given for approximately one-fifth of episodes of febrile neutropenia. Interestingly, recovery of neutropenia occurred within a median of 11 days after fever onset, and peak β -glucan levels for IC occurred after a median of 12 days after fever onset. Hepatosplenic candidosis caused the presentation of all but 1 case of IC. Because fluconazole is not active against *Aspergillus* species, these data suggest that the use of fluconazole might have influenced the sensitivity of β -glucan testing (only 1 case of candidemia was detected) and the time for the β -glucan test to reach its zenith.

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References

- Senn L, Robinson JO, Schmidt S, et al. 1,3-β-D-Glucan antigenemia for early diagnosis of invasive fungal infections in neutropenic patients with acute leukemia. Clin Infect Dis 2008; 46: 878–85.
- Herbrecht R, Berceanu A. β-Glucan detection test: a step toward preemptive therapy for fungal infections in leukemic patients? Clin Infect Dis 2008; 46:886–9.
- 3. Ostrosky-Zeichner L, Alexander BD, Kett DH, et al. Multicenter clinical evaluation of the $(1\rightarrow3)$ β -D-glucan assay as an aid to diagnosis of fungal infections in humans. Clin Infect Dis **2005**; 41:654–9.

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Reply to Pasqualotto and Sukiennik

To THE EDITOR—We thank Pasqualotto and Sukiennik [1] for their interesting comments regarding our publication about $1,3-\beta$ -D-glucan (BG) antigenemia for the early diagnosis of invasive aspergillosis (IA) and candidiasis (IC) in neutropenic patients [2]. Because of the morbidity and mortality of these infections, early antifungal therapy is critical. A noninvasive monitoring tool that detects both Aspergillus and Candida species is an attractive approach. A positive result of the screening test may trigger further investigations and preemptive antifungal therapy. Our results suggest that BG may fulfill this goal. Although BG does not differentiate IA from IC, combination of BG data with imaging, culture, and histopathologic data allows an etiological diagnosis in most cases. Moreover, in patients with positive screening results for BG, genusspecific fungal markers (i.e., galactomannan for Aspergilus species [3] and mannan/antimannan for Candida species [4]) may contribute to the differentiation of IA from IC. Because several treatment options that are active against both fungi are now available, therapeutic decisions are less dependent on an immediate etiological diagnosis [5]. A positive BG result may trigger the initiation of antifungal therapy. The complementary investigations may then allow its adjustment. The similar overall survival rates for patients with IA (93%) and IC (89%) in our study support the efficacy of the initial empirical antifungal strategy.

With regard to the diagnostic performance of BG, we observed similar sensitivities, specificities, and positive and negative predictive values for IA (0.60, 0.96, 0.64, and 0.95, respectively) and IC (0.59, 0.96, 0.67, and 0.94, respectively). The median time elapsed from fever onset to positive BG result was also similar (median time, 0 days; range, -25 to 19 days for IA, median time, 2 days, range -1 to 16 days for IC). These results support the efficiency of BG for early detection of both IA and IC. However, as pointed out by Pasqualotto and Sukiennik [1], the median time to the peak BG level in IA (median time, 3 days; range, -25 to 25 days) was possibly shorter than for IC (median time, 12 days; range, 1-46 days). The kinetics of other fungal markers is influenced by the timing of antifungal therapy. Ongoing treatment or prophylaxis may result in early and low peaks, whereas late start is associated with delayed and higher peaks [6]. In our study, the use of a Candida-specific prophylaxis (fluconazole in one-fourth of IA and IC cases) did not result in a higher BG sensitivity in IA than in IC. Moreover, the median time elapsed from fever onset to initiation of antifungal therapy was similar for IA (median time, 1 day; range, -13 to 13 days) and IC (median time, 3 days; range, 0–10 days). One might speculate that the early peak in IA and later peak in IC could reflect different pathogeneses. The microbial load may indeed differ: single pulmonary lesions were documented in IA, whereas multiple hepatosplenic lesions suggesting hematogenous dissemination were documented in IC. It remains to be determined whether the concomitance of late BG peak and neutrophil recovery in IC might reflect the reaction induced by the immune restoration typically associated with the radiological appearance of organ abscesses. Because of the small sample size, no firm conclusion can be drawn from our study [2] about the different kinetics of BG in IA and IC.

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References

- Pasqualotto AC, Sukiennik TCT. β-Glucan in the diagnosis of invasive fungal disease. Clin Infect Dis 2008; 47:292–3 (in this issue).
- Senn L, Robinson JO, Schmidt S, et al. 1,3-β-D-glucan antigenemia for early diagnosis of invasive fungal infections in neutropenic patients with acute leukemia. Clin Infect Dis 2008; 46: 878–85.
- Maertens J, Verhaegen J, Lagrou K, Van EJ, Boogaerts M. Screening for circulating galactomannan as a noninvasive diagnostic tool for

invasive aspergillosis in prolonged neutropenic patients and stem cell transplantation recipients: a prospective validation. Blood **2001**; 97: 1604–10.

- 4. Prella M, Bille J, Pugnale M, et al. Early diagnosis of invasive candidiasis with mannan antigenemia and antimannan antibodies. Diagn Microbiol Infect Dis **2005**; 51:95–101.
- Marchetti O, Cordonnier C, Calandra T. Empirical antifungal therapy in neutropaenic cancer patients with persistent fever. Eur J Cancer 2007; 5(Suppl):32–42.
- Marr KA, Laverdiere M, Gugel A, Leisenring W. Antifungal therapy decreases sensitivity of the *Aspergillus galactomannan* enzyme immunoassay. Clin Infect Dis 2005; 40:1762–9.

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Dr. William H. Stewart: Mistaken or Maligned?

To THE EDITOR—Dr. William H. Stewart was the US Surgeon General during 1965– 1969 [1]. Despite his significant accomplishments, Dr. Stewart is remembered primarily for his infamous statement: "It is time to close the book on infectious diseases, and declare the war against pestilence won" [2]. Depending on the source, the quote is dated to 1967 or 1969. Infectious diseases specialists, including myself [3, 4], have repeated this quote innumerable times to underscore how wrong it was.

I have spent the past 5 years seeking the primary source for his often-maligned quote, with no success. And I am not the only one. The US Public Health Service Web site informs us that "Although this remark has often been cited in the literature, the Office of the PHS Historian has never been able to locate the source of the statement, or to confirm that Dr. Stewart actually made such a comment. We have asked Dr. Stewart about it, and he cannot recall whether or not he made this statement" [2].

Virtually every reference to the statement is a secondary citation, and many of these secondary citations are circular (i.e., they reference one another rather than a primary source). The only primary reference to this statement, listed in a book about emerging infections [5], regards a speech given by Dr. Stewart at the 65th Annual Meeting of the Association of State and Territorial Health Officers in 1967 [6]. However, the speech contains nothing even remotely resembling the alleged quote. Quite to the contrary, Dr. Stewart actually said, "Warning flags are still flying in the communicable disease field While we are engaged in taking on new duties...we cannot and must not lose sight of our traditional program responsibilities" (p. 4).

It is difficult to believe that a Surgeon General who was concerned about the traditional public health responsibility to defend against communicable diseases would declare that the era of infectious diseases had come to a close. It appears that Dr. Stewart's now-legendary quote may be a medical "urban legend."

Nevertheless, Dr. Anthony Fauci has assured us that the belief that infectious diseases had been conquered was widespread in the 1960s and 1970s [7]. Furthermore, in 1978, one of the world's leaders in infectious diseases, Dr. Robert Petersdorf, commented that, "Even with my great personal loyalty to Infectious Disease, I cannot conceive of the need for 309 more [graduating trainees in] infectious disease...unless they spend their time culturing each other" [8, p. 630]. As late as 1985, Dr. Petersdorf had not changed his mind; at the Infectious Diseases Society of America's annual meeting that year, he stated that "the millennium where fellows in infectious disease will culture one another is almost here" [9].

If anyone is aware of a real primary citation to Dr. Stewart's quote, I and others would be extremely interested in hearing from you. Failing that, perhaps it is time to replace Dr. Stewart's possibly apocryphal quotation with citations from verifiable sources, such as Dr. Fauci [7] or Dr. Petersdorf [8, 9].

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References

- US Department of Health & Human Services. Office of the Surgeon General: William H. Stewart (1965–1969). 4 January 2007. Available at:http://www.surgeongeneral.gov/library/hist ory/biostewart.htm. Accessed 4 January 2007.
- The Office of the Public Health Service Historian. Frequently asked questions. 7 December 2004. Available at: http://lhncbc.nlm.nih.gov/ apdb/phsHistory/faqs.html.
- 3. Spellberg B, Guidos R, Gilbert D, et al. The epidemic of antibiotic-resistant infections: a call to action for the medical community from the Infectious Diseases Society of America. Clin Infect Dis **2008**; 46:155–64.
- Spellberg B, Powers JH, Brass EP, Miller LG, Edwards JE. Trends in antimicrobial drug development: implications for the future. Clin Infect Dis 2004; 38:1279–86.
- Garrett L. The coming plague: newly emerging diseases in a world out of balance. New York: Penguin, 1995.
- Stewart WH. A mandate for state action. In: Proceedings of the 65th Annual Meeting of the Association of State and Territorial Health Officers (Washington, DC). Association of State & Territorial Health Officers, 1967.
- Fauci AS. Infectious diseases: considerations for the 21st century. Clin Infect Dis 2001; 32: 675–85.
- 8. Petersdorf RG. The doctors' dilemma. N Engl J Med **1978**; 299:628–34.
- 9. Petersdorf RG. Whither infectious diseases? Memories, manpower, and money. J Infect Dis **1986**; 153:189–95.

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Confounding May Lead to Overestimation of Pneumococcal Polysaccharide Vaccine Effectiveness among HIV-Infected Individuals

TO THE EDITOR—In a recently published observational study, Rodriguez-Barradas et al. [1] found that vaccination of HIV-