

## CORRESPONDENCE

## Fresh gas flows, filters, heat and moisture exchangers, and humidification. Comment on *Br J Anaesth* 2020; 125: 773–778

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Editor - Zhong and colleagues<sup>1</sup> reported an economic and environmental cost-analysis of differing fresh gas flow (FGF) settings during total intravenous anaesthesia. This study raises an interesting and important point regarding the relationship between the FGF, heat and moisture exchangers (HMEs), and the degree of circuit humidification. Their conclusion is that 'modern HME filters are highly efficient at maintaining inspired humidity well above the acceptable limit across a wide range of FGFs', and they cite a meta-analysis<sup>2</sup> and two of its included studies.<sup>3,4</sup>

However, unlike the cited studies, the Thermovent HEPA (Smiths Medical Inc., Minneapolis, MN, USA) filter used in their study does not include a specific HME component. It is a pleated mechanical filter, and although it possesses some degree of intrinsic HME function,<sup>5</sup> it is significantly less effective than that of a dedicated HME device. Using this filter in combination with their suggested FGF of 6 L min<sup>-1</sup> may not produce the required degree of circuit humidification. This emphasises the importance of understanding equipment specifications in order to provide optimal patient care.

### Declarations of interest

The author declares that they have no conflicts of interest.

### References

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