this technique are lack of toxicity and short application time, allowing electrolyzed water to be used in near-patient surfaces.

22.4.1.3 Cold-Air Atmospheric Pressure Plasma

Cold-air atmospheric pressure plasma is produced by the excitation of gas with electrical discharges at room temperature and atmospheric pressure. This process generates reactive oxygen species with antimicrobial activity (Cahill et al. 2014). The efficacy of this technique against spores is still under evaluation (Claro et al. 2015).

22.4.1.4 Steam Cleaning

Steam cleaning is highly effective against several pathogens, including Gram-negative bacilli like *P. aeruginosa* (Tanner 2009). However, this system has some drawbacks such as incompatibility with electrical appliances, average duration of the procedure, the presence of residual water, and the risk of exacerbating breathing problems.

22.4.1.5 Ozone

Ozone is a disinfectant with high oxidative properties and, therefore, with strong antibacterial activity against many pathogens but not bacterial spores (Sharma and Hudson 2008; Doan et al. 2012). The main advantage of ozone is its low cost but it also has some disadvantages like toxicity and corrosiveness for metals.

22.4.1.6 Ultraviolet Light Irradiation (UV-C)

Ultraviolet light irradiation (UV-C) with a wavelength of 254 nm exhibits germicidal activity and can be useful for the decontamination of surfaces, instruments, and air in healthcare facilities (Nernandzic et al. 2010). However, there are some issues to be considered such as cost, time of exposure, light intensity, and loss of effectiveness when there are obstacles between the light and the target.

22.4.1.7 High-Intensity Narrow-Spectrum (HINS) Light

High-intensity narrow-spectrum (HINS) light is a new system for disinfection using visible violet light at 405 nm (Maclean et al. 2014). This technology has a lower activity than UV-C, but a major advantage is that it can be used in rooms occupied by patients. Nonetheless, further investigation is still necessary.

22.4.1.8 Photocatalytic Disinfection

Photocatalytic disinfection uses UV-activated titanium dioxide to oxidize volatile organic compounds. It is interesting for applications against airborne microorganisms such as *S. aureus* and *C. difficile* (Cram et al. 2004).