INTRODUCTION

- Patient sharing between healthcare facilities is widespread. Patient sharing between healthcare facilities is widespread.
- Yet surveillance definitions for non-catheter associated urinary tract infections (UTI) vary between healthcare facilities. Surveillance definitions for non-catheter associated urinary tract infections (UTI) vary between healthcare facilities.
- Consequently, patients with identical clinical features may meet criteria for UTI in hospitals but not in nursing homes. Consequently, patients with identical clinical features may meet criteria for UTI in hospitals but not in nursing homes.
- A common definition that spans hospitals and nursing homes may enhance UTI surveillance efforts. A common definition that spans hospitals and nursing homes may enhance UTI surveillance efforts.

Study Objective: To compare the detection of UTI in older adults using 2017 National Healthcare Safety Network (NHSN) criteria and Revised McGeer criteria.

METHODS

Study Design

- Agreement analysis
- Women ≥65 years with suspected UTI from 21 nursing homes in clinical trial evaluating cranberry capsules to reduce bacteriuria plus pyuria
- Study period: 8/2012 – 10/2015

Data Collection

- Microbiological data
- Clinical features: fever, dysuria, costovertebral angle tenderness, suprapubic pain, hematuria, incontinence, urgency, frequency

Data Analysis

- Applied 2017 NHSN criteria, revised McGeer criteria, and proposed criteria to all suspected UTI cases (Figure 1)
- Proposed criteria derived a priori
- Divergent cases summarized

Statistical Methods

- Differences in the correlated proportions of UTI detected per criteria were assessed using McNemar’s test

RESULTS

Table 1. Detection of UTI among women nursing home residents using proposed criteria versus 2017 NHSN criteria and revised McGeer criteria

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<tr>
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Table 2. Detection of UTI among women nursing home residents using 2017 NHSN criteria versus revised McGeer criteria.

<table>
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CONCLUSIONS

- Both 2017 NHSN definitions and revised McGeer criteria have limitations in the surveillance of UTI.
- Revised McGeer criteria include insensitive microbiological criteria based on catheter urine specimens.
- 2017 NHSN definitions exclude fever in older adults aged > 65 years as a clinical feature of UTI.
- Our proposed criteria attempt to address these limitations and may be generalizable to both hospitals and nursing homes.

LIMITATIONS

- Definitions were applied to women nursing home residents only and may lack generalizability to men.
- Sensitivity and specificity were unable to be evaluated due to lack of gold standard.

REFERENCES