

Guideline

Subject: Cleaning/Decontamination of Forensic Examination Suites
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Introduction

This Guideline lays out a set of recommendations for the cleaning and decontamination of forensic examination suites for the purposes of infection control and to minimise DNA contamination of forensic specimens. It is intended for use by forensic physicians involved in setting up or supervising the use of these facilities and any other staff members responsible for maintaining them.

The recommendations in this document should be considered as guidelines and all the details set out in it are not necessarily mandatory. Consultation with other involved parties such as building maintenance, facilities management, hospital infection control and cleaning services is highly recommended. These guidelines should be used to document procedures for each facility with documentation that these procedures have been followed being auditable.

Specialised facilities (suites) used for forensic evidence collection should be cleaned for both infection control purposes and for DNA decontamination. This Guideline provides a framework for both minimum level and best practice in cleaning, decontamination and prevention of contamination of forensic examination suites. The guideline provides protection and reassurance for all participants involved in a forensic examination including the examiner and the person undergoing the examination. It is important to:

- Demonstrate that processes to limit/prevent contamination are part of the forensic procedure; and
- To reassure the public/judicial system that the risk of contamination is being managed/minimised.

1. Principles

- It is not possible to totally prevent DNA contamination, but forensic services need procedures which minimise the risk of contamination and enhance the likelihood that contamination is detected when it occurs.
- It is important to maintain an environment that is welcoming or comfortable for the patient and not frightening or overly 'clinical'.
- Cleaning/decontamination procedures need to be safe and effective.
- Appropriate procedures for the taking of forensic samples which minimise the risk of contamination need to be adhered to.
- Offenders and victims should not be examined in the same suite.

2. Minimum Cleaning Protocol for Forensic Examination Suites

- All surfaces, including the floor should be cleaned regularly (at least after every use) with a non-corrosive detergent. The minimum interval between cleanings should be

determined in consultation with a forensic laboratory and may be dependent on environmental testing.

- Any window ledges or other surfaces that could collect dust should be included in the regular cleaning.
- Cleaning should include the medical examination room, the bathroom and toilet within the facility and the utility room as well as associated interview and waiting rooms.
- Within the medical room, the floor, examination couch, bench tops, writing desk, sink and taps need to be cleaned after every use of the suite.
- Gloves should be worn for all cleaning duties; consideration should be given to the use of gowns and overshoes to minimise the risk of DNA contamination by the cleaner.
- Cleaning of hard surfaces needs to be undertaken with a hospital grade detergent and disposable wipes.
- A register of completed cleaning tasks should be maintained.
- There should be a clear cleaning protocol for the facility cleaners. This should also include an audit schedule and should comply with any existing institutional cleaning policy.

3. Minimum Decontamination Protocol for Forensic Examination Suites

- The suite needs to be decontaminated (cleaned) after an examination to minimise DNA contamination during a subsequent examination.
- Decontamination entails the use of solutions that actively decontaminate DNA – e.g. 0.5% sodium hypochlorite (bleach) which is commonly available under a number of trade names. The solution should be freshly made up before use and must be disposed of afterwards in accordance with any applicable safe handling policies. Users should be aware of the potential for clothing damage due to the corrosive and bleaching action of hypochlorite and should wear gowns or other appropriate protective clothing when using this substance. Standard cleaning detergents do not decontaminate DNA. Most decontaminating solutions need to be left on surfaces for 3-5 minutes. Decontaminant solutions need to be wiped off using a dry white paper towel or dry cloth wipe or may be followed by wiping with 70% ethanol wipes.
- There are some detergent/DNA decontaminant combinations that could be used – e.g. Virachlor™, Actichlor™. These substances enable combined sterilization/DNA decontamination to occur.
- All work surfaces, the examination couch, examination lights, trolleys, bench tops, writing desk, sink and taps need to be decontaminated before each use of the suite.
- In general, non-disposable items such as scissors and forceps should be subjected to hospital grade sterilizing by autoclave. If this is not possible then hypochlorite solution or alcohol based wipes (for items likely to be damaged by bleach) could be used but there no guarantee that this will remove all possible DNA.
- A register of completed decontamination should be maintained. This should record the date and time of the procedure and identify the person doing the work
- Decontamination should be undertaken by cleaning staff who are trained in the procedure (it is not prudent to rely upon medical staff to undertake decontamination).
- Forensic procedures should not be undertaken if the suite has not been decontaminated since the last examination.

4. Operational Measures to Reduce the Risk of Contamination

- The suite should only be used for forensic medical purposes and not for other purposes such as general medical consultations

- The suite should provide appropriate space and equipment to undertake a forensic examination.
- There should be specific evidence kits for the collection of forensic evidence.
- Evidence kits should be stored securely and sealed to prevent interference. Unused contents of open kits should be discarded.
- Where possible other items such as speculums, linen, pillow covers etc used during the procedure should be single use or disposable.
- Plastic wrap should be used to protect difficult to decontaminate items – e.g. colposcope handles. Fresh wrap needs to be applied before each examination.
- Fresh linen needs to be placed on the examination couch immediately prior to each examination.
- A system to ensure that soiled linen is removed and fresh linen applied needs to be in place.
- There must be a system for appropriate disposal of clinical and other waste and for dealing with blood or body fluid spills. This should include notification to the cleaning staff that there has been a spillage so that the affected area can be included in the cleaning procedure. Spillages during a procedure associated with the person being examined should be soaked up with paper towels or similar items but should not necessarily prevent the remainder of the examination from proceeding.
- There must be a system to ensure any used or opened toiletries etc. are removed from the bathroom.
- Powder-free non-latex gloves need to be easily available.
- Changing gloves is an important mechanism to avoid contamination. Separate new clean gloves should be used for:
 - Decontamination/cleaning
 - Setting up equipment and items for the examination
 - Body examination
 - Genital examination
 - Collection of specimens that may leave residue on gloves
 - Collection of clothing
 - Processing of specimens including labelling and sealing samples
 - Selecting more equipment from storage
 - Using examination instruments and cameras
 - It is prudent to postpone photography until after the forensic specimens have been collected in order to avoid the risks of contamination from contact with cameras etc. that are not easily decontaminated.
- All forensic examiners should be trained in evidence collection and should adhere to appropriate swab collection techniques to avoid cross contamination.
- The use of disposable pens and pencils is preferred.
- Disposable scissors or other instruments should be used where possible.
- When using an examination area that is not a dedicated forensic suite, consideration should be given to the use of sterile plastic drapes over trolleys/work benches to protect the placement of forensic swabs etc. (Appropriate decontamination is preferable).
- When using an examination area that is not a dedicated forensic suite, consideration should be given to the use of drop sheets to place over other work surfaces.
- If a forensic examiner is required to examine another person immediately following a prior forensic examination, the examiner should wash hands thoroughly and utilise a gown or surgical scrubs and double gloving techniques for the subsequent examination.
- Disposable curtains are preferred. If this is not practicable, then curtains should be washed at least every six months or when soiled. There should be adequate space between curtains and work surfaces to minimise the risk of contamination.

- The forensic examination suite should be kept locked and preferably sealed when not in use.
- Carpet and non-wipe able fabric covered chairs should not be used in the forensic suite.
- Kits or modules should be developed for use by the examiner which are DNA free. Contamination reduction tools such as bench covers, examination couch covers, patient and examiner gowns that have been decontaminated with ethylene oxide should be used whenever possible.

5. Measures to Evaluate the Risk of Contamination

- A log book should be kept detailing use of the forensic suite. This log book should record all persons who have been present in the forensic suites and the integrity of the seals (if any) that are broken when the suite is opened.
- The medical proforma should include a record of people present during an examination.
- Each forensic practitioner should have their DNA recorded on the forensic laboratory exclusion register so that contamination with their profiles can be excluded when specimens are processed.
- There should be clear documentation of any limitations of the examination environment in the medical proforma.

References

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