9. Tanaseanu C, Bergallo C, Teglia O, et al; 308 Study Group; 313 Study Group. Integrated results of 2 phase 3 studies comparing tigecycline and levofloxacin in community-acquired pneumonia. Diagn Microbiol Infect Dis **2008**; 61:329–338.
10. Florescu I, Beuran M, Dimov R, et al. Efficacy and safety of tigecycline compared with vancomycin or linezolid for treatment of serious infections with methicillin-resistant *Staphylococcus aureus* or vancomycin-resistant enterococci: a phase 3, multicentre, double-blind, randomized study. J Antimicrob Chemother **2008**; 62(suppl 1):i17–28.
11. Vasilev K, Reshedko G, Orasan R, et al. A phase 3, open-label, noncomparative study of tigecycline in the treatment of patients with selected serious infections due to resistant gram-negative organisms including *Enterobacter* species, *Acinetobacter baumannii* and *Klebsiella pneumoniae*. J Antimicrob Chemother **2008**; 62(suppl 1):i29–40.
12. Rodvold K, Gotfried M, Cwik M, Korth-Bradley J, Dukart G, Ellis-Grosse E. Serum, tissue and body fluid concentrations of tigecycline after a single 100-mg dose. J Antimicrob Chemother **2006**; 58:1221–1229.
13. MacGowan AP. Tigecycline pharmacokinetic/pharmacodynamic update. J Antimicrob Chemother **2008**; 62(suppl 1):i11–16.
14. Chang F-Y, Peacock JE Jr, Musher DM, et al. *Staphylococcus aureus* bacteremia: recurrence and the impact of antibiotic treatment in a prospective multicenter study. Medicine **2003**; 82(5):333–339.
15. Mandell LA, Wunderink RG, Anzueto A, et al. Infectious Diseases Society of America/American Thoracic Society consensus guidelines on the management of community-acquired pneumonia in adults. Clin Infect Dis **2007**; 44:S27–S72.

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Reply to Tarchini

To the Editor—We appreciate the interest in the article and the comments. As was mentioned in the letter by Dr Tarchini [1], our article [2] specified very clearly the limitations to the analysis, and we agree that these limitations should be applied to all post hoc analyses. Several additional points require clarification. First, the analysis was not a meta-analysis; it was a pooled analysis of secondary bacteremia in tigecycline's approved indications. Second, we believe that the comments by Dr Tarchini [1] on the quality of the data and the interpretation of the data are not accurate. The purpose of the randomized, double-blind clinical trials was to determine the safety and efficacy of tigecycline empirical therapy with appropriate and approved comparators for each given indication. Given the serum pharmacokinetic data of tigecycline, the purpose of the pooled analysis was to determine the safety and efficacy of tigecycline empirical therapy in the subset of subjects with secondary bacteremia within the approved indications. The advantages and disadvantages of individual antibiotic choices for definitive therapy were not the primary aim of the clinical trials or the pooled analysis. In addition, the comment by Dr Tarchini [1] regarding empirical levofloxacin therapy for the treatment of community-acquired pneumonia is not accurate. Levofloxacin is approved for 7–14 days therapy at the 500-mg dose, and this was the recommended dose at the time the trials [3, 4] were designed and initiated. We believe that our statement regarding the similarity in cure rates between empirical tigecycline therapy and appropriate and approved empirical comparative therapy in subjects with secondary bacteremia is accurate [2].

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References

1. Tarchini G. Tigecycline and bacteremia—the dangers of post hoc analysis of pooled data. Clin Infect Dis **2010**; 51(7):867–868 (in this issue).
2. Gardiner D, Dukart G, Cooper A, Babinchak T. Safety and efficacy of intravenous tigecycline in subjects with secondary bacteremia: pooled results from 8 phase III clinical trials. Clin Infect Dis **2010**; 50(2):229–238.
3. Bergallo C, Jasovich A, Teglia O, et al; 308 Study Group. Safety and efficacy of intravenous tigecycline in treatment of community-acquired pneumonia: results from a double-blind randomized phase 3 comparison study with levofloxacin. Diagn Microbiol Infect Dis **2009**; 63(1):52–61.
4. Tanaseanu C, Bergallo C, Teglia O, et al; 308 Study Group; 313 Study Group. Integrated results of 2 phase 3 studies comparing tigecycline and levofloxacin in community-acquired pneumonia. Diagn Microbiol Infect Dis **2008**; 61:329–338.

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The 104 Day Report: A Successful Intervention of Improving Patient Retention

We read with interest the article by Horstmann et al [1] summarizing the current research in effective ways of retaining human immunodeficiency virus (HIV)–infected patients in care, highlighting the need for longitudinal studies of what variables affect sporadic users to re-access or refrain from engaging in medical care. In their article, they call researchers for testing quality improvement to improve retention and share their work. We would like to discuss some interventions that have been yielding promising results. The key elements of success have been a <72-h policy to get new patients seen by a medical provider, continuity of care by patients seeing the same medical provider, and the use of an electronic medical record (EMR) system that enables use to generate lists of patients that missed their appointments.

The EMR generates a list of patients who have missed their clinic appointment with their regular medical provider during the past 3 months. This report is called the "104 day report" (104 for the number of days in a 3-month period) and is given to each medical provider on a monthly basis, who then calls the patient and asks him or her to make a future appointment. The efficacy of this method was evaluated

retrospectively, and the data show that it can effective.

All unduplicated patients that were active at any time between January and August 2009 and whose name appeared on the 104 day report were extracted from the EMR. The data elements that were analyzed were (1) what percentage of individuals who were on the 104 day report at one time do not appear on the report again—that is, who made a follow-up appointment *and* were seen; and (2) of those who still appear on the 104 day report, how many have future appointments or no appointments.

The search yielded 3354 of 8418 unduplicated patients on the 104 day reports who were called. Two thousand eighty (62%) of the 3354 patients were not on the 104-day report anymore; thus, they had undergone follow-up with their care providers. One hundred seventy (5.1%) were inactive but were called and declined to retain to care. Seventeen (0.5%) of the patients had died. One thousand eighty-seven patients (32%) were still on the 104 day report, but one-third ($n = 331$) of these patients had an appointment scheduled for the near future.

Given our experience and these findings, having a patient enrolled in the same provider roster and allowing better patient-provider relationship might yield greater retention in care, as would calls from the medical provider to the patient in the event of a missed appointment. Additional prospective studies are urgently needed.

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Reference

1. Horstmann E, Brown J, Islam F, et al. Retaining HIV-infected patients in care: where are we? Where do we go from here? Clin Infect Dis **2010**; 50:752–761.

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Q Fever, Free Amoeba, and Air Conditioning

To the Editor—I congratulate the team of Amitai et al [1] on their investigation of an epidemic of Q fever in a school in Israel. This work is remarkable because, for the first time, to the best of my knowledge, it evokes the role of the air conditioning as a potential source of the Q fever. This assumption deserves to be considered in the context of a reflection on diseases transmitted by air conditioning and, more generally, on diseases caused bacteria hosted by the free amoebas of water present in air conditioning devices and cooling towers. Legionnaires disease was the first disease recognized to have free amoebas as reservoirs, which explained persistence of *Legionella pneumophila* in water supply networks, in the circuits of air conditioning, and in hospitals and hotels. The resistance of the amoebas to the process of sterilization explains the difficulty in eliminating *L. pneumophila* from water circuits [2]. In recent years, there has been a considerable increase of the number of bacteria identified in amoebas, which used free amoeba as reservoir and Trojan horse to infect human beings [2, 3]. In an interesting way, certain bacterial pathogens transmissible by aerosols can be found in the free amoebas of water: *Legionella* species, but also *Fransicella tularensis, Chlamydia*-related organisms, *Mycobacterium* species other than *Mycobacterium tuberculosis* [2, 3], and *Coxiella burnetii. C. burnetii* is mainly transmitted by aerosols [1] and has a capacity to survive in the free amoeba [4], which led researchers to suspect that intra-amoebal survival had played a role in the selection of the pathogenicity of these bacteria for humans. Moreover, *C. burnetii* and *L. pneumophila* obviously had exchanged genes in the amoebas [5]. On the basis of these data, one may suspect that *C. burnetii* was a candidate to be transmitted by air conditioning. Finally, amoebas of water are also used as vehicles and reservoirs by many mycobacteria that are at the origin of postoperative nosocomial infections of the skin.

In conclusion, the association with Q fever and air conditioning is not really a surprise and makes sense if it is acknowledged that *C. burnetii* can survive in amoebas and, thus, be conveyed by water pipelines. The capacity of *C. burnetii* to be transmitted by aerosol in air conditioning mean that, like other bacteria resisting the phagocytic capabilities of the free-living amoebas, it has the potential to determine infections by way of aerosols. Moreover, free-living protists (including amoebas), by organizing gene exchanges of intracellular organisms, are participating in the creation of new genomic repertoires and may help in the creation of new respiratory pathogens [6]. I suggest that the amoeba-resisting organisms, including *C. burnetii* [7], should be tested if unexplained cases of pneumonia are observed in patients exposed to air conditioning, including patients with nosocomial pneumonia.

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References

1. Amitai Z, Bromberg M, Bernstein M, et al. A large Q fever outbreak in an urban school in central Israel. Clin Infect Dis **2010**; 50:1433–1438.
2. Greub G, Raoult D. Microorganism resistant to free-living amoebae. Clin Microbiol Rev **2004**; 17:413–433.
3. Lamoth F, Greub G. Amoebal pathogens as emerging causal agents of pneumonia. FEMS Microbiol Rev **2009**; 34:260–280.
4. La Scola B, Raoult D. Survival of *Coxiella bur-*