



SCOTTISH EXECUTIVE

Health Department

Dear Colleague

IMPORTANT INFORMATION FOR ALL GENERAL MEDICAL AND DENTAL PRACTITIONERS, AND OTHERS ENGAGED IN LOCAL DECONTAMINATION OF SURGICAL INSTRUMENTS

A detailed survey of current practice in instrument decontamination in general dental practice has recently been submitted to the Department by the Sterile Services Provision Review Group (the Glennie Group). The [report on the survey](#) will be published shortly on the Scottish Executive website.

While it is clear that significant staffing and physical resources are devoted to the reprocessing of instruments, a number of simple and potentially widespread failures in everyday practice have been identified. It is likely that these issues also apply to general medical practice, podiatry, optometry, and other settings where instruments are cleaned and sterilised at point of use. The data from this survey are consistent with information gathered in other smaller and less detailed UK studies.

Many community based services (and some which are hospital based) carry responsibility for the cleaning and the sterilisation of instruments in Local Decontamination Units (LDUs). This process requires to be correctly managed to ensure protection against transmission of bloodborne viruses, STDs, variant CJD and other pathogens. Transmission of vCJD in dentistry is defined as low risk if and only if decontamination processes are carried out to acceptable standards. The Healthcare Associated Infection Task Force has already highlighted to all NHS staff the need for increased vigilance and training on simple issues such as cleaning and hand hygiene, which can have a significant impact on the spread of infection in all healthcare premises.

To help address the potential failures identified in the survey, a priority list of the most pressing issues is attached as Annex 1. **Those having local clinical responsibility for ensuring safe decontamination, and those staff directly involved in the physical processing of instruments, should satisfy themselves**

From the Chief Medical Officer and Chief Dental Officer

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as a matter of urgency that these points have been, or are being, addressed. Further information, including details of sources of information and support on this topic are attached as Annex 2.

The Health Department, advised by the Glennie Group, has reviewed the preliminary action plans on primary care decontamination requested from NHS Boards earlier this year. This information, the survey results and review of a number of local decontamination failure incidents over the past year have been used to inform the development of a revised strategy on local decontamination (principally in primary care) by a Glennie working group. **This multidisciplinary working group, which includes a number of front line professionals, is currently developing a new, pragmatic, phased approach to improving standards in local decontamination, a process which begins with the contents of this letter.** Education and training are key to this exercise, as are provision of appropriate and consistent advice and support. Our initial priority is to focus on getting the working processes right, through advice, education and training. The issues listed in Annex 1 should have been addressed at all sites by the end of December 2004. Preliminary details of the revised strategy are given in Annex 3.

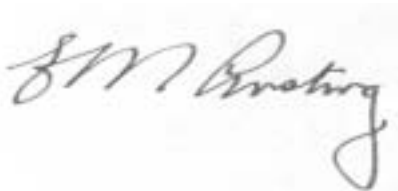
The requirement to ensure adequate and safe decontamination of re-usable instruments is a professional and legal obligation on all practitioners, and as such is not confined to NHS work.

We would ask that Chief Executives distribute this letter and its attachments to:

- All General Medical and Dental Practitioners, podiatrists, optometrists, and others engaging in local decontamination of re-usable instruments
- Infection Control Senior Managers responsible for decontamination (per [HDL\(2001\)10](#))
- Sterile Services Managers
- Risk Management Committees
- Clinical Governance Committees
- Directors, Primary Care Estates

We are grateful for your co-operation and assistance in ensuring that your local decontamination practices minimise any potential risks to patients or staff.

Yours sincerely



Chief Medical Officer



Chief Dental Officer

Local Decontamination of Instruments in Primary Care and Related Settings

Please share and discuss these priorities with all members of your team, and regularly review and audit the decontamination processes within your practice

Priorities for immediate action

1. Don't re-use 'single use' items

Single use items should be labelled as such - the symbol used on packaging is 

Specifying a medical device as single-use is the responsibility the manufacturer of the device. Once removed from the packaging there may be no labelling on the device itself – ensure that it is clearly segregated from re-usable devices of similar appearance.

2. Ensure that decontamination equipment (washer-disinfectors, ultrasonic cleaners, heat sealers, sterilizers, water treatment units) is used in accordance with the manufacturers instructions.

If you don't have the instruction manual for your ultrasonic cleaner, steriliser, or other equipment, make sure you get a copy - please read it and follow the written instructions. Your NHS Board Authorised Person (Sterilisers) or Scottish Healthcare Supplies may have a copy of the appropriate steriliser instructions if the manufacturer can't supply one – contact details are in Annex 2.

3. Ensure that decontamination equipment is properly maintained day-to-day.

Change the water in the reservoir of benchtop steam sterilizers regularly – at least daily – using purified bacteria-free water (this can be freshly prepared distilled or reverse osmosis (RO) water, or sterile water for irrigation – there may be local bulk purchasing arrangements for the latter).

Change the solution in the ultrasonic bath regularly – at least each morning /afternoon session, or more frequently if there is a high throughput of contaminated instruments.

Remember that RO and distillation equipment need regular maintenance too – check the manufacturer's instructions.

4. Ensure that decontamination equipment is tested regularly to ensure that it is working.

Is your steriliser working properly? If not, all your work counts for nothing. Get your steriliser tested now, and get it serviced quarterly by a qualified person.

Do you know if your ultrasonic cleaner is actually working? You can carry out a test for your ultrasonic bath now (see Annex 2), and add this to your maintenance contract.

5. Ensure that the load to be sterilized is appropriate for the type of sterilizer being used.

Don't wrap instruments or place them inside a solid bowl before sterilising in a bowl & instrument type sterilizer (also known as an unwrapped instruments and utensils steriliser) – they won't sterilise reliably. Only wrap before sterilising if you have a vacuum (or forced air removal) type steriliser - if in doubt, consult the instructions. If

you are wrapping after sterilization, remember to visually check instruments for dryness first.

6. Ensure you have pressure vessel insurance for pressure vessels in your practice.

If you have a steam sterilizer of any type, you are legally required to have specific pressure vessel insurance. NB standard generic insurance policies do not cover this. Your insurance broker or Primary Care Estates advisor can help. There may be local discounts for bulk policy purchase available.

7. Ensure the layout of your decontamination facility is fit for purpose.

Decontamination should be segregated from other activities so that cross-contamination cannot occur.

The flow of work should be a one-way trip from dirty at one end of the bench to sterile at the other. Don't splash or drip dirty water onto sterilised instruments, or onto the surfaces they will be laid out on. If space is short, clean up between parts of the process.

Don't use the same sink for cleaning instruments prior to sterilisation and other activities (e.g. general cleaning, food/drink preparation, hand washing), and especially keep cups and plates well away from where they could be splashed while cleaning dirty instruments. If you have only one all-purpose sink, use dedicated bowls to clean and rinse instruments as an interim measure, and decontaminate the bowls regularly. When cleaning instruments by hand, keep brush and instruments under the water while scrubbing to prevent splashes and aerosols.

8. Use the correct detergent solution for manual cleaning.

*Use a neutral detergent intended for use with medical devices, at the correct amount, in the right volume of water, at a hand-hot temperature. **Plain water won't do the job.***

Don't use inappropriate cleaning agents: chlorhexidine (hand) scrub makes proteins stick to metal and does not aid cleaning; abrasive cleaners can cause scratches which can trap contamination.

9. Staff involved in decontamination should wear suitable personal protective equipment - eye and mouth protection, gloves, waterproof apron.

Remember that good hand hygiene and basic infection control precautions are essential for staff and patient safety.

10. When buying new instruments, always check with the supplier that they are compatible with your own decontamination processes.

Some instruments have very specific requirements for decontamination. If you can't meet these requirements given the facilities and procedures you use locally, decontamination may be ineffective and the manufacturer's warranty may be invalid.

Further Information on Local Decontamination

1. Sources of Support and Advice

- Scottish Healthcare Supplies – Authorised Person/s (Sterilizers) – (name dependent upon Health Board area): Gyle Square, 1 South Gyle Crescent, Edinburgh, EH12 9EB, Tel. 0131 275 6000, email sterap@shs.csa.scot.nhs.uk
- Local ‘Responsible Person’ (Decontamination Equipment) - e.g. Principal Engineer, Primary Care/Community Health Divisions or other designated person/s responsible for Decontamination equipment.
- Sterile Service Managers – via NHS Board Head Offices.
- Public Health Infection Control Nurse or Infection Control Nurse (as appropriate) – via NHS Board Head Offices
- Decontamination technical enquiry service at Health Protection Scotland (previously SCIEH), Clifton House, Clifton Place, Glasgow G3 7LN, Tel 0141 300 1100, email decon_team@hps.scot.nhs.uk
- Primary Care/Community Health Division Decontamination Groups (where Medical and Dental practitioners along with other service providers are represented) – via NHS Board Head Offices.

2. Useful Websites

BDA A12 (Infection Control in Dentistry): <http://www.bda-dentistry.org.uk/advice/docs/A12.pdf>;

The Glennie Report (2001): Appendix D1A (*Decontamination technical requirements: section on low risk category*): <http://www.show.scot.nhs.uk/sehd/publications/sspr/sspr-11.htm>;

The Glennie Report (2001): Appendix D3 (*Protocol for local decontamination of surgical instruments*): <http://www.show.scot.nhs.uk/sehd/publications/sspr/sspr-14.htm>;

Standard Infection Control Precautions

http://www.show.scot.nhs.uk/scieh/infectious/hai/infection_control/StandardPrecautions.htm;

SCIEH/HPS Decontamination web page:

<http://www.show.scot.nhs.uk/scieh/infectious/hai/decontamination/haidecon.htm>

3. Decontamination Equipment Failures

In the event of decontamination equipment failure, and where an NHS maintenance contract is in place, contact the ‘Responsible Person’ (Decontamination Equipment), or other designated person/s, Community Health Divisions as above. Dependant upon the contract agreement, the faulty equipment should either be replaced or repaired as soon as is reasonably practicable. Where maintenance/service is provided by an independent source, contact should be as per the contract agreement. Otherwise contact should be directed to the Manufacturer. Where there are concerns that improperly decontaminated instruments have been used on patients, the local NHS Board Public Health team should be alerted, who in turn

should alert HPS (previously SCIEH), IRIC at Scottish Healthcare Supplies and the NHS Board Risk Management team.

4. Checking your Ultrasonic Bath - The Foil Ablation Test

The foil ablation test should be undertaken by the Service/Maintenance engineer in accordance with SHTM 2030, Part 3, Section 17, and can form part of your quarterly maintenance programme. As an immediate measure, the test may be undertaken by Practice/Department staff, using the following simplified method adapted from SHTM 2030.

Introduction

The activity of an ultrasonic cleaner may be investigated by the erosion pattern which is created on aluminium foil exposed in the bath for a short period. The activity will not be uniform throughout the ultrasonic bath. Tests carried out during commissioning are intended to establish the variation in activity at different positions and levels within the bath and the time required to obtain a characteristic erosion pattern.

Equipment and materials

The following equipment and materials are necessary:

- aluminium foil of the type sold as an aluminium foil wrap for cooking;
- adhesive tape (e.g. autoclave indicator tape or masking tape);
- a watch or clock with a second hand.

Method

Cut strips of aluminium foil 15mm to 20mm wide and 12cm longer than the bath is deep. Roll up one end of the foil so that the foil is now as long as the bath is deep (the rolled end acts as a weight to keep the foil vertical in the bath).

Ensure that the water in the tank is at the required level, that the required amount of any chemical additive specified by the manufacturer has been added and that the water in the tank is at the specified operating temperature. Carry out the manufacturer's recommended start-up procedure: this will normally include a period of operation to eliminate dissolved gases from the solution in the bath (the de-gassing procedure).

Using strips of adhesive tape across the top of the bath, suspend nine strips of the prepared foil in the bath in a 3 x 3 grid. The rolled bottom end of each foil strip should be no more than 10 mm above, but not touching, the bottom of the bath. Operate the bath for the predetermined exposure time. This may vary typically between 30 seconds and 10 minutes depending on the power rating of the ultrasonic transducers.

Remove the strips from the bath, blot dry and examine. The strips may be filed conveniently by sticking them to an A4 sheet of plain paper using a transparent adhesive tape. Drain the bath and clean to remove debris of eroded aluminium foil.

Results & interpretation

The zones of maximum erosion should be at similar positions on all nine foils and each should be eroded to a similar extent (by visual inspection). On re-testing the extent of erosion and the erosion pattern should remain consistent. If the zones of erosion are markedly different on the nine foils it indicates poor uniformity of cleaning. This may be due to failure of one or more of the transducers that produce ultrasonic vibration in the base of the bath. A significant change between tests indicates a deterioration or failure in the transducers. If there

is no erosion, this indicates complete failure. In the event of any of these findings, the ultrasonic cleaner should be withdrawn from use and be sent for repair or replaced.

5. Detergents for manual washing

The detergent should be:

- neutral pH (i.e. within the range pH 6 to 8 when diluted according to the manufacturer's instructions)
- intended for use with surgical instruments and medical devices
- free-rinsing
- low toxicity
- with good activity in the temperature range 15 – 45 °C
- formulated to ensure that removed soiling remains in suspension/solution
- free from unnecessary additives (colouring agents, perfume etc)

Suitable detergents are available from all the major manufacturers of detergents. General purpose detergents, e.g. domestic dishwashing detergents, rarely meet these criteria. Most dental and medical supply houses carry a range of suitable detergents. In case of difficulty or for further assistance contact: decon_team@hps.scot.nhs.uk

**Outline of the Revised Phased Approach to Local Decontamination
(Glennie Primary Care Strategy Group, November 2004)**

- Our initial priority is to focus on getting the working processes right, through advice, education and training. The issues listed in Annex 1 should have been addressed at all sites by the end of December 2004.
- A model system for the control and quality assurance of local decontamination is currently being developed by Health Protection Scotland (HPS) and should be available in December.
- This will be backed up by a training programme in decontamination which will be developed by NHS Education Scotland (NES) and HPS. It is hoped that this will be in place within the next six to twelve months.
- Guidance on local decontamination is available also in the report of the Glennie Group.
- In addition a revised version of the P-CAT electronic audit tool will be made available. This should assist individual sites and NHS Boards in identifying further areas for improvement, and in carrying out option appraisals for future ways of working.
- The medium to long term (one to five year) objectives will include issues of training at a more advanced level, ensuring physical premises are fit for purpose, and improved equipment (e.g. use of automated washer/disinfectors).

It is important to note that full compliance with Glennie Technical Requirements for local decontamination (see web links in Annex 2) does not necessarily require use of automated washer/disinfector machinery. The mandatory elements however do relate to:

- having explicit policies for purchasing of instruments;
- ensuring effective segregation of clean and dirty processes;
- use of personal protective equipment for operators;
- appropriate use of the correct cleaning materials and methods;
- appropriate use and proper maintenance of automated machinery (ultrasonic baths and sterilisers, water treatment units);
- appropriate storage of instruments;
- training needs assessment and delivery;
- documentation of processes.