Letters to the Editor

Nosocomial Aspergillosis in Lymphoma Patients

To the Editor:

I was quite interested in reading the excellent article by Iwen et al entitled "Nosocomial Invasive Aspergillosis in Lymphoma Patients Treated with Bone Marrow or Peripheral Stem Cell Transplants" (1993;14:131-139). Their conclusions referenced housing these patients in "a protective environment," yet it should be pointed out that with the proliferation of leaf, sewage, and municipal solid waste composting facilities (more than 3,400 throughout the United States according to the Environmental Protection Agency), these patients and other immunosuppressed and immunocompromised individuals are at increased risk from *Aspergillus* as well as other bioaerosols inherent to the composting environment. The lack of community-based studies is appalling and, one hopes, will be addressed in the near future.

Clinicians should be aware of this danger when assessing discharge from the hospital. The same recommendations also should be evaluated for those infected with human immunodeficiency virus (HIV), cystic fibrosis, and those undergoing chemotherapeutic or steroid therapy.

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The author replies:

Dr. Kramer raises an interesting observation concerning the increased risk of immunosuppressed and immunocompromised individuals to *Aspergillus* and other bioaerosols following exposure to composting facilities. Reports show that reducing the number of fungal spores in the air by using a protective environment will decrease, but not prevent, the development of invasive aspergillosis and other mold infections in neutropenic patients. Also, upon release of an immunosuppressed patient from the hospital, there is an inherent risk of developing these diseases, although this risk is greatly reduced. We have observed several patients who developed non-nosocomial aspergillosis prior to admission or following release from the hospital, some with no detectable immunosuppression. Because the number of *Aspergillus* spores these individuals were exposed to presumably played a role in the development of disease, there is reason to believe cornposting, where molds could proliferate, poses a danger to these individuals.

Dr. Kramer suggests that "community-based studies" to evaluate the effect of composting on bioaerosol exposure to immunocompromised patients be performed. Unfortunately, the impact of airborne fungal spores on air quality and the relation to health remain poorly understood. To my knowledge, no standardized air sampling protocols for either indoor or outdoor environments exist, although a number of studies on indoor environments have been initiated.[1-3]

Until aerobiological monitoring protocols become standardized, the question of whether exposure to composting environments increases the risk of developing mold infections remains speculative. I concur with Dr. Kramer, however, that a risk does exist, and clinicians should counsel their high-risk patients to limit exposure to areas with increased amounts of decaying vegetation such as composting facilities.

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REFERENCES

1. Buttner MP, Stetzenbach LD. Monitoring airborne fungal spores in an experimental indoor environment to evaluate sampling methods and the effects of human activity on air sampling. ***Appl Environ Microbiol*** 1993;59:219-226.
2. Iwen PC, Davis JC, Winfield BA. An assessment of air quality monitoring following failure of a protective environment to prevent invasive aspergillosis in neutropenic patients during major construction. Presented at the 92nd General Meeting of the American Society of Microbiology; May 2630, 1992; New Orleans. Louisiana.
3. Klaebisch S, Iwen P, Winfield B, Jones-Ladd N. Davis JC. Comparison of gravity air settling plate to Andersen single-staged viable impactor for detecting molds in a protected environment. Presented at the 20th Annual Educational Conference and International Meeting of the Association for Practitioners in Infection Control; May 23-28, 1993; Orlando, Florida.

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