

# National Survey Reveals Gaps In Nursing Home Providers' Understanding Of Asymptomatic Bacteriuria



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## Background

- Inappropriate treatment of asymptomatic bacteriuria (ASB) is a leading cause of antibiotic overuse in long term care.
- ASB is often mistaken for catheter-associated urinary tract infection (CAUTI)
- The national “AHRQ Safety Program for Long-Term Care: HAIs/CAUTI” surveyed front-line healthcare professionals in nursing homes to assess baseline knowledge concerning antimicrobial stewardship for bacteriuria.

## Methods

- Skills surveys were distributed to 10 health care providers in each of 216 facilities in 15 states within the United States.
- Respondents included infection preventionists, bedside nurses, nursing aides, physicians, and nurse managers.
- Domains addressed in the survey included ASB definitions and antibiotic stewardship.
- Survey items differed in complexity for licensed staff and clinical nurse assistants (CNAs).

## Results

- A total of 1892 health care providers submitted survey results.
- Of these, 928 were licensed staff, and 964 were unlicensed staff (mainly CNAs).

## Results

**Table 1: High Scoring and Low Scoring Questions for Licensed Staff**

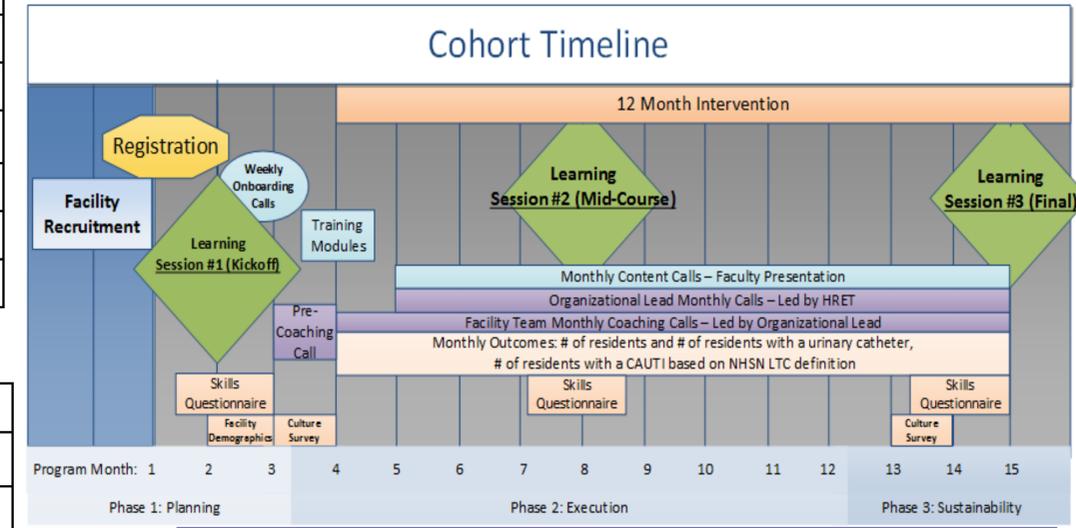
Question or Topic	% correct
<b>CAUTI Definitions</b>	
Understanding the date of the CAUTI event	38%
Defining if CAUTI was present on admission	38%
What defines a change in mental status (cohort 2 only)	57%
Case studies: Identify if CAUTI present on admission (cohort 2 only)	30%
<b>Asymptomatic Bacteriuria (ASB) and Pyuria Surveillance</b>	
Recognize definition of ASB	91%
Does pyuria distinguish ASB from Urinary Tract Infection (UTI)	36%
<b>Antimicrobial Stewardship</b>	
Recognizing evidence-based symptoms of CAUTI	59%
Are screening urine cultures on admission indicated	60%
Recognize that fever and positive culture should be treated with antibiotics	94%

**Table 2: High Scoring and Low Scoring Questions for Unlicensed Staff**

Question or Topic	% correct
<b>CAUTI Definitions</b>	
Fever definition	25%
What defines a change in mental status (cohort 2 only)	57%
<b>ASB and Pyuria Surveillance</b>	
Should cloudy, smelly urine prompt a culture	27%
Identify steps to take if resident has fever and confusion	98%
<b>Antimicrobial Stewardship</b>	
Recognizing evidence-based symptoms of CAUTI	26%
Understanding relationship between antibiotic overuse and resistance	86%

## Conclusions

- Both licensed staff and CNAs had a baseline working knowledge of the definition of ASB and the concept of antimicrobial stewardship.
- However, pyuria, urine odor, urine color, or urine cloudiness were powerful triggers for unnecessary urine cultures.
- Since unnecessary urine cultures in residents with ASB can falsely elevate CAUTI rates and lead to unnecessary antibiotic use, the CAUTI prevention program will address



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