

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 *Clostridium 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 levofloxacin 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 lev-

ofloxacin 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-

tibility of respiratory pathogens than the choice of fluoroquinolone.

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Recurrent Outbreak of Pandemic (H1N1) 2009 Virus Infection in a Pediatric Long-Term Care Facility and the Adjacent School

TO THE EDITOR—We report a recurrent outbreak of pandemic (H1N1) 2009 virus infection in a neurologically impaired population in a long-term care facility (LTCF) and the adjacent school. On 26 July 2009, the Tel Aviv District Health Office (Tel Aviv, Israel) was notified of an ongoing outbreak of influenza-like illness (ILI) in the LTCF and adjacent school. On 17 December 2009, another outbreak of ILI was reported at the same place. ILI was

Table 1. Characteristics of Patients in the Summer and Winter Pandemic (H1N1) 2009 Outbreaks

Variable	Summer outbreak (n = 162)	Winter outbreak (n = 144)
Cohort	162 (100)	144 (100)
Inpatients	91 (56.2)	84 (58.3)
Outpatients	71 (43.8)	60 (41.7)
ILI		
Overall	79 (48.8)	24 (16.7)
Hospitalized	12 ^a (15.2)	4 (16.7)
Age ^b , median years (IQR)		
Overall	13.4 (9.2–18.5)	13.4 (9.1–17.8)
ILI	12.2 (7.4–15.6)	10.1 (5.6–15.3)
Male sex		
Overall	78 (48.1)	69 (47.9)
ILI	36 (46.2)	13 (18.8)
RT-PCR samples		
Overall	13 (100)	14 (100)
Positive	11 (84.6)	8 (57.1)
Registered staff		
Overall	191 (100)	≈190 (100)
ILI	8 (4.2)	NR (-)

NOTE. Data are no. (%) of patients, unless otherwise indicated. ILI, influenza-like illness; IQR, interquartile range; NR, none reported; RT-PCR, real-time reverse transcriptase polymerase chain reaction.

^a One patient died.

^b Age at the outbreak onset.

defined as the presence of fever with cough or sore throat.

At the time of the summer investigation, there were 162 inpatients and outpatients with a background of intermediate-to-severe cerebral palsy or chromosomal and genetic syndromes. The median age of the patients was 13.4 years (interquartile range, 9.2–18.5 years) (Table 1). The dormitory and the school are located in the same 5-floor building.

The attack rates were 48.8% (79 of 162 patients) and 16.7% (24 of 144 patients) for the summer and winter outbreaks, respectively. Real-time reverse transcriptase polymerase chain reaction assays demonstrated that 84.6% (11 of 13) and 57.1% (8 of 14) samples that were obtained from case patients during the summer and winter outbreaks, respectively, were positive for the pandemic (H1N1) 2009 virus. The hospitalization rate for case patients was 15.2% (12 of 79) patients and 16.7% (4 of 24 patients) for the summer and winter outbreaks, respectively. Seventy case pa-

tients had ILI once, either in the summer or the winter outbreak (mean age, 13.3 years; 95% confidence interval, 11.8–14.7 years) and 16 case patients had ILI at both outbreaks (mean age, 10.2 years; 95% confidence interval, 5.6–14.8 years). Case patients who were sick twice were younger, on average, than were those who were sick once ($P = .09$; not significant).

A 5-day treatment course of neuraminidase inhibitor (oseltamivir) was administered to case patients for both the summer and winter outbreaks. No prophylaxis was given at these times. Notably, only 30 (20.1%) of the inpatients and outpatients were vaccinated against pandemic (H1N1) 2009 virus before the winter outbreak began.

For a sample of 27 case inpatients from the summer outbreak, the median weight was calculated (29.2 kg; interquartile range, 24.5–33.6 kg). Weight-for-age percentiles were calculated for 24 case inpatients of this sample: 16 inpatients