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CORRESPONDENCE

Making transesophageal echocardiography safer during COVID-19: is there a role for probe protective equipment (pPE)?

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To the Editor,

We read with interest Dr. Bracco's compelling letter proposing an innovative method of probe protective equipment (pPE) that utilizes a laparoscopic camera sleeve drape to sheath the transesophageal echocardiography (TEE) probe during cardiac surgical cases.[1] Nevertheless, after trialing this method during a recent semi-urgent open cardiac procedure, several potential deficiencies were apparent. Enhanced personal protective equipment and N95 masks were worn by all operating room personnel. Despite having two experienced attending anesthesiologists in the operating room providing care, the lack of a dedicated pPE donning "buddy" for the TEE probe sleeve application and TEE insertion resulted in gross contamination of the exterior of the sleeve upon insertion into the patient. Similarly, adjusting the distal end of the camera sleeve that is secured to the bite block also resulted in contamination of the exterior of the sleeve. Furthermore, within minutes of insertion, condensation was noted within the sleeve. Although possibly confirming the TEE procedure as an aerosol generating medical procedure,[2] this also raises more questions regarding the escape of any aerosols exiting from the sides of the patient's mouth. In addition, minor difficulties were encountered in securing the TEE probe to our usual operating table crossbar, as the sleeve is very slippery, and the usual hooks and TEE handle loop could not be used to suspend the probe on the crossbar when not in use.

In summary, although this technique appears to hold promise, it raises concerns that less facile physicians than Dr. Bracco might experience unrecognized breaches in clean technique during the donning of the pPE for TEE, as well as perhaps during the doffing of the camera sleeve drape by reprocessing staff. A clear written protocol for donning and doffing of the sleeve may help in avoiding contamination. The question of quantity of aerosols escaping from the sides of the patient's mouth is still one for debate, and merits caution and consideration for maintaining enhanced personal protective equipment with N95 masks, even if the sleeve is used and contamination of the sleeve exterior is avoided.

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