



Airborne Contaminants: Preventing Infections From Fans Used in the Home

MARY MCGOLDRICK, MS, RN, CRNI

Home care and hospice clinicians often encounter patients who use fans in their homes to either provide a breeze to cool themselves, make “white noise” to help them sleep, or give comfort when experiencing respiratory distress or “terminal air hunger.” In the home, fans can be suspended from a ceiling to circulate the air throughout a room, but not move it in any particular direction (i.e., ceiling fan), or placed next to the patient on a bedside table, in a window opening, or on a stand

or tower to move air directly toward the patient. The infection control concern is the potential for a fan to spread aerosolized human pathogens from biofilms and resuspension of dust that may settle onto the patient or environmental surfaces in the immediate vicinity of the patient. In the home, people and pets are the main contributors of particles. Air temperature, relative humidity, and turbulence are among the more important factors affecting the spread of infectious agents indoors (Ijaz et al., 2016).

It is important for home care and hospice clinicians to consider a fan as a risk factor for contributing to a home care-onset healthcare-associated infection when “in use” during patient care activities.

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to remove dust and lint from the fan and grille, as far back as can be safely reached. A more thorough cleaning requires the disassembly of the unit and should be performed following the fan manufacturer’s instructions (McGoldrick, 2017). In the home, an aide would not be expected to clean the blades of a ceiling fan present in the patient’s immediate care area for safety reasons. However, if directed, an aide could wipe down the exterior surfaces of the fan with a damp cloth to remove any dust when it is next to the patient and used for respiratory distress.

Consider a fan to be a risk factor for infection and remember to turn off any fan used in close proximity to the patient when a wound is exposed or an invasive device is being cared for. ■

Mary McGoldrick, MS, RN, CRNI, is a Home Care and Hospice Consultant, Home Health Systems, Inc., Saint Simons Island, Georgia.

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Address for correspondence: Mary McGoldrick, MS, RN, CRNI, P.O. Box 21704, Saint Simons Island, GA 31522 (mary@homecareandhospice.com).

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