Alliant Health Solutions

Panelists:

Raybun Spelts, PharmD, MPH, BCIDP
Clinical Pharmacist Specialist, Infectious Disease and Vaccines
Georgia Department of Public Health

Erica Umeakunne, MSN, MPH, APRN, CIC
Infection Prevention Specialist
Alliant Health Solutions

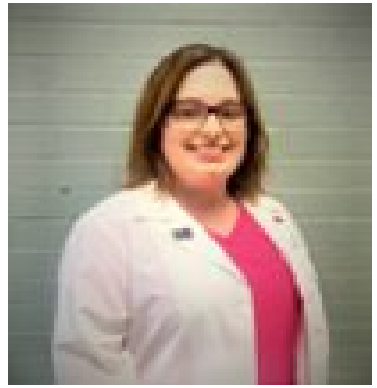
Swati Gaur, MD, MBA, CMD, AGSF

MEDICAL DIRECTOR, POST-ACUTE CARE
NORTHEAST GEORGIA HEALTH SYSTEM

Dr. Swati Gaur is the Medical Director of New Horizons Nursing Facilities with the Northeast Georgia Health System. She is also the CEO of Care Advances Through Technology, a technology innovation company. In addition, she is on the electronic medical record (EMR) transition and implementation team for the health system, providing direction to EMR entity adaption to the long-term care (LTC) environment. She has also consulted with post-acute long-term care (PALTC) companies on optimizing medical services in PALTC facilities, integrating medical directors and clinicians into the QAPI framework, and creating frameworks of interdisciplinary work in the organization. She established the palliative care service line at the Northeast Georgia Health System.

She also is an attending physician in several nursing facilities. Prior to that, Dr. Gaur was a medical director at the LTC at the Carl Vinson VA Medical Center and a member of the G&EC for VISN 7. Dr. Gaur attended medical school in Bhopal, India, and started her residency in internal medicine at St. Luke's–Roosevelt Medical Center in New York. She completed her fellowship in geriatrics at the University of Pittsburgh Medical Center and is board certified in internal medicine, geriatrics, hospice, and palliative medicine. In addition, she earned a master's in business administration at the Georgia Institute of Technology with a concentration in technology management.

Raybun Spelts, PharmD, MPH, BCIDP



Dr. Raybun Spelts is a board-certified infectious disease pharmacy specialist. She earned a B.S. in health sciences from Mercer University in Macon, Georgia. She graduated from the University of Georgia dual-degree PharmD-MPH program.

Dr. Spelts has worked in hospital, outpatient, and long-term care settings. Currently, she works at the Georgia Department of Public Health and supports the pharmacy, immunization, and epidemiology departments. Her career interests include antibiotic resistance, outbreak response, and zoonotic diseases.

Erica Umeakunne, MSN, MPH, APRN, CIC

Erica Umeakunne is an adult-gerontology nurse practitioner and infection preventionist with experience in primary care, critical care, healthcare administration and public health.

She previously served as the interim hospital epidemiology director for a large health care system in Atlanta and as a nurse consultant in the Center for Disease Control and Prevention's (CDC) Division of Healthcare Quality Promotion. While at CDC, she served as an infection prevention and control (IPC) subject matter expert for domestic and international IPC initiatives and emergency responses, including Ebola outbreaks and, most recently, the COVID-19 pandemic.

Thank You to Our Partners

- Georgia Department of Public Health
- University of Georgia

Objectives

- Introduce the Georgia Department of Public Health Strike and Support Team Activities and Plans.
- Identify the infection preventionist in each served facility and evaluate the abilities and effectiveness of data collection.
- Describe two infection situations specific to the elderly and how antibiotic choices and use could be improved.
- Provide assistance to facility administration to liaison with other healthcare facilities to promote good antibiotic stewardship.

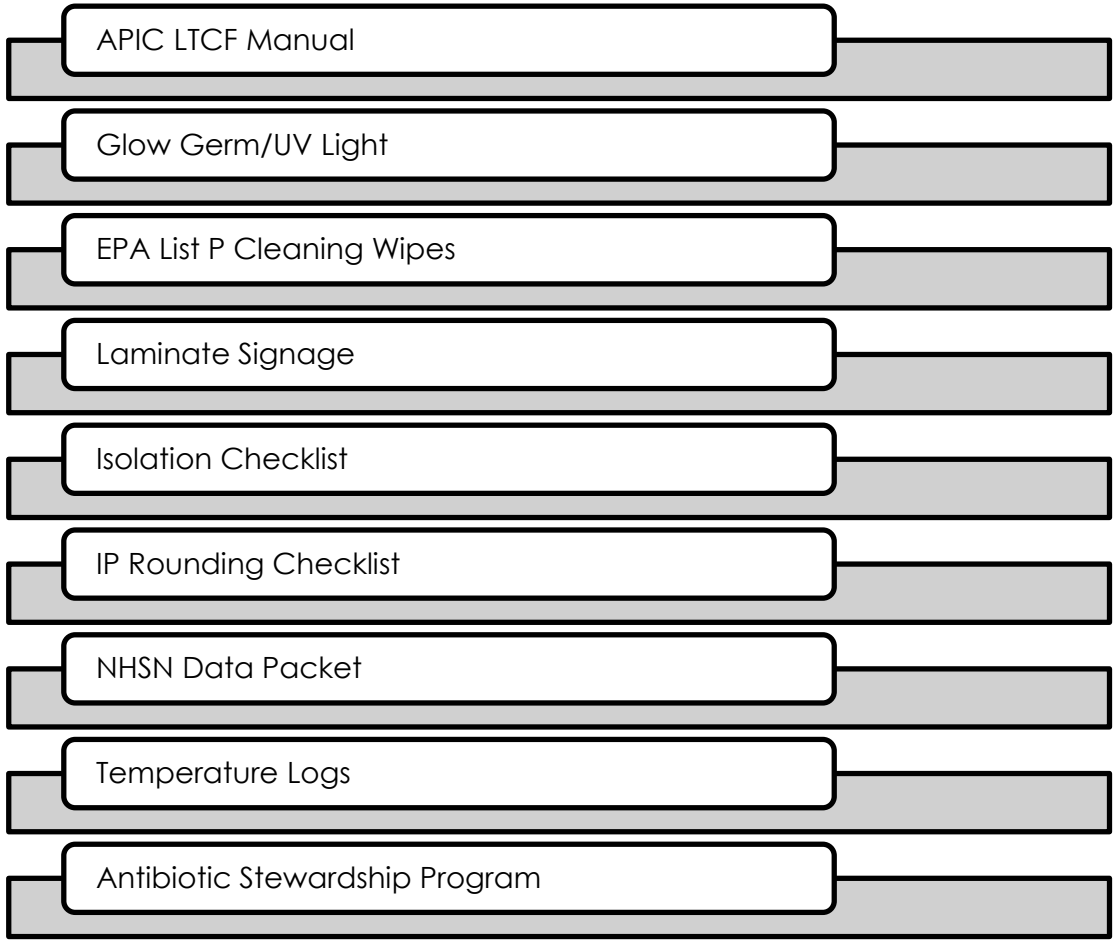
Georgia Department of Public Health Strike and Support Team

- Infection Prevention Education Series for Basic and Respiratory (May and October)
- Monthly Office Hours with COVID updates and other IP topics of interest
- Subject Matter Experts for technical assistance

Facility Infection Prevention Resource Box

- 500 Georgia facilities (including all skilled nursing facilities) will receive an Infection Prevention Resource Box created by the Georgia Department of Public Health's Healthcare-Associated Infections/Antimicrobial Resistance Program

- Each box contains the following nine resource:



GEORGIA CNA Career PATHWAY INITIATIVE

3M FT-30 N95 Fit Test Kit

- 1,997 facilities around Georgia will receive a N95 fit test kit and supplemental materials

Train-the Tester Video

Mask Protocol Video

N95 Fit Test Pocket Guide

GEORGIA CNA Career PATHWAY INITIATIVE

Program Social Media Accounts

@gacnainitiative

@gacnainitiative

@gacnainitiative

@gacnainitiative

GACNAInitiative@gmail.com

GEORGIA CNA Career PATHWAY INITIATIVE

Infection Prevention/Antimicrobial Stewardship Agenda

I. Call to Order
II. Approval of Minutes
III. Safety Story
IV. Infection Control Reports
V. Antibiotic Reports
    I. LTC
    II. COVID-19 vaccine
VI. New Business/Discussion Items
VII. Adjournment

CMS Regulatory Group: Infection Control (F Tags)

- F880: Infection Prevention and Control
  - §483.80 (a)(1-2)(4)(e-f)
- F881: Antibiotic Stewardship Program
  - §483.80 (a)(3)
- F882: Infection Preventionist Qualifications/Role
  - §483.80 (b-c)
- F883: Influenza and Pneumococcal Immunizations
  - §483.80 (d)

Infection Preventionist Role

- Infection prevention is a specialty and requires specific training and competencies
- Application of scientific principles and methods for data collection and analysis
- Surveillance according to approved definitions and methodologies
- Reports and presents to appropriate committees (Infection Prevention, Antimicrobial Stewardship, QAPI)
- **Investigates outbreaks and implements prevention efforts**
- **Reports outbreaks of communicable diseases to local health jurisdictions as needed in consultation with administration and medical director**
- Plans and conducts educational programs for staff and residents
- Develops and reviews policies and procedures, monitors for adherence and supports staff and resident safety
- Ensures compliance with local, state and federal standards and regulations for infection prevention

CMS Infection Prevention Standards

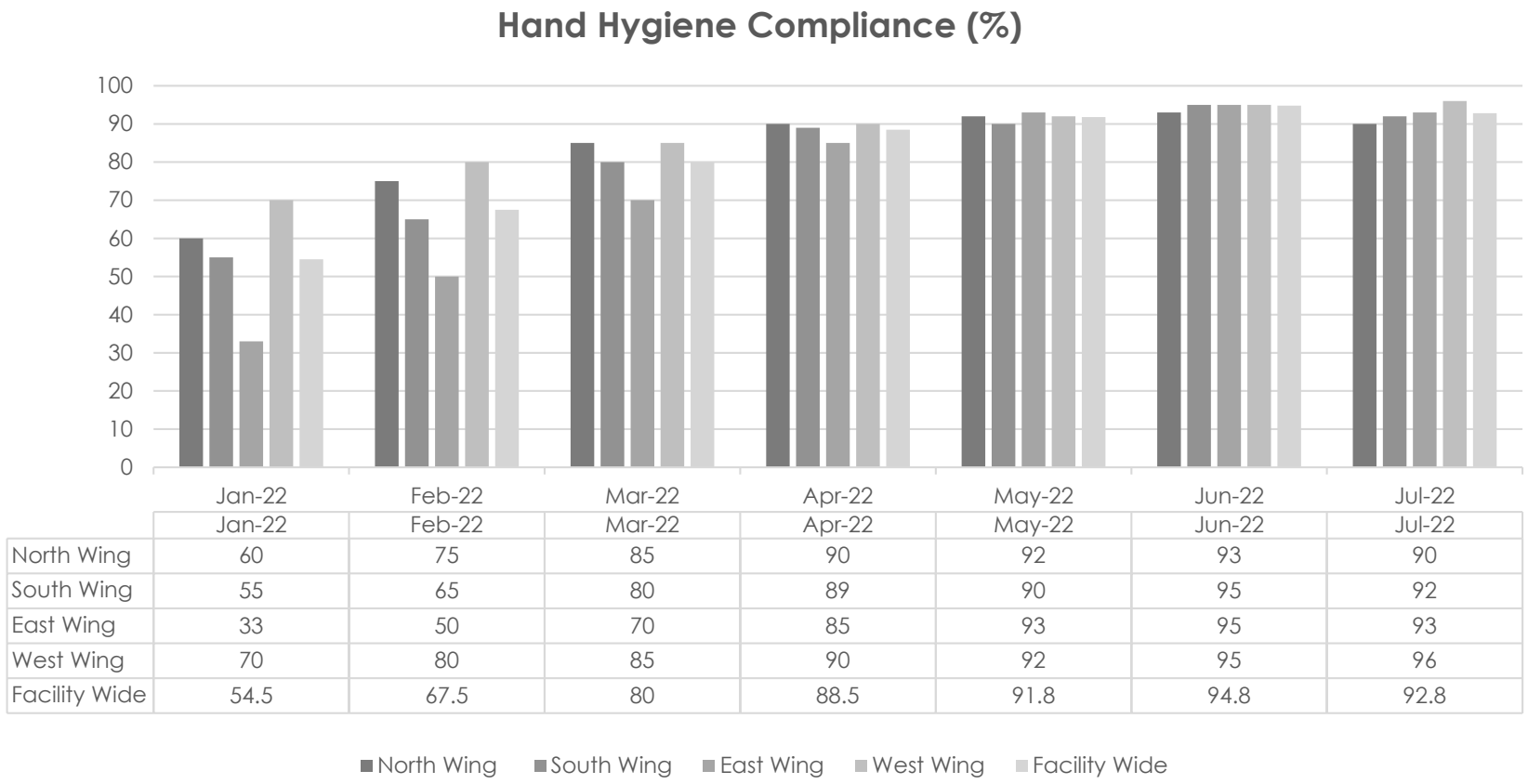
- HHS CMS Interpretive Guidelines for Long-Term Care Facilities 483.80 (F-Tags F880, F881, F882, and F883)
  - Establish and maintain an infection prevention and control program
    - Provides a safe, sanitary and comfortable environment
    - Helps prevent the development and transmission of communicable diseases and infections

https://qsep.cms.gov/data/107/InfectionControl.pdf

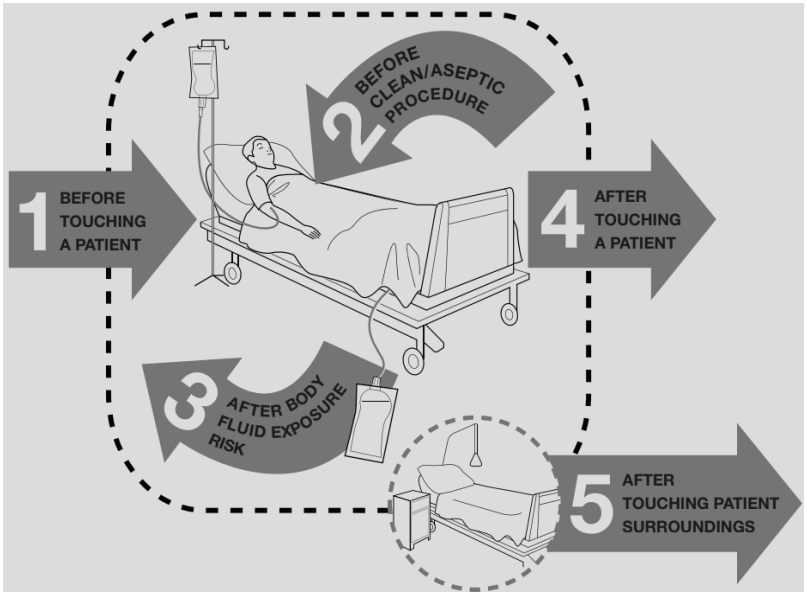
IP Program Binder

- IP Plan
- Risk Assessment
- TB Risk Assessment
- IP Staff Competencies
- IP/Antimicrobial Stewardship Committee Minutes
- Surveillance Data
- SMART Goals & Objectives

Hand Hygiene Data



	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
North Wing	60	75	85	90	92	93	90
South Wing	55	65	80	89	90	95	92
East Wing	33	50	70	85	93	95	93
West Wing	70	80	85	90	92	95	96
Facility Wide	54.5	67.5	80	88.5	91.8	94.8	92.8



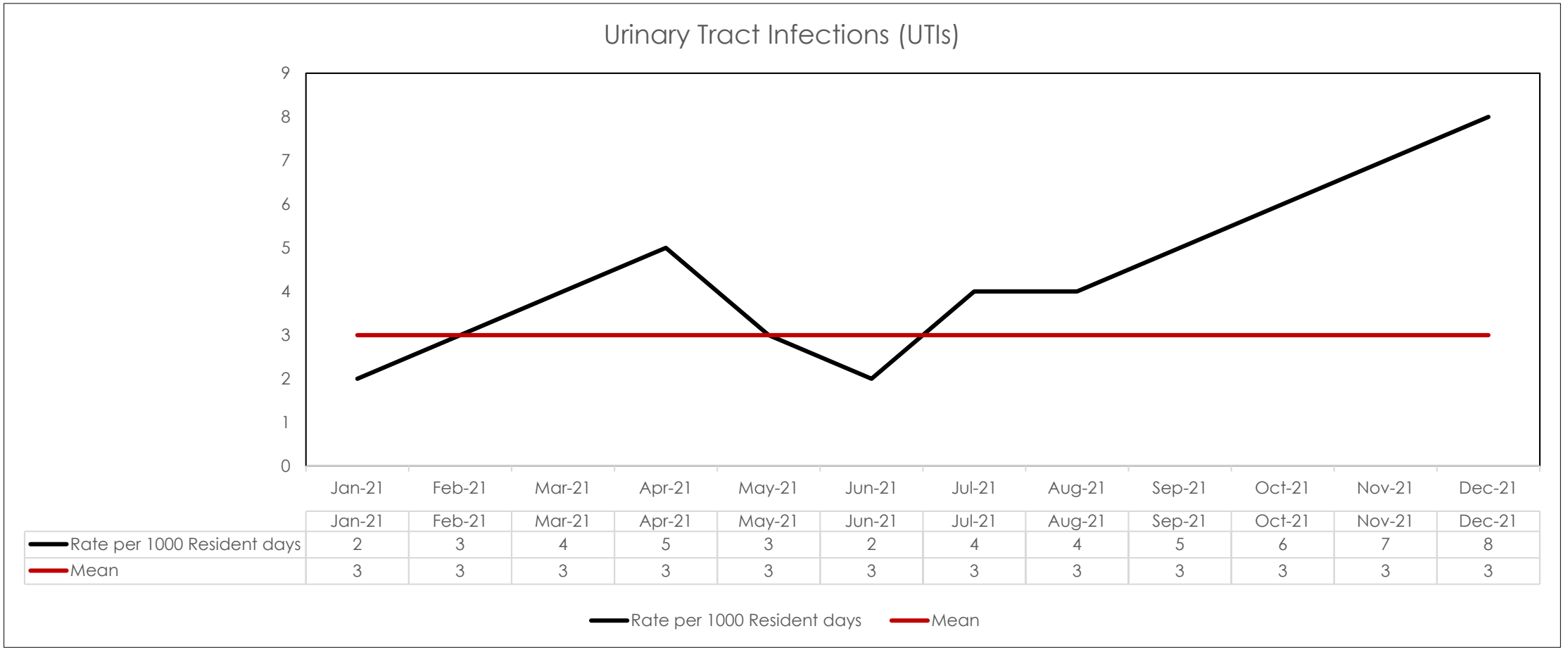
https://www.cdc.gov/handhygiene/providers/guideline.html

Data Table

Infection Type	Numerator (raw number)	Denominator (total resident days)	Rate (per 1000 resident days) YTD	FY 2021 rate (per 1000 resident days)
Urinary Tract Infections (UTIs)	53	15,800	3.4 UTIs	2.5 UTIs
Respiratory Infections	26	15,800	1.6 respiratory infections	4.2 respiratory infections
SSTI (Skin, Soft Tissue Infections)	7	15,800	0.44 SSTIs	0.60 SSTIs
Gastrointestinal Infections	5	15,800	0.32 GI infections	0.75 GI infections
Multi-drug Resistant Organisms (MDRO)	15	15,800	0.94 MDROs	0.68 MDROs

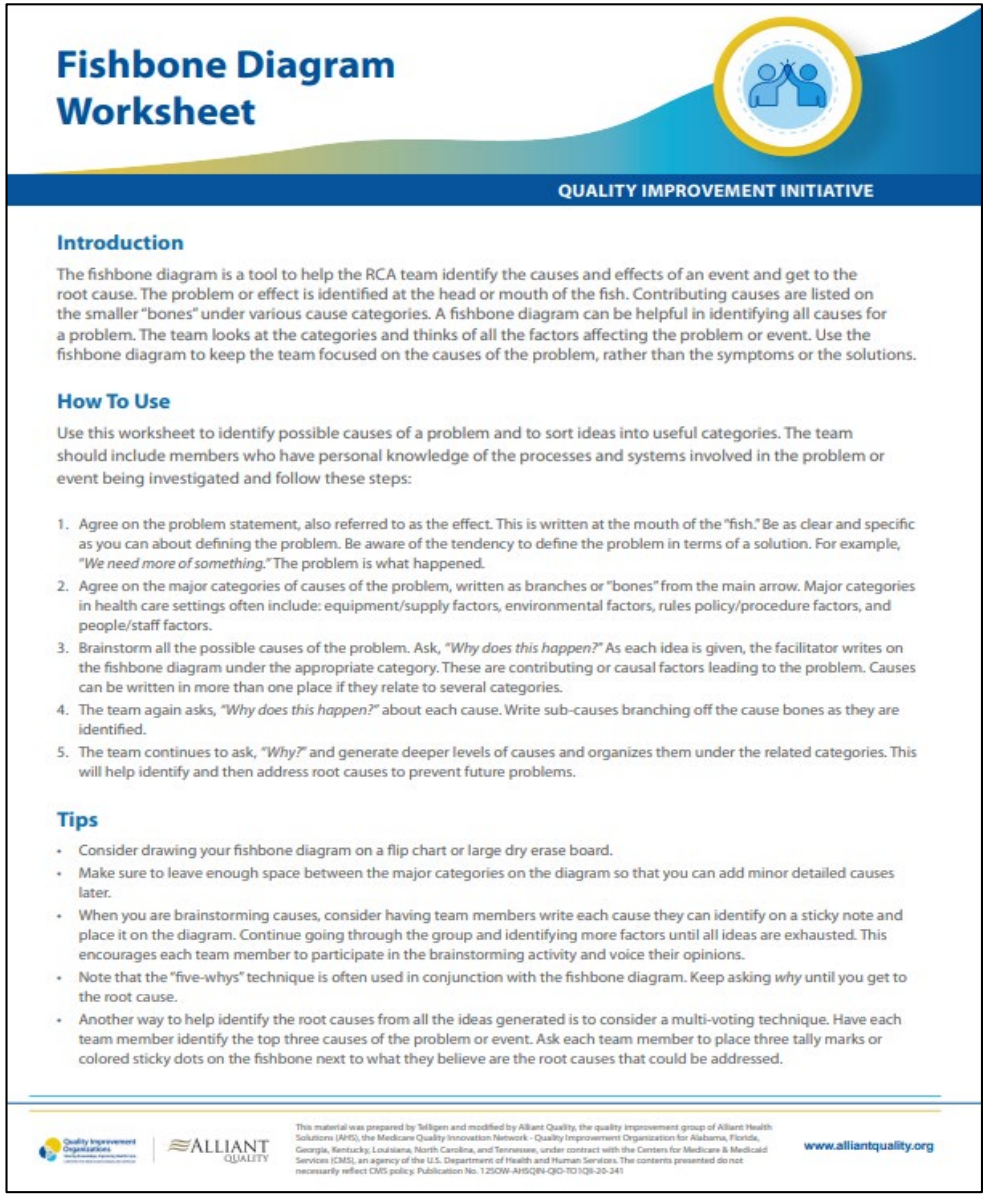
*Data for demonstration purposes only

Case Study: UTIs



	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Rate per 1000 Resident days	2	3	4	5	3	2	4	4	5	6	7	8
Mean	3	3	3	3	3	3	3	3	3	3	3	3

Adapted from APIC Manual



Fishbone Diagram Worksheet

QUALITY IMPROVEMENT INITIATIVE

Introduction

The fishbone diagram is a tool to help the RCA team identify the causes and effects of an event and get to the root cause. The problem or effect is identified at the head or mouth of the fish. Contributing causes are listed on the smaller "bones" under various cause categories. A fishbone diagram can be helpful in identifying all causes for a problem. The team looks at the categories and thinks of all the factors affecting the problem or event. Use the fishbone diagram to keep the team focused on the causes of the problem, rather than the symptoms or the solutions.

How To Use

Use this worksheet to identify possible causes of a problem and to sort ideas into useful categories. The team should include members who have personal knowledge of the processes and systems involved in the problem or event being investigated and follow these steps:

1. Agree on the problem statement, also referred to as the effect. This is written at the mouth of the "fish." Be as clear and specific as you can about defining the problem. Be aware of the tendency to define the problem in terms of a solution. For example, *"We need more of something."* The problem is what happened.
2. Agree on the major categories of causes of the problem, written as branches or "bones" from the main arrow. Major categories in health care settings often include: equipment/supply factors, environmental factors, rules policy/procedure factors, and people/staff factors.
3. Brainstorm all the possible causes of the problem. Ask, *"Why does this happen?"* As each idea is given, the facilitator writes on the fishbone diagram under the appropriate category. These are contributing or causal factors leading to the problem. Causes can be written in more than one place if they relate to several categories.
4. The team again asks, *"Why does this happen?"* about each cause. Write sub-causes branching off the cause bones as they are identified.
5. The team continues to ask, *"Why?"* and generate deeper levels of causes and organizes them under the related categories. This will help identify and then address root causes to prevent future problems.

Tips

- Consider drawing your fishbone diagram on a flip chart or large dry erase board.
- Make sure to leave enough space between the major categories on the diagram so that you can add minor detailed causes later.
- When you are brainstorming causes, consider having team members write each cause they can identify on a sticky note and place it on the diagram. Continue going through the group and identifying more factors until all ideas are exhausted. This encourages each team member to participate in the brainstorming activity and voice their opinions.
- Note that the "five-whys" technique is often used in conjunction with the fishbone diagram. Keep asking *why* until you get to the root cause.
- Another way to help identify the root causes from all the ideas generated is to consider a multi-voting technique. Have each team member identify the top three causes of the problem or event. Ask each team member to place three tally marks or colored sticky dots on the fishbone next to what they believe are the root causes that could be addressed.

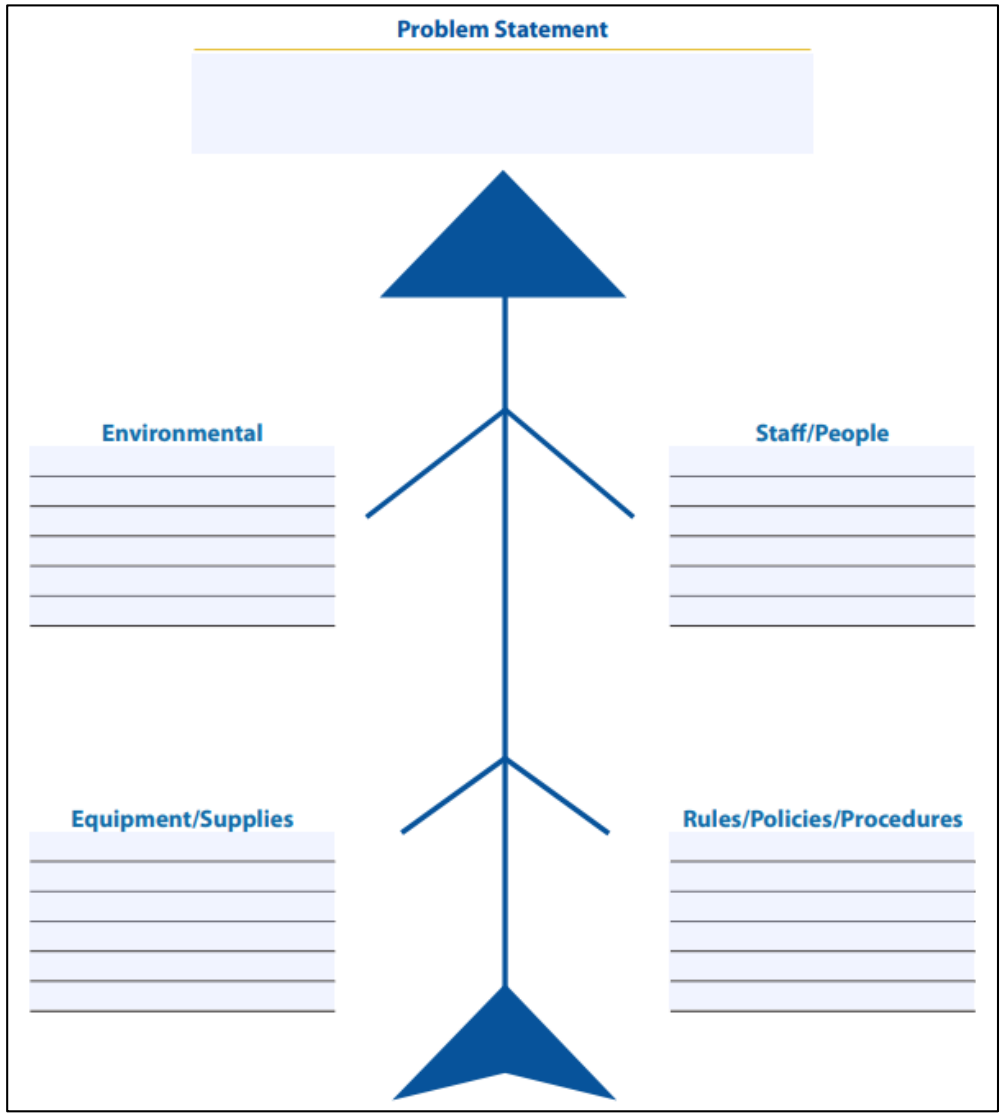
This material was prepared by Telligen and modified by Alliant Quality, the quality improvement group of Alliant Health Solutions (AHS), the Medicare Quality Innovation Network - Quality Improvement Organization for Alabama, Florida, Georgia, Kentucky, Louisiana, North Carolina, and Tennessee, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. Publication No. 12SOW-AHSQIN-QIO-TO13Q8-20-241

www.alliantquality.org

Root Cause Analysis

- Fishbone diagram
  - Identify cause and effect to get to a root cause
  - Problem at the head or mouth of fish
  - Contributing factors listed under the smaller bones in various categories

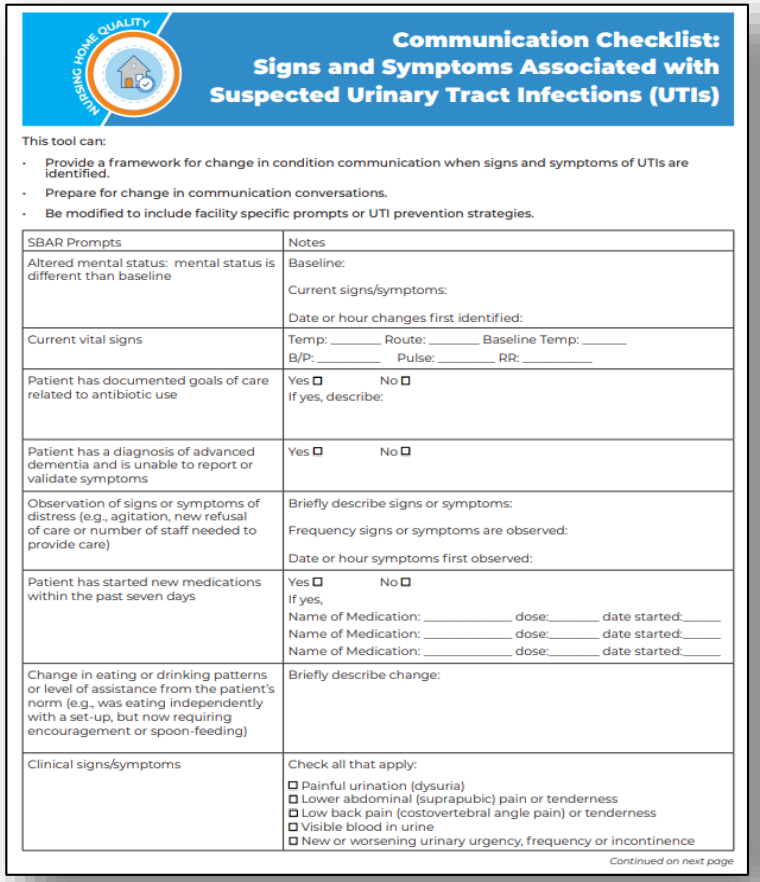
- Fishbone Diagram Worksheet (alliantheath.org)



Fishbone Diagram Worksheet

[Fishbone Diagram Worksheet (allianthealth.org)]

Communication Checklist: Suspected UTIs



Communication Checklist: Signs and Symptoms Associated with Suspected Urinary Tract Infections (UTIs)

This tool can:

- Provide a framework for change in condition communication when signs and symptoms of UTIs are identified.
- Prepare for change in communication conversations.
- Be modified to include facility specific prompts or UTI prevention strategies.

SBAR Prompts	Notes
Altered mental status: mental status is different than baseline	Baseline: Current signs/symptoms: Date or hour changes first identified:
Current vital signs	Temp: _____ Route: _____ Baseline Temp: _____ B/P: _____ Pulse: _____ RR: _____
Patient has documented goals of care related to antibiotic use	Yes ☐ No ☐ If yes, describe:
Patient has a diagnosis of advanced dementia and is unable to report or validate symptoms	Yes ☐ No ☐
Observation of signs or symptoms of distress (e.g., agitation, new refusal of care or number of staff needed to provide care)	Briefly describe signs or symptoms: Frequency signs or symptoms are observed: Date or hour symptoms first observed:
Patient has started new medications within the past seven days	Yes ☐ No ☐ If yes, Name of Medication: _____ dose:_____ date started:_____ Name of Medication: _____ dose:_____ date started:_____ Name of Medication: _____ dose:_____ date started:_____
Change in eating or drinking patterns or level of assistance from the patient's norm (e.g., was eating independently with a set-up, but now requiring encouragement or spoon-feeding)	Briefly describe change:
Clinical signs/symptoms	Check all that apply: ☐ Painful urination (dysuria) ☐ Lower abdominal (suprapubic) pain or tenderness ☐ Low back pain (costovertebral angle pain) or tenderness ☐ Visible blood in urine ☐ New or worsening urinary urgency, frequency or incontinence

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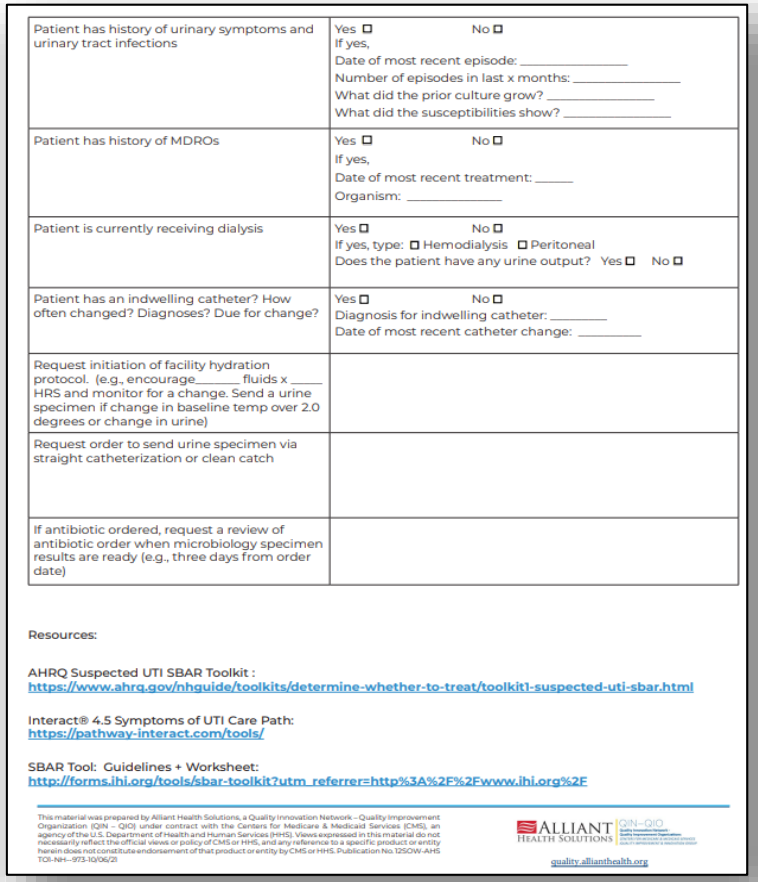


Patient has history of urinary symptoms and urinary tract infections	Yes ☐ No ☐ If yes, Date of most recent episode: _____ Number of episodes in last x months: _____ What did the prior culture grow? _____ What did the susceptibilities show? _____
Patient has history of MDROs	Yes ☐ No ☐ If yes, Date of most recent treatment: _____ Organism: _____
Patient is currently receiving dialysis	Yes ☐ No ☐ If yes, type: ☐ Hemodialysis ☐ Peritoneal Does the patient have any urine output? Yes ☐ No ☐
Patient has an indwelling catheter? How often changed? Diagnoses? Due for change?	Yes ☐ No ☐ Diagnosis for indwelling catheter: _____ Date of most recent catheter change: _____
Request initiation of facility hydration protocol. (e.g., encourage_____ fluids x ____ HRS and monitor for a change. Send a urine specimen if change in baseline temp over 2.0 degrees or change in urine)	
Request order to send urine specimen via straight catheterization or clean catch	
If antibiotic ordered, request a review of antibiotic order when microbiology specimen results are ready (e.g., three days from order date)	

Resources:

AHRQ Suspected UTI SBAR Toolkit :
https://www.ahrq.gov/nhguide/toolkits/determine-whether-to-treat/toolkit1-suspected-uti-sbar.html

Interact® 4.5 Symptoms of UTI Care Path:
https://pathway-interact.com/tools/

SBAR Tool: Guidelines + Worksheet:
http://forms.ihi.org/tools/sbar-toolkit?utm_referrer=http%3A%2F%2Fwww.ihi.org%2F

- Provides a framework for change in condition communication when signs/symptoms of UTs identified
- Helps nursing home staff and prescribing clinicians communicate about suspected UTIs and facilitates appropriate antibiotic prescribing
- Agency for Healthcare Research & Quality (AHRQ Toolkit) includes:
  - Suspected UTI SBAR Form
  - A clinician letter
  - *Not All "infections" Need Antibiotics*
  - Urinalysis and UTIs: Improving Care

https://quality.allianthealth.org/wp-content/uploads/2021/10/Communication-Checklist_-Signs-and-Symptoms-Associated-with-Susptected-Urinary-Tract-Infections-UTIs.pdf

Loeb Minimum Criteria

Suspected Infection Syndrome	Minimum Criteria for Starting Antibiotic Therapy
Urinary tract infection *without catheter*	Either one of the following criteria □ Acute dysuria, OR □ Temp >37.9 °C (100 °F) or 1.5 °C (2.4 °F) above baseline, AND ≥1 of the following new or worsening symptoms □ Urgency □ Frequency □ Suprapubic pain □ Gross hematuria □ Urinary incontinence □ Costovertebral angle tenderness
with catheter	At least one of the following criteria □ Rigors □ Temp >37.9 °C (100 °F) or 1.5 °C (2.4 °F) above baseline □ New onset delirium □ New costovertebral angle tenderness
Note: *Residents with intermittent catheterization or condom catheter should be categorized as 'without catheter'* *Urine culture should be sent prior to starting antibiotics* *Antibiotics should not be started for cloudy or foul smelling urine*	

https://www.cidrap.umn.edu/asp/clinicaltools/loeb-minimum-criteria-initiating-antibiotic-checklist

Asymptomatic Bacteriuria

- ASB~ positive urine culture +/- pyuria, detected as WBC on urinalyses
- Present in 50% for female residents and 40% for male residents
- Non-specific symptoms, including change in cognition, agitation, decreased appetite and falls, are not symptoms of UTI

McGeer Criteria

- Evidence-based, standardized guidance for infection surveillance activities in long-term care facilities (LTCF)
- Designed to define and identify infections for surveillance purposes
- Represented syndromes capture a variety of clinically relevant infections that occur in the LTCF population
  - Infections associated with clear IPC strategies

Stone, N. D., Ashraf, M. S., Calder, J., Crnich, C. J., Crossley, K., Drinka, P. J., Gould, C. V., Juthani-Mehta, M., Lautenbach, E., Loeb, M., Maccannell, T., Malani, P. N., Mody, L., Mylotte, J. M., Nicolle, L. E., Roghmann, M. C., Schweon, S. J., Simor, A. E., Smith, P. W., Stevenson, K. B., … Society for Healthcare Epidemiology Long-Term Care Special Interest Group (2012). Surveillance definitions of infections in long-term care facilities: revisiting the McGeer criteria. *Infection control and hospital epidemiology*, *33*(10), 965–977. https://doi.org/10.1086/667743

McGeer Criteria

- Definitions for Constitutional Criteria in Residents of LTCFs
- Urinary Tract Infections
- Skin, Soft Tissues, and Mucosal Infections
- Respiratory Infections
- Gastrointestinal Infections

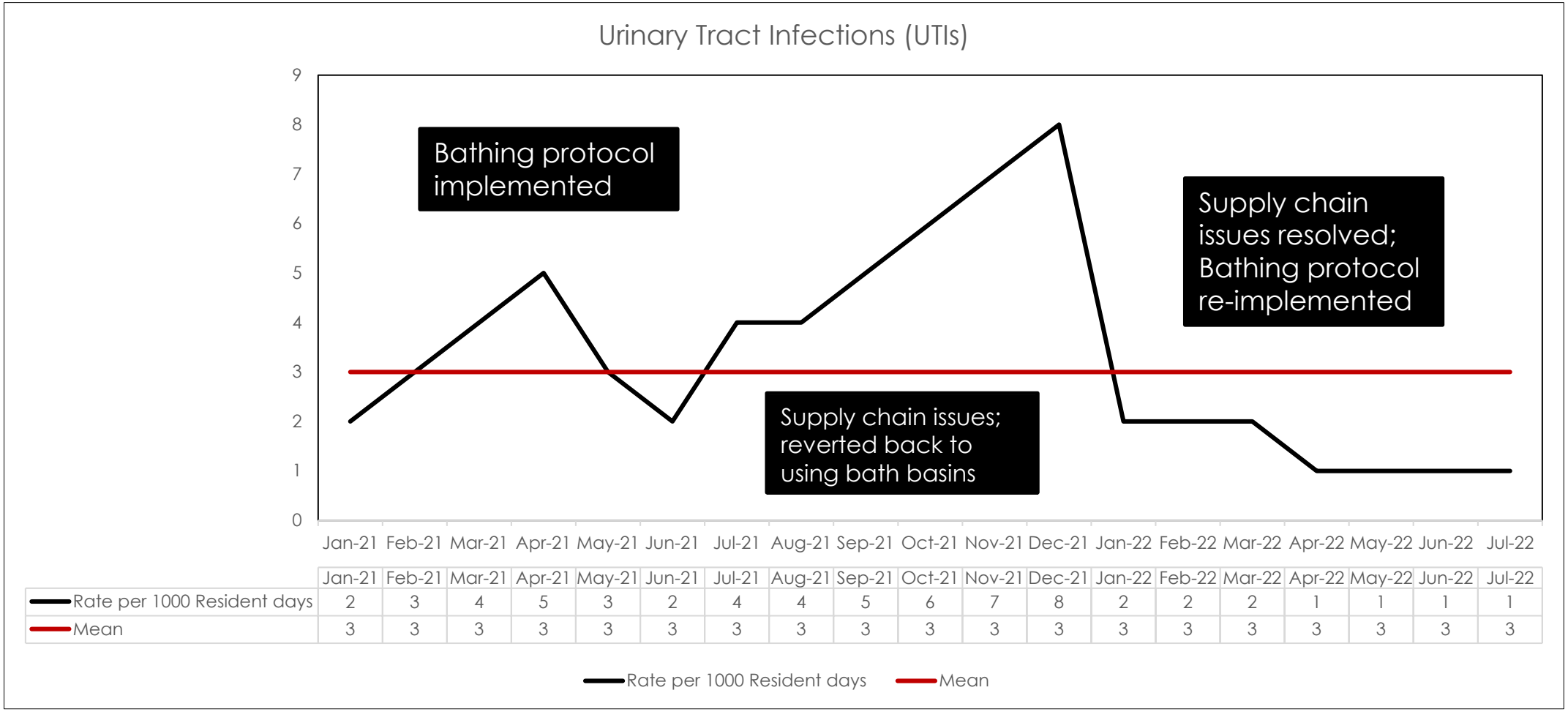
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3538836/pdf/nihms430715.pdf

Active Surveillance (Watchful Wait)

- ☐ Obtain vital signs (BP, Pulse, Resp Rate, Temp, Pulse Ox) every ____ hours for ____ days.
- ☐ Record fluid intake each shift for _____ days.
- ☐ Notify physician if fluid intake is less than _____ cc daily.
- ☐ Offer resident _____ ounces of water / juice every _____ hours.
- ☐ Notify physician, NP, or PA if condition worsens, or if no improvement in _____ hours.
- ☐ Obtain the following blood work _____ .
- ☐ Consult pharmacist to review medication regimen.
- ☐ Contact the physician, NP, PA with an update on the resident's condition on _____.

Nace et al.

Case Study Review: UTIs



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Rate per 1000 Resident days	2	3	4	5	3	2	4	4	5	6	7	8	2	2	2	1	1	1	1
Mean	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Adapted from APIC Manual

2021 VAPAHCS GRAM-NEGATIVE ORGANISM (% Susceptibility)	# isolates tested	Beta lactams												Aminoglycosides			Fluoroquinolones / Miscellaneous				
		Penicillins				Cephalosporins						Carbapenems									
		Ampicillin	Amoxicillin/ clavulanate	Ampicillin/ sulbactam (CR)	Piperacillin/ tazobactam	Cefazolin^ *applies to urine only*	Cefoxitin	Cefpodoxime	Ceftriaxone	Ceftazidime (R)	Cefepime (CR)	Ertapenem	Meropenem (R)	Gentamicin	Tobramycin	Amikacin (CR)	Ciprofloxacin (CR)	Levofloxacin (CR)	Aztreonam (R)	Nitrofurantoin *applies to urine only*	Trimethoprim/ sulfamethoxazole
Acinetobacter baumaunii	11*	-	-	100*	82*	-	-	-	-	91*	100*	-	100*	100*	100*	-	91*	91*	-	-	100*
Citrobacter freundii#	32	-	-	-	72	-	-	63#	63#	69#	100	96*	97	97	91	100	84	78	63	85*	81
Citrobacter koseri	50	-	100*	100	100	95^	96	98	98	98	100	100	100	96	98	100	100	100	100	92	98
Enterobacter cloacae#	89	-	-	-	90	-	-	78#	85#	90#	99	96	99	100	99	100	99	97	93	40	92
Escherichia coli~	636	56	87	64	96	81^	92	86	90	90	93	100	100	91	91	100	75	74	90	98	77
Klebsiella aerogenes#	44	-	-	-	89	-	-	82#	89#	89#	100	100	100	100	100	100	95	95	89	19	100
Klebsiella oxytoca~	80	-	67*	62	91	52^	99	96	91	98	97	100	100	99	97	100	97	99	94	82	94
Klebsiella pneumoniae~	252	-	100*	83	94	88^	95	90	90	90	94	99	99	94	93	100	89	90	91	26	88
Morganella morganii	48	-	-	17	100	-	67	-	93	92	100	100	100	91	98	100	81	83	98	-	83
Proteus mirabilis	183	85	96*	91	100	75^	95	96	97	97	97	100	100	91	93	100	77	77	96	-	77
Providencia rettgeri	24*	-	-	58*	100*	-	100*	96*	96*	92*	100*	100*	100*	96*	96*	100*	92*	83*	96*	-	92*
Providencia stuartii	6*	-	-	-	100*	-	100*	100*	100*	100*	100*	100*	100*	-	-	100*	17*	17*	100*	-	50
Pseudomonas aeruginosa	208	-	-	-	94	-	-	-	-	93	95	-	95	95	99	99	87	85	62	-	-
Serratia marcescens#	36	-	-	-	97	-	-	-	92#	97#	100	97	97	100	89	100	89	89	97	-	100
Stenotrophomonas maltophilia	22*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82*	-	-	95*
Cost per day ($)		$	$	$	$	$	$	$	$	$$	$$	$$	$	$	$	$	$	$	$$$	$	$

https://med.stanford.edu/bugsanddrugs/clinical-microbiology.html ; VA Palo Alto Antibiogram

https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/toolkit3-develop-implement-antibiogram-program.html

Pocket Antibiograms

Toolkit 3. The Nursing Home Antibiogram Program Toolkit: How To Develop and Implement an Antibiogram Program. Content last reviewed in November 2016. Agency for Healthcare Research and Quality, Rockville, MD.

https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/toolkit3-develop-implement-antibiogram-program.html

Antibiogram for MMDD/YY to MM/DD/YY
[Name of Nursing Home/Name of Laboratory]

	Gram Negative			
	Escherichia coli	*Klebsiella pneumoniae*	*Proteus mirabilis*	*Pseudomonas aeruginosa*
No. of isolates†	65	24*	13*	11*
Oral/Oral Equivalent				
Ampicillin	xx%	xx%	xx%	
Amox/Clav	xx%	xx%	xx%	
Cefazolin	xx%	xx%	xx%	
Cefoxitin	xx%	xx%	xx%	
Ceftriaxone	xx%	xx%	xx%	
Ciprofloxacin	xx%	xx%	xx%	xx%
Levofloxacin	xx%	xx%	xx%	xx%
Nitrofurantoin	xx%	xx%	xx%	
TMP/SMX	xx%	xx%	xx%	
Tetracycline	xx%	xx%	xx%	
Oxacillin				

Review of Quarterly Antibiotic Administration

Antibiotic DOT/1000	Q1	Q2	Q3	Q4
Ciprofloxacin	100	120	110	250
Azithromycin	100	110	300	500
Ceftriaxone	95	90	270	450
Nitrofurantoin	75	80	100	60

Review of DOT

Days of therapy (DOT)=

antimicrobial days/patient volume x 1,000

Example:

In Q4, 250 Days of Cipro per 1,000 patient days=

25 days patients on Cipro/100 patient days x 1,000

https://asap.nebraskamed.com/wp-content/uploads/sites/3/2018/06/Antibiotic-Stewardship-Metrics-How-Do-you-Measure-Up_Kuper.pdf

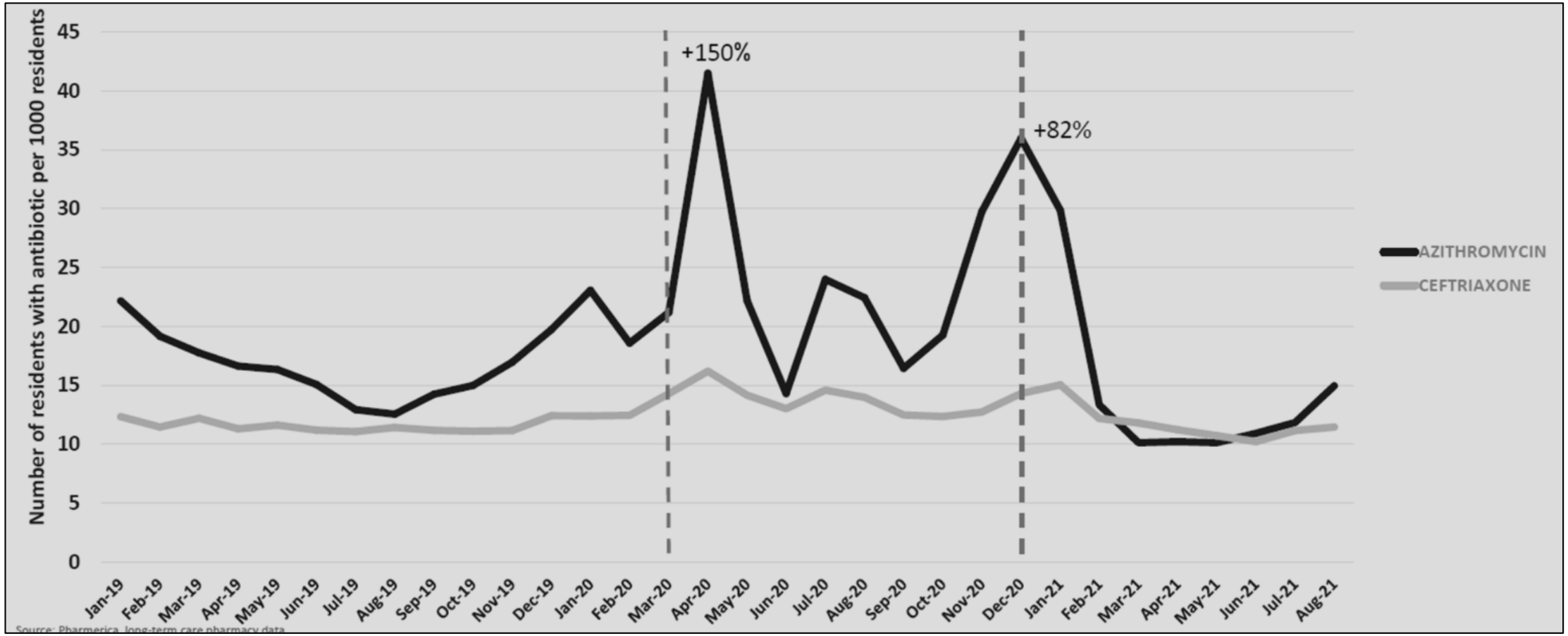
Review of DOT (continued)

- In Quarter 4, the computer census report showed 100 patient days present in the facility:
  - Mr. Smith received Cipro 500 mg po q12h x 10 days
  - Mr. Cooper received Cipro 250 mg po q12h x 10 days
  - Ms. Johnson received Cipro 500 mg po q24h x 5 days
- Total = 25 DOT

Antibiotic Stewardship Data

- Antibiotic starts: 28
- LTC starts: 17
- ABT days :154
- LTC starts met McGeer Criteria: 8

Why Did Ceftriaxone & Azithromycin DOT Increase?



https://emergency.cdc.gov/coca/calls/2021/callinfo_111821.asp

Fluoroquinolones Side Effects

- FDA warnings for fluoroquinolones
  - Tendonitis and tendon rupture
  - Worsening of myasthenia gravis
  - Irreversible peripheral neuropathy
  - Aortic aneurysm
  - Severe hypoglycemia
  - psychiatric side effects

https://www.fda.gov/news-events/fda-brief/fda-brief-fda-warns-fluoroquinolone-antibiotics-can-cause-aortic-aneurysm-certain-patients

Recommended Duration of Treatment for Common Infections

Disease	Duration (days)
CAP (Community Acquired Pneumonia)	5
UTI (Urinary Tract Infection)	Pyelonephritis: 7-14, Cystitis 3-7
Sinusitis	5-7
IAI (Intra-abdominal Infection)	4 if source control
COPD (Chronic Obstructive Pulmonary Disease)	5-7
Cellulitis	5

Antibiotic Time Outs

- Re-evaluate after 72 hours of therapy
  - Lab results
  - Culture results
  - Clinical status
- Automatic stop dates

Antibiotic Stewardship Is Required in LTCF

- Facility has approved AS program.
- Leaders are appointed to AS program.
- Written protocols on antibiotic prescribing
- Uses infection assessment tools or algorithms such as SBAR tools
- Antibiotic use is measured.
- Summarizes antibiotic resistance.
- Prescribers receive feedback about antibiotic prescribing practices
- Trainings available for all clinical staff
- Education provided to residents and families
- Antibiotic Stewardship Program for Nursing Home Providers video at https://qsep.cms.gov/pubs/CourseMenu.aspx?cid=0CMSDevASP_NH_Prov
- https://www.cms.gov/files/document/qso-20-03-nh.pdf, attachment A: CMS LTC Facility Self-Assessment Tool

Core Elements by CDC

- Leadership
- Accountability
- Drug expertise
- Action
- Tracking
- Reporting
- Education

https://www.cdc.gov/antibiotic-use/core-elements/nursing-homes.html

Leadership

- Facility written statements of support
- Antibiotic stewardship duties in job descriptions
- Stewardship policies

Accountability

- Best practices are expected by leadership.
- Involves:
  - Medical director
  - Director of nursing
  - Consultant pharmacist
  - Infection preventionist
  - Laboratory
  - State & local health departments

Drug Expertise

- Consult experts in antibiotic stewardship
  - Consultant pharmacist
  - Local hospitals
  - Infectious disease providers

Action

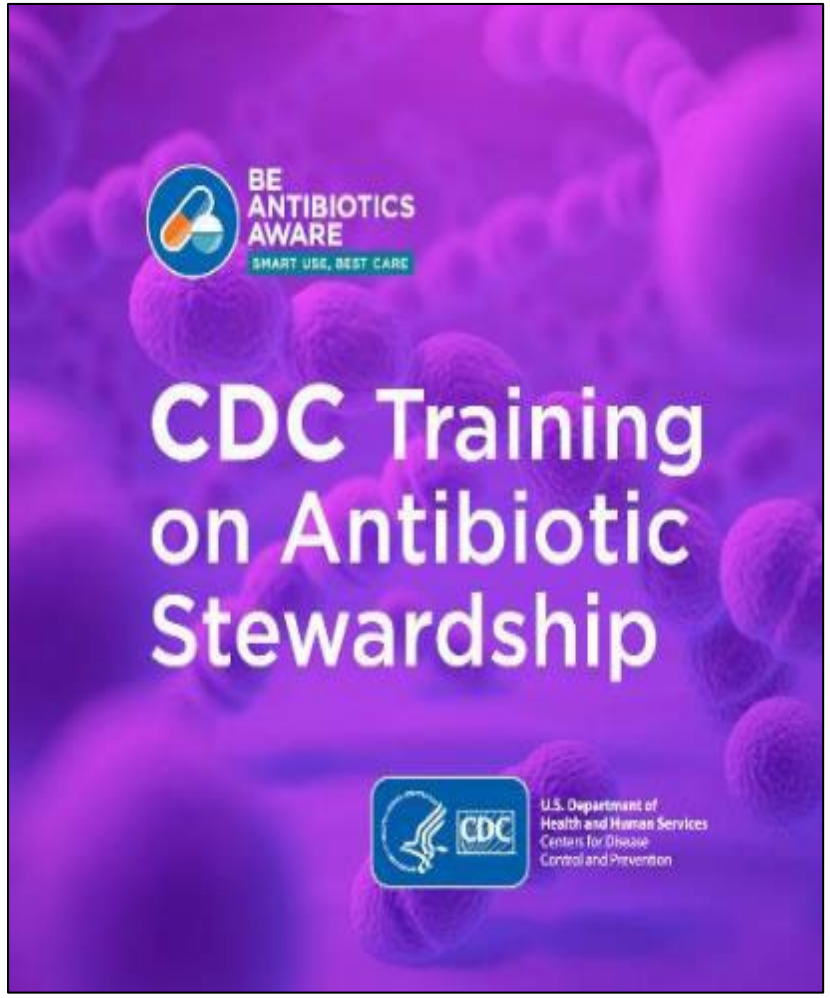
- Develop and promote policies
- Target interventions
  - Antibiotic time outs
  - Appropriate indication
  - Review cultures

Tracking

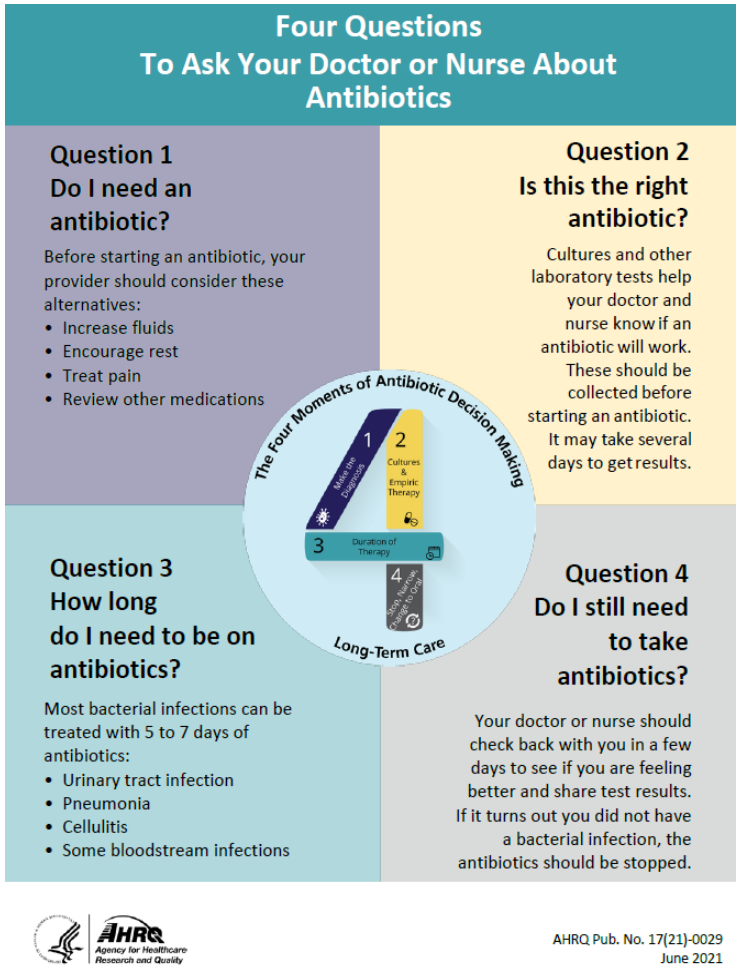
- Track interventions
- Measure antibiotic use in DOT or antibiotic starts
- Tract adverse outcomes
  - CDI
  - Antibiotic resistant bacteria
- NHSN (National Healthcare Safety Network
  - https://www.cdc.gov/nhsn/ltc/index.html

Reporting

- Discuss findings in antibiotic stewardship meetings
- Present reports at medical staff meetings



https://www.cdc.gov/antibiotic-use/training/continuing-education.html



The Four Moments of Antibiotic Decision Making Posters | Agency for Healthcare Research and Quality (ahrq.gov)

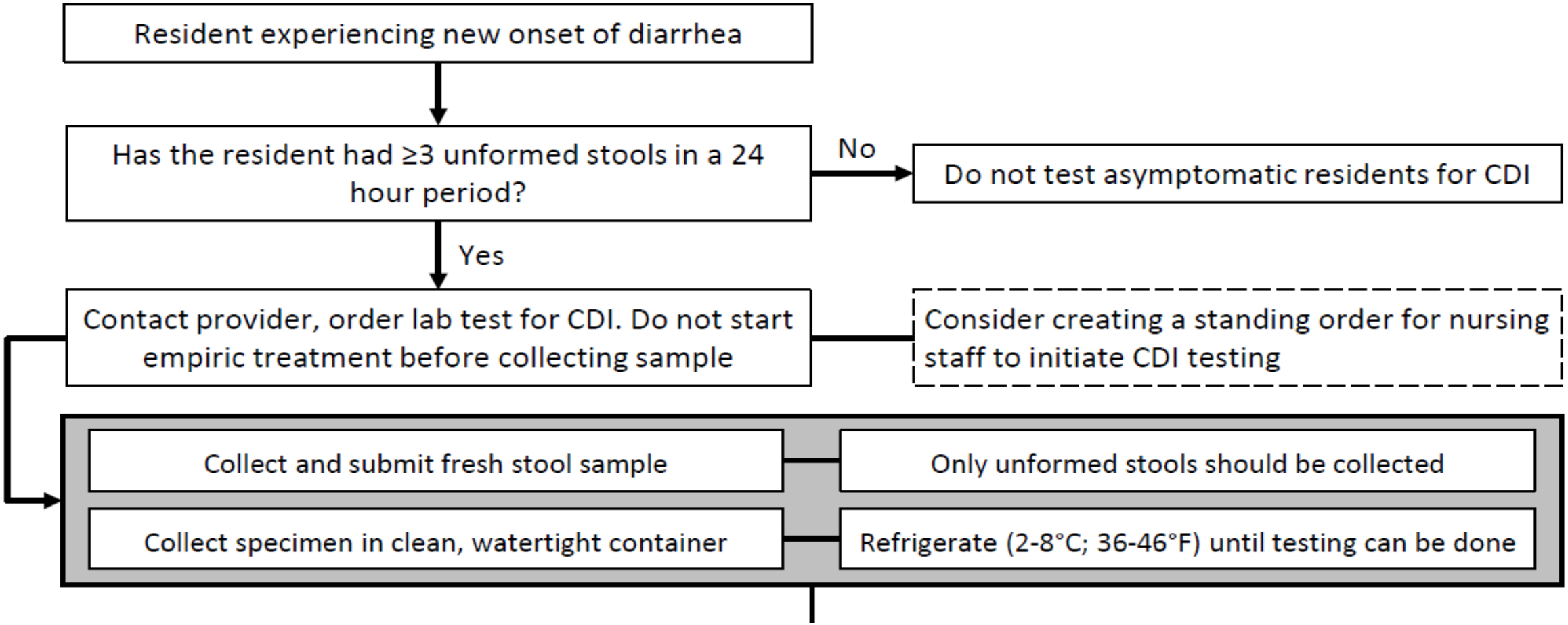
Core Elements: Education

- All employees
- Residents and families

Clostridioides difficile (C. diff)

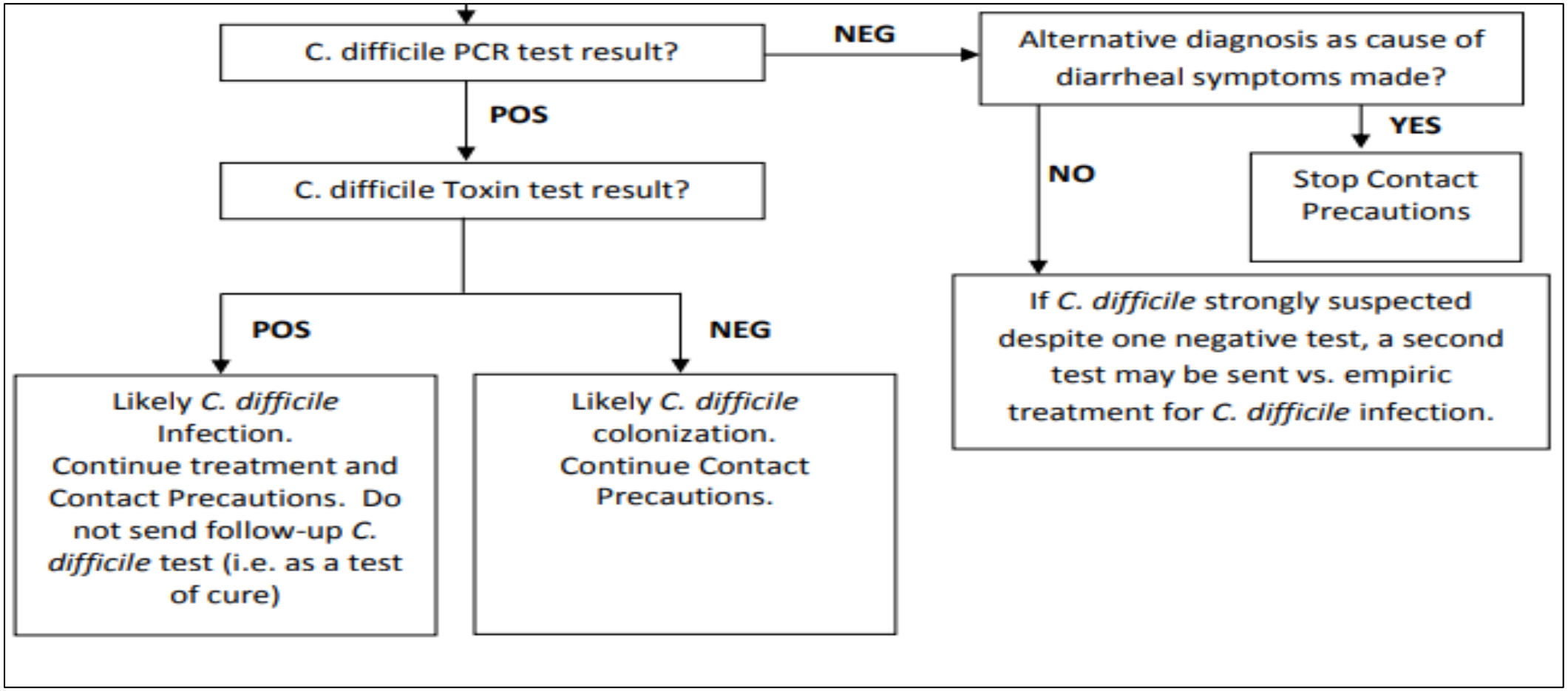
- Facility Concerns:
  - Specimen integrity (formed stools)
  - Increase in oral vancomycin prescribing
  - Inappropriate personal protective equipment (PPE) use
  - Poor hand hygiene rates

Clostridioides difficile (C. diff)



https://www.health.state.mn.us/diseases/antibioticresistance/hcp/asp/ltc/apxm.pdf

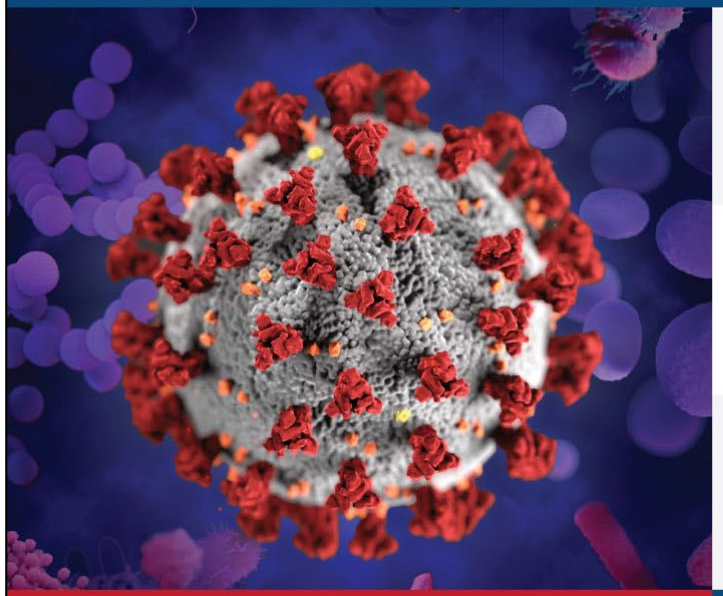
Clostridioides difficile (C. diff)



Vanderbilt University Guidance for Providers: Testing for C. diff

COVID-19 CREATED A PERFECT STORM

The U.S. lost progress combating antimicrobial resistance in 2020



↑15% Antimicrobal-resistant infections and deaths increased in hospitals in 2020.

~80% Patients hospitalized with COVID-19 who received an antibiotic March-October 2020.

Delayed or unavailable data, leading to resistant infections spreading undetected and untreated.

INVEST IN PREVENTION.

Setbacks to fighting antimicrobial resistance can and must be temporary.

Learn more: https://www.cdc.gov/drugresistance/covid19.html

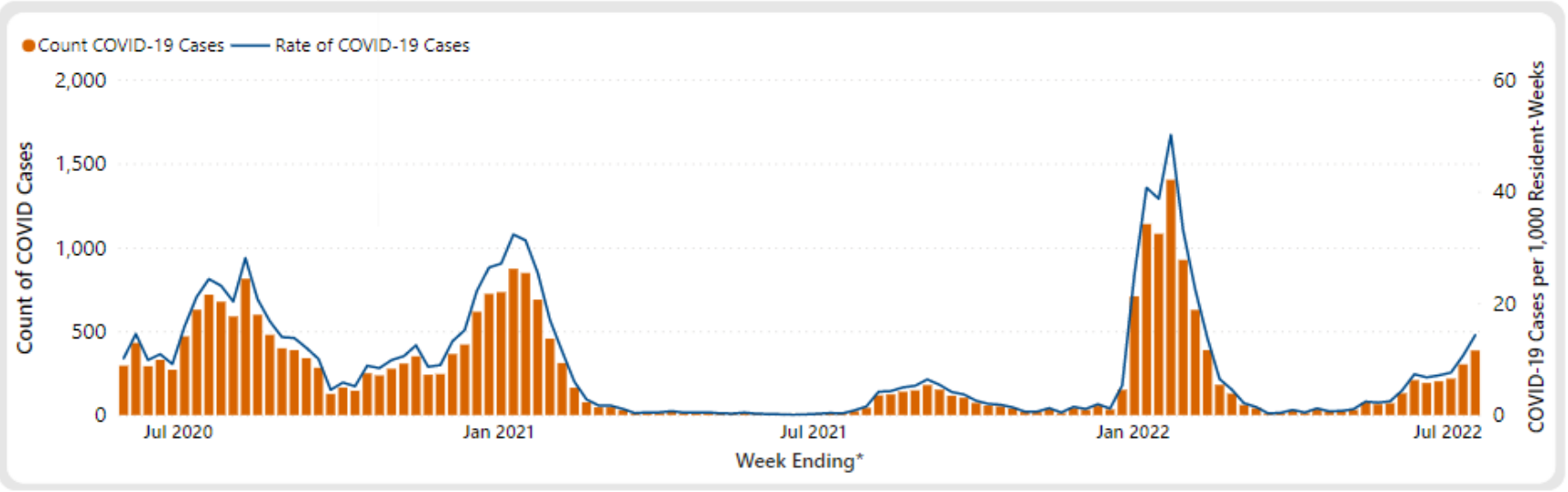
https://www.cdc.gov/drugresistance/pdf/covid19-impact-report-508.pdf

Confirmed COVID-19 Cases among Residents and Rate per 1,000 Resident-Weeks in Nursing Homes, by Week—United States

Confirmed COVID-19 Cases among Residents and Rate per 1,000 Resident-Weeks in Nursing Homes, by Week—United States

Display by State: GA

Display by FEMA/HHS Region: All



* Data are likely accruing, all data can be modified from week-to-week by facilities
For the purpose of creating this time-series graph, data that fail certain quality checks or appear inconsistent with surveillance protocols are assigned a value based on their patterns for data-entry or excluded from analysis
Data source: Centers for Disease Control and Prevention, National Healthcare Safety Network
For more information: https://www.cdc.gov/nhsn/ltc/covid19/index.html
Accessibility: [Right click on the graph area to show as table]

Data as of 7/18/2022 5:30 AM

https://www.cdc.gov/nhsn/covid19/ltc-report-overview.html

Confirmed COVID-19 Cases among Staff and Rate per 1,000 Resident-Weeks in Nursing Homes, by Week—United States

Confirmed COVID-19 Cases among Staff and Rate per 1,000 Resident-Weeks in Nursing Homes, by Week— United States

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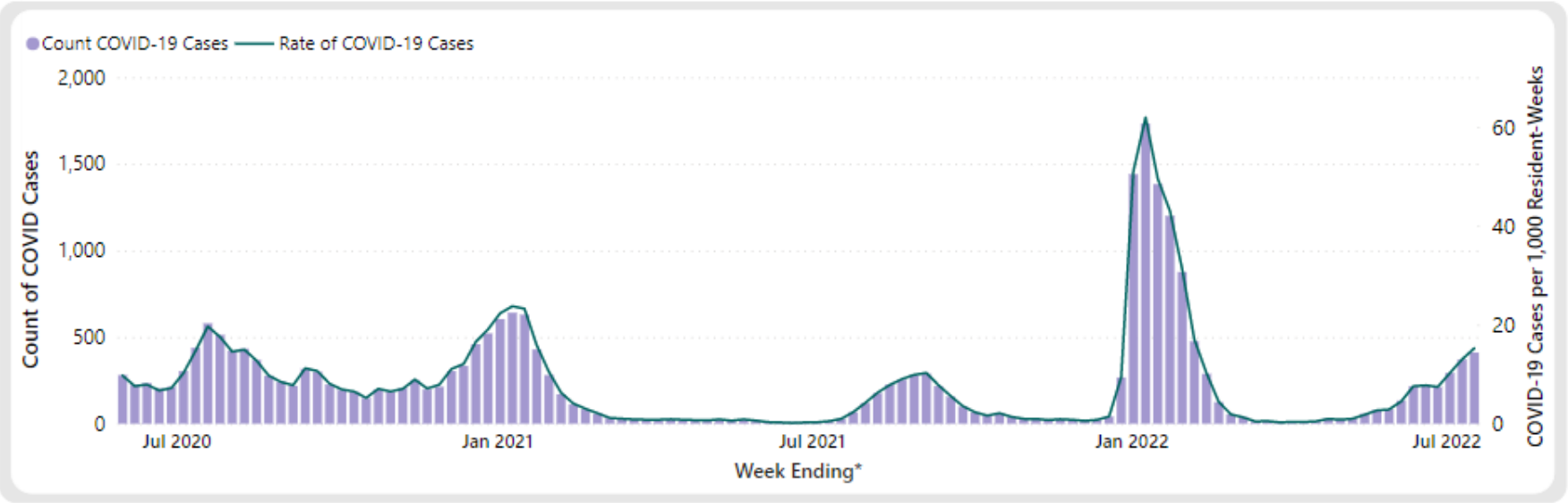

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Accessibility: [Right click on the graph area to show as table]

Data as of 7/18/2022 5:30 AM

https://www.cdc.gov/nhsn/covid19/ltc-report-overview.html

Facility COVID Vaccination Rates

- Old definition: 92%
- New definition: 88%

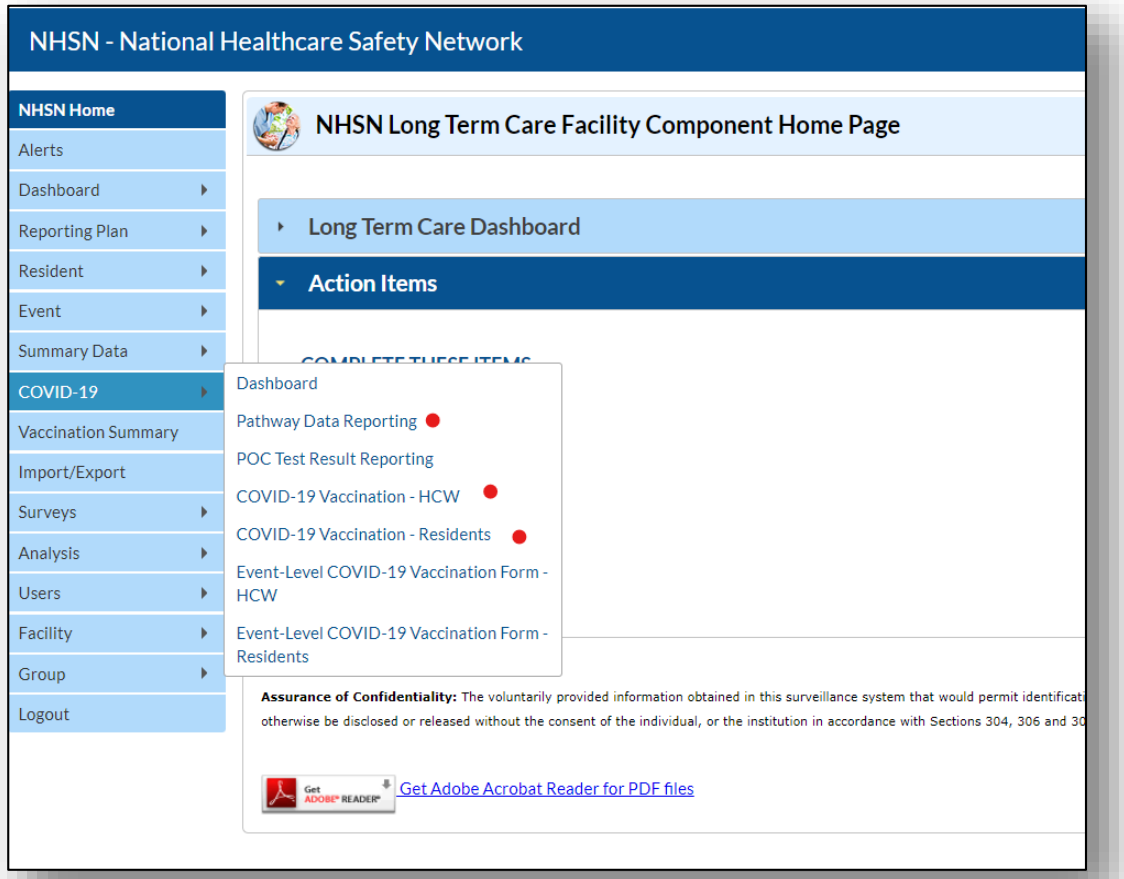
IPC Program: Interim IPC COVID-19 Recommendations for LTCFs

- Assign one or more individuals with training in infection prevention and control to provide on-site management of the IPC program
- Educate residents, HCP, and visitors about SARS-CoV-2, current precautions being taken in the facility, and actions they should take to protect themselves
- Have a plan for visitation, source control, and physical distancing measures
- Vaccinate residents and HCP against SARS-CoV-2
- Provide supplies necessary to adhere to recommended IPC practices
- Ensure proper use, handling, and implementation of personal protective equipment (PPE)
- Create a plan for testing residents and HCP for SARS-CoV-2
- Create a plan for evaluating and managing personnel and resident with SARS-CoV-2
- Create a plan for managing new admissions and readmissions
- Notify HCP, residents, and families about outbreaks, and report SARS-CoV-2 infections, facility staffing, testing, and supply information to public health authorities

https://www.cdc.gov/coronavirus/2019-ncov/hcp/long-term-care.html

CMS & CDC NHSN Reporting Requirements

- NHSN LTC COVID-19 Module
  - Resident impact and facility capacity
  - Staff and personnel impact
  - Therapeutics
  - COVID-19 Vaccination
    - Residents
    - HCW



Alliant Health Solutions

https://quality.allianthealth.org/topic/infection-control/

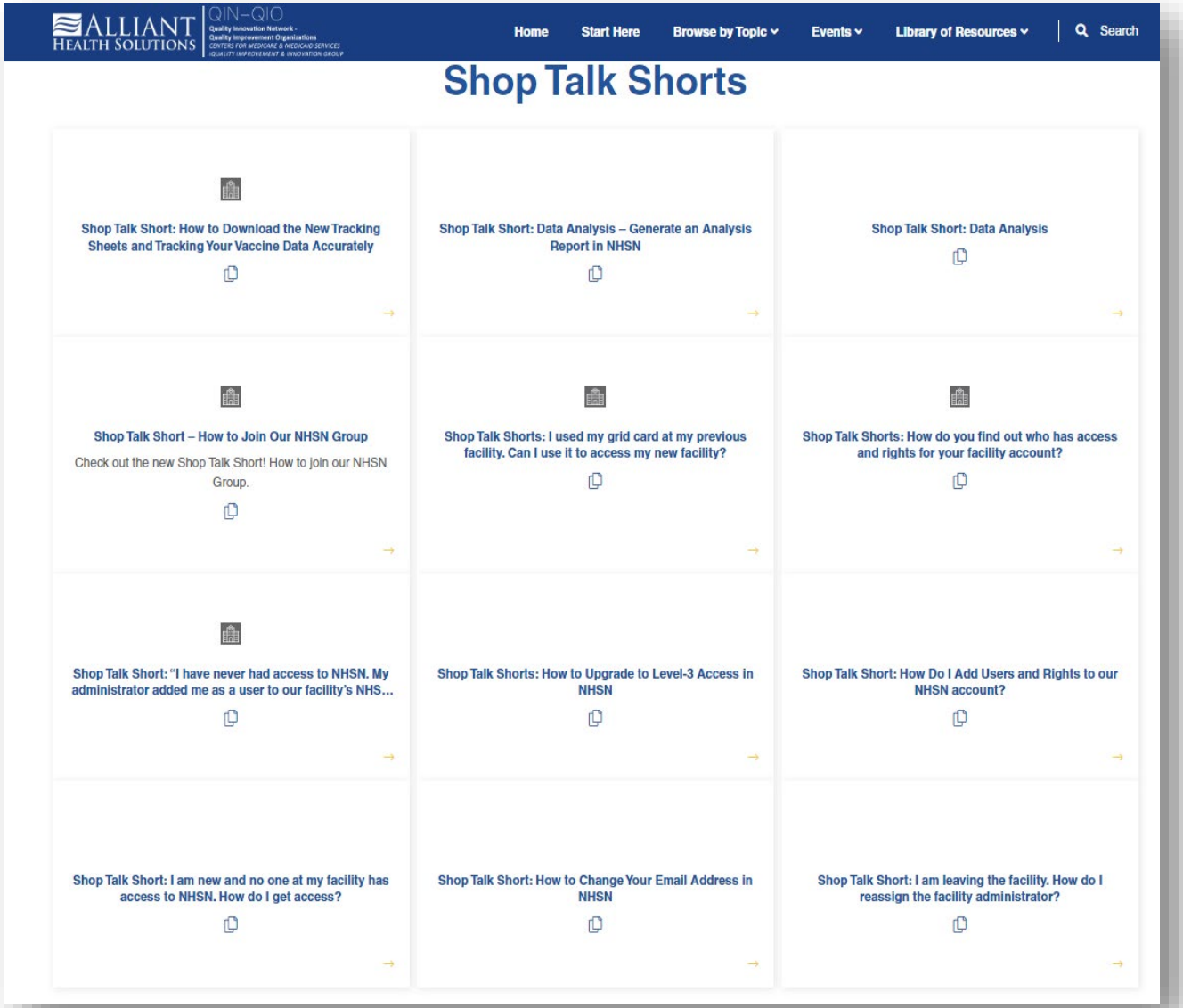
- Infection prevention and control resources
- NHSN support for nursing homes
- Educational events
  - Shop Talks and Quickinars

SAVE THE DATE & REGISTER TODAY!

August Shop Talk
Thursday, August 18, 2022
2-3 p.m. ET | 1-2 p.m. CT

Sign up and save your spot to attend next month's Shop Talk to learn about recent updates and requirements for submitting COVID-19 data into NHSN

CLICK HERE TO REGISTER TODAY



Alliant Health Solutions: NHSN Shop Talk Shorts

https://quality.allianthealth.org/topic/shop-talks/

COVID-19: Lessons Learned From the Field

- Source control / Respiratory etiquette
- Active respiratory surveillance & mapping
- Early testing & isolation
- Infection Prevention & Control
- Vaccination (booster for all eligible)
- Treatment
- Appropriate antimicrobial prescribing

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CAP

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Questions?

Thanks Again…

- Georgia Department of Public Health
- University of Georgia

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