

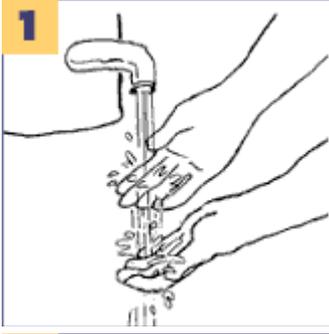
تشكيل لجنة مكافحة العدوى

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عضوا	د. سلوى ابراهيم
عضوا عن قسم طب الفم فيما يتعلق بوحداث الاشعة بالكلية	ط. شرين فتحى
عضوا عن قسم التركيبات المتحركة	ط. هبة رفعت
عضوا عن قسم علاج الجذور	ط. محمد امية
عضوا عن قسم طب الفم و علاج اللثة	ط. اسماء سراج
عضوا عن قسم العلاج التحفظى	ط. جهاد صلاح
عضوا عن قسم طب اسنان الاطفال	ط. دينا عبد الغنى
عضوا عن قسم التركيبات الثابتة	ط. الاء كشك
عضوا و مسئول تدريب اطباء الامتياز	ط. امانى ايمن
عضوا و مسئول التوعية	ط. محمد احمد حسن

مهام لجنة مكافحة العدوى

١. وضع المعايير الأساسية والسياسيات الخاصة باجراءات مكافحة العدوى داخل الكلية
٢. العمل على تطبيق أساليب وأنشطة مكافحة العدوى بعيادات الكلية لتوفير بيئة آمنة للمرضى وفريق العمل.
٣. حصر المستلزمات و الأجهزة اللازمة لتطبيق أنشطة مكافحة العدوى على مستوى الكلية .
٤. تدريب اعضاء هيئة التدريس و الهيئة المعاونة و التمريض و الطلاب على الاجراءات اللازمة لمكافحة العدوى.
٥. تقديم المشورة اللازمة في كل ما يتعلق بأعمال مكافحة العدوى.

خطوات غسل اليدين



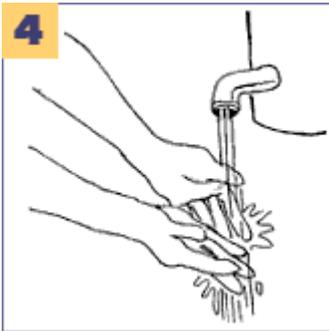
١. خلع كافة الحلي.
فتح الصنبور بالكوع.
تعريض اليدين لتيار من الماء الدافئ مع تجنب الماء الساخن.



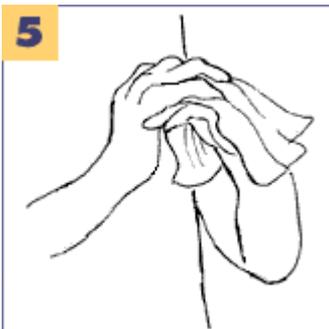
٢. استخدام أحد المنظفات في عملية الغسل بحيث يصل إلى اليدين بصورة جيدة، على أن يتم دك جميع أجزاء اليدين جيداً.



٣. يتم وضع الأصابع بشكل متداخل مع تحريكها ذهاباً وإياباً لفترة تتراوح من ٣٠ - ١٥ ثانية مع الأخذ في الاعتبار زيادة هذه المدة إذا ما كانت اليدين متسخة بصورة واضحة، مع إزالة الاتساخ تحت الأظافر



٤. شطف اليدين باستخدام ماء الصنبور الجاري حتى يتم إزالة الصابون بالكامل، ويحظر وضع اليدين في الحوض أو الماء الراكد



٥. يتم تجفيف اليدين باستخدام فوطة نظيفة) تلك التي تستخدم لمرة واحدة فقط) أو منديل ورقي، و عملية التجفيف هامة للغاية حيث أن رطوبة اليدين تعد وسطاً ملائماً لنمو البكتريا وفي هذه الحالة تصبح اليدين أحد وسائل نقل العدوى.

يجب غلق الصنبور باستخدام أحد الكوعين أو منديل جاف، وذلك بعد الانتهاء من تجفيف اليدين

تعليمات القاء النفايات فى مكانها الصحيح



الأكياس السوداء: لاحتواء النفايات العادية (الورقيات , اكياس البلاستيك, و جميع النفايات المشابهة لمخلفات المنزل).



الأكياس الحمراء: لاحتواء جميع الأشياء الملوثة من قفازات و اقنعة و قطن و شاش و غيرها.



صندوق الامان: يوضع فيه الادوات الحادة مثل السرنجات المستعملة و الامبولات و المشارط و غيرها.



GUIDE TO INFECTION PREVENTION FOR DENTAL HEALTH CARE SETTINGS

This summary guide is based primarily upon elements of Standard Precautions and represents the minimum infection prevention expectations for safe care in dental settings

Infection control Policy

1. Developing and maintaining infection prevention and occupational health programs.
2. Developing written infection prevention procedures appropriate for the services provided by the Faculty of Dentistry, October 6 University and based upon evidence-based guidelines.
3. Assuring availability of sufficient and appropriate supplies necessary for adherence to Standard Precautions (e.g., hand hygiene products, personal protective equipment...).
4. Assuring at least one individual with training in infection prevention is employed by or regularly available (e.g., by contract) to manage the facility's infection prevention program.
5. Assuring the availability of a comprehensive immunization policy and post-exposure evaluation and follow-up, including prophylaxis as appropriate to staff and students supervised by a licensed healthcare professional.

Policy Evaluation:

1. Annual review to ensure up-to-date immunizations.
2. Report occupational exposures to infectious agents. Document the steps that occurred around the exposure and plan how such exposure can be prevented in the future.
3. Ensure the postexposure management plan is clear, complete, and available at all times to all dental health care personnel (DHCP) and students.
4. Observing circumstances of appropriate or inappropriate hand washing. Review findings in a staff meeting.
5. Observing and documenting the use of barrier precautions and careful handling of sharps. Review findings in a staff meeting.
6. Monitoring paper log of steam cycle and temperature strip with each sterilization load, and examine results of weekly biologic monitoring. Taking appropriate action when failure of sterilization process is noted.
7. Conducting an annual review of the exposure control plan and consider new developments in safer medical devices.
8. Observing the safe disposal of medical waste and take preventive measures if hazardous situations occur.

Infection prevention and occupational health program

A. Education and training of faculty staff, interns and students:

1. Providing job- or task-specific infection prevention education and training to all staff members.

Training will:

- Focus on principles of both staff safety and patient safety.
- Be provided upon hire and repeated annually and when policies or procedures are updated/revised.

- For interns: Be provided at the beginning of Oral Medicine & Periodontology session.
- For students: Be provided during the orientation week for the 4th academic year students.
- Be appropriate in content and vocabulary for each person's educational level, literacy, and language

N.B: Competencies will be documented following each training.

Training elements:

- 1) A description of staff exposure risks.
- 2) Review of prevention strategies and infection-control policies and procedures;
- 3) Discussion regarding how to manage work-related illness and injuries, including post exposure prophylaxis (PEP), and review of work restrictions for the exposure or infection.

B. Immunization Programs

1. Hepatitis B vaccination must be available to all employees who have potential contact with blood or body fluids. Three-dose schedule administered intramuscularly (IM) in the deltoid; second dose administered 1 month after first dose; third dose administered 4 months after second.
2. DHCP should be tested for anti- HBs 1–2 months after completion of the 3-dose vaccination
3. DHCP who do not develop an adequate antibody response (i.e., anti-HBs <10 mIU/mL) to the primary vaccine should complete a second 3-dose vaccine series or be evaluated to determine if they are HBsAg-positive.
4. If no antibody response occurs after the second series, testing for HBsAg should be performed. Persons who prove to be HBsAg-positive should be counseled regarding how to prevent HBV transmission to others and regarding the need for medical evaluation.
5. Non-responders to vaccination who are HBsAg-negative should be considered susceptible to HBV infection and should be counseled regarding precautions to prevent HBV infection and the need to obtain HBIG prophylaxis for any known or probable parenteral exposure to HBsAg-positive blood.

C. Illness and work restriction

- DHCP who have a severe respiratory illness with fever (e.g. influenza), acute viral gastroenteritis with vomiting and/or diarrhea, or acute conjunctivitis should stay at home until their symptoms have subsided.
- DHCP who have oral and/or nasal herpes simplex infections should pay particular attention to hand hygiene and not touch the affected area.
- Patients who appear to be ill should be rescheduled if at all possible. If their dental condition is of an urgent nature, every effort should be made to separate them from other patients by seating them in a secluded operatory as soon as possible.

D. Exposure & Infection prevention procedures (Standard Precautions)

• Exposure Determination

Anyone who participates in any of the following tasks, even on a sporadic basis, should follow standard precautions, receive training, and receive the HBV vaccine:

- Performing clinical or laboratory dental procedures

- Assisting in a dental procedure
- Cleaning and/or sterilizing contaminated equipment
- Handling potentially contaminated laundry
- Scrubbing contaminated counter tops and other environmental surfaces
- Disinfecting impressions
- Exposing radiographs
- Flushing water lines in the dental unit

1. Hand hygiene & Hand care

1. Put on mask and glasses before washing hands.
 2. Remove all jewelry (including watches) from hands and wrists. All fingernails must be kept short and never put false nails.
 3. **Initial Wash** (before wearing gloves):
 - a. Wet hands and forearms under running water and lather them with antimicrobial soap and cool water for 15-20 seconds, paying particular attention to nails, fingertips, and interdental spaces.
 - b. Rinse thoroughly with cool water.
 - c. Use disposable paper towels of good quality to dry hands.
 4. **Subsequent washes:** Wash hands for 15 seconds after removing gloves, between patients, and before leaving the operatory area.
 5. A body area that contacts blood or saliva must be washed immediately after contact.
 6. When performing oral surgical procedures perform surgical hand antisepsis by using an antimicrobial product (e.g., antimicrobial soap and water, or soap and water followed by alcohol-based hand scrub with persistent activity) before donning sterile surgeon's gloves.
 7. Any cuts or open wounds need to be covered with a waterproof dressing.
- Handwashing should be undertaken in dedicated (clean) sinks preferably fitted with non-touch taps (or carried out using a non-touch technique) and not in the (contaminated) sinks used for instrument cleaning. If touch taps are used the taps may be turned on and off with a paper towel.
 - Alcohol (ethanol or isopropanol) -based hand rubs (ABHR, 70-95%) is the preferred method for hand hygiene in all clinical situations except when hands are visibly soiled (e.g., blood, body fluids). In this situation, use soap and water.
 - A compatible moisturiser should be applied up to four times per day or use an emollient-containing ABHR.
 - ABHR must only be used on dry skin, because having wet hands dilutes the product thus decreasing its effectiveness.
 - Position ABHR dispensers close to the clinical working area (but away from contamination by splash and aerosols)

2. Personal protective equipment (PPE)

A. Gloves

1. Gloves must be worn for all clinical procedures.
2. Wearing gloves does not replace the need for hand hygiene.
3. Gloves should be put on immediately before the activity for which they are indicated.

4. Gloves used in patient care must not be washed or reused. A new pair of gloves must be used for each patient and changed as soon as they are cut, torn or punctured.
5. Gloves must be removed or overgloves worn before touching any environmental surface without a barrier or before accessing clean areas.
6. Gloves must be removed as soon as clinical treatment is complete and hand hygiene undertaken immediately.
7. When removing contaminated gloves, grasp them around the wrist and pull them off so that they end up inside out. This will keep the contaminated areas away from your skin. Dispose immediately in a red bag or a biohazard trash
8. Non-sterile examination gloves may be worn for non-surgical general dental procedures. Sterile gloves must be worn when a sterile field is necessary for procedures such as oral, periodontal or endodontic surgery.
9. Heavy-duty utility, puncture-resistant gloves must be used during instrument cleaning, these utility gloves can be reused, but must be washed in detergent after each use, stored dry and replaced if showing signs of deterioration.
10. The use of powder-free gloves for patient care is recommended strongly because this reduces exposure of staff to latex thereby minimises the risk of developing latex allergy. If the DHCP or patient has a proven or suspected allergy to latex, alternatives such as neoprene or nitrile gloves must be used. A latex-free protocol must also be followed including use of non-latex rubber dam, and use of non-latex materials such as prophylaxis cups.

3. Masks and Protective Eyewear

1. Masks must be changed if they become soaked with moisture or visibly splattered (and always between patients).
2. Remove mask using ungloved hands. When removing a mask, handle it only by the elastic or cloth tie strings; the mask itself should not be touched.
3. Contaminated eyewear should be washed with a disinfectant soap whenever visibly contaminated.
4. Treat all masks and glasses as contaminated.
5. Eyewear must be disinfected at the end of each patient appointment with a surface disinfectant.
6. Face shields are not an appropriate substitute for masks.

4. Clinic Attire

Long sleeve- Gowns must be worn routinely for the following procedures:

- [1] Oral or periodontal surgery;
- [2] Periodontal/hygiene procedures;
- [3] Restorative procedures where an aerosol will be generated;
- [4] Cleaning instruments, biohazard trash cans, evacuation hoses, and lab equipment.
- [5] Loading the clothes washing machine.

- Disposable plastic aprons may be used for procedures with risk of blood contamination.
- If there is no risk of exposure to blood or saliva, short-sleeve attire (scrub top) is acceptable. Such procedures would include patient screening/workup, oral radiology, dispensing sterile instruments or clean dental supplies, and folding clean laundry.

- Slippers and head covers (for males) are not allowed in the clinics.
- For females:
 1. Long hair should be pinned back.
 2. For those who wear long head covers, their covers should be tightly tucked inside the clinic coat.

PPE should be removed and discarded prior to leaving the care area (e.g. dental clinic, instrument processing or laboratory areas).

5. Work practice control

1. Consider the use of a “safe zone” for transferring instruments rather than passing instruments hand to hand.
2. Needles should remain capped prior to use.
3. Needles should not be bent, recapped or otherwise manipulated by using both hands.
4. Following use, needles should be recapped as soon as possible by using a one-handed scoop technique or a commercial recapping device.
5. When suturing, tissues should be retracted using appropriate instruments (e.g. retractor, dental mirror), rather than fingers.
6. Remove burs from handpieces immediately following the procedure.
7. Identify and remove all sharps from trays before processing instruments.
8. Used sharps must be collected in a clearly labelled puncture-resistant container which should be located at the point of use.
9. Students shouldn’t walk around with contaminated impressions to show them to the faculty member.
10. Food or beverages shouldn’t be allowed inside clinical areas.
11. Gloves used during patient contact shouldn’t be worn during handling patient's record.
12. Water should be flushed from high speed hand piece hose and air-water syringe each for 1 minute at the beginning of each treatment session.
13. Instruments should be left wrapped until time of use.
14. All the needed material and instruments should be prepared so that no need to leave treatment area during an appointment.

Sterilization and Disinfection

Methods for Sterilizing and Disinfecting Patient-Care Items

- Heat-tolerant critical and semicritical items → Sterilization (Steam autoclave, dry heat)
- Heat-sensitive critical and semicritical → Sterilization (Glutaraldehyde, glutaraldehydes with phenol, hydrogen peroxide)
- Noncritical with visible blood → Intermediate level disinfection → (e.g., chlorine containing products, quaternary ammonium compounds with alcohol, phenolics, iodophors)
- Noncritical without visible blood → Low-level disinfection (e.g., quaternary ammonium compounds, some phenolics, some iodophors)

- Critical items: Penetrates soft tissue, contacts bone, enters into or contacts the bloodstream or other normally sterile tissue. "(Surgical instruments, periodontal scalers, scalpel blades, surgical dental burs)

Semicritical items: touch mucous membranes or nonintact skin Dental mouth mirror, amalgam condenser, reusable dental impression trays, dental handpieces

Noncritical items: contacts only intact skin (Radiograph head/cone, blood pressure cuff, facebow, pulse oximeter)

- Chlorine-based product, a fresh solution of sodium hypochlorite (e.g., household bleach) is an inexpensive and effective intermediate-level germicide. Concentrations ranging from 500 ppm to 800 ppm of chlorine (1:100 dilution of 5.25% bleach and tap water, or approximately ¼ cup of 5.25% bleach to 1 gallon of water) are effective on environmental surfaces that have been cleaned of visible contamination. Appropriate personal protective equipment (e.g., gloves and goggles) should be worn when preparing hypochlorite solutions.
- Dental practices should follow the product manufacturer's directions regarding concentrations and exposure time for disinfectant activity relative to the surface to be disinfected.
- Cleaning or disinfection of certain noncritical patient-care items can be difficult or damage the surfaces; therefore, use of disposable barrier protection of these surfaces might be a preferred alternative.
- Instruments should be placed in an appropriate container during transport to the instrument processing area.

Instrument Processing Area

- The processing area should be divided into sections for 1) receiving, cleaning, and decontamination; 2) preparation and packaging; 3) sterilization; and 4) storage.
- Ideally, walls or partitions should separate the sections .When physical separation of these sections cannot be achieved, adequate spatial separation might be satisfactory.
- Space should be adequate for the volume of work anticipated and the items to be stored.

Receiving, Cleaning, and Decontamination Work Area

- Carry instruments in a covered container. Clean all visible blood and other contamination from dental instruments and devices before sterilization or disinfection procedures.
- Use work-practice controls that minimize contact with sharp instruments if manual cleaning is necessary (e.g., long-handled brush).
- Wear puncture- and chemical-resistant/heavy-duty utility gloves for instrument cleaning and decontamination procedures.
- Wear appropriate PPE (e.g., mask, protective eyewear, and gown) when splashing or spraying is anticipated during cleaning.

Environmental Infection Control

1. clinical contact surfaces:

- Barrier protection is effective for areas that are difficult to clean.

- Barriers include clear plastic wrap, bags, sheets, tubing, and plastic-backed paper or other materials impervious to moisture.
- They should be removed and discarded between patients, while DHCP are still gloved.
- After removing the barrier, examine the surface to make sure it did not become soiled inadvertently.
- The surface needs to be cleaned and disinfected if contamination is evident.
- If barriers are not used, surfaces should be cleaned and disinfected between patients by using intermediate-level disinfectant.
- General cleaning and disinfection are recommended for clinical contact surfaces, dental unit surfaces, and countertops at the end of daily work activities
- DHCP who perform environmental cleaning and disinfection should wear Chemical- and puncture-resistant utility gloves and other PPE to prevent occupational exposure to infectious agents and hazardous chemicals.
- Use the spray-wipe-spray techniques for disinfection. In this technique you spray the disinfectant, then wipe with disposable towel. Next, spray more disinfectant and leave to dry.

2. Housekeeping surfaces

- Physical removal of microorganisms and soil by wiping or scrubbing is A MUST before disinfection (use low-level disinfectant).
- Unless contamination is reasonably anticipated or apparent, cleaning or disinfecting walls, window drapes, and other vertical surfaces is unnecessary. However, when housekeeping surfaces are visibly contaminated by blood or oral fluids, prompt removal and surface disinfection is appropriate.
- Mops and cloths should be cleaned after use and allowed to dry before reuse
- Making fresh cleaning solution each day, discarding any remaining solution, and allowing the container to dry will minimize bacterial contamination.
- Preferred cleaning methods produce minimal mists and aerosols or dispersion of dust in patient care areas.

Disposal of biomedical waste

Biomedical waste **must** be:

- Stored in colour-coded containers that are marked with the universal biohazard symbol.
- Released to an approved biomedical waste carrier for disposal.

Dental unit waterlines

- All waterlines should be purged at the beginning of each workday by flushing them thoroughly with water for at least two to three minutes. Before purging is carried out, handpieces, air/ water syringe tips and ultrasonic tips should be removed from the waterlines.
- Handpieces using water coolant should be run for 20 to 30 seconds after patient care in order to purge all potentially contaminated air and water.

Special Considerations

A. Dental Handpieces and Other Devices Attached to Air and Waterlines

1. Clean and heat-sterilize handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units between patients.

2. Follow the manufacturer's instructions for cleaning, lubrication, and sterilization of handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units.
3. Do not surface-disinfect, use liquid chemical sterilants, or ethylene oxide on handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units.
4. Do not advise patients to close their lips tightly around the tip of the saliva ejector to evacuate oral fluids.

B. Dental Radiology

1. Gloves are worn when exposing radiographs and handling contaminated film packets.
2. Radiography equipment (e.g. tube heads and control panels) should be protected with surface barriers that are changed after each patient use.
3. The film packet may be opened using gloves. The film should be dropped onto a clean surface without touching it and the empty packet should be discarded, being careful to avoid contamination.
4. Gloves should then be removed before developing the film.

C. Handling of Extracted Teeth

1. Dispose of extracted teeth as regulated medical waste unless returned to the patient.
4. Heat-sterilize before they are used for educational purposes.

D. Dental Laboratory

1. Use PPE when handling items received in the laboratory until they have been decontaminated
2. Before they are handled in the laboratory, clean, disinfect, and rinse all dental prostheses and prosthodontic materials (e.g., impressions, bite registrations, occlusal rims, and extracted teeth) by using an intermediate-level disinfectant.
5. Clean and heat-sterilize heat-tolerant items used in the mouth (e.g., metal impression trays and face-bow forks).
6. Items that become contaminated but do not normally contact the patient (e.g., burs, polishing points, rag wheels, articulators, case pans, and lathes): If manufacturer instructions are unavailable, clean and heat sterilize heat-tolerant items or clean and disinfect with low- to intermediate- level disinfectant.

References

1. CDC. Guidelines for environmental infection control in health-care facilities: recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). MMWR 2003; 52(No. RR-10).
2. Best Practice Guidelines for Cleaning, Disinfection, and Sterilization of Critical and Semi-critical Medical Devices in BC Health Authorities, 2011.
3. 11. OSHA Fact Sheet; Hepatitis B Vaccination Protection. Accessed January 29, 2013.



Work practice control

1. All the needed material and instruments should be prepared so that no needs to leave treatment area during an appointment.
2. Instruments should be left wrapped until time of use.
3. Needles should remain capped prior to use.
4. Water should be flushed from high speed hand piece hose and air-water syringes each for 1 minute at the beginning of each treatment session.
5. Gloves used during patient contact shouldn't be worn during handling patient's record.
6. Students shouldn't walk around with contaminated impressions to show them to the faculty member.
7. Following use, needles should be recapped as soon as possible by using a one-handed scoop technique.
8. Remove burs from handpieces immediately following the procedure.
9. Identify and remove all sharps from trays before processing instruments. Used sharps must be collected in the labelled puncture-resistant container.
10. Food or beverages shouldn't be allowed inside clinical areas.

Infection Control Committee

Postexposure Management and Prophylaxis



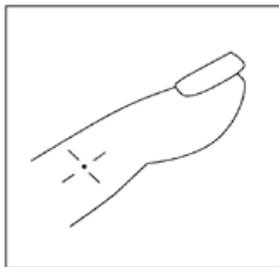
SHARP OBJECT INJURY

Following incidence of

- Percutaneous [laceration, cuts, non-intact skin, mucous membrane exposure, or permucosal [e.g. ocular, mouth]
- Exposure to blood or any other body fluids.

I. Immediate care of the site:

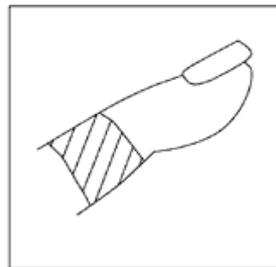
- Stop all procedures.
- Let the site bleed freely. Don't squeeze the wound.
- Wash wound or skin exposure site with soap and water and flush mucous membranes [ocular, mouth] with water as soon as possible but do not scrub.
- Cover with a waterproof dressing.
- Assess patient (source) risk factors. Has patient ever had: HBV, HCV or HIV infection?



Stay calm,
do not squeeze wound



Wash wounded area with
warm water and soap



Pat dry and apply antiseptic
and a Band-Aid



Seek medical advice

II. Report the incidence to your Supervisor. The Supervisor then should report this to the infection control coordinator of the department for further documentation and management.

III. The infection control coordinator will:

- Send the patient blood (if known) to lab to test for :
 - HIV antibody
 - HBsAg (hepatitis B surface antigen)
 - HCV antibody (hepatitis C antibody).
- Test staff member to establish their serological status at the time of the exposure for:
 - HIV antibody;
 - HCV antibody; and
 - Antibody to hepatitis B surface antigen (anti-HBs).

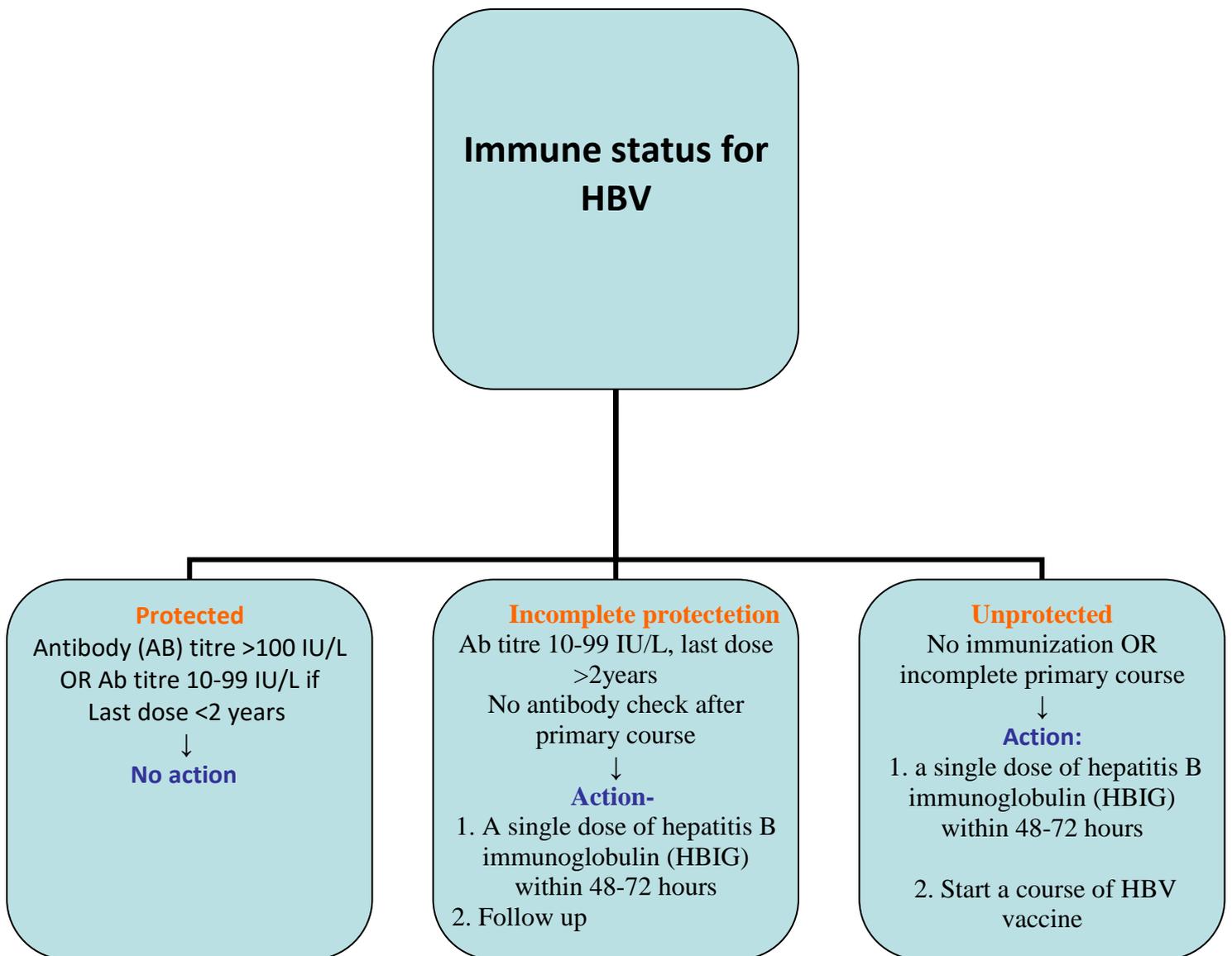
2. Document the incidence using the Sharp Object Injury Report.
3. Manage post-exposure prophylactic measures.

Post-exposure prophylaxis

A. Source negative

No further follow-up of the exposed staff member is generally necessary, unless there is reason to suspect the source person.

B. Source positive for hepatitis B:



C. Source positive for hepatitis C:

1. There is no effective post-exposure prophylaxis (PEP) for HCV.
2. The injured staff member should be re-tested for HCV antibodies at three and six months, in addition to their baseline test.
3. Follow up by an infectious diseases physician or gastroenterologist, and specific therapy considered if appropriate.

D. Source positive for HIV

1. Orally administered anti-retroviral drugs preferably within two hours.
2. This therapy should be continued for four weeks
3. Follow-up blood tests for the injured person at one, three and six months, and follow-up undertaken to detect any febrile illness occurring within three months of exposure (possibly representing a HIV seroconversion illness).

IV. For emergency call:

- **01222208454**
- **01015341000**

Reference:

1. CDC. Guidelines for environmental infection control in health-care facilities: recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). MMWR 2003; 52(No. RR-10).
2. Australian National Guidelines for the Management of Health Care Workers known to be infected with Blood-Borne Viruses. Steam sterilizer September 2011, CDNA.