this route of transmission plays a significant role.

Nevertheless, there were several areas in Dr Aggarwal's letter that we wish to clarify. First, we believe that, in this epidemic, which continued over many incubation periods, there must have been either a continuing common source or person-to-person transmission. During the period of this investigation, there were several prevention and control measures implemented to ensure safe drinking water and hygienic practices. In addition to hepatitis E virus testing of water sources, testing for coliforms was conducted. Although we agree with Dr Aggarwal regarding the low sensitivity of hepatitis E virus detection techniques from water sources, the absence of hepatitis E virus RNA and significant coliforms from protected water sources argues against any fecal contamination that would contribute to an ongoing common source. Given that there was no evidence of any contamination of these sources while hand lavage yielded hepatitis E virus [2], we believe that person-to-person transmission likely played a significant role.

Second, we believe that the assumption of secondary cases representing person-to-person transmission is conservative in that this route could also have contributed to transmission among primary cases. Unlike in Asia, where there may be a higher prevalence of immunity to hepatitis E virus, we believe that a significant proportion of the population was susceptible to hepatitis E virus prior to the widespread outbreak. In our population, this could have contributed to the secondary attack rate, which was much higher than those reported in most studies [3], which were conducted in populations with higher preexisting immunity to hepatitis E virus and where person-to-person transmission was considered insignificant. If there had been a continually contaminated common water source, then we would have expected an even higher attack rate and a shorter outbreak. Regarding Dr Aggarwal's con-

cern about the range of time periods between primary and secondary cases (ie, 8–20 weeks), we believe that infection could have been propagated by infected but asymptomatic family members.

Another issue regarding household transmission that was raised by Dr Aggarwal deserves comment. In many settings, we would agree with him that household size is associated with socioeconomic status and standard of living. However, in the setting of this outbreak, the socioeconomic status of all residents was uniformly poor, and there was no substantial variation in the living conditions. Although we cannot exclude the possibility that a proportion of secondary cases may have acquired infection from an unidentified common source, we still believe that significant hepatitis E virus person-to-person transmission occurred during this large epidemic in northern Uganda.

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Catheter-Associated Urinary Tract Infection IDSA Guidelines: Why the Levofloxacin?

To the Editor—Earlier this year, the Infectious Diseases Society of America (IDSA) published their 2009 International Clinical Practice Guidelines on the diagnosis, prevention, and treatment of catheter-associated urinary tract infection (CA-UTI) in adults [1]. We commend the article's panel of experts for their comprehensive and clinical in-depth review of catheter-associated asymptomatic bacteriuria and symptomatic urinary tract infection. However, we disagree with their specific recommendation that a 5-day regimen of levofloxacin be considered in patients with CA-UTI who are not severely ill. We strongly believe that this recommendation is based on weak supporting data, may have a greater propensity for adverse events, and does not constitute the best use of this fluoroquinolone agent.

The sole specific antimicrobial agent treatment recommendation in the entire document is for using levofloxacin (5 days, no dose cited). Interestingly, the strength assigned to this recommendation is only moderate, and the quality of evidence lacks well-designed clinical trial scrutiny (B-III). It appears that their choice of levofloxacin is based on a single trial which found that levofloxacin (750 mg once daily for 5 days) was both microbiologically and clinically noninferior to ciprofloxacin (400/500 mg twice-daily for 10 days) for the treatment of complicated urinary tract infections and acute pyelonephritis [2]. In a small subset of patients who had a urinary catheter in place, a greater number of levofloxacin-treated (30 [78.9%] of 38) than ciprofloxacin-treated (16 [53.3%] of 30) subjects had their urinary pathogen eradicated (95% confidence interval, 3.6%–47.7%). Nevertheless, clinical success rates (78.9% vs 79.9%) for CA-UTIs were similar for levofloxacin and ciprofloxacin, respectively.

One explanation for the disparity in microbiologic eradication rates in those with catheters in place could be the fact that 23 isolates that were resistant or had intermediate susceptibility to ciprofloxacin remained susceptible to levofloxacin, although details as to the pathogens involved in patients with CA-UTI were not supplied. It is quite possible that more CA-UTIs treated with ciprofloxacin involved gram-positive cocci, organisms against which levofloxacin would likely have an activity advantage over ciprofloxacin. However, regardless of any residual organisms present, once clinical cure is achieved even if asymptomatic bacteriuria persists, a condition the authors and others recommend against documenting, no further antimicrobial intervention is required or recommended. Thus, any real advantage of levofloxacin would be minor or nil (ie, decreasing posttreatment asymptomatic bacteriuria).

By federal drug administration standards, levofloxacin has earned approval as an effective antibiotic for the treatment of complicated and uncomplicated urinary tract infections. However, ultimately this is probably not the optimal use of this agent as recommended in the IDSA CA-UTI practice guidelines (which includes both hospital and long-term care facilities). Its high cost, rising association with *Clostridum difficile* infection, and implied 750-mg dose (the dose used in the study cited), which may lead to untoward adverse effects in the elderly population, are factors that support our firm suggestion that other antimicrobial agents better suited for the treatment of CA-UTIs should be considered first. There is also the possibility that widespread use of levofloxicin may result in less susceptibility of respiratory pathogens. We feel that ciprofloxacin may be preferred where a fluoroquinolone agent is indicated, based on susceptibility results. Let's generally reserve levofloxacin for the treatment of respiratory tract infections, a role for which it is more appropriately suited.

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Reply to Bush and Kaye

TO THE EDITOR—The authors thank Drs Bush and Kaye for their comments about the recently published Infectious Diseases Society of America clinical practice guidelines on catheter-associated urinary tract infection (CA-UTI) [1, 2]. They raise concern about the recommendation suggesting that a 5-day regimen of levofloxacin may be considered in patients with CA-UTI who are not severely ill. The guidelines go on to state that data are insufficient to make such a recommendation about other fluoroquinolones. As discussed in the Evidence Summary section of the guidelines, the study on which this recommendation is based is that by Peterson et al [3]. This large study of complicated UTI reported data on a subset of 68 subjects who underwent catheterization and in whom a 5-day course of levofloxacin resulted in a higher microbiologic eradication rate but a similar clinical success rate, compared with a 10-day regimen of ciprofloxacin. Drs Bush and Kaye point out that use of levofloxacin as suggested in the recommendation is probably not optimal use of this agent because of its high cost, association with *Clostridium difficile* infection, and adverse effects in the elderly population associated with the implied 750-mg dose.

We chose not to include a section on selecting an optimal antimicrobial for treatment of CA-UTI given the complexities of making recommendations about empiric treatment for a condition so commonly associated with multidrug resistance. Our intent with the recommendation in question was not to recommend use of levofloxacin over other fluoroquinolones, but rather to point out that a 5-day course of antimicrobials is likely to be effective for mild episodes of CA-UTI. Levofloxacin is singled out simply because it is the only one with published data supporting its use in a short-course regimen. It is certainly possible that other fluoroquinolones would be similarly effective or have other advantages with regard to cost or adverse effects. The strength of the recommendation (B) and quality of evidence (III) reflect the minimal published data supporting this recommendation.

Fluoroquinolones are generally considered to be the drugs of choice for oral treatment of complicated UTI, including CA-UTI. For patients who are not severely ill and in whom a fluoroquinolone is considered to be optimal treatment, it is reasonable to consider a 5-day course of levofloxacin (other fluoroquinolones may be just as effective but have not been evaluated) if the causative uropathogen is susceptible. We are not aware of any studies that report a greater risk of resistance emergence among respiratory pathogens with use of levofloxacin for CA-UTI, compared with ciprofloxacin. Moreover, the duration of the fluoroquinolone treatment regimen for CA-UTI likely has more influence on the suscep-