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Norms for Sterilizing Instruments and Materials Used in Invasive Medical Procedures in Small Private Healthcare Settings

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- 1. For the purpose of these norms, "invasive medical procedure" refers to: any medical procedure that may cause injury to the mucous membrane of the skin, including surgical operations, dental surgeries, punctures, endoscopy examinations (e.g. nasopharyngoscopy, colposcopy, proctoscopy, gastroscopy, enteroscopy, bronchoscopy, etc.), injection, blood-taking, acupuncture and so on.
- 2. Given that invasive medical procedures may contribute to the transmission of blood-borne diseases (e.g. hepatitis and HIV/AIDS) and diseases caused by microorganisms readily found in the natural environment (which are nonpathogenic when the mucous membrane of the skin is intact), instruments or materials used in invasive medical procedures must be completely sterile (i.e. free of any microorganism) prior to use or re-use; whereas instruments and materials that are merely disinfected (i.e. killed of harmful microorganisms) cannot be used in invasive medical procedures.
- 3. Healthcare settings are advised to use pre-packaged sterile products wherever possible.
- 4. Syringes, needles, surgical blades, suture needles, sutures, dressings, implants, acupuncture needles, drains, fillings and other consumables can only be used once.
- 5. Re-usable instruments and materials must be sterilized before each use, utilizing a recognized sterilization method such as high-temperature steam sterilization, high-heat sterilization, ethylene oxide, glutaraldehyde, etc. Immersion in disinfectants such as alcohol, povidone iodine, chlorhexidine and benzalkonium bromide can only achieve the effect of disinfection, applicable for decontamination prior to cleaning of instruments and materials but **NOT** sufficient for sterilization purpose.
- 6. For heat-resistant instruments and materials, high-pressure steam sterilizers (preferably with vacuum feature) are the first choice to achieve sterilization, operated at 121°C for no less than 30 minutes or at 135°C for no less than 4 minutes.
- 7. For air-impermeable materials such as paraffin gauze, dry-heat sterilization should be used at 160°C for two hours.
- 8. Instruments and materials that cannot withstand high-heat sterilization (e.g. endoscopes) must be handled with effective sterilants such as ethylene oxide or glutaraldehyde pursuant to the requirements of the sterilants/sterilizers. For example, an ethylene oxide sterilizer is required to operate at no less than 800mg/L for six hours.

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