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Nosocomial Aspergillosis Associated With Construction

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The CDC recently assisted with an investigation of an outbreak of invasive aspergillosis among patients in a Maryland hospital. A case-control study identified seven case patients; five were rheumatology patients hospitalized on two wards. Rheumatology case patients were more likely than randomly selected controls with invasive aspergillosis to have longer hospitalizations both in current and prior admission, to receive high doses of intravenous immunosuppressive agents, or to receive immunosuppressive agents for a long period of time.

An evaluation of the environment revealed that construction areas in the hospitals were not sealed off from patient-care areas nor under negative pressure in relation to patient-care areas. In addition, the air flow from patient rooms was not positive in relation to the hallway, and the rooms had only 1.6 air exchanges per hour. The risk of aspergillosis among highly immune-suppressed patients exposed to air from hospital construction has been well documented. This study documents that rheumatology patients, particularly those receiving high-dose intravenous immunosuppressive therapy, should be considered at increased risk of invasive *Aspergillus* species.

Measures must be taken to hospitalize these patients away from construction activities. Additional measures to reduce risk include the creation of barriers to seal off all construction areas and housing high-risk patients in rooms with positive pressure and high-efficiency particulate air filtration. The CDC has published guidelines for the prevention of nosocomial pneumonia that contain additional recommendations.

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