Instrument Reprocessing - Sterilization

April 2019

What is Instrument Reprocessing?

Instrument reprocessing is the act of cleaning and disinfecting or sterilizing instruments and tools used to perform personal services. Proper instrument reprocessing is critical in preventing the cause and spread of infectious diseases.

Disinfection is the process of reducing or removing harmful microorganisms from the inanimate objects and surfaces. It will not necessarily kill bacterial spores.

Sterilization is a process of killing all forms of microbial life including the bacteria, bacterial spores, viruses, and fungi present in an object.

What Requires Sterilization?

ALL CRITICAL ITEMS INTENDED FOR RE-USE MUST BE PROPERLY STERILIZED

Owners/operators are responsible to determine whether the instruments and equipment used in the personal service facility are to be disinfected or sterilized. Refer to procedure-specific fact sheets and the Saskatchewan Personal Services Best Management Practices document to determine which specific instruments require sterilization. If you have any questions please contact your local public health inspector.

Classification	Definition	Level of Reprocessing Required
Critical	Any instrument intended to penetrate the skin or mucous membrane, contact the puncture site, contact blood or body fluid, or contact a sterile instrument before puncturing skin.	Sterilization
Semi-critical	Any instrument intended to contact non-intact skin or a mucous membrane but does not penetrate it.	High-Level Disinfectant (HLD)*
Non-critical	Any instrument intended to contact intact skin, but may accidently contact non-intact skin or receive blood or body fluid splatter.	Intermediate-Level Disinfectant (ILD)*
	Any instrument or equipment that does not directly contact the client or contacts only intact skin.	Low-Level Disinfectant (LLD)*

***** Refer to "Instrument Reprocessing – Disinfection" Fact Sheet for More Information

Sterilization Types

Steam sterilizers licensed by Health Canada and/or those that meet the Canadian Standards Council Product specifications are the types of sterilizers approved for usage in personal service facilities.

Images Source (http://www.chinamedevice.com/)

Other types of "sterilizers" including glass-bead sterilizers, dry-heat sterilizers, pressure cookers, ultra sonic cleaners, microwave ovens, ultraviolet radiation, boiling or baking in domestic ovens are not effective methods of disinfection or sterilization are not to be used for sterilization in personal service facilities.

Sterilization Process

In order to effectively sterilize instruments and prevent the transmission of disease a number of steps must be taken.

Prior to placing instruments in the sterilizer ensure that they are properly cleaned, rinsed, dried and inspected.

For more detail on sterilization procedures refer to the Saskatchewan Personal Services Best Management Practices

Sterilization Monitoring Requirements

Monitoring requirements are in place to ensure that both the equipment is operating properly and sterilization is achieved.

Type	Description	Frequency
Physical Monitoring	Records of temperature, duration, pressure, load identification number, process date, operator name, etc. are to be maintained and monitored for each load.	Every Load
Chemical Monitoring	Chemical monitoring indicators may be in the form of tape, strips or labels. Indicators respond to heat by colour change, melting or some other physical attribute. Chemical monitoring provides immediate results enabling the owner/operator to respond more quickly to sterilizer problems rather than relying solely on biological monitoring results which may not be known for several weeks.	Every Load
Biological Monitoring*	Commercially available heat resistant spore strips are to be used to verify the sterilizer is functioning properly. A passing test is one that an approved lab confirms is negative for spore colony growth. Spore strips are to be packaged in the same fashion as instruments/equipment prior to placement in the sterilizer. Onsite spore testing equipment may be permitted for the purposes of additional biological monitoring; however this testing does not replace the requirement of submitting a spore test to an approved laboratory.	Monthly

* Refer to **Appendix 4** in the Saskatchewan Personal Services Best Management Practice document for steps that must be followed in the event of a failed monitoring test, specifically a failed spore test.

Record Keeping

Records must be kept of every load. The information collected should include date, time, load number (if more than one run per day), length of cycle, temperature reached, pressure, chemical indicator outcome, type of biological indicator run, instruments processed, and person responsible.

Sterilizers can come with a printout of time, temperature and pressure reading throughout the cycle which should be kept as part of the record.

For further information please contact your local Public Health Inspector (PHI) A list of PHI offices can be found here: https://www.saskatchewan.ca/residents/health/public-health/public-health-inspectors

The Saskatchewan Personal Services Best Management Practices and other Saskatchewan personal service fact sheets can be found here: https://www.saskatchewan.ca/residents/environment-public-health-and-safety/environmental-health/personal-service-facilities