



In reply: Personal protective equipment penetration performance may be affected by temperature and humidity

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To the Editor,

We thank Drs Basaran and Tolu for their comments¹ on our letter describing the effects of core temperature and humidity level of the clinical environment on the risk of liquid penetration in surgical gowns.² Our simulation study was conducted in an operating room environment with a temperature between 20 and 24 °C and humidity of 20–60%, conforming with the guidelines of the Canadian Standards Association.³ Nevertheless, we did not observe any penetration of our liquid medium in any of the gowns (level 2–4) after ten minutes exposure to the liquid medium. Cao *at al.* showed that elevated ambient/fabric temperature, increased level of humidity, and the type and higher temperature of the liquid are important factors that increase liquid penetration.⁴ Although we did not measure the exact temperature and humidity in our study, future studies are warranted to investigate the effects of temperature, humidity, and liquid type on the degree of liquid penetration in various levels of surgical gowns, which might have important implications for exposure of aerosolized pathogens to healthcare workers in a variety of clinical environments.

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