

The authors' reply to Schaffzin et al's Letter to the Editor

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To the Editor—We thank Schaffzin et al¹ for their important points regarding our concise communication.^{1,2} Schaffzin et al rightfully emphasize that although the term “negative pressure room” is sometimes used interchangeably with airborne infection isolation room (AIIR), they are not the same, and physical spaces must meet specific criteria to be considered true AIIRs.^{1,3,4} The patient rooms at Brigham & Women's Hospital (BWH) that were converted to negative pressure early in the coronavirus disease 2019 (COVID-19) pandemic were negatively balanced to adjacent spaces, were provided HEPA air filtration (which exceeds the minimum MERV 14 requirement), and were ventilated directly to the outside, but they only had a minimum of 6 air exchanges per hour (rather than 12). Therefore, we referred to these rooms as “modified AIIRs” or “negative-pressure rooms” rather than true AIIRs throughout the manuscript.² In addition, although anterooms are not an absolute requirement for AIIRs in the United States, we agree that they are important components of AIIRs that can further reduce patient exposure to contaminated aerosols from outside the patient's room and healthcare worker exposure to contaminated aerosols from inside the patient's room. Notably, most of the modified AIIRs at BWH did not have anterooms.

Schaffzin et al¹ are also correct in identifying (1) that the utilization of negative air pressure in clinical spaces without fulfilling all conditions required for AIIR classification (particularly the minimum air exchange requirement in our case) may have increased the risk for hospital-acquired *Aspergillus* infection by actively drawing environmental pathogens into the rooms and not clearing them effectively and (2) that this risk does not necessarily generalize to true AIIRs. Indeed, we sought to highlight the potential unintended consequences of modifying air handling in a way that does not follow such standards and therefore leaves open this very possibility.

Many other hospitals similarly converted standard-pressure rooms to negative pressure during the pandemic but also may have been unable to implement all the features necessary for true AIIRs.^{5,6} These decisions were understandable given the intense concerns about the potential morbidity of COVID-19 early in the pandemic and the shortage of true AIIRs relative to their COVID-19 census counts in most hospitals. We hope, however, that our analysis suggesting an increased risk of *Aspergillus* infection will inform hospital assessments of the benefits versus risks of partial modifications of airflow handling that do not fully meet AIIR specifications in response to future infectious disease threats.

We also wholeheartedly agree with Schaffzin et al that partnering closely with colleagues involved in building design and engineering when any modifications to healthcare spaces are being considered, and ensuring the accurate use of a common vocabulary, are necessary to create and maintain safe physical spaces for patients, visitors, and hospital staff.

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