Unfortunately in most general practice veterinary clinics, this is not feasible (some purpose-built clinics however do have areas set aside for instrument processing). It is necessary though for nurses to consider the flow of clean and dirty instruments, the location of the cleaning areas, autoclave and storage areas, and the theatre. When assessing your clinic set-up, try to think about getting your instruments to circulate in a one-way direction, so dirty and clean instruments do not cross paths with each other, or other sources of contamination. This may be as simple as moving a storage area, or designating specific areas for dirty instruments to be cleaned, and clean instruments to be packed and autoclaved.

**Self Test/Learning Question**

What changes could you make to your clinic that allows you to keep the one-way flow of dirty to clean instruments?

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**Instrument Care Overview**

The number one rule in instrument care is to follow the instrument/device manufacturer's written instructions for cleaning, packaging and sterilisation. This information should be checked each time a new device is received, and all staff trained in its proper care. Without this information, the device/instrument can be damaged or not properly cleaned. Exposure of metals to incompatible solutions can cause a chemical attack called corrosion which may be irreversible. Liquids, especially chlorides (e.g. bleach) are highly damaging to stainless steel, therefore surgical instruments should never be exposed to bleach. Even saline, iodine and blood can cause corrosion so it is important to process used instruments as quickly as possible.
→ Sorted into clinical/medical (body parts, blood-soaked gauze, etc.) and general rubbish (packaging).
→ Sharps are disposed of in a correctly labelled sharps bin.
→ It is a good idea not to place the rubbish in the final bin until the kits have been reassembled in case something has accidently gotten caught up.

Cleaning Solutions

2.8 CLEANING AGENTS
Before using a cleaning agent for the first time, read the Materials Safety Data Sheets so that the cleaning agent can be handled and used safely.

Cleaning agents shall be used to remove residual soil and organic matter from instruments and equipment.

Common household detergents shall not be used due to their high foaming properties and the difficulties involved in rinsing items free of residue.

Cleaning products containing enzymes for breaking down proteinaceous matter may be used if their use is approved by the equipment manufacturer. Rubber or nitrile gloves shall be worn and Standard Precautions observed when handling these products.

For manual (by hand) cleaning, active non-protein-fixing cleaners with or without antimicrobial effect and/or enzymes are generally used. Most cleaners are now enzyme based and are designed to break down the fats, blood, proteins and other tissues. If you are using an ultrasonic cleaner, then a cleaning solution designed for use in ultrasonic cleaners must be used.

Chlorhexidine is a skin antiseptic and not a disinfectant and therefore is not designed or recommended for use in cleaning instruments. The foaming mechanism of Chlorhexidine Scrub means it is difficult to remove all residues from the instruments, presenting a contamination risk.

Chlorhexidine will also damage the passive protection layer of instruments, which precipitates corrosion, rust, pitting and staining. The use of specific enzymatic instrument cleaners at the manufacturer’s recommended dilutions is recommended.

No matter which cleaning solution you use, the manufacturer’s instructions concerning dilution, temperature and exposure time should always be strictly observed! Most enzymatic cleaners require lukewarm water to work effectively (for their enzymatic action). This water is usually around 30°C.

It is also important to note that using hot water on dirty instruments is not recommended. At temperatures over 50°C blood and tissue coagulate and will bind to the instruments, making cleaning more difficult. Cold water can make lipids (fats) clump together and bind to the instruments so it should also be avoided.

The cleaning/disinfecting solutions should be freshly prepared on a daily basis. Where contamination levels are high, it is advisable to prepare fresh solutions at even shorter intervals. If solutions are stored for too long, the following problems may occur:

→ Corrosion risk due to contamination levels