

DH2 IPAC Orientation 2024-25

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Objectives

- Provide guidance on how to set up and tear down a dental operator for Dental Hygiene procedures with focus on preventing and controlling infections
- Guidance on safety elements set up at the Dr. Gerald Niznick College of Dentistry related to reporting incidents, fire safety, etc.

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All resources needed on UMlearn

- Self-registered for Course titled, “College of Dentistry Clinics”
- Updated IPAC manuals (for College, MDR, MDA), undergraduate Clinic manual, Fire safety manual, updated AHA guidelines
- Clinical Treatment Guidelines (most current version is Mar 5/24)
- Approved faceshield designs (PPE standardized)
- Videos for: Donn/Doff PPE, Pre and Post-op IPAC procedures to set up unit
- ****You are responsible for all IPC content on Umlearn*****

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Objectives

- Provide background to IPAC process specific to the University of Manitoba with respect to regulatory compliance with:
 - Manitoba Dental Association IPAC manual Jan 2, 2023
 - College of Dental Hygienists of Manitoba (same as above)
 - Manitoba Health, Seniors and Active Living Manitoba Guidelines for Routine Practices and Additional Precautions: Preventing the Transmission of Infection in Health Care 2019
<https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/rpap.pdf>
 - CSA Z314: 2023 Cdn Standards for Steam Sterilization
 - Workplace Health & Safety U of M guidelines
 - Published online on Umlearn: IPAC manual 2024-25 for Dr. Gerald Niznick College of Dentistry and our MDR Manual 2024 for Dr. Gerald Niznick College of Dentistry, Clinical treatment guidelines March 5 2024

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Other Resources

- ▶ CDC
- ▶ Health Canada for evaluation of disinfectants/sterilants DIN # & licensure
- ▶ PHAC: immunization and bloodborne pathogen guidelines for healthcare professionals
- ▶ OSAP Organization for safety asepsis & prevention
- ▶ IPAC Canada
- ▶ Relevant current research findings

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IPAC Education Available

- OSAP-DANB Dental Infection and Control certification program (US only)
- IPAC Canada-Essentials in IPC online course (prep for CIC)
- CBIC-certification in infection control (only accredited certification in IPAC) (US only) certified infection control, CIC
 - Exam that is re-written every 5 yrs
 - Hospital-based (medicine not Dentistry specific)
 - Now have a long term care and associate-CIC option
- Purdue University US, -Central Service Technician course
 - Didactic and 400 hours required of experience to be certified
- Red River College-Medical Device Reprocessing Technician
 - 4 mos Full Time (also PT), 240 hrs experience

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Why do we care about Infection prevention?

- Current outbreaks in WRHA facilities listed at this website:
 - <https://wrha.mb.ca/infection-prevention-control/outbreaks/>
 - Yes Covid is still a thing, 7 personal care homes reporting infections May 23, 2024 and 4 others reporting respiratory infections, and 1 reporting gastroenteritis (Norovirus a concern)

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No food or drink allowed in clinic or MDR;



no use cell phones in clinic-
go to hallway outside clinic



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Incident reporting form

Appendix 4 pg 87-88 IPAC Manual



- Near miss-no injury
- Incident-injury but no body fluid e.g. scratch from sterilized instrument, knife
- Critical incident-injury result of treatment (wrong tooth)
- Significant exposure-injury involving transfer of one drop of body fluid blood borne pathogen (splash to eye, needlestick, instrument poke; use contaminated instrument on another pt) see Kaitlin Bruce who writes up reports

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SIGNIFICANT EXPOSURE in IPAC manual pgs 29-33

- An occupational injury in which there is transmission of BLOOD from a source person to the exposed person. Require approximately a drop of blood to be transmitted for it to be a significant exposure.
 - Could also be saliva contamination on a mouth mirror from one patient used on another patient, requiring both patients to go for bloodtesting since Hepatitis B can be transmitted through contaminated saliva
- Person who receives the injury is called “Exposed”, person whose blood is transferred is “Source” (this could be the operator or the pt or both)
- Ogunremi, Defalco¹, Johnston, Vearncombe, Joffe, Cleghorn, Cividino, Wong, Mazzulli, Wong, Isinge, Robert, Boucoiran, Dunn, Henry (2019). Preventing transmission of bloodborne viruses from infected healthcare workers to patients: Summary of a new Canadian Guideline. CCDC • December 5, 2019 • Volume 45–12 Page 317-322.
- Guideline on the Prevention of Transmission of Bloodborne Viruses from Infected Healthcare Workers in Healthcare Settings, PHAC (2019).

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Protocol for Significant Exposures

- 1) Stop treatment
- 2) Inform the patient that you are injured
- 3) Remove gloves, wash hands, place injured area under running water (**don't milk it** or use alcohol, hydrogen peroxide or other disinfectant)
- 4) Flush with water if involves eyes, mouth, nose (presume you know location of eyewash station)
- 5) Determine that injury is truly a Significant Exposure
- 6) Inform clinical and support staff
- 7) Assess area for first aid (apply dressing)
- 8) Arrange to have someone else complete pt's tx if needed
- 9) Staff ask patient to have blood tested and risk assessment
- 10) Call Occupational and Environmental Safety and Health office (OESH) (provide personal contact info in case for bloodtesting results to determine if still need to continue to take PEP) 204-787-3312
- 11) Also contact Occupational health to start paperwork should you need funding for further PEP past the 3 days covered by WCB
Ohreport@umanitoba.ca
- 12) Document incident in daily treatment record of chart
- 13) Ensure that Incident Report is completed and filed (Kaitlin Bruce)

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POST-EXPOSURE PROTOCOL

If patient is known HIV+ with high viral load, Post-Exposure Protocol is required within 2-4 hours for greatest efficacy of PEP should you need it

Go to HSC and tell them in Emergency that you had a significant exposure so that they will triage you appropriately (they may send you to OESH)

Same protocol wherever you are in Wpg or if on student rotation e.g. if Home Dental Van go to nearest emerg to your location (personal care home or residence, community clinic if Access, HSC if Deer Lodge, Grace Hospital) except notify Marta Bhopalsingh if CCOH

If suspect Hep B then given immune globulin within 48 hrs unless baseline serology was high enough antibodies anti-HBs titre ≥ 10 IU/L (importance of vaccination), can reduce viral load with tx

HIV+ given choice to start PEP until results of bloodtesting of source and exposed comes back will be contacted to continue with PEP after the 3 days given (free); fee incurred for meds taken after 3 days but you are covered as students by WCB

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Sexually Transmitted Infections

- Did you know Manitoba has the highest rate even globally for cases of Syphilis? syphilismb.com/health-care-providers
 - Only province with higher rate is Nunavut
 - Since 2020 increase 773% Syphilis among women 20-29 yr olds
 - If have one STI test for others
 - Notion of Syndemic: 2/3 HIV pts have Syphilis and 2-9 fold increase HIV transmission if have Syphilis
 - Linked to social determinants of health
 - Lack housing, IVDU crystal meth addiction, issues with not attending follow up appts for treatment

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Fire Safety



- Staff have been trained as Fire Wardens have been appointed for each area in the College of Dentistry
- Please follow their guidance with respect to clearing the facility quickly-
 - pt is to leave clinic **without rubber dam on**
 - If pt or you in wheelchair or crutches go to Pathology bldg. on same floor
- Never use elevators or middle stairwell
 - Only exceptions are O/S and Grad Perio “refuge status” in midst of treatment (not excuse to do computer work) please note that only the inner 6 operatories Grad Perio are
 - protected and to keep doors unlocked

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Future IPC training to include: (not covered today)

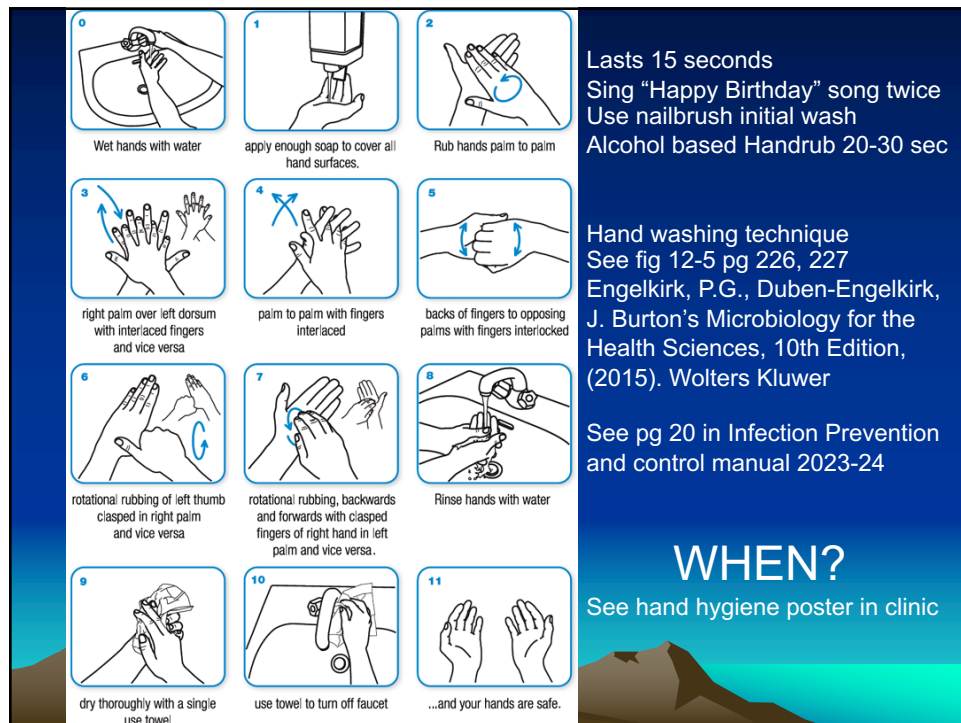
- Management and cleaning, decontamination and packaging of instruments & handpieces
- Lubrication of handpieces prior to submitting for sterilization
- Donn/doff PPE training when start to use the ultrasonics, air polishers, piezo electrics
- Disinfecting alginate impressions & dentures/partials, biohazards

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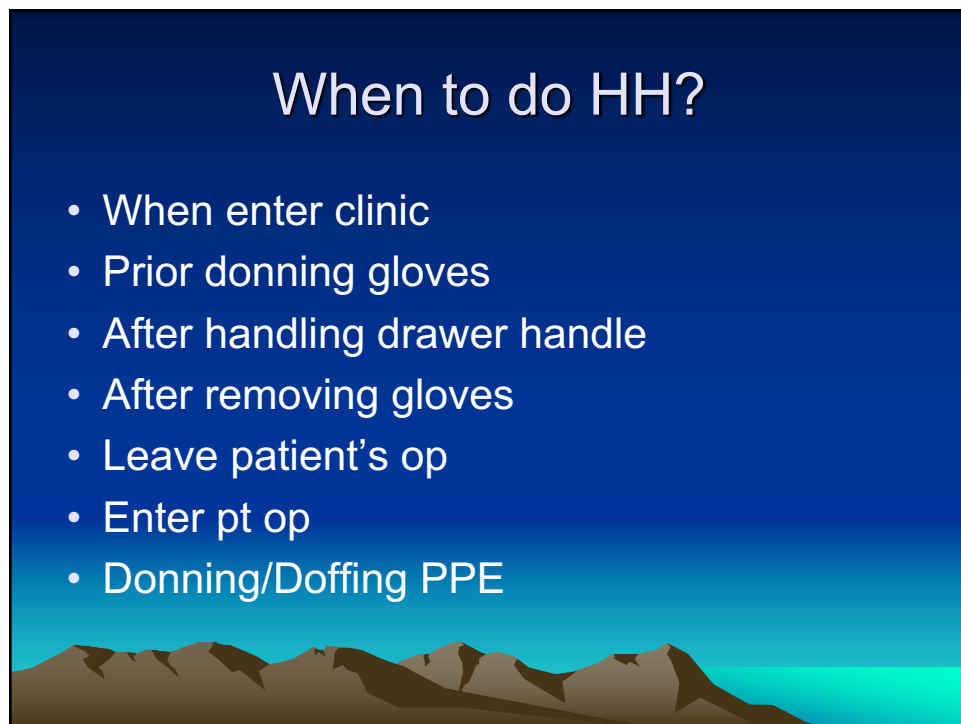
Hand Hygiene

- Includes washing your hands with soap and water before setting up for clinic session
- Use of Alcohol-based hand rub
- Artificial nails, gel nails, and chipped nail polish will harbor infection,
 - only clear unchipped nail polish allowed
 - Short nails can't see beyond nub

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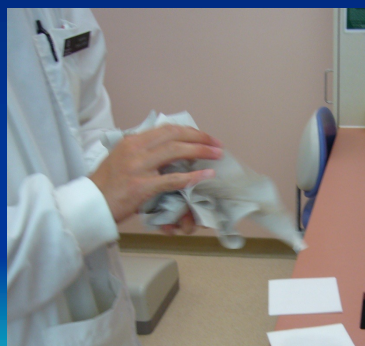


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1. Wash hands



Wet hands
Use cool water (less issues with skin integrity)
and liquid soap (bar soap harbors germs)



Pat Dry well

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2. Place PPE

- **Protective eyewear** (safety glasses or faceshield if Rx glasses)
- **Use Alcohol based hand rub (ABHR)** – need to wash again because you've touched surfaces including your face and hair and you need to have clean hands when entering the glove box
- **Pre-dispense the liquid soap under the unit sink onto paper towel to clean the blue leather parts on the chairs.**
- **Use ABHR**
- **Donn Gloves**

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3. Clean suction lines

- One ounce of Sanitreet (suction line disinfectant) is in the plastic container on your mobile
- Add 4 cups of Warm/Hot water to fill the container to dilute the Sanitreet
- Suction using both saliva ejector and High volume evacuation all the liquid
- Wear gloves and disinfect the inside of the empty plastic container with Optim wipes
- Place on top of the oak ledge separating units for the D assts to collect
- Usually this is first thing in morning, but if at bgn of afternoon session you see the plastic container has product in it, do it then-discard gloves perform hand hygiene



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4. Fill water bottle with Reverse Osmosis water only

Remove bottle from unit without touching:

- any portion that will contaminate the lines with your hands
- including top, threads of bottle
- the blue iodine water purification cartridge.

Remove water if any in the bottle.

Take paper towel with you to Reverse Osmosis water station

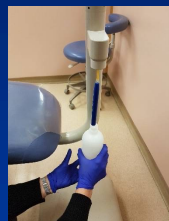
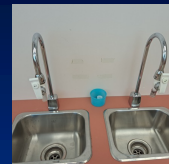
Run R/O water for 5-10 seconds, then rinse out bottle, put lid on bottle, agitate and discard water, don't discard the waterbottle lid

Fill bottle careful not to touch the tap with the edge of the bottle

Dry off any water on outside (careful not to contaminate)

Replace on unit without touching mouth water bottle or cartridge.

Flush lines 2 minutes (til empty bottle) 2 highsps and 2 air/water's



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Here is what flushing lines it looks like:

dominant hand on air/water syringes and
non-dominant hand pushes purge button on unit (or rheostat)



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What is rationale for pre-op disinfection?

1. Do not know how well it was decontaminated during last post-op.
2. Do not know what happened between then and now.

Scenario-DH student noticed blood smear on operator's chair cleaning prior to afternoon clinic session, but morning clinic Dent 4 student reports didn't do a procedure that drew blood, from day before?



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5. Clean operatory chair, stool & operator chair

To preserve leather,
only dispense pea-
sized drop of dish
soap on wetted
paper towel

Wipe 'blue' leather
areas of chair and
stools

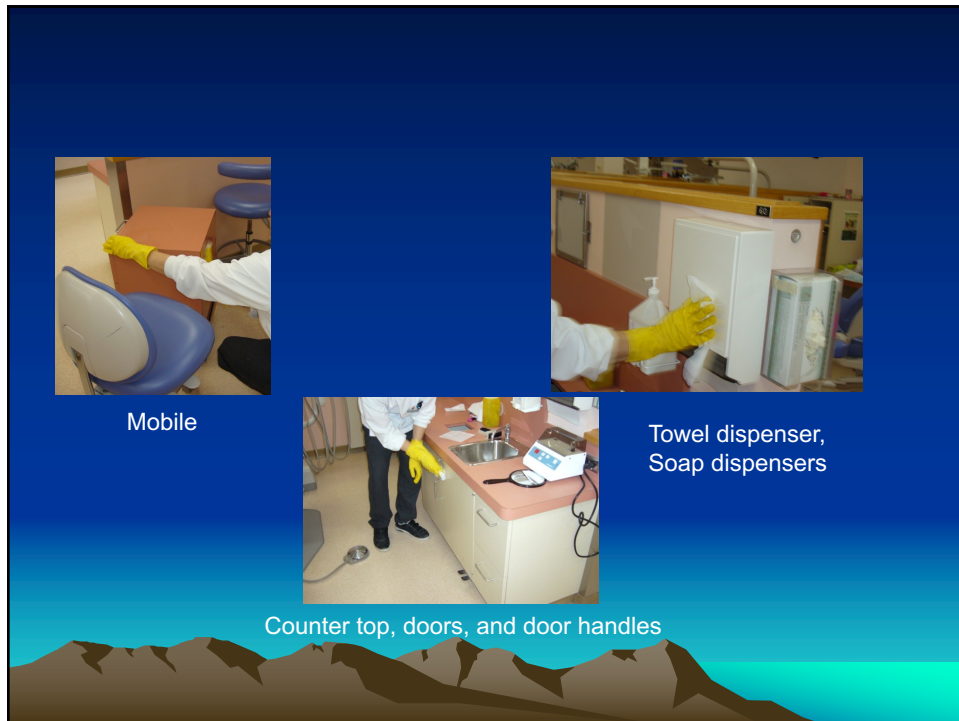


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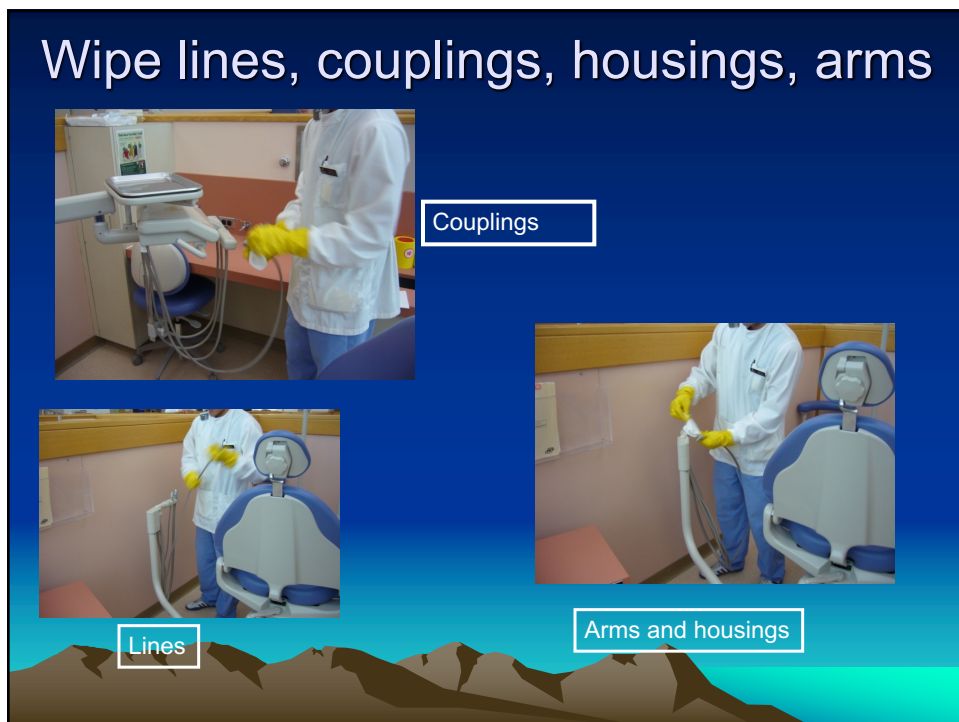
Surface disinfection

- Wipe all operatory surfaces with disinfectant wipes
- Will need at least 2 or 3 wipes for the operatory.
- Do not pre-dispense the Optim wipes as they will dry out
- Then wipe all surfaces, again (double wipe). The first wipe is called the sanitization (removal of bioburden) and the second is the disinfection.
- Wipe chair handles
- Mobile – all five sides and drawer handles
- Countertop, top of closet, cupboard doors
- Towel dispenser, soap dispenser
- Computer keyboard– ensure it is powered off and then wipe with disinfectant

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Rheostat is stored beside the chair so that it does not get crushed as the chair comes down – clean it too:



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Remove mask, protective eyewear, gloves, and wash hands

- Discipline yourself to equate glove removal with hand washing



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6. Place Equipment barriers

- Headrest, light handles – Plastic wrap (kept in bottom right drawer of mobile)
- Keyboard —Plastic wrap
- Mouse-Barrier for computer mouse only blue sticky wrap at South dispensary
- Supermobile has the “paper”
- Countertop, mobile– Bench paper
- Bracket table – bracket table paper
- Operator and Asst chair-handles to adjust height

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Plastic



Dispense plastic wrap



Place on headrest



Place on light handles

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Dispense and place:

- From personal locker:
 - patient safety glasses
- From drawer to right of unit:
 - 1 bib and disposable “bib chain”
- From Supermobile dispense using cotton pliers:
 - 5 pieces bench paper, 1 piece bracket paper, air/water syringe, high volume suction, saliva ejector,

From mobile in unit using cotton pliers: gauze, floss

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Place bench paper – 3 on counter, 2 on mobile, 1 bracket table paper



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SET UP COMPLETED

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Tear down of operatory after
treatment completed

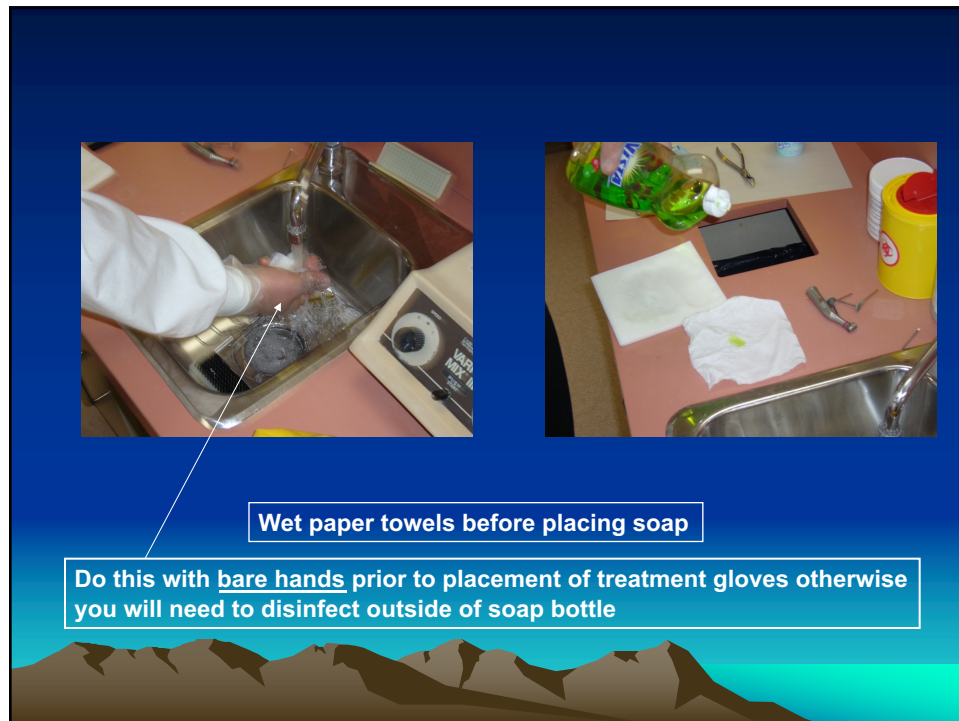
Remember, now everything is
contaminated with Saliva, Blood
etc.

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Dispense supplies with bare hands

- ✓ For chair and stools – place dime-sized drop of mild dish soap (under sink) onto wetted paper towels, rub slightly to lather (please note this process is as per manufacturer's instructions for maintenance for the chair)
- ✓ For the rest of the unit – Open Disinfectant wipes – **do not dispense with bare hands or disinfect your unit with bare hands**

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Lift the lid so that wipes are readily accessed - # of wipes (be generous) that will be used depends on condition of unit
then close lid so wipes don't dessicate (dry out)



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Overview for Operatory Disinfection

- Place PPE (includes hand hygiene)
- Flush waterlines for 20-30 seconds
- Flush suction for 20 seconds, wash/wipe sink
- Change gloves
- Remove barriers
- Clean chairs and stools
- Disinfect dental material packaging
- Sanitize unit
- Disinfect unit

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Flush both handpiece, both air/waterlines
and, ultrasonic scaler water lines if used and
while cavitron/piezo electric still connected;
air polisher follow MIFU's



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Retrieve the suction
cleaning brush from
the same location as
the brush to clean
your handpiece
across from South
dispensary window



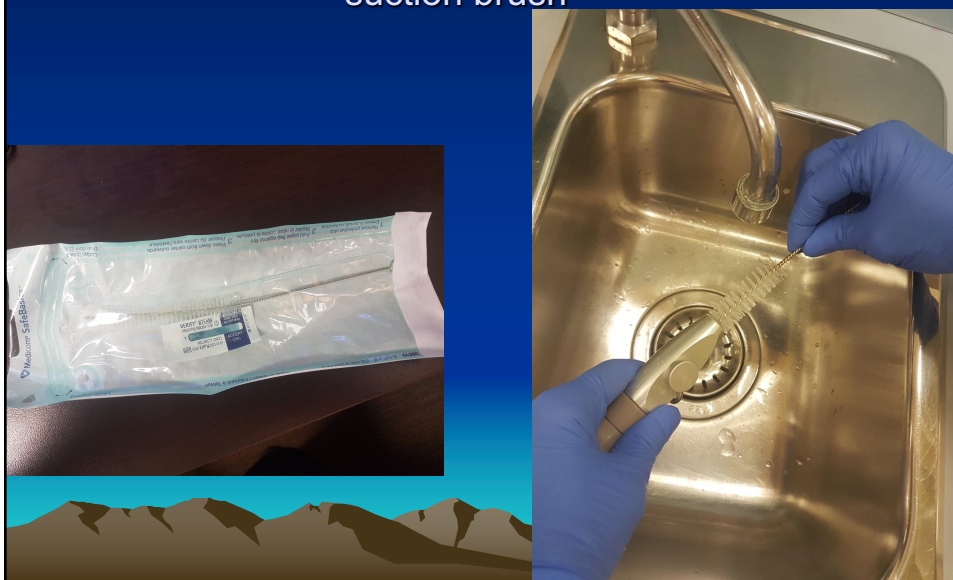
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Clean suction lines: both saliva and high volume evacuation (HVE), by removing drain from sink, place saliva ejector and HVE at bottom of sink, run Hot water through them



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Clean HVE inner housing with soft bristle suction brush



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And suction trap



Leave both suctions (HVE and saliva ejector) running when removing trap



Wash trap under running water with brush, place trap matching grooves – do not force. Ensure no hissing after replacing (demonstrates all is correct)

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Remove all barriers



Paper



Plastic wrap



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Sanitize/Disinfect unit

Chair and stools

- Soap and water on paper towels, start at head rest, don't forget under arm rests, leave head rest up
- Rinse with clean wet paper towels until all soap residue removed
- Check behind chair sometimes alginate powder hiding

Remainder of surfaces in operatory

Sanitize -scrub to remove debris

Disinfect - wipe to deposit disinfectant

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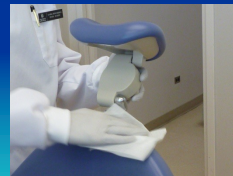
Chairs and stools



Raise chair to clean



Lift headrest to accommodate cleaning and leave it there to clean



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Wipe “leather” portions of chair and stools with soap and water, rinse off soap, wipe again



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Decontaminating supplies



1. Place supplies on one side of mobile, wipe other side of mobile



2. Wipe supplies



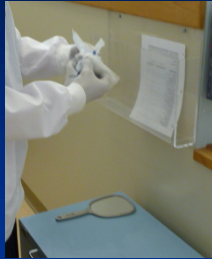
3. Place supplies on the sanitized side

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And then do the same process over to disinfect



1. Disinfect half of mobile



2. Wipe supplies and transfer to disinfected side



3. Disinfect remaining half of mobile

4. Supplies will be returned to Dispensary and mobile when operatory disinfection has been completed, gloves removed, and perform hand hygiene

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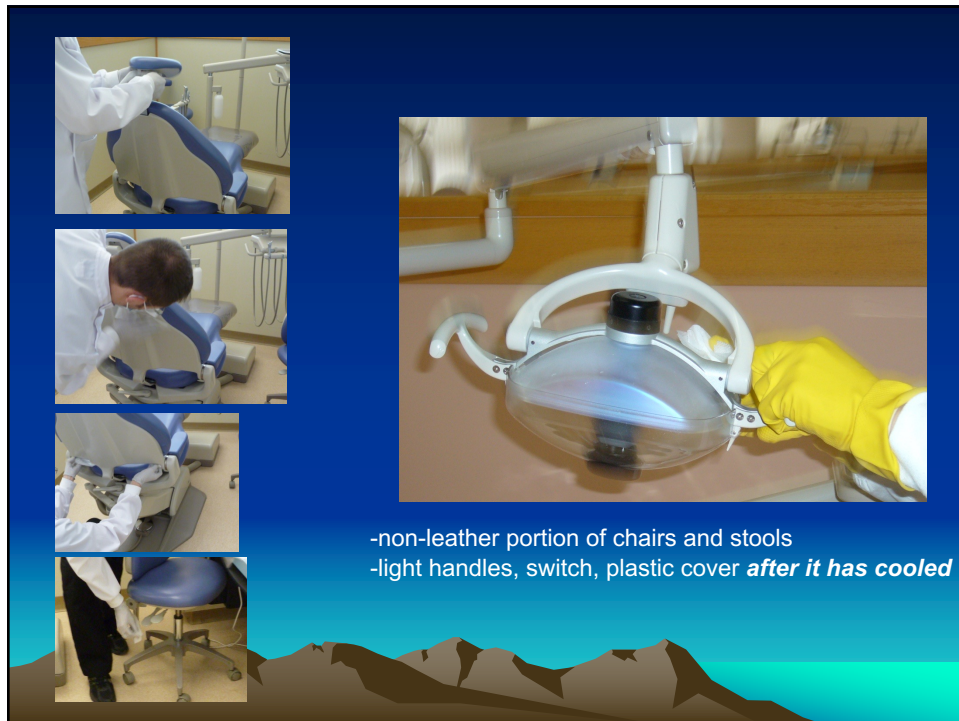
DISINFECT REMAINING OPERATORY SURFACES



- bracket table
- handpiece couplings
- air/water syringe
- bracket table
- controls
- arms
- lines



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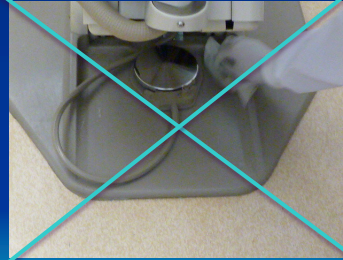
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Rheostat

- Finally, clean rheostat and place to side of chair, not underneath



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Step back and inspect unit

- Ensure that chair is lifted, light is over headrest
- Raise bracket table so that fiberoptic lines do not touch the chair
- Turn off power
- Operator stool under the counter, assistant stool in corner
- Mobile left behind chair
- Rheostat to the side of the chair
- Check that no barriers remain, no sharps on floor (very important-puts staff at risk)

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