



Community Dentistry Third class



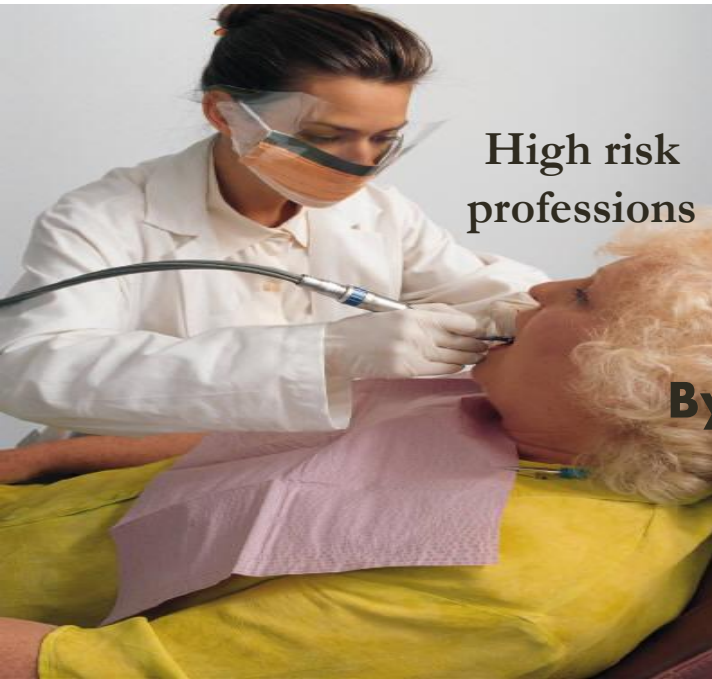
Infection Control in Dental Practice

Part 3

lecture

2023---2024

By Assist. Prof. Adil Ghalib Fadhil
College of Dentistry
University of Basrah



High risk
professions

SCOPE OF INFECTION CONTROL

Aiming at preventing spread of infection:

Standard precautions: these measures must be applied during every patient care, during exposure to any potentially infected material or body fluids as blood and others.

Components:


- A. Hand washing.
- B. Barrier precautions.
- C. Sharp disposal.
- D. Handling of contaminated material.





A. HAND WASHING



- ☐ Hand washing is the single most effective precaution for prevention of infection transmission between patients and staff.
- ☐ Hand washing with plain soap is mechanical removal of soil and transient bacteria (for 10- 15 sec.)
- ☐ Hand antisepsis is removal & destroy of transient flora using anti-microbial soap or alcohol based hand rub (for 60 sec.)

 ***Surgical hand scrub:*** removal or destruction of transient flora and reduction of resident flora using anti-microbial soap or alcohol based detergent with effective rubbing (for least 2-3 min)

 ***Our hands and fingers*** are our best friends but still could be our enemies if they carry infective organisms and transmit them to our bodies and to those whom we care for.

 ***Sinks & soap*** must be found in every patient care room. Doctors, nurses must comply to hand washing policy.

When to Wash our Hands

1. Before & after an aseptic technique or invasive procedure.
2. Before & after contact with a patient or caring of a wound or IV line.
3. After contact with body fluids & excreta removal.
4. After handling of contaminated equipment or laundry.

5. Before the administration of medicines
6. After cleaning of spillage.
7. At the beginning and end of duty.
8. Gloves cannot substitute hand washing which must be done before putting on gloves and after their removal.

How to Wash our Hands

- ↓ Jewelry must be removed. If unable to remove rings, wash and dry thoroughly around them.
- ↓ Wet your hands with running warm water, dispense about 5 ml of liquid soap or disinfectant into the palm of the hand.
- ↓ Rub hands together vigorously to lather all surfaces and wrist paying particular attention to thumbs, finger tips and webs.

- ↓ Rinse hands thoroughly.
- ↓ Turn off water using elbow-on elbow taps, dry hands thoroughly on a paper towel OR where elbow taps are not present, first dry hands, thoroughly, then turns off the taps using fresh paper towel.
- ↓ Hand cream can be used on personal basis.
- ↓ If a staff member develops a skin problem, he or she must consult dermatologist.



B. BARRIER PRECAUTIONS

1. Gloves:

Disposable gloves must be worn when:

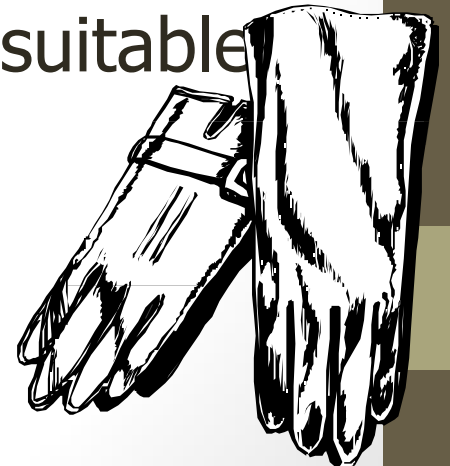
- a) Direct contact with B/BF is expected.
- b) Examining a lacerated or non-intact skin
e.g wound dressing.
- c) Examination of oropharynx, GIT, UIT
and dental procedures.

d) Working directly with contaminated instruments or equipment.

e) HCW has skin cuts, lesions and dermatitis

✦ *Sterile gloves are used for invasive procedures.*

✦ **GLOVES MUST BE** of good quality, suitable size and material. Never reused.



2) Masks & Protective eye wear:

- MUST BE USED WHEN: engaged in procedures likely to generate droplets of B/BF or bone chips.
- During surgical operations to protect wound from staff breathings, ...
- Masks must be of good quality, properly fixed on mouth and nasal openings.

3) Gowns/ Aprons:

Are required when:

- Spraying or spattering of blood or body fluids is anticipated e.g surgical procedures.
- Gowns must not permit blood or body fluids to pass through.
- Sterile linen or disposable ones are used for sterile procedures.

C.SHARP PRECAUTIONS

- ✦ Needle stick and sharp injuries carry the risk of blood born infection e.g AIDS, HCV,HBV and others.
- ✦ Sharp injuries must be reported and notified
- ✦ NEVER TO RECAP NEEDLES
- ✦ Dispose of used needles and small sharps immediately in puncture resistant boxes (sharp boxes).
- ✦ Sharp boxes: must be easily accessible, must not be overfilled, labeled or color coded.
- ✦ Needle incinerators can be another safe way of disposal.
- ✦ Reusable sharps must be handled with care avoiding direct handling during processing.



D. HANDLING OF CONTAMINATED MATERIAL

1. Cleaning of B/BF spills:

a- wear gloves.

b- wipe-up the spill with paper or towel.

c- apply disinfectant.

2. Cleaning & decontamination of equipment:

protective barriers must be worn.

3. Handling & processing lab specimens:

must be in strong plastic bags with biohazard label

4. Handling and processing linen:

Soiled linen must be handled with barrier precautions, sent to laundry in coded bags.

5. Handling and processing infectious waste:

a. must be placed in color coded, leakage proof bags, collected with barrier precautions

b. contaminated waste incinerated or better autoclaved prior to disposal in a landfill.

Environmental control:

1. Including physical facility plans must meet quality and infection control measures. Patient equipment positioning and installation, traffic flow.
2. Cleaning of hospital environment and disinfection according to policies.
3. Proper air ventilation.
4. Water pipes examination, check its quality.
5. Proper waste collection and disposal.
6. Cleaning and disinfection of equipment.
7. Proper linen collection, cleaning, distribution

8. Food : ensure quality and safety.

9. Sterilization:

Central sterilization department serving all hospital departments compiling with infection control precautions.

Patient protection :

- * corrective measures before major procedure, vaccination, proper use of antibiotics.
- * Isolation precautions.
- * Limiting endogenous risk



Staff health promotion and education:

1. HCW are at risk of acquiring infection, they can also transmit infection to patients and other employee.
2. Employee health history must be reviewed, immunizations recommendations to be considered.
3. Release from work if sick, occupation injury must be notified.
4. Continuous education to improve practice, better performance of new techniques.

Handling the hazardous waste

- The sharp and pointed tools have to be collected separately in a solid-walled box
- Contaminated materials with blood or secretions have to be collected in a plastic (yellow) sack
- Without refrigeration the hazardous waste is allowed to keep only for 48 hours

Health care waste management



Sharp waste management

Sharps Handling Recommendations

Do not recap needles

Never pass used sharps from one person to another

Locate needle destroyer and container near the point of generation to have good visibility

Sharps should be disposed of in puncture-resistant sharps containers



- Why we can not depend on medical history of the patients to rule out the their infectious status

- What are differences between antiseptic and disinfectant

Enjoy
Good Health

THANK YOU

