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Infection Control Protocols

*Prepared for comprehensive and coordinated
Infection Control aimed at reducing/eliminating risks
of infection to patients, health-care providers, visitors
and community*

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Protocol for Infection Control

STANDARD PRECAUTIONS FOR ALL AT ALL TIMES

(UNIVERSAL PRECAUTIONS)

1. Personal Protective Equipment (Barrier Techniques)

➤ Eye Protection and Face Masks:

- ✓ Patients' eyes must always be protected against any possible injury.
- ✓ Operators and close support clinical staff must protect their eyes against foreign bodies, splatter and aerosols that may arise during operative procedures, especially during scaling (manual and ultra-sonic), the use of rotary instruments, cutting and use of wires, and during the cleaning of instruments.
- ✓ Masks and visors/goggles must be worn for all operative procedures to protect against splatter. They should be close fitting and of theatre type.
- ✓ Disposable masks/visors, if used, must be discarded after every patient, not pulled down and re-used.

➤ Clothing

- ✓ **Uniforms of choice**--scrubs are recommended
- ✓ Scrubs visibly contaminated with blood/body fluids must be changed immediately.
- ✓ Scrubs should be changed daily.
- ✓ Disposable Plastic aprons should be worn when handling all body fluids and in all aspects of direct patient care including cleaning and disinfection procedures (where aerosol is generated).
- ✓ Aprons must be changed between patients and following cleaning tasks.

➤ Footwear

- ✓ Shoes are to be flat or with low heels.
- ✓ Open toed sandals/shoes are not recommended due to the risk of injury from falling instruments or chemical spillages.

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Removal of PPE

Depending on the type of PPE worn, items of PPE should be removed in the following order:

- ✓ Gloves should be removed first (so that the gloves end up inside-out). Make sure hands do not get contaminated when removing gloves.
- ✓ Wash hands thoroughly, if visibly contaminated, before removing the rest of the PPE.
- ✓ Plastic disposable apron -The plastic apron is removed by breaking the neck straps and carefully gathering the apron together by touching the inside of the apron only. Avoid touching the outer contaminated area.
- ✓ Face mask- Remove the mask by breaking the straps or lifting over the ears and dispose of into a clinical waste container.
- ✓ Avoid touching the outer surface of the mask and do not crush the mask before disposal.
- ✓ Masks should never be left to hang around the neck and should be disposed of immediately after use.
- ✓ Face and eye protection. Take care not to touch the outer surfaces. Single use eye protection should be disposed of into the clinical waste container.
- ✓ Wash hands thoroughly again.

2. Protection from Aerosol, Saliva and Blood splatter

Many infectious diseases are readily spread via aerosols e.g. TB, chickenpox and Influenza. Blood splatter can spread blood borne diseases. The risk of transmission of infection by these routes will be reduced if:

- ✓ There is good ventilation and efficient high-speed aspirators, which exhaust externally from the premises.
- ✓ Appropriate protective clothing/equipment is used.

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PROCEDURE FOR MANAGING SPILLS OF BLOOD AND BODY FLUIDS/SUBSTANCES

- Basic Principles such as PPE and standard precautions apply.
- Spills should be cleared up before the area is cleaned (do not add cleaning liquids to spills as it increases the size of the spill and should be avoided)
- Generation of aerosols from spilled material should be avoided.

To cope with different types of spills, the following factors need to be considered:

1. Nature/type of spill- Sputum, Vomit, Faeces, Urine, Blood or Laboratory culture.
2. Pathogens most likely to be involved.
3. Size of the spill (spot [few drops], small [$<10\text{cms}$] or large [$>10\text{cms}$]).
4. Type of surface (carpet or impervious flooring)
5. Location- clinical area, laboratory, public location or within community premises.
6. Any likelihood of bare skin contact with the contaminated surface.

Equipment

- Standard cleaning equipment includes mop, cleaning bucket, cleaning agents- should be readily available and stored in area known to all.
- Disposable spills kit to be used in areas where cleaning materials are not readily available.

Spills kit:

- A large reusable plastic container fitted with lid containing the following items -
 - ✓ Leak proof bags and containers for disposal of waste material
 - ✓ A designated sturdy scraper and pan for spills

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- ✓ About 5 sachets of granular formulation containing 10,000 ppm available chlorine or equivalent (each sachet should contain sufficient granules to cover a 10 cm diameter spill)
- ✓ Disposable rubber gloves suitable for cleaning
- ✓ Eye protection (disposable or reusable)
- ✓ Plastic apron
- ✓ A respiratory protection device (for protection against inhalation of powder from the disinfectant granules which may be generated from high risk spills during the cleaning process).

Spots and small spills

- Wipe the area immediately with paper toweling and then clean with warm water and detergent followed by rinsing and drying the area.
- Hospital grade disinfectant can be used on the spill area after cleaning.

Large spills

- Large blood spills that have occurred in dry areas should be contained and generation of aerosols should be avoided.
- Granular formulations that produce high available chlorine concentrations may contain the spilled material and are useful for preventing the aerosols.
- Use scraper and pan to remove the absorbed material.
- Area should be cleaned with mop with a bucket of warm water and detergent.
- The bucket and mop should be thoroughly cleaned after use and stored dry.

3. Cleaning Protocols

A. Zoning

- ✓ A zoning system should be utilized - clearly define clean and dirty areas.
- ✓ To facilitate cleaning; keep the surgical area simple and uncluttered.
- ✓ Remove all unnecessary items from clinical area.
- ✓ The areas which may be contaminated during operative procedures should be cleaned and disinfected between patients using an appropriate solution or wipe.
- ✓ Clinicians must remember that once their hands become contaminated with blood or saliva, they must not touch environmental surfaces such as light

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handles, unit handles, chair controls, mixers and materials, computers, keyboards or telephones etc.

B. Surface Cleaning and Protection


- ✓ Surfaces should be smooth, impervious and washable.
- ✓ Prior to session –ensure all surfaces areas and equipment are clean and dust free.
- ✓ Surfaces and equipment should be protected from contamination or cleaned carefully between patients.
- ✓ All work surfaces, sinks, taps and splash backs including those apparently uncontaminated should be thoroughly cleaned at the end of each clinical session using an appropriate bactericidal surface disinfectant.
- ✓ Blood spills either from a container or as a result of an operative procedure must be dealt immediately. All clinics/departments must possess a blood spillage kit.
- ✓ All aspirators, drains and spittoons should be cleaned after every session with a non-foaming disinfectant.
- ✓ Records of cleaning must be kept.

Use of Disposables

- ✓ Use disposable items whenever possible.
 - ✓ Local anesthetic needles must always be disposable (single-patient use).
 - ✓ Never reuse a product or instrument if marked as single use or disposable.
- Items that are difficult to clean should be considered single use where possible.

List of dental items and instruments as single use:

- All root canal files, reamers and broaches
- Plastic impression trays
- Matrix bands
- Plastic dappen dishes
- Plastic suction tubes
- Prophylactic brushes and cups
- Plastic saliva ejectors
- Steel burs
- Toothbrushes


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SYMBOL FOR SINGLE USE ITEMS
DO NOT RE-USE ITEMS LABELLED AS SINGLE USE

Instrument Decontamination

- ✓ Appropriate protective clothing (Personal protective equipment) must be worn when cleaning, decontaminating and dismantling items of equipment.

C. Manual Cleaning Procedure

- ✓ Use a dedicated dental instrument cleaner (accurately diluted), with a long handled brush under water to avoid splashing. Cleaning by hand using a brush should only be done when absolutely necessary.
- ✓ Brushes should be autoclaved between each use or washed thoroughly after each use with hot water and detergent.
- ✓ Sharp ends of the instruments should be held away from the body during cleaning.
- ✓ Rinse in clean water.
- ✓ Visually check to ensure all debris is removed.
- ✓ Lubricate if required

Note: Details of manual cleaning procedure – To be displayed in wash areas.

Protocol for the Manual Cleaning of Dental Instruments

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- ✓ All personnel involved in the decontamination of dental instruments should be trained in the content and application of this protocol and associated guidance.
- ✓ To minimize the risk to personnel undertaking manual cleaning, the splashing and creation of aerosols should be avoided at all times.

Note: Maintaining a dirty-to-clean workflow procedure will assist in infection control.

Manual Cleaning - Immersion Method

1. Wash hands.
2. Put on personal protective clothing (PPE).
3. Ensure sinks, equipment and setting-down areas are free from extraneous items.
4. Dismantle and open the instruments, as required ready for immersion
5. Fill the clean sink (NOT wash-hand basin) with the appropriate amount of water and detergent (specified for the purpose).

Note: ensure correct temperature as recommended by the detergent manufacturer is maintained.

6. Fully immerse the instruments in the solution and keep under water during the cleaning process to prevent aerosols.
7. Agitate/scrub the instruments using long-handled brushes with soft plastic bristles.
8. Drain any excess cleaning solution prior to rinsing.
9. Rinse in clean water.
10. Visually inspect all items ensuring they are clean, functional and in good condition.
11. Lubricate any relevant items prior to sterilization with a non-oil-based lubricant.
12. Dispose of cleaning materials safely in accordance with local policy.
13. Replace cleaning solution and the rinse-water after each use.
14. Complete relevant documentation.

D. Cleaning: Validated Ultrasonic Bath

- ✓ An appropriate cleaner for use with ultrasonic baths should be used in accordance with manufacturer's instructions.

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- ✓ Immerse briefly in cold water and detergent to remove visible debris.
- ✓ Rinse in clean water
- ✓ Open joints or hinges and immerse fully in ultrasonic bath.
- ✓ Set the timer (according to manufacturer's instructions and close the lid).
- ✓ Do not open lid during cycle.
- ✓ Rinse in clean water.
- ✓ Visually check to ensure all debris is removed.
- ✓ Lubricate instruments if required.
- ✓ Ultrasonic baths should also be maintained and tested in accordance with manufacturers instructions.
- ✓ They should be subject to daily testing and the results retained in a dedicated log book.
- ✓ This should include cleaning efficacy and protein residue tests.

Any faults or concerns must be logged and reported and the machine taken out of use until the fault is identified and rectified.

E. Cleaning: Validated Washer Disinfector

- ✓ Ensure dental cement is removed.
- ✓ Do not lubricate hand pieces.
- ✓ Place instruments on trays in accordance with manufacturer's instructions.
- ✓ Complete the cycle.
- ✓ Lubricate hand pieces after washer disinfector cycle.
- ✓ Washer Disinfectors should also be maintained and tested in accordance with manufacturer's instructions
- ✓ They should be subject to daily testing and the results retained in a dedicated log book.
- ✓ This should include cleaning efficacy and protein residue tests.

Any faults or concerns must be logged and reported and the machine taken out of use until the fault is identified and rectified.

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Movement of contaminated instruments between areas:

- ✓ Contaminated instruments require safe movement between the treatment and decontamination areas.
- ✓ They should be transported in leak proof, easy to clean, rigid containers with a closable lid.
- ✓ The containers should be labeled accordingly and cleaned, disinfected and dried after use.

4. Sterilization: Non-vacuum autoclaves (Bench Top Sterilizers)

- ✓ Place on clean perforated trays. Do not overload trays as this will impede the free circulation of air.
- ✓ Do not wrap instruments or place in pouches before autoclaving (unless a vacuum autoclave is used).
- ✓ Residual water must be drained from autoclave reservoir at the end of each day.
- ✓ The autoclave chamber and trays should be cleaned with a damp clean cloth and left open, to dry overnight.

Autoclaves should also be maintained and tested in accordance with manufacturer's instructions.

They should be subjected to testing and the results retained in a dedicated log book. This should include daily tests to check the temperature, pressure and holding time as well as housekeeping tasks.

5. A - Z DECONTAMINATION GUIDELINES

All dental instruments and equipment must be cleaned and sterilized after use as detailed in A-Z Disinfection and Sterilization Guidelines or in accordance with manufacturer's instructions.

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|----------------------------|---|
| Appliances | |
| orthodontic and prosthetic | <ul style="list-style-type: none">• Rinse under clean running water until clean.• Use an appropriate disinfectant according to manufacturer's instructions.• Rinse thoroughly.• If returning to laboratory ensure a label is attached to indicate that a decontamination process has taken place |
| Burs | Steel burs -disposable, <ul style="list-style-type: none">• Diamond -pre-clean then autoclave• Tungsten Carbide -pre-clean then autoclave• Acrylic Trimming Burs -pre-clean then autoclave |
| Bracket tables | Cover surface and use disposable instrument trays 17 <ul style="list-style-type: none">• Clean with detergent/disinfectant wipe between patients• Do not use alcohol based products on stainless steel. |
| Dental Cabinet | Wipe cupboard doors, drawer fronts and handles at the end of each session with a detergent/disinfectant wipe <ul style="list-style-type: none">• Do not use alcohol based products on stainless steel. |


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| Dental chair | <ul style="list-style-type: none">• Wipe and dry after each patient with detergent or disinfectant wipe.• Do not use alcohol based products on stainless steel. |
| Dental Instruments including hand pieces | <ul style="list-style-type: none">• Clean (using a validated process)• Inspect• Autoclave and inspect again• Dry• Store in clean, dry covered conditions |
| Hand pieces using manual cleaning or ultrasonic bath | <ul style="list-style-type: none">• In addition to above:• Leave bur in place during cleaning to prevent contamination of hand piece bearing• DO NOT IMMERSER IN WATER• Remove bur• Lubricate hand piece with pressurised 18 oil as recommended by the manufacturer, until clean oil appears out of the bur chuck• Clean off excess oil• Sterilise in autoclave• If post sterilization lubrication is required then either separate canisters must be used or the nozzles changed.• Run hand piece briefly with bur in place before use, to clear excess lubricant. |
| Hand pieces using a washer disinfectant | <ul style="list-style-type: none">• Clean outside of hand piece• Remove bur• Do not lubricate• Place in the displacement device in |

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| | |
|------------------------------|--|
| | <p>the washer disinfectant</p> <ul style="list-style-type: none">• Lubricate before placing in the autoclave• If post sterilization lubrication is required then either separate canisters must be used or the nozzles changed.• Run hand piece briefly with bur in place before use, to clear excess lubricant |
| Impressions | <ul style="list-style-type: none">• Rinse under clean running water until clean. 19 <ul style="list-style-type: none">• Use an appropriate disinfectant according to manufacturer's instructions.• Rinse thoroughly.• If returning to laboratory ensure a label is attached to indicate that a decontamination process has taken place |
| Instrument Containers | <ul style="list-style-type: none">• Clean with detergent, rinse and dry (Do not use sodium hypochlorite) |
| Light cure Tip | <ul style="list-style-type: none">• Pre-clean and autoclave or protect with a plastic disposable cover (Check manufacturers instructions) |
| Matrix band Holders | <ul style="list-style-type: none">• Remove used band before decontamination process |
| Operating lights | <ul style="list-style-type: none">• Clean after each patient with a detergent/disinfectant wipe.• Do not use alcohol wipe on stainless steel parts. |

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| Spittoon | <ul style="list-style-type: none">• Flush between each patient and clean with detergent/disinfectant wipe• Do not use alcohol based products on stainless steel.• Remove debris from the trap at the end of the session and system clean according to manufacturer's recommendations |
| Sinks | <ul style="list-style-type: none">• Clean at the end of each session with cream cleaner and detergent wipe and leave dry.• Do not use alcohol base wipes or solution on stainless steel sinks |
| Suction Apparatus | <ul style="list-style-type: none">• Aspirator tubing and drainage system should be cleaned at the end of each sessions according to manufacturers Instructions (Or dispose of if single use) |
| Water Bottles | <ul style="list-style-type: none">• Empty residual water at the end of each session.• Rinse with sterile water.• Leave a little clean water in the bottom of the bottle to prevent air locks.• Before use empty remaining water• Rinse again and re-fill with sterile water. |
| Water lines | <ul style="list-style-type: none">• Flush for at least 2 minutes at the beginning and end of each day and flush for 20-30 seconds between each patient. |
| Work surfaces | <ul style="list-style-type: none">• Clean with detergent/disinfectant wipe between each patient and at the end of the session |

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New instruments

New instruments should be decontaminated prior to use (in accordance with manufacturer's instructions) and decontamination instructions retained.

6. Aseptic storage

- ✓ Instruments should be stored dry and protected from dust, splash or aerosol contamination in closed or covered trays in closed cupboards or drawers.
- ✓ Packaging of decontaminated instruments should be carried out in a clean area away from contaminated instruments and decontaminating equipment.
- ✓ Instruments should be used within 21 days of the decontamination process or reprocessed before use.

Waste disposal

- ✓ All waste must be segregated into correct waste streams.
- ✓ Staff handling clinical waste must be aware of the current policy and have received instruction on the segregation, disposal and transportation of clinical waste.
- ✓ contaminated dental waste is collected by a dedicated waste disposal company. This includes:

Waste amalgam

Amalgam filled extracted teeth

(Extracted teeth with no amalgam in should be disposed of in sharps box)

Amalgam separation units.

7. Safe use and disposal of contaminated dental sharps

- ✓ The definition of sharps applies to: needles, teeth, burs, root canal instruments, metal matrix bands, glass ampules/vials, scalpel blades, scissors any other contaminated sharp instrument or item.
- ✓ Avoid sharps usage wherever possible.
- ✓ Never leave sharps lying around.
- ✓ Never walk about with unguarded sharps.
- ✓ Always request assistance when using sharps with unco-operative clients.

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- ✓ Remove hand pieces containing contaminated burs from dental units immediately after use.
- ✓ All sharps must be placed into an approved sharps container.
- ✓ Ensure sharps containers are placed off the floor, out of the reach of patients and careers at all times and ensure that unauthorized people cannot gain access to them.
- ✓ Never dispose of sharps with other clinical waste.
- ✓ Never overfill sharps containers.
- ✓ Never press down on the contents of the container to make more room.
- ✓ Never attempt to retrieve items from the sharps containers.
- ✓ All sharps injuries must be reported immediately and an incident form should be completed.

8. Procedure for cleaning up a small mercury spill

Dos and don'ts after a mercury spill

- **Avoid contact with the spilled mercury** until you decide who will be cleaning it up, you or a professional.
- Healthcare professionals / workers can do the cleanup of a small mercury spill when the amount of mercury spilled is less than 3grams (as found in a fever thermometer or thermostat).
- If the amount of mercury spilled exceeds 3 grams or about the size of a green pea, a trained professional should do the cleanup.
- **Avoid spreading spilled mercury**
 - ✓ Never use a vacuum cleaner, mop or broom to clean up a mercury spill.
 - ✓ Avoid walking through the spill area.
 - ✓ Take children and pets to another room.
 - ✓ Leave any clothing or footwear that came in contact with the spilled mercury. If possible, close the doors of the room with the spilled mercury to keep vapors from spreading.

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Mercury Spill Kit

List of items

1. Latex or vinyl gloves
2. Flash light
3. Zipper-type plastic bags (several)
4. Plastic trash bags (at least two)
5. Wide tape (masking, duct or clear)
6. Paper towels
7. Eye dropper
8. Two index cards or pieces of stiff cardboard
9. Sulfur powder (see below for details)
10. Water to moisten paper towels

Step-by-step guide to clean up a small mercury spill:

1. Prior to cleanup, remove metal items like jewelry and watches. Put on old clothes, old shoes and latex or vinyl gloves. Put a clean change of clothes and shoes along with a clean trash bag in a safe place outside the contaminated area. You will change out of your old clothes and shoes and put them in the trash bag at the end of the cleanup.
2. Identify items in the spill area that can be cleaned and those that cannot. Nonporous surfaces (finished wood, plastic or concrete) can be cleaned following this guidance. Porous surfaces or fabric-covered items (upholstery, carpeting, stuffed animals, pillows, backpacks, unfinished wood, and cork, cardboard) are difficult to clean because mercury beads may be trapped in these materials. Collect the items that you cannot clean and place them in plastic trash bags or cover or wrap them in a double layer of plastic and carefully seal with tape. Place the wrapped items in a secure place, preferably outdoors and out of the reach of children and pets.
3. Wear gloves to carefully pick up the larger pieces of broken glass and what remains of the broken device and place them on a paper towel. Gently fold the paper towel around these pieces so you can pick the bundle up and place it in a zipper-type plastic bag. Use index cards or stiff cardboard to push smaller pieces of glass and mercury beads together into a pile. Shine a flashlight at an angle to locate beads of mercury. The


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- beads will reflect light from the flashlight. Check for mercury in cracks or in hard-to-reach areas where beads may be hidden or trapped. Check a wide area beyond the spill.
4. Use the eyedropper to collect mercury beads and place them in the plastic bag. Hold the eye dropper at an angle to draw the mercury into the tip. Keep the eyedropper at an angle to stop the mercury from rolling back out until you can put the mercury into the plastic bag. Wrap tape (stickyside out) around your gloved fingers and carefully use it to pick up any remaining glass or beads. Check again with the flashlight to be sure that no beads of mercury remain.
 5. Mercury beads may still be trapped in cracks or crevices on irregular surfaces. Sprinkle sulfur powder over the contaminated area and rub it gently all over the surface and into the cracks with a paper towel. Sulfur powder binds with mercury. Use a paper towel dampened with water followed by wiping with another damp paper towel to clean up the sulfur and mercury. Place the used paper towels in a zipper-type plastic bag.
 6. Put all the items that were used to pick up the mercury, including index cards or cardboard, eyedropper, contaminated tape, paper towels, and zipper-type bags into the trash bag. Carefully remove rubber gloves by grabbing them at the wrist and pulling them inside out as they come off. Place the used gloves in the trash bag.
 7. Carefully seal the trash bag that contains the mercury contaminated waste and put it in a secure place, preferable outdoors and out of reach of children and pets until it can be disposed of safely.
 8. Open a window and use a fan to ventilate the area to the outdoors for 24-48 hours before resuming normal use. If possible, heat the area (for example, with a space heater) while still ventilating to the outdoors. Avoid blowing the exhaust back indoors or into other nearby residences.
 9. Clothes or shoes that did not come in direct contact with liquid mercury should be removed and put into the trash bag that was left outside the contaminated area at the beginning of the cleanup. Close the trash bag and take it outdoors. Carefully remove the shoes and or clothing from the trash bag and air them out thoroughly outdoors for 24 to 48 hours. After the outdoor airing, items that are washable can then be laundered.
 10. Dispose of contaminated items properly! Mercury-contaminated items should not be placed in the regular household trash. Consult with a trained professional about how to decontaminate or dispose of these items safely.

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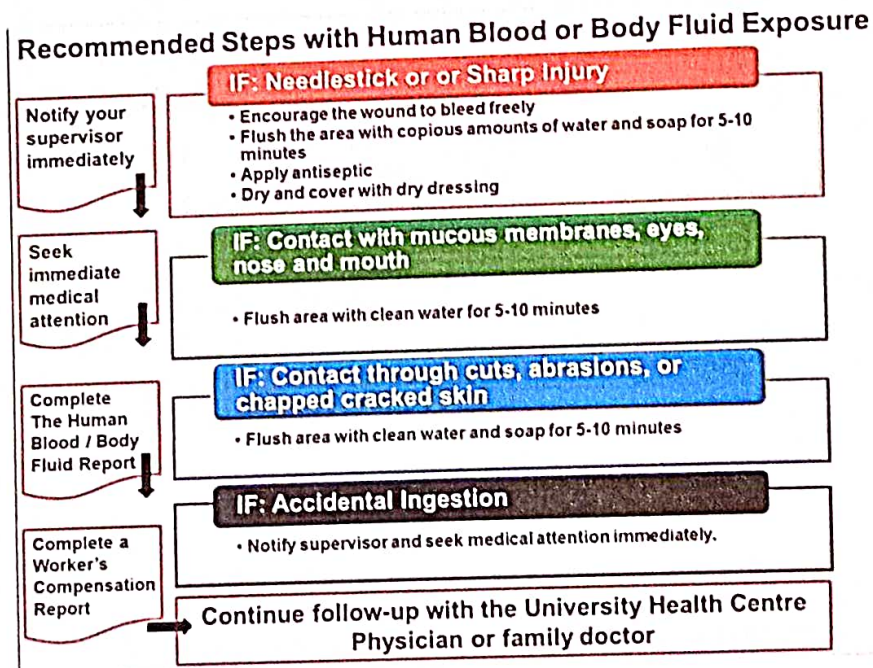
In case of large mercury spill:

If the amount of mercury spilled exceeds 3 grams or about the size of a green pea, a trained professional should do the cleanup.

Things to do before the arrival of trained professional:

1. Stay out of the room until you begin the cleanup. Cover the spill and surrounding area with plastic using one or more trash bags, overlapping side by side, to cover the beads.
2. Lower the room temperature, to reduce evaporation of mercury.
3. Shut down or close off vents to avoid spread of mercury vapors to other areas.
4. Open exterior windows and switch on the exhaust fans but avoid breezes that might blow the mercury vapor back indoors or into other nearby residences.

9. Blood and Body Fluid Exposure Protocol



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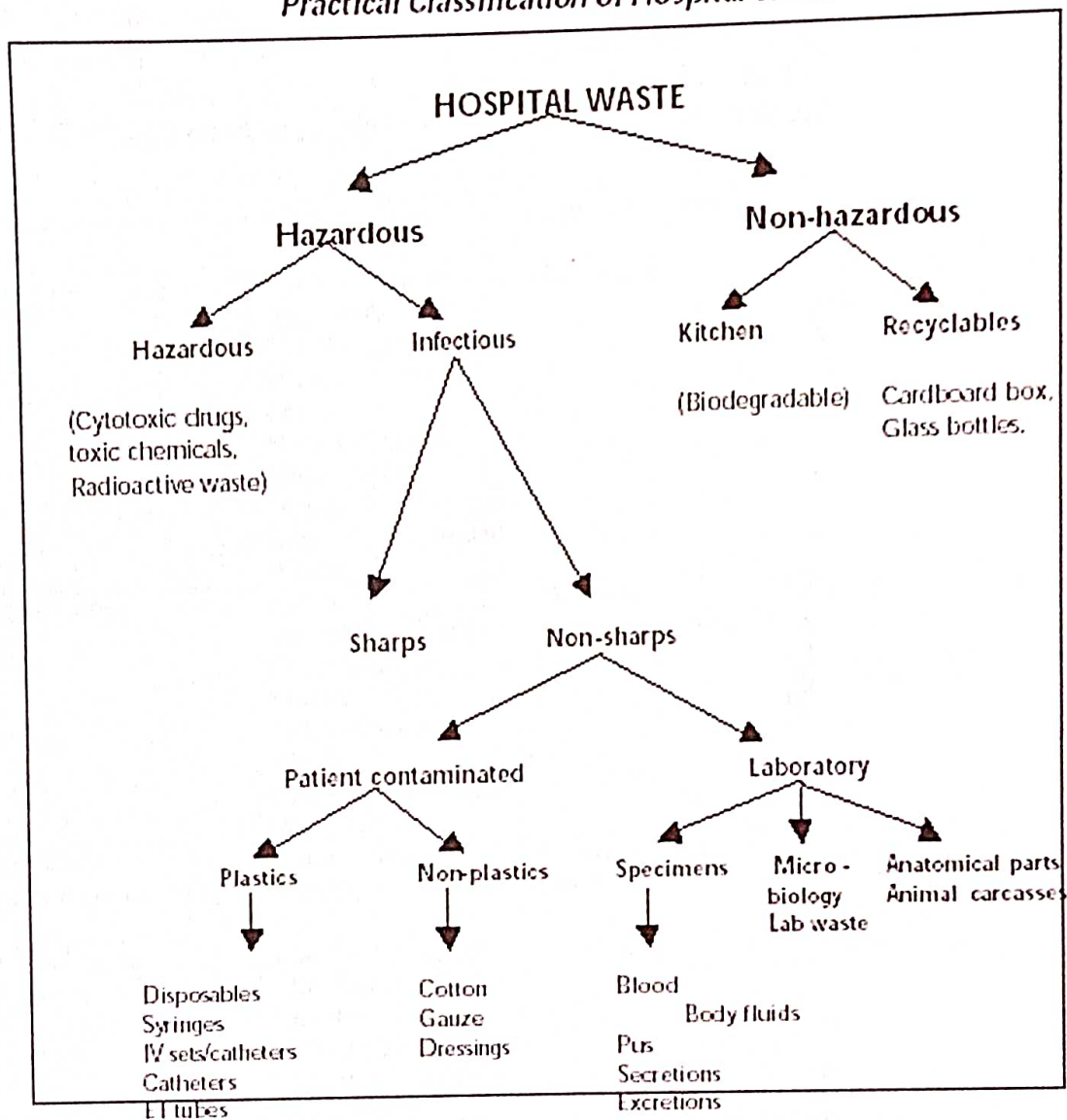
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10. BIOMEDICAL WASTE SEGREGATION AND MANAGEMENT

Practical Classification of Hospital Waste



Somanath Alkar

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Collection of wastes:

- ❖ should be done in color coded bags /containers.
- ❖ should be located at all point of generation of wastes.
- ❖ should be emptied as & when they fill up to $\frac{3}{4}$ th of it.
- ❖ Garbage bin should be cleaned with disinfectant regularly.

| Co or Cod ng | Waste Category | Type of Conta ner | Treatment Options |
|--------------------|---|-------------------------------------|--|
| Yellow | Cat. 1 – Human Anatomical Waste. Cat. 2 - Animal Waste. Cat. 3 – Microbiology and Biotechnology Waste. Cat. 6 - Soiled Waste | Plastic bag | Incineration / deep burial |
| Red / Blue | Cat. 3 – Microbiology and Biotechnology Waste. Cat. 6 – Soiled Waste Cat. 7 – Solid Waste (Plastic) | Disinfected container/ plastic bag. | Autoclaving/Micro waving/Chemical Treatment and recycled |
| White/ Translucent | Cat. 4 – Waste Sharps | Puncture proof container. | Chemical Treatment and destruction |
| Black | Cat. 5 – Discarded Medicines Cat. 9 – Incineration Ash Cat. 10 – Chemical Waste | Plastic bag | Secured landfill |

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SCHEDULE-III

LABEL FOR BIO-MEDICAL WASTE CONTAINERS/BAGS

BIOHAZARD SYMBOL



CYTOTOXIC HAZARD SYMBOL



HANDLE WITH CARE

Note: Label Shall be non-washable & prominently visible.

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| Infectious items for incineration (yellow) | Infected plastic items (red) | Non-infectious materials (black) | sharps (white/translucent) |
|--|--|--|--|
| Blood ,body fluid, soiled items , human anatomical waste | Syringes , microbiological cultures, human & animal cell cultures, gloves. | Paper , wrappers , empty vials, left over food, card board waste, plaster of paris | Needles, blades, scalpels, broken glass wares. |
|  |  | |  |
| Incineration | Autoclave/ recycling | Secured land fill | Chemical disinfection/ deep burial |

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Concern on biomedical waste management:

- PROTECT OURSELF
- PROTECT OUR COMMUNITY FROM THE RISK OF INFECTIONS
- ENVIRONMENTAL CONCERN
- AND MOST IMPORTANTLY TO COMPLY WITH LAW

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