

LETTER'S

The need to develop a multidisciplinary expertise for the microbiological safety of operating theatres

Surgical site infection (SSI) is a major complication following surgery and is associated with increased morbidity and mortality, as well as increased costs (1). Over the past decades, the role of air as a vehicle of infection has been the subject of much interest and debate (1, 2). Guidelines for the design and ventilation of operating theatres (OTs) have been published, and threshold values have been proposed for both ultraclean and conventional theatres (1). Nevertheless, the levels of microbial air pollution in operating theatres still exceed recommended thresholds in many studies (2-4). In a recent contribution (3), a correlation was found between the level of microbial pollution and the number of people in the OTs and the number of door openings per hour. These results underline that it is essential to increase healthcare workers' awareness of the risks associated with incorrect behaviours (5, 6).

In some studies it has been observed that microbiological air pollution occurred also in empty OTs, showing the lack of adequate maintenance programmes for the ventilation systems (2, 7, 8). Therefore, in our view, investing only into healthcare workers training is not sufficient, in order to increase the safety of OTs. We support the idea that it is also crucial to increase attitudes and skills toward prevention of the Technical Offices' staff, focusing both on undergraduates and on graduate workers, in order to properly prepare them. Indeed, working in multidisciplinary and multiprofessional teams requires the use of the same language and the ability to share both technical and sanitary skills.

We are aware of precious initiatives in this direction managed through Master courses, like, for example, the one provided by the Politecnico di Milano (9), in which also two Schools of Medicine are involved, and some other initiatives promoted by professional associations. Effort to obtain a systematic cooperation between medical doctors, engineers and technicians, using the same language and devoted to a common goal, must be expanded to occur in all parts of the country. This is the only way to make available a sufficient amount of interdisciplinary expertise that can enhance overall preventive activities in all our healthcare services.

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