

the underlying diseases.⁷ We, in fact, never said that “all pathogens are associated with the same mortality rate” but conservatively estimate that, collectively, all bloodstream infections contribute equally to mortality, as do the underlying diseases.

We are advocates of preventing bloodstream infections and also of treating those that do occur. So the question is, if Farr and Jarvis¹ think that bloodstream infections have no attributable mortality, why would they try to prevent them? Instead, they should seek only to prevent the underlying diseases. And if bloodstream infections do occur and would have no attributable mortality, then, using the logic of Farr and Jarvis,¹ they should not—or should rarely—be treated with antibiotics (which affect only the attributable mortality). Instead, all therapy should address only the underlying diseases. We have a different view. We wish to prevent all bloodstream infections because they are inherently life threatening. As clinicians, we also treat bloodstream infections with antibiotics. We suspect that all hospitals with which Farr and Jarvis¹ are associated prescribe antibiotics for bloodstream infections because they seek to reduce the attributable mortality.

Farr and Jarvis¹ are passionate advocates for an MRSA-focused approach to infection control. We applaud their efforts but differ on the issue of proportion, of balance. We wish that every lecture they gave began with a statement that a broad horizontal program for infection control is an essential prerequisite; that every article began with 1–2 paragraphs stating that before an MRSA-focused approach is instituted, a broad and effective horizontal program should be in place; and that before they demand state mandates for MRSA screening, they first demand explicit statewide mandates for horizontal programs with effective structures, functions, and outcomes (the Donabedian platform for quality).⁸ If so, we would likely join hands in a comprehensive evidence-based effort.

We suppose that their reference to us as “nihilists” is negative but suggest that those who challenge dogma and the status quo are often subject to such terms. We are sure that a few who doubted the value of laudable pus as essential for healing were called nihilists by the true believers. In a sense, perhaps, Farr and Jarvis¹ are correct, for the Oxford English Dictionary defines nihilists as those who believe in the “total rejection of current religious beliefs.” If that is their intent, then, in our optimism, we accept it as a compliment.

We regret mostly that Farr and Jarvis¹ do not focus on the reduction in the infection rates for all pathogens. Perhaps in their earnest journey, they just hope that the prevalence of all infections will thereby be reduced. However, they lack the data, the key metric in validating an effective infection control program, and they thus fail to use one of the best measures of success. They will be like the crew of an orbiting ship traveling throughout space without instruments, unable to identify their current bearings, the probability of hazards, their direction, or their rate of travel. Only their narrow horizon provides temporary calm. We reiterate our thanks to

and respect for Farr and Jarvis,¹ and we see some common ground as well as some areas for ongoing debate.

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Oscar the Cat, Carbapenem-Resistant *Klebsiella pneumoniae*, and Attributable Mortality

Oscar is a famous cat with a unique characteristic: he has the mysterious ability to predict when residents of a nursing home in Providence, Rhode Island, are about to die, and he curls up and naps at their bedside during their final hours of life.¹ Among the multiple reactions to this extraordinary report, malicious minds have concluded by mistake that Oscar is simply a serial killer.²

I sincerely congratulate the authors of the recent report on carbapenem-resistant *Klebsiella pneumoniae* infection³ for their restraint in ascribing to carbapenem-resistant *K. pneumoniae* such properties as increased virulence or attributable mortality. They elegantly and correctly avoided a common temptation to perform multivariate analysis using their large database (eg, by comparing carbapenem-resistant *K. pneumoniae* isolates with carbapenem-susceptible *K. pneumoniae* isolates as a potential predictor of mortality). In conclusion, Oscar's behavior is most probably only associated with mortality—he is not necessarily a more virulent cat.

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Colonization or Infection of the Urinary Tract: Do We Pay Attention?

To the Editor—Antibiotic resistance has emerged as a major public health threat.¹ The restriction of antibiotics and the judicious use of these agents have been shown to decrease antibiotic resistance and reduce healthcare costs.²⁻⁵ It is critical that clinicians differentiate colonization from infection so that antibiotics are utilized appropriately, thus favorably impacting antibiotic resistance and preventing patients from unwarranted exposure to antimicrobials. This is especially true in the context of asymptomatic bacteriuria, which may elicit unnecessary treatment.

In our 700-bed, university-affiliated community teaching hospital, we have an antibiotic restriction policy that requires clinicians to obtain approval from an infectious disease physician prior to prescribing restricted antimicrobials. We observed that, when healthcare personnel requested antibiotic

approval for the treatment of a urinary tract infection, a substantial number of providers reported the isolation of the organism from culture but were not cognizant of an associated urinalysis, the presence of a Foley catheter, or other supporting clinical data. These parameters are important in differentiating infection from colonization.^{6,7}

Our objective was to evaluate the degree of inattention by healthcare personnel at our institution to some information fundamental to the interpretation of urine culture results. We developed a study protocol that was approved by the internal review board of the hospital. A hand-carried data card was given to the infectious disease physician on call who was responsible for antibiotic approval. When approval was requested for the use of antibiotics to treat a urinary tract infection, the following questions were asked, and the responses were recorded: (1) Was there evidence of pyuria on urinalysis? (2) Did the patient have an indwelling Foley catheter? (3) Which organisms were identified on culture? Responses to the questions were listed as “known” or “not known.” If the provider needed to check or confirm information to respond to these questions, the response was recorded as “not known.” We made the assumption that, if the clinician was not aware of such supporting information, then the clinician's request was formulated independent of such data. In addition, the responses were obtained only in cases for which urine cultures had been performed; that is, the data do not represent cases for which antibiotics were requested for empirical treatment. Information about the department affiliation and job title of the healthcare professionals was obtained. No identifiers of healthcare personnel or patients were recorded. We collected data over a 2-month period.

A total of 71 individual queries were recorded (Table). The results have been categorized on the basis of job title and department affiliation. Thirty-five (49%) of the respondents had supporting evidence of pyuria, 33 (46%) were aware of the presence of a Foley catheter, and 65 (92%) were informed of urine culture results.

We looked for a difference in the awareness of the parameters tested among house staff in different levels of training. According to our statistical analysis, postgraduate year 2 residents in the Department of Medicine were more cognizant of the presence of Foley catheters than their postgraduate year 1 counterparts.

With advancements in technology, there are many novel and complex investigational tests being utilized in medicine. However, clinicians should realize the importance of fundamental clinical information in the interpretation of microbiologic results. Colonization should be differentiated from infection; positive urine culture results in the absence of pyuria and/or in the presence of a Foley catheter usually do not represent infection.⁶ Inattention to this concept may lead to administration of antibiotics for conditions that do not need to be treated and may draw attention away from a true infection. The providers seemed to pay attention to the culture results but pay less attention to other relevant data. Post-