Cross Infection Control Policy Lerwick dental Practice

The mouth carries a large number of potentially infective micro-organisms. Saliva and blood are known vectors (carriers) of infection and both can be transferred from the mouth to instruments, hands, etc. during dental treatment. It is therefore essential that we operate infection control procedures to minimise the risk of infection passing from patient to patient; or from patient to team members or vice versa.

Lerwick Dental Practice operates thorough, universal infection control procedures. These procedures are “universal” because they apply equally to all patients and personnel. Additional precautions are only taken when patients or team members are known to be high-risk because they are carriers (or in some cases likely to be carriers) of certain infectious diseases (see below).

This document contains the practice’s written infection control policies and procedures. Additional detail is also given in the relevant “checklists”. Cross-references are given where appropriate.

All members of the dental team (both clinical personnel and others) are expected to know and routinely observe all infection policies and procedures. It is the responsibility of individual practitioners (i.e. dentists and hygienists) to ensure that these procedures are followed in the surgeries. They must monitor themselves and the dental nurses working with them to check that this is done. Failure to employ adequate methods of infection control may result in the General Dental Council bringing proceedings for misconduct against a dentist, hygienist or dental nurse. If any member of the dental team is uncertain about any aspect of infection control, they are required to seek clarification from the Clinical Director Stefan Arora immediately.

All members of the team are encouraged to contribute their observations and ideas to ensure that infection control policies and procedures are operated correctly and efficiently and that improvements are made where possible.

Training

All personnel receive training in infection control. This training comprises:

a) induction procedures (refer to Lerwick Dental Practice new personnel induction checklist);
b) appropriate training for all new personnel prior to working unsupervised or unassisted in the surgeries*;
c) dedicated cross infection training sessions at the practice through NES portal (including computer assisted learning and the reading of relevant journals and reference materials);
d) routine supervision and instruction of dental nurses by dentists and hygienists while at work in the surgeries.

* New clinical personnel must, of course, work in the surgeries in order to be properly trained. However, they must either shadow or be shadowed by a member of the team (this can include the dentist themselves – it need not be an additional dental nurse) who has been trained in infection control procedures. This will continue until the dentist with whom they are training is satisfied that they are competent in these procedures. New members of the team are also required to study the practice’s written infection control policy and procedures.
Immunisation requirements

All clinical personnel (dental surgeons, dental nurses and hygienists) must be immunised against Hepatitis B and Tuberculosis. This helps to protect both team members and patients from these diseases.

Clinical personnel must, when asked to do so, provide (or authorize occupational health or their GPs to provide) written confirmation to the practice that their immunisation is still current and the practice keeps written records of this. Records of immunity are reviewed and team members are issued with reminders to update their immunity or to have their immunity checked as appropriate.

Where a team member does not seroconvert following Hepatitis B inoculation, advice will be sought on an appropriate course of action.

Infected clinical personnel

Any member of the clinical team who believes that they may have become infected with Hepatitis B, Hepatitis C, HIV or any other blood borne infection must immediately arrange to obtain medical advice, including any necessary testing.

If infection is confirmed, they must notify the clinical director or practice director immediately. This information will be treated in the strictest confidence, as are all matters relating to the health of individual team members.

The practice will seek advice from an appropriate agency on the necessary steps to be taken. Appropriate agencies may include the General Dental Council, British Dental Association, Dental Defence Union, Department of Health, Primary Care Trust or any other competent body.

It may be necessary for the team member concerned to cease working in the clinical environment (i.e. surgery). If this occurs, the team member concerned will (whenever possible and in accordance with practice staffing and operational requirements) be offered the opportunity to retrain to fulfill other non-clinical functions within the practice.

Treatment of high-risk patients

High-risk patients are those known to carry infectious diseases such as Hepatitis B, Hepatitis C or HIV or are suspected carriers of new variant CJD.

Many of the high-risk patients that we treat probably do not tell us that they are carriers of such a disease, so we are unaware that they are high-risk. This is not necessarily because patients deliberately conceal these facts from us but far more likely that they do not themselves know that they are infected. Many serious diseases do not cause the patient to suffer any symptoms for a very long time and even when symptoms do appear, it may take some time for the disease to be diagnosed. However, such a person is a “carrier” of the infection and may be capable of passing it on to others.

This is why we operate thorough universal infection control procedures for all patients. Everyone who enters the surgery for treatment is a potential source of infection to others in the surgery –
both to other patients and the dental team alike.

However, where we know that someone is high-risk, it is logical that we take additional precautions. The most effective precaution is to treat the person at the end of the working day. If they are the last patient of the day then they are being treated immediately before the surgery receives its most comprehensive cleaning of the day – the “closing down” procedure (see infection control checklist 2). This further reduces the risk of any infection being passed from the high-risk patient to the next patient treated in that surgery.

Where a patient is in a high-risk group for variant CJD, further precautions are taken. Variant CJD is transmitted from one person to another by Prions, a type of protein. Prions are very difficult to neutralise. However, according to guidance from the Department of Health, Prions can be denatured by repeat autoclaving. We ensure that all re-usable instruments that have been infected or potentially infected with bodily fluids from a patient who is in a high-risk group for variant CJD are cleaned separately from our other instruments. They are cleaned manually and in the ultrasonic bath in the usual way before autoclaving. The solutions used to clean them are discarded (as they will be anyway since the patient is treated at the end of the day). The instruments are then autoclaved at maximum temperature (134 degrees Celsius) six times. Other universal infection control procedures are followed in the usual way.

Admission of carrier status by a patient is always subject to the strictest confidentiality. We will not refuse to provide dental care to a patient solely because they are known or suspected to be a carrier of an infectious disease.

Opening the surgery

For procedures to be followed on opening up each surgery at the start of the day, refer to infection control checklist 1.

Zoning

All areas in the surgery must be kept as clean as possible. However, anything used or touched in the course of treating patients is potentially contaminated.

To minimise the risk of infection being passed from one patient to another, each surgery is divided into “clean” and “dirty” zones.

The dirty zones are those routinely used or touched in the course of treating patients. Of course, the dirty zones do not stay dirty. Dirty zones are only dirty while “in use” (i.e. while the dentist is working on a patient in the chair). They are cleaned between every patient, whether or not they appear to be contaminated – remember, you can’t see bacteria and viruses.

The dirty zones are identified in infection control checklist 3 as those that must be cleaned between every patient. Gloved hands are a dirty zone once a team member begins to participate in patient treatment. Discarding and replacing your gloves is the only reliable way to make your hands clean again.
The clean zones in each surgery are:

a) on top where C label is
b) the doors and the handles of cabinetry drawers and cupboards
c) inside the cabinetry drawers and cupboards
d) the desk top area in the corner of the surgery
e) the work top to the dentist’s right

By observing the following rules we therefore eliminate some of the possible pathways by which infection can be spread from one person to another:

a) We never touch a clean zone during treatment of a patient. For example, if we find that an additional instrument or material is needed during the course of treatment, we DO NOT open a drawer or cupboard to get it unless we have first removed and discarded our examination gloves. The gloves are dirty. The drawer and cupboard handles are clean. They must not meet. Removing potentially contaminated gloves removes the risk of contamination being passed to a clean zone (that isn’t necessarily cleaned between patients) and therefore to the next patient. Alternatively, we may use a clean pair of tweezers to open the drawer, pick up what we need from the drawer and place it where we need it; the same tweezers are used to close the drawer again.
b) Used materials and instruments and biological waste (eg extracted teeth) are always placed in the “dirty” zones until they can be sterilised or disposed of in the correct manner.
c) Sterilised/clean instruments and materials are always stored in a clean zone while not in use.
d) We always ensure that all necessary instruments and materials are set up (ie taken out of the cupboards/drawers) in readiness before a procedure begins.
e) When cleaning surfaces, whether they are clean or dirty zones, we always scrub the surface using a combined detergent/veridical disinfectant.
f) It is important that the work surfaces in the surgeries are kept as clear as possible. This makes thorough cleaning easier. Non-essential items are removed from the work surfaces and put away in drawers and cupboards.

Use of gloves, masks & eye protection - personal protective equipment (PPE)

Training in the use of PPE is included in the staff induction programme (refer to Lerwick Dental Practice new staff induction checklist) and repeated and updated as part of routine infection control training (see above).

Examination gloves

The practice provides lightweight examination gloves for use by all clinical personnel. They must be lightweight to preserve the tactile sensation required while performing delicate dental procedures. However, they do provide:

a) an effective barrier to the passage of infection from patients to the dental team and vice versa;
b) an effective means of reducing the risk of infection passing from one patient to the next.

While examination gloves are thin and easily perforated by sharp instruments they still help to protect team members from infection through inoculation injuries (i.e. sticking themselves with a used needle or instrument). This is because as the needle or other sharp object passes through the glove, this “wipes it clean”, removing the majority of any potentially infected material. It is important not to underestimate the protection that gloves provide just because they are thin. Nonetheless, dentists should where possible wear two pairs of examination gloves while
carrying out minor oral surgery procedures. Studies show that about 16% of examination gloves are perforated during minor oral surgery. Double-gloving gives additional protection to the hands.

Furthermore, by throwing away gloves after treating a patient and putting on a clean pair, we ensure that we have truly “clean hands” each time we begin work on another person. Simply washing hands with soap or disinfectant between patients does not make them completely clean (in any event, hand washing can cause skin problems if it is done too frequently). It is better to cover the hands with a thin membrane like an examination glove and to throw it away after use. This makes sure that any bacteria, viruses, etc. that got onto hands from the last patient do not find their way to the next.

All clinical personnel wear a clean pair of examination gloves while working on, or assisting with work on, a patient. These are discarded (by placing them in the clinical waste bin) when that patient’s appointment ends. A clean pair is put on before work begins on the next patient. It is not acceptable to wash or clean the gloves between patients: they are thrown away. Gloves worn while cleaning the surgery are also potentially contaminated and are removed, discarded and replaced with a clean pair before a team member begins to assist with the treatment of a patient.

When gloves are discarded, team members are also required to clean their hands with alcohol hand-rub before donning a fresh pair (refer to hand-washing procedure, below).

Once treatment has begun, never go back into cupboards or drawers for additional materials or instruments while still wearing gloves. Do not even open a drawer or cupboard with gloves on, since this may contaminate the handle and, if it is touched again later, spread an infection.

Generally, all necessary instruments and materials will have been laid out before work begins. However, if something is forgotten or if a procedure changes part way through so that additional instruments and/or materials are required, remove and discard your examination gloves before reaching into drawers or cupboards. Put on a clean pair of gloves, take out what is needed and continue with the treatment (alternatively, use tweezers – see “zoning”, above). Drawers and cupboards are clean zones (see above) and must never be touched with dirty gloves.

Cuts and abrasions on hands and arms must be covered with waterproof plasters. Jewellery and watches are not worn during clinical sessions.

Hands must be washed before donning gloves - see hand washing procedure below.

Personnel who experience any skin reactions to their gloves are required to inform the Clinical Director, Stefan Arora, or Practice Director, Osama Mochli, immediately.

• heavy-duty gloves

There is also a pair of reusable heavy-duty gloves. These are worn by members of the team at all times when cleaning dirty instruments.

The heavy-duty gloves are thicker and stronger than examination gloves and offer significant protection against inoculation injuries. However, sharp clinical instruments can still perforate these gloves. If the gloves become perforated, it is the responsibility of the person wearing them at the time to discard them and replace them with a new pair from the stock cupboard.
The heavy-duty gloves are used because it is widely recognised (and this is confirmed by our own experience at the practice) that the most likely time for a member of the dental team to suffer an inoculation injury is while they are cleaning dirty instruments. This is also one of the worst times to suffer an inoculation injury because it is likely that the object is contaminated with biological material (though it is, of course, far from certain that this will cause any harm). After use the gloves are cleaned and disinfected.

The heavy-duty gloves are never used in place of examination gloves and vice-versa. Do not pick up a hand full of instruments at the same time; for example, when emptying the wash basin or ultrasonic bath. Pick them up individually. This further reduces the risk of an inoculation injury while cleaning instruments.

Heavy-duty gloves may be worn in place of examination gloves when handling irritant chemicals, but we thoroughly rinse and disinfect the gloves afterwards.

• facemasks

Dental treatment inevitably results in the release of biological material into the surgery air. For example, the use of dental burrs creates a fine aerosol spray that can carry bacteria, etc. Masks can help to reduce the amount of this aerosol being breathed in by the dental team. More importantly, masks protect the mouth and nose from inoculation with “dental splatter” that may occur during treatment. Always wear a mask when a patient is being treated. Masks are single use and must be disposed of as clinical waste.

• eye protection

The practice provides safety spectacles with side-shields for use by both clinical personnel and patients. These help:
  a) improve infection control by protecting the eyes from spray and other biological debris (called “dental splatter”) leaving the patient’s mouth
  b) reduce the risk of eye injuries from flying debris (e.g. tiny pieces of calculus or fragments of dental amalgam)
  c) protect the eyes from chemical splashes while cleaning the surgery

The spectacles are worn by all members of the dental team and by the patient at all times during treatment. They are put in place before any work begins. They are also worn by members of the dental team while cleaning the surgery or sterilising instruments.

Dentists need not wear the protective spectacles when working with magnifiers. Similarly, any member of the dental team who wears prescription glasses need not wear the protective spectacles in addition to these, but they must ensure that side shields are fitted. If in doubt, they must speak to the Clinical Director, Stefan Arora, or Practice Director, Osama Mochli. The spectacles are re-usable. They are cleaned and disinfected between every patient. This also applies to prescription glasses.

Never wear protective spectacles on your face outside the surgery. Aside from considerations of infection control, the appearance of clinical personnel wearing protective spectacles outside the surgeries can be intimidating and worrying for patients, so we take them off and set them down before leaving the surgery. Magnifiers (loupes) with fibre optic illuminators do not need to be removed by the dentist or hygienist every time they leave the room, but they should be taken down off the face and worn around the neck while not in use.
• plastic aprons

The plastic aprons must be worn during all decontamination processes and whenever surgical procedures are carried out (e.g. extractions). They are single use and must be disposed of as clinical waste. Plastic aprons are removed by breaking the neck straps and gathering the apron together by touching the inside surfaces only.

• footwear

The practice provides special footwear for clinical staff, which must be worn at all times while on duty (see clinical dress code, below).

The footwear has special slip-resistant soles to minimise the risk of a slipping accident should the surgery floor ever become wet (the flooring is Altro Walkway, a specialist impermeable floor covering suitable for clinical settings that already has excellent slip resistance characteristics, but the shoes provided must nonetheless be worn).

The footwear also has hardened toe-caps, so in the event that a sharp instrument is dropped and hits the shoe, it will not penetrate into the foot.

• protective clothing

Protective clothing (including uniforms) must not be worn off the practice site. Staff must change into and out of their clinical clothing at the practice.

Clothing becomes contaminated during operative and decontamination procedures. Surgery clothing must be clean at all times and freshly laundered clothing worn every day. Uniforms must be washed at the hottest temperature suitable for the fabric (check the label or refer to Practice Director) to reduce any potential microbial contamination.

Clinical dress code

When at work, clinical personnel must:
• wear only the clinical clothing provided
• wear only the clinical footwear provided
• wear their hair above the collar and keep it neat and tidy
• not wear strong perfumes
• use only discreet make up
• not have any tattoos on show
• not wear a watch
• not wear any jewellery

Hand hygiene

• Nails must be kept short, clean and free of nail polish - false nails must not be worn.
• Separate clinical hand-wash basins for hand washing are provided in each surgery and decontamination room.
• Hand-wash basins do not have plugs or overflows and are fitted with remote-running traps. The basins are fitted with either sensor operated or lever operated mixer taps which do not discharge directly into the drain opening.
• Liquid hand wash dispensers are located near the hand-wash basins. Nozzles must be kept clean. Bar soap must not be used. Refillable hand wash containers are not used as
bacteria can multiply within the container, which can act as a potential source of contamination.

- Posters depicting appropriate hand washing techniques are displayed above or near the hand-wash basins at the practice: follow these procedures at all times.
- Do not use nail brushes or scrubbing brushes - they can cause abrasions in the skin where microorganisms can reside.
- Dry hands carefully, using the disposable towels provided, to avoid damaging the skin. Dispose of towels in the foot-operated or sensor-operated waste bin.
- At the end of a session, use the hand cream provided to counteract dryness. Hand cream must not be used under gloves as it encourages the growth of micro-organisms.
- Alcohol based skin disinfectant hand rubs or gels can be used in between patients on visibly clean hands in conjunction with a good hand-rub technique. A poster depicting an appropriate hand-rub technique is displayed in each surgery and decontamination room.
- Follow the manufacturer's instructions for the maximum number of applications for hand rubs or gels before hand washing is required. Repeated applications lead to a buildup of these products on the hands. If hands become sticky, wash as normal using a proper hand hygiene technique.
- Alcohol impregnated wipes used for cleaning surfaces should not be used in place of hand rubs or gels since they are not effective in hand decontamination.

Food

No food may be either taken into or consumed in the surgeries.

Use of rubber dam

Rubber dam is routinely used for clinical reasons – in endodontic work to prevent patients inhaling small instruments and in restorative work to improve isolation of the tooth or teeth being worked on (see the section titled “clinical procedures”). However, rubber dam is also used to improve infection control. Studies have demonstrated that the use of rubber dam during dental treatment reduces the quantity of aerosols produced. The number of culturable bacteria on surfaces in the surgery falls by over 90%.

Dental unit water lines

Dental unit water lines are very fine-bore tubes with a very large surface area to volume ratio and are particularly prone to contamination by micro-organisms. The formation of bio-film within the tubes can result in massively elevated levels of bacteria in the water. Ultimately, this problem could be engineered out of dental equipment, but no such equipment is currently available.

Accordingly, Lerwick dental practice uses a system called Alpron to kill these micro-organisms and break up the biofilms they will otherwise form. This ensures that the water flowing through the dental units is of an acceptable quality. The Alpron system works by the use of specially formulated chemicals to remove, and inhibit the formation of, biofilm.

Each day we make up fresh bottles of water and add Alpron to them before attaching them to the bottled water system on the dental units. The bottles are disconnected from the bottled water system, cleaned and drained at the end of each day. They are stored inverted to keep them dry inside before next use. Refer to infection control checklists 1 and 2.
Cleaning between patients

For procedures to be followed where a surgery is being cleaned during the course of a working day (i.e. after one patient’s treatment has been completed and before the next patient’s treatment begins), refer to infection control checklist 3.

Sterilisation and storage of instruments

Single use instruments and equipment must never be re-used. They must be disposed of safely, as clinical waste (or other controlled waste - see Waste Disposal Policy).

All re-usable instruments contaminated or potentially contaminated with blood or saliva must be decontaminated before use.

We assume that all new re-usable instruments are dirty/contaminated and must be decontaminated or sterilised before use, as appropriate, regardless of who supplied them (refer to Equipment Policy).

All disposable (single-use) items are supplied clean, so we do not sterilise them. If they are obviously dirty or contaminated, we throw them away (unless a large quantity or batch appear to have been supplied contaminated, in which case they are passed to the Practice Director, Osama Mochli, who may then return them to the supplier or dispose of them, as appropriate).

If we are uncertain as to whether an instrument has been sterilised, WE DO NOT USE IT. If it is re-usable, we sterilise it again. If it is single-use, we throw it away (unless a large quantity or batch appear to have been supplied contaminated, in which case they are passed to the practice director who may then return them to the supplier or dispose of them, as appropriate).

Used instruments may be contaminated with blood, saliva, etc. and where they are re-usable they must be cleaned manually and/or by immersion in the ultrasonic bath before autoclaving (n.b. hand pieces must not be immersed - see below).

Ensure that manual cleaning is only carried out when there is not a patient in the dental chair. Before cleaning any instruments, put on an apron and heavy duty gloves. Keep your safety spectacles on, too. Take great care when handling dirty instruments – particularly reusable sharps: refer to the guidance in the section above titled “heavy duty gloves”.

We always ensure that instruments being sterilised move in the same direction:
- a) sink/ultrasonic bath to
- b) autoclave to
- c) top of autoclave (to dry) to
- d) cupboards/drawers.

We always make sure that instruments move in the same direction and never vice-versa because then the paths of clean and dirty instruments do not cross. If they did, it can result in cross infection between patients.

Ensure that sinks and set down areas are clean and free from visible contamination. Gather together instruments and equipment for cleaning. Dismantle and open, as appropriate, ready for immersion (n.b. hand pieces must not be fully immersed - see section on hand pieces, below).
Check the solutions in the hand scrubbing bowl, rinse bowl and the ultrasonic bath using a thermometer to ensure that their temperatures are below 45 degrees centigrade.

The next step is immersion in the ultrasonic bath. The ultrasonic bath must be operated with its lid in position. Provided that the lid is fitted, it may be operated while a patient is in the surgery. The ultrasonic bath is kept three-quarters full with detergent (not disinfectant) solution. When the solution becomes visibly dirty, we replace it (and at least once every day). The bath is emptied, cleaned and left to dry at the end of every day – refer to infection control checklists 1 and 3.

If instruments are very heavily soiled, immerse them briefly in the detergent solution in the hand scrubbing bowl to remove some of the soil before placing them into the ultrasonic bath. Load the instruments into the bath - provided that this is compatible with cleaning of the instrument. For example, hand pieces should not be cleaned by immersion in an ultrasonic bath - see below. Always use the basket in the bath to hold the instruments - don't place them directly onto the bottom of the bath - and don't overload the basket. Set the timer to 3 minutes and switch on the bath. When the ultrasonic bath has completed its cycle, remove the instruments and rinse them in the rinsing bowl to remove the cleaning solution.

After rinsing, dry the instruments with a non-lining cloth and visually inspect all items under the illuminated magnifier to ensure they are clean, functional and in good condition. Any items that are not functional or are in poor condition should have a strip of autoclave indicator tape attached to them prior to autoclaving. Once they have been sterilised and cooled, they should be shown to the Clinical Director, Stefan Arora, who must decide whether they require maintenance or replacement.

Proceed to autoclave the instruments that are visually clean - see below.

If the ultrasonic bath has not removed all the debris from some of the instruments, it is necessary to perform manual cleaning procedures on those items by fully immersing them in the hand-scrubbing bowl. Keep them under water during the cleaning process to prevent aerosols. Agitate and/or scrub the instruments using a long handled brush with soft plastic bristles.

Rinse the instruments thoroughly in the rinsing bowl.

After rinsing, dry the instruments with a non-lining cloth and visually inspect them under the illuminated magnifier again to ensure they are clean, functional and in good condition. Any items that are not functional or are in poor condition should have a strip of autoclave indicator tape attached to them prior to autoclaving. Once they have been sterilised and cooled, they should be shown to the Clinical Director, Stefan Arora, who must decide whether they require maintenance or replacement.

If any of the items still bear signs of visual contamination, return them to the ultrasonic bath and begin again, as above.

Wash out brushes using detergent to remove visible soil and store the brushes dry, stored upright. Brushes should be replaced every month.
Once we have removed any gross debris from the instruments by manual and ultrasonic processes, they are placed onto metal autoclave trays. Placement should allow steam to contact all surfaces, so be careful to avoid overloading the trays by piling instruments up.

A piece of autoclave indicator tape is attached to one of the trays in each load. Place the trays inside the autoclave, close the autoclave door and press the uppermost program selector button (134 degrees Celsius, without drying cycle).

When the autoclave cycle is finished, the door is opened. The operator must be very careful not to put their hands or arms above the door as they do this or immediately afterwards since the escaping steam may burn. Make sure that the escaping steam has subsided before reaching above/on to the top of the autoclave.

The trays of instruments are removed from the autoclave using the plastic tray carrier handle provided. The trays are placed on top of the autoclave. In case the autoclave may not be functioning correctly, Stefan Arora must be informed immediately (refer to Equipment Policy). The autoclave must not be used again until it has been confirmed (by an engineer, if necessary) that it is safe to do so. The trays of instruments that have just been put through the autoclave must sterilised again using the second autoclave.

When the sterilised instruments have cooled, they must be placed into pouches, which are then sealed and marked with a "use-by" date. Sterilised instruments must not be left on top of the autoclave (or anywhere else) after they have cooled. Bagged instruments must not be stored for more than 1 calendar year before being used. After this, instruments must be reprocessed. Instruments that are for same day re-use do not require wrapping.

When instruments need to be sent away for servicing or repair (e.g. hand pieces or ultrasonic tips) they must be sterilised before dispatch. When autoclaving these instruments, we wrap a piece of autoclave indicator tape around each one.

This helps to identify the instrument that needs to be sent away (so that it is not mixed up with the others). It also confirms that the instrument has been sterilised. The instruments are passed to the Practice Director, Osama Mochli, for dispatch to the relevant maintainer/repairer. The practice director will ensure that the instruments are dispatched with relevant documentation to confirm that they have been sterilised.

**Single use items**

Some items are to be treated as single-use at the practice, regardless of whether the packaging or manufacturer's instructions describe them as single-use or re-usable. This is because we may not have the ability to safely sterilise the items in a dental practice setting or because we have decided not to re-use items in order to eliminate potential infection risk. For example, endodontic files may be re-used on the same patient, but this requires a system to ensure they are not accidentally used on another person and we consider that such systems cannot reliably eliminate the possibility of operator error; therefore we use these items just once.

The following items must be treated as single-use and discarded in an appropriate waste container after a single episode of patient treatment:

- Vinyl gloves
Cleaning and lubrication of hand pieces

Hand pieces must never be immersed in water or any chemical solution, so clean the outside of the hand piece by wiping or scrubbing it with disinfectant. The burr must be left in place while this is done.

Next, remove the burr from the hand piece and set it aside. Oil hand piece. Next, the hand pieces are placed on an instrument tray and put into the autoclave. They are autoclaved on the high temperature program (134 degrees Celsius) but we DO NOT use the drying cycle. Use of the drying cycle can cause the temperature to far exceed 134 degrees and cause the oil to bake inside the hand pieces. This will result in damage to the bearings. Hand pieces are very expensive to repair or replace.

There are laminated W&H (manufacturer's) hand piece lubrication and sterilisation guides next to the autoclave in each surgery.

Before using a clean hand piece, we run it (with the water spray switched on) into the sink for a few seconds. This removes excess oil that may have been introduced during the cleaning process.

When attaching clean hand pieces to their outlets at the beginning of each working day or
removing them at the end of the day, we run the hand piece (with the water spray switched on) into the sink for 1 minute. This significantly reduces any overnight accumulation of microbes in the water lines.

**Sharps**

The first rule of handling sharps is to exercise extreme caution at all times to avoid causing injury to oneself or others. The avoidance of inoculation injuries is an important part of infection control.

To pass an unsheathed sharp instrument to someone else, always hold it with the sharp surface toward yourself and the handle/blunt surface toward the person you are handing it to.

The practice no longer uses disposable needles. We use a disposable syringe system instead - Safety Plus. This is because research has proven that the disposable syringe system is much safer in that it practically eliminates preventable needle-stick (inoculation) injuries, which are one of the most common causes of injury to clinical personnel.

Full instructions for the use and disposal of Safety Plus disposable syringes can be found on the practice computers. If in doubt about the use of the system, speak to the Clinical Director, Stefan Arora or the Practice Director, Osama Mochli.

For guidance on handling re-usable sharps during cleaning, see also the section on heavy-duty gloves (above).

**Procedure for inoculation injuries**

Inoculation injuries are the most likely route for transmission of blood borne viral infections in dentistry. Inoculation injuries include not only accidental sticking, stabbing or cutting of the skin with contaminated sharps, instruments and equipment but also splashes of contaminated substances into, or contact of a contaminated object with, the eyes or open lesions in the skin.

In order to reduce the likelihood of inoculation injury, it is essential that every team member uses the personal protective equipment (PPE) supplied - see above - including examination gloves, heavy duty gloves, masks and eye protection.

It is essential that inoculation injuries are dealt with promptly and correctly:

- If the skin is punctured with a contaminated sharp, instrument or equipment, wash the injury with soap and water but avoid scrubbing the wound. The wound must then be encouraged to bleed freely and cleaned again under running water. Dry the wound, apply disinfectant and a dressing.
- If the eyes are exposed, flood them with plain water (an eye bath and eye wash are kept with the first aid kit in the staff room for this purpose).
- If there is reason to be concerned about the transmission of infection, the clinician supervising the surgery at the time must inform Stefan Arora or Practice Director Osama Mochli immediately. This applies where, for example, the patient whose bodily fluids caused the contamination is known or suspected to be a carrier of an infectious disease or is in a high-risk group.
• Stefan Arora and Osama Mochli will seek guidance from an expert in communicable disease control on appropriate post-exposure prophylaxis and serological surveillance. If both are absent, this responsibility falls to the clinician supervising the surgery at the time. The advice can be obtained from the Occupational Health Shetland 01595 743080.

• The risk of acquiring HIV infection following an inoculation injury is very low in primary dental care. If, however, the patient who was the source of the infected material is known to be infected with HIV, post exposure prophylaxis should be commenced as soon as possible and ideally within an hour of the injury occurring.

• All inoculation injuries must be recorded in the accident and incident report book, which is kept at reception. There are notes inside the front cover of the book confirming what must be recorded; these details must include the name of the injured person, how the incident occurred, what action was taken (including first aid given), who was informed of the incident and when. We also record the name of the person who was the source of any infected material, if known. The record should be signed by the injured person and the dentist in charge.

**Prosthodontic appliances and impressions**

All prosthodontic appliances (e.g. dentures) and impressions must be disinfected before they are sent to the laboratory and labelled as such.

All technical work being received from or returned to the lab must also be disinfected and labelled.

Impressions are cleaned under running water to remove saliva, blood and debris until it is visibly clean. Dilute 1 liter of water with 1 cup of disinfectant powder in Disinfectant bath. Put impressions in Disinfectant bath for 5 minutes. Remove impressions, wrap them up, label and send to lab.

**Clinical waste**

Clinical waste is a potential source of infection and must be handled with great care. The practice produces a variety of different types of waste, many of which may be contaminated, and all requiring different disposal techniques. This is a complicated area and so a separate written policy is devoted to it – refer to the practice waste disposal policy.

The golden rule is this – all waste produced in the surgeries is potentially contaminated and must be treated as such. No waste produced in the surgeries, of whatever kind, is discarded with the "domestic" waste.

**Blood spillage procedure**

Spills of blood occur rarely in dentistry, though there may be occasions when a surface becomes grossly contaminated with blood or blood mixed with saliva. In these situations, the area should be saturated with 1% sodium hypochlorite made up fresh from hypochlorite tablets. Leave this to soak for at least five minutes before using disposable towels to clean the area. Dispose of these towels as clinical waste.

If blood is spilled, either from a container or as a result of an operative procedure, the spillage should be dealt with as soon as possible. The spilled blood should be completely covered by
disposable towels which can then be soaked in sodium hypochlorite solution (as above). Leave this to soak for at least five minutes before clearing the towels and disposing of them as clinical waste.

When dealing with blood spillage, wear PPE - heavy duty gloves, eyewear, face-mask and disposable apron.

Do not use alcohol in the same decontamination process.

**Closing down the surgery**

For procedures to be followed where a surgery is being closed down for the last time on any given day, refer to infection control checklist 2.

**Environmental cleaning**

"General environmental cleaning" refers to cleaning of non-clinical areas and parts of the surgeries that are not specifically governed by the infection control policy. General environmental cleaning can refer to cleaning of the reception area, office, staff, room or toilets. It can also refer to cleaning some areas in the surgeries themselves - such as the window blinds, walls, ceiling, etc.

"Surgery environmental cleaning" refers to cleaning of clinical cabinetry, equipment & fixtures that are within (or very close to) the treatment area but which are not all necessarily disinfected between every patient or even every day (refer to infection control checklists). We used to refer to surgery environmental cleaning as "spring cleaning" and it was governed by the now defunct infection control checklist.

Some of the general environmental cleaning control is carried out and checked by the receptionist in accordance with our receptionist's daily environmental checklist. Surgery environmental cleaning is carried out by clinical staff (i.e. dentist, hygienist, dental nurse) in accordance with the surgery weekly environmental checklist. Cleaning is recorded on this checklist every week that the practice is open and the checklists are retained by the practice for inspection, if required.

Environmental cleaning records and performance are checked/audited by Stefan Arora and the Practice Director, Osama Mochli.

Environmental cleaning equipment (brooms, dustpans, brushes, dusters, polish, floor cleaner, mops, mop-buckets, etc.) is stored in the cleaning cupboard in the back room.