

S52]. The administration of any drug to a patient primarily for the purpose of benefiting others raises important ethical issues. Although oseltamivir is generally well tolerated, mild adverse gastrointestinal effects are common, and recent reports have raised concerns regarding the potential for serious neuropsychiatric effects, although these have been observed principally in children and young people [2]. In the context of a recommendation that may suggest administration of oseltamivir or, indeed, any medication to a patient with a view to protecting health care workers and other patients from infection, it seems appropriate to discuss the ethical issues raised by such a practice, and we would welcome the authors' observations. Would informed consent be appropriate?

### Acknowledgments

**Potential conflicts of interest.** All authors: no conflicts.

**Cathal Collins,<sup>1</sup> Richard Drew,<sup>1</sup> and Martin Cormican<sup>2</sup>**

<sup>1</sup>Department of Medical Microbiology, Galway University Hospitals, and <sup>2</sup>Department of Bacteriology, National University of Ireland Galway, Galway, Ireland

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Reprints or correspondence: Dr. Martin Cormican, Dept. of Bacteriology, National University of Ireland Galway, Newcastle Rd., Galway, Ireland ([martin.cormican@mailn.hse.ie](mailto:martin.cormican@mailn.hse.ie)).

**Clinical Infectious Diseases** 2007; 45:133–4  
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DOI: 10.1086/520486

### Reply to Collins et al. and to Singh

TO THE EDITOR—Collins et al. [1] raise an interesting ethical issue regarding the use of antiviral medication for the treat-

ment of influenza. As with many decisions in medicine, a risk-benefit analysis must be made; this is certainly the case here.

The recommendation in the community-acquired pneumonia guidelines [2] regarding antiviral therapy was made in the context of patients with positive influenza culture or rapid antigen detection test results who also have radiographic evidence of an infiltrate. The ability to distinguish between influenza-related pneumonia and bacterial pneumonia that is complicating influenza is very limited. Conversely, antiviral agents have never been prospectively studied for treatment of purely influenza-related pneumonia (i.e., influenza-related pneumonia that has not yet been complicated by a bacterial infection). In this situation, a risk-benefit analysis of antiviral treatment must be performed; it would seem reasonable to add decreased viral shedding to the benefit side of the ledger.

However, a case could also be made that the ethical concern raised by Collins et al. [1] could be applied to the treatment of uncomplicated influenza. In studies that suggest the benefit of administering antiviral treatment [3–5], the time to cessation of viral shedding was one of the secondary end points and does, therefore, factor into the recommendations for treatment of influenza. However, uncomplicated influenza is generally a self-limited disease, and the marginal symptomatic benefit to be gained from antiviral therapy by an individual patient could probably be equaled by treatment with antipyretics and analgesics. Therefore, decreasing the risk of spread of disease to close contacts is one of the major reasons to treat outpatients. Conversely, an outbreak of influenza in a hospital, long-term care facility, retirement home, or other similar facilities could be devastating, resulting in significant morbidity and mortality. The use of chemoprophylaxis is one way of helping to prevent and control influenza; if the exposed population has not been vaccinated, then chemoprophylaxis is the only option. Most patients understand that they may

be a risk to others, and choose to take the antiviral agent partly for that reason. The concern of Collins et al. [1] does reinforce the need to clearly discuss the indications, risks, and benefits of interventions, including antiviral therapy.

We would also like to thank Singh for his letter [6]. He has raised a number of issues, which we will respond to individually.

1. That these guidelines [2] may not pertain to developing countries where tuberculosis is rampant: we agree wholeheartedly with this statement. The guidelines were written by North American physicians, with assistance from Dr. Torres from Europe, with the intent of providing treatment recommendations to physicians who are practicing primarily in the United States. It was never our intent for these guidelines to be adopted by other countries, whether in Europe, Asia, Africa, or elsewhere. We have based our recommendations, as much as possible, on epidemiologic and resistance data, as well as on patterns of practice that are prevalent in the United States. In fact, we specifically state that “these guidelines are oriented toward the United States and Canada” [2, p. S32].

2. That the guidelines [2] advocate the use of fluoroquinolones for almost all categories of patients who have community-acquired pneumonia: this is most definitely not the case. In fact, we were attempting to provide as reasonable a choice of antimicrobial agents as is possible, given our knowledge of the epidemiologic and resistance data that are available across the United States. Specifically, we tried to deemphasize the use of fluoroquinolones in outpatients who do not have risk factors for  $\beta$ -lactam or macrolide resistance. For inpatients, therapy with a  $\beta$ -lactam plus a macrolide is offered as a legitimate alternative for patients who are not in the intensive care unit, as well as for certain patients who are in the intensive care unit.

3. Regarding the claim that fluoroquinolones are potent antimycobacterial

agents: Singh [6] raises a number of good points. However, we must point out that we were attempting to prepare guidelines for the initial management of community-acquired pneumonia and not a detailed textbook that deals with every eventuality and situation. In North America, the incidence of *Mycobacterium tuberculosis* infection as a cause of community-acquired pneumonia is substantially lower than it is in India. Not every pathogen can be covered in detail in a guidelines; we refer to epidemiological conditions and/or risk factors related to specific pathogens in cases of community-acquired pneumonia, including *M. tuberculosis*, in table 8 [2, p. S46].

Overall, the principal issue in North America, as well as in India, is not the empirical use of fluoroquinolones, but rather the lack of suspicion of tuberculosis. For this reason, the guidelines emphasize increased diagnostic testing when patients have risk factors for pathogens that are not adequately covered by empirical treatment regimens (table 5 [2, p. S40]). In fact, because of its inherent activity against *M. tuberculosis*, empirical use of a fluoroquinolone to treat possible bacterial pneumonia while awaiting tuberculosis smear and culture results may actually be beneficial in a patient who is at risk for both tuberculosis and bacterial pneumonia. The critical problem, which Singh [6] rightly points out, is to not assume that improvement observed following administration of a fluoroquinolone means that tuberculosis is not the cause of illness. We also strongly agree that widespread and indiscriminate use of fluoroquinolones will result in quinolone-resistant organisms, including *M. tuberculosis*. However, the greatest risk lies not in the appropriate use of fluoroquinolones for the treatment of true community-acquired pneumonia, but in their use to treat many nonbacterial upper respiratory tract infections.

### Acknowledgments

**Potential conflicts of interest.** L.A.M. has been a consultant for Bayer, Cemptra, Novexal, Ortho-McNeil, Oscient, Pfizer, Abbott, Sanofi-Av-

entis, Targanta, and Wyeth; has provided research support to Bayer, Novartis, Ortho-McNeil, Oscient, and Pfizer; and has been a member of the Speakers' Bureaus of Bayer, Ortho-McNeil, Oscient, Pfizer, Sanofi-Aventis, and Abbott. R.G.W. has received research funding from Chiron, Eli Lilly, Pfizer, and Wyeth; has served on the Clinical Evaluation Committee for Johnson and Johnson; has served as a clinical trial participant in studies initiated by Takeda, Biosite, Inverness Medical Intervention, Johnson and Johnson, and Altana; and served as consultant to the Oklahoma Foundation for Medical Quality and the Centers for Medicare and Medicaid Services. J.G.B. serves on the advisory board of Johnson and Johnson. T.M.F. has received research funding from Binax, Ortho-McNeil, Oscient, Pfizer, and Sanofi-Aventis; has served as a consultant to Bayer, GlaxoSmithKline, Merck, Ortho-McNeil, Oscient, Pfizer, Sanofi-Aventis, Schering-Plough, and Wyeth; and has served on the Speakers' Bureaus of Abbott, GlaxoSmithKline, Merck, Ortho-McNeil, Oscient, Pfizer, Sanofi-Aventis, Schering-Plough, and Wyeth. N.C.D. has received research support from Altana and Sanofi-Aventis, has served on the Advisory Boards of Sanofi-Aventis and Astra Zeneca, and has served on the Speakers' Bureaus of Pfizer, Schering-Plough, Sanofi-Aventis, and Merck. A.A. has served on the Speakers' Bureaus of Altana, Bayer Pharma, Boehringer-Ingelheim, Chiron, Elan, GlaxoSmithKline, Ortho-McNeil, Pfizer, and Sanofi-Aventis; has served as a consultant for and has been a member of the Advisory Boards of Altana, Bayer Pharma, Boehringer-Ingelheim, Chiron, Elan, GlaxoSmithKline, Ortho-McNeil, Pfizer, and Sanofi-Aventis; and has received research funding from Bard, Bayer Pharma, Boehringer-Ingelheim, GlaxoSmithKline, and Lilly. M.S.N. serves on the Speakers' Bureaus of and as a consultant to Astra Zeneca, Aventis, Elan, Merck, Ortho-McNeil, Pfizer, Schering-Plough, and Wyeth. All other authors: no conflicts.

**Lionel A. Mandell,<sup>1</sup> Richard G. Wunderink,<sup>2</sup> Antonio Anzueto,<sup>3,4</sup> John G. Bartlett,<sup>7</sup> G. Douglas Campbell,<sup>8</sup> Nathan C. Dean,<sup>9,10</sup> Scott F. Dowell,<sup>11</sup> Thomas M. File, Jr.,<sup>12,13</sup> Daniel M. Musher,<sup>5,6</sup> Michael S. Niederman,<sup>14,15</sup> Antonio Torres,<sup>16</sup> and Cynthia G. Whitney<sup>11</sup>**

<sup>1</sup>McMaster University Medical School, Hamilton, Ontario, Canada; <sup>2</sup>Northwestern University Feinberg School of Medicine, Chicago, Illinois; <sup>3</sup>University of Texas Health Science Center and <sup>4</sup>South Texas Veterans Health Care System, San Antonio, and <sup>5</sup>Michael E. DeBakey Veterans Affairs Medical Center and <sup>6</sup>Baylor College of Medicine, Houston, Texas; <sup>7</sup>Johns Hopkins University School of Medicine, Baltimore, Maryland; <sup>8</sup>Division of Pulmonary, Critical Care, and Sleep Medicine, University of Mississippi School of Medicine, Jackson; <sup>9</sup>Division of Pulmonary and Critical Care Medicine, LDS Hospital, and <sup>10</sup>University of Utah, Salt Lake City; <sup>11</sup>Centers for Disease Control and Prevention, Atlanta, Georgia; <sup>12</sup>Northeastern Ohio Universities College of Medicine, Rootstown, and <sup>13</sup>Summa Health System, Akron, Ohio; <sup>14</sup>State University of New York at Stony Brook, Stony Brook, and <sup>15</sup>Department of Medicine,

Winthrop University Hospital, Mineola, New York; and <sup>16</sup>Cap de Servei de Pneumologia i Allèrgia Respiratòria, Institut Clínic del Tòrax, Hospital Clínic de Barcelona, Facultat de Medicina, Universitat de Barcelona, Institut d'Investigacions Biomèdiques August Pi i Sunyer, CIBER CB06/06/0028, Barcelona, Spain

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Reprints or correspondence: Dr. Martin Cormican, Dept. of Bacteriology, National University of Ireland Galway, Newcastle Rd., Galway, Ireland (martin.cormican@mailn.hse.ie).

*Clinical Infectious Diseases* **2007**; 45:134–5

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DOI: 10.1096/520486

### Point-of-Use Water Filtration Complements Systemic Treatment to Reduce Health Care-Associated Legionnaires Disease

TO THE EDITOR—In their brief report, Modol et al. [1] adeptly summarized many of the difficulties associated with preventing health care-associated legionnaires disease (HALD). The authors' observations illustrate the problems associated with the maintenance of adequate chlorine