

# RECEPTION AND CLEANING AREA OF THE CENTRAL STERILE SERVICES DEPARTMENT: MAINTENANCE OF THE USE (OR NOT) OF PARTICULATED RESPIRATOR BY WORKERS AFTER THE COVID-19 PANDEMIC

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Since the end of 2019, the world has been challenged by what would become an acute respiratory infection pandemic, the so-called coronavirus disease 2019 (COVID-19), diagnosed for the first time in China and caused by the new human coronavirus<sup>1</sup>. It is a single-stranded ribonucleic acid virus measuring 60 to 140 nm (0.06–0.14 µm) in diameter, with an incubation period of between three and seven days to two weeks<sup>2</sup>. Its transmission occurs, primarily, through the respiratory route, through droplets (>5–10 µm in diameter) or direct contact with a colonized/infected person or, indirectly, through contact with contaminated surfaces and/or objects. Therefore, standard precautions and those based on the form of transmission, droplets and contact, are recommended when assisting patients with suspected or confirmed infection. Additionally, in situations where aerosols are generated (<5 µm in diameter), such as in endotracheal aspiration, aerosol precautions should be adopted, which include the use of disposable particulate respirators (N95 mask, PFF2 or PFF3)<sup>3-5</sup>.

In the face of this new pandemic scenario, changes in the behavior of populations and, particularly, in health practices, have become necessary and have been adjusted as evidence on the confrontation of this new infectious agent is published. In this sense, the Brazilian Association of Surgical Center Nurses, Anesthetic Recovery, and Central Sterile Services Department published recommendations for teams working in the operating room, in the central sterile services department (CSSD), and in endoscopy services, aiming at the specificities in patient care with suspected or confirmed COVID-19, including those related to the processing of reusable medical devices (RMD). Among the guidelines, there is the use of particulate respirator and of N95 mask by workers for manual cleaning of RMD, given the potential for aerosol formation during this process<sup>6</sup>.

It is known that, despite the recommendation of automated cleaning as preferred for the processing of RMD, a

CSSD with the availability of a structure that allows only manual cleaning of these devices is a reality, especially in low and middle-income countries, which includes Brazil<sup>7</sup>. Even for services equipped for automated cleaning, the current Brazilian legislation for RMD processing, Resolution of the Collegiate Board No. 15, of 2012, requires manual cleaning to precede the automated cleaning of complex-design devices<sup>8</sup>. Additionally, there is evidence of the generation of aerosols in the use of equipment for automated cleaning of RMD in a CSSD, such as ultrasonic washers<sup>9</sup>.

The current legislation for the processing of RMD in the country<sup>8</sup>, when dealing with “Safety and Health at Work”, does not specify the use of the N95 mask in the area of RMD reception and cleaning. However, in article 31, paragraph 3, it ensures that “when not specified, the protective equipment must be compatible with the risk inherent in the activity”<sup>8</sup>. The publication of the Ministry of Health, in April 2020, on “Recommendations for the protection of health service workers in the care of COVID-19 and other flu syndromes” (emphasis added) indicates the use of particulate respirators for aerosol-generating procedures and reinforces the need to use personal protective equipment (PPE) “compatible with the risk inherent in the activity”<sup>4</sup>.

Thus, given that the activities carried out in the area of reception and cleaning of the CSSD generate aerosols and that, in their daily work, workers in this area are unaware of the diagnosis of the users of the RMD to be processed, in addition to the difficulty imposed by the current pandemic scenario in estimating the safe time for the return of the use of surgical masks — or if it is safe —, it is considered opportune for CSSD workers and managers to reflect on the maintenance (or not) of the use of particulate respirators, such as the N95 mask, by workers in the reception and cleaning area.

The continued use of this PPE, therefore, will incur additional costs to the health system. However, these costs have not yet been estimated, as well as the direct and indirect

costs of treating a worker who develops a respiratory infection resulting from work exposure during RMD cleaning. Regardless of this relationship, it is worth mentioning that the promotion and protection of workers' health are the responsibility of the Unified Health System and the State<sup>10</sup>.

Furthermore, it is notorious that the pandemic moment spelled out numerous gaps related to the protection of healthcare workers who must be part of the nurses' study and research agendas, since they lead the largest team in the health area. In addition, scientific evidence is needed to guide the implementation of measures that minimize occupational risks. It is also worth mentioning that, in Brazil, the professionals in this team are historically those involved in the management and execution of RMD processing<sup>11</sup>.

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