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Confusion and bacteriuria among long-term care facility residents

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To the Editor

Of the five clinical variables that Mayne et al. identified as independent predictors of antimicrobial therapy for presumed urinary tract infection (UTI) among long-term care facility (LTCF) residents, confusion was by far the most prevalent overall (8.9%), followed distantly by urinary frequency (3.3%), urinary catheter use (3.1%), fever (1.9%), and hypotension (1.7%)¹. The authors appropriately point to the absence of validated criteria for antibiotic use among LTCF residents, but note that in their study such usage was considerably more liberal than recommended by experts, e.g., in the McGeer or Loeb criteria²⁻⁴, where confusion has a very limited role as a diagnostic criterion. However, these criteria were based solely on expert opinion, are inconsistent with one another, remain unvalidated, and likely are unknown to many clinicians, making it unsurprising that clinicians do not consistently follow them.

How best to manage unexplained confusion in LTCF residents who are found to have bacteriuria is largely an “evidence free zone”⁵. Labeling such individuals as having UTI considerably overstates what is known and almost certainly leads to excessive antibiotic use. The recently proposed designation for this scenario “bacteriuria/pyuria of clinical undetermined significance” (BPCUS)⁵ is less likely to be misleading and could help advance the field. In that regard, Mayne et al. appropriately call for a randomized clinical trial in which LTCF residents with new-onset confusion and bacteriuria would be randomized to antibiotic treatment or placebo.¹ Such a trial could generate critically needed evidence, and use of the more descriptive label BPCUS instead of UTI could avoid premature closure and non-indicated treatment; both should lead to improved patient outcomes.

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