Linda McLarty
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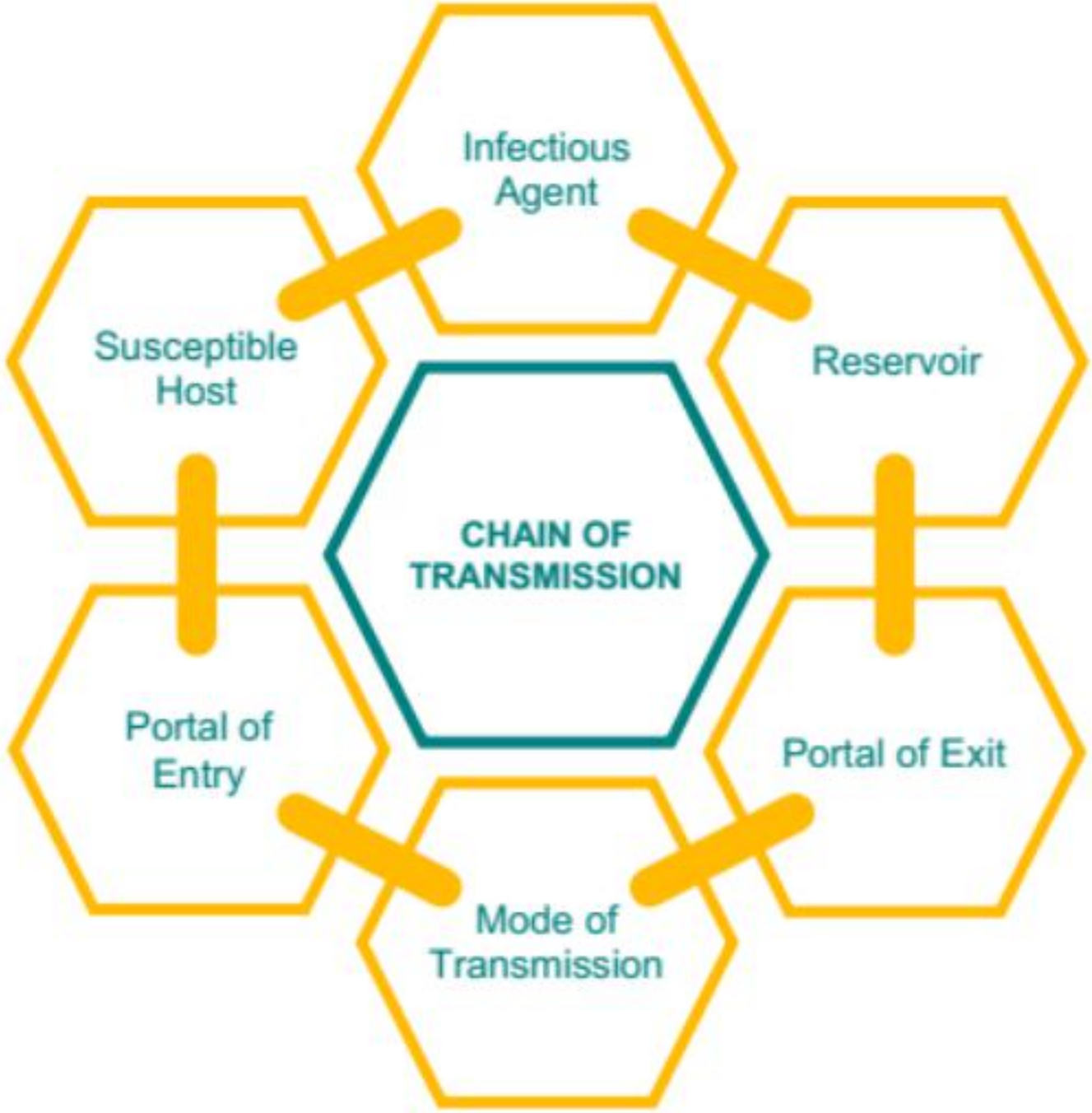
- April 2015 – Infection Prevention & Control for Clinical Office Practice – PIDAC
- June 2017 – Public Health Units inspect and, in some cases, close practices – much uncertainty, capitalizing, rumours, WRONG information – who did/do you believe????
- November 2017 – PHO Checklists – have you done initial audit & prioritized based on risk assessment???
- March 2018 – CSA Standards
- November 2018 – RCDSO Standards (very different than draft)
- December 2018 – CDHO Guidelines – practice specific written policies & procedures – reviewed at least annually, updated as necessary – Pages 6-7
- January 2019 – Kingston office closed
- what's next.....


Infectious Agent
Susceptible Host
Reservoir
CHAIN OF TRANSMISSION
Portal of Entry
Portal of Exit
Mode of Transmission

CDHO

The Standards of Practice of the Royal College of Dental Surgeons of Ontario (RCDSO) describe the minimum requirements that all dentists must meet in a particular area of clinical practice to maintain patient safety. On a regular basis, the RCDSO reviews and revises Standards to address any changes that are required. We urge all dentists to achieve excellence in every aspect of their work. They must ensure they are always up-to-date with the latest knowledge.

RCDSO PAGE 3

Contravention of this or any Standard of the RCDSO may be considered professional misconduct.

PURPOSE OF THE DOCUMENT

This document is intended to provide all oral health care workers (OHCWs) with the knowledge to properly implement necessary IPAC measures in dental practice. It consolidates legislation, published standards and recommendations from government and other agencies, regulatory bodies and professional associations, as relevant to a dental context (see Appendix 2).

This document presents "best practices", reflecting the best evidence and expert opinion available at the time of writing.

RCDSO
PAGE 4

PROFESSIONAL AND REGULATORY CONSIDERATIONS

Dentists have an obligation to maintain the standards of practice of the profession and must ensure that recommended IPAC policies and procedures are carried out in their offices.

RCDSO PAGE 4

OHCWs must maintain current knowledge of IPAC policies and procedures, and apply and maintain them appropriately and consistently. It is the dentist's responsibility to ensure that staff are adequately trained in IPAC policies and procedures, and that the necessary supplies and equipment are available, fully operational, up to date and routinely monitored for efficacy.

RCDSO PAGE 5

CDHO Page 5

This document will be used by the College of Dental Hygienists of Ontario and/or may be used by others in determining whether appropriate standards of practice and professional responsibilities have been implemented and maintained.

The CDHO recognizes that this aspect of practice is constantly evolving, therefore, this document presents best practices at the time of publication and will be amended as new information becomes available.

Dentists also have an ethical duty to maintain a safe and healthy office environment for both patients and staff, and to adhere to all rules and regulations related to the operation of a dental practice, including workplace health and safety, and environmental protection.

RCDSO PAGE 4

We are all an integral part of IPAC – everyone has responsibility.....

RCDSO PAGE 5

IPAC principles include:

- risk assessment;
- following routine practices;
- using barrier techniques to protect both patients and OHCWs;
- applying the principles of cleaning, disinfection, sterilization and storage of dental instruments;
- environmental cleaning;
- care of the overall office setting;
- safe handling and disposal of wastes.

An overall IPAC program must focus on strategies to reduce the risk of transmission. These strategies include:

a) identifying, communicating and implementing standards and guidelines by preparing specific written IPAC policies and procedures, as part of the Office Manual;
b) effective occupational health and safety programs for all OHCWs, such as written procedures for the workplace and guidance on immunization;
c) educating OHCWs, as well as patients and their families, about everyone's role in infection prevention;
d) ongoing review of policies and procedures, and evaluation of the IPAC program.

All dentists are strongly encouraged to undertake audits of the IPAC policies and procedures in their dental offices to ensure that patient safety standards are adhered to and best practices are implemented. These audits should assess all core components of IPAC, as well as the reprocessing of instruments.

While it is preferred to involve external individuals with expertise and certification in IPAC, periodic (i.e. at least annually) audits by internal OHCWs with sufficient knowledge to identify and remediate deficiencies may be reasonable.

CDHO Guidelines Page 6

requirements for education and training of all OHCWs, including a process for continual improvement, and documentation of quality improvement IPAC goals

3.1	Regular education (including orientation and continuing education) and support is provided in clinical office practices to help staff consistently implement appropriate IPAC practices.	**Leg.**
3.2	There is a process for recording and reporting of attendance at staff education and training.	**Leg.**

RCDSO - Education & Training
PAGE 13

All OHCWs must receive appropriate and ongoing training in IPAC. The Office Manual should include a process for recording and reporting the attendance of all OHCWs at staff meetings and continuing education courses and programs.

CDHO Page 25

there are regular documented internal audits to assess the competency of staff involved in IPAC procedures

RCDSO PAGE 5

In collaboration with the RCDSO, PHO has developed two checklists that may be used to audit the IPAC policies and procedures in dental offices.

- **Legislated Requirement (Leg):** Must be compliant with the relevant Act or regulation (e.g., *Occupational Health and Safety Act*).
- **High Risk (High):** Immediate health hazard exists. Stop practice and correct immediately. The act or failure to act immediately may lead to the transmission of infection or risk of illness or injury. Practices that cannot be corrected immediately must be stopped until the health hazard is observed to have been eliminated. An Order may be warranted/ issued.
- **Medium Risk (Med):** Practices must be corrected. Timelines for compliance or agreement on alternate process to be determined during inspection.
- **Inform and Educate (I/E):** Provide information on best practices and mandatory legislated practice requirements. This may also include just-in-time education.

NOTE: These categorizations represent the minimum risk level. Based on good judgement and circumstance, public health units may increase the risk category.

1	Reception/ Waiting Area	Leg. Req.	Risk	C	NC	N/A	Notes/ Resources
1.1	There is appropriate IPAC signage at the entrance of the clinic and at the reception desk.		I/E	☐	☐	☐	Refer to the section on Routine Practices, Booking, Reception and Placement.
1.2	There is a process for managing patients/clients with suspected febrile respiratory infections, rash and eye infections to prevent transmission to others.		Med	☐	☐	☐	Refer to the section on Routine Practices,Booking, Reception and Placement.
1.3	There is 70% to 90% alcohol-based hand rub (ABHR) and masks available at reception, with signage for appropriate use.		Med	☐	☐	☐	Refer to the sections on Routine Practices, Hand Hygiene Products. ABHR for hand hygiene has a minimum concentration of 60% alcohol but a concentration of 70% is preferable to be effective against Norovirus.

1.4	There are tissue boxes available.		I/E	☐	☐	☐	Refer to the sections on Booking, Reception and Placement, Respiratory Etiquette and see Appendix E for a sample sign for reception areas, Cover Your Cough. Waste recepticles should also be available for immediate disposal of tissues into waste after use. Access to ABHR for immediate hand hygiene after disposal of tissues.

1.5	Furniture, items and touch surfaces are cleaned and disinfected (e.g., chairs, toys).		I/E	☐	☐	☐	Refer to the section on Control of the Environment - Cleaning the Environment, Surfaces and Finishes.
7.3	There are procedures for cleaning each area of the clinic. If cleaning is contracted out, the cleaning contractor has procedures in place for cleaning each area of the clinic.		I/E	☐	☐	☐	Refer to the section on Control of the Environment - Cleaning the Environment, End of Day Cleaning and Scheduled Cleaning.

A prominent sign should be posted at the entrance to the reception area, requesting that patients who are ill to identify themselves to the receptionist. In addition, the reception area must have alcohol-based hand rub and masks available with signage for their use.

There must be a written policy and procedure for managing patients with suspected febrile respiratory infections, rash and eye infections to reduce the risk of transmission.

RCDSO PAGE 6

There are four principles that are inherent in routine practices:

1. **Risk Assessment**
2. **Hand Hygiene**
3. **Use of Personal Protective Equipment**
4. **Safe Handling and Disposal of Sharps**

Perform a risk assessment before each interaction with the patient in order to determine the interventions that are required to prevent the transmission of infection.

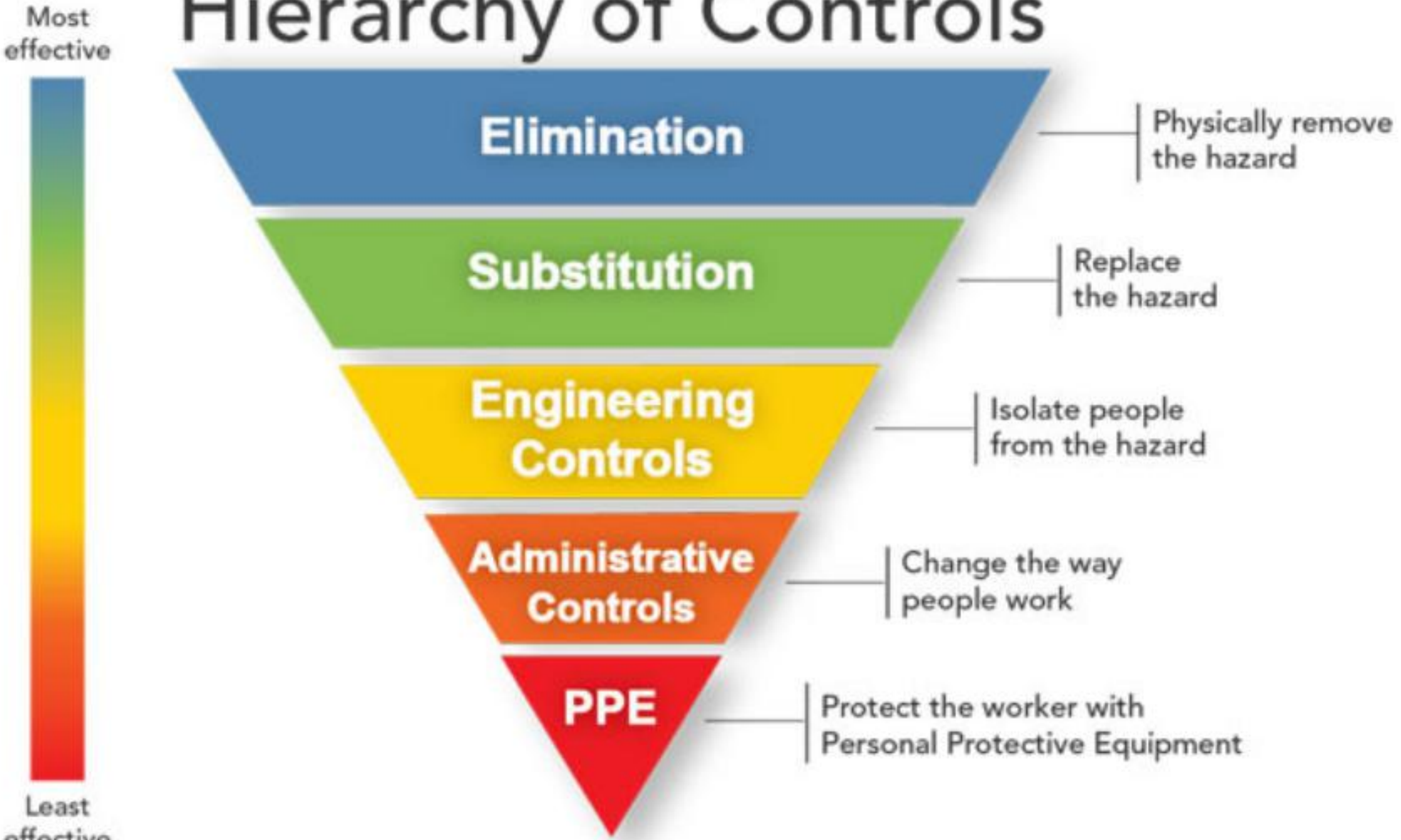
RCDSO PAGE 7

Artificial nails and nail enhancements are not to be worn by those having direct contact with a client/patient.

All OHCWs having direct contact with a patient must keep nails clean and short. Nail polish, if worn, must be fresh and free of cracks or chips. Artificial nails and nail enhancements must not be worn. Before performing hand hygiene, hand jewelry must be removed and arm jewellery, including watches, must be either removed or pushed up above the wrist. Rings should not be worn.

10.1	PPE-such as gowns, gloves, masks, and eye protection, is available at point of care.	Leg.	High

Hierarchy of Controls



PUTTING ON PERSONAL PROTECTIVE EQUIPMENT

1 **PERFORM HAND HYGIENE**

2 **PUT ON GOWN**

3 **PUT ON MASK OR N95 RESPIRATOR**

4 **PUT ON EYE PROTECTION**

5 **PUT ON GLOVES**

College of **Dental Hygienists** of Ontario
L'Ordre des **hygiénistes dentaires** de l'Ontario
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www.cdho.org

REMOVING PERSONAL PROTECTIVE EQUIPMENT

1 **REMOVE GLOVES**

2 **REMOVE GOWN**

3 **PERFORM HAND HYGIENE**

4 **REMOVE EYE PROTECTION**

5 **REMOVE MASK OR N95 RESPIRATOR**

6 **PERFORM HAND HYGIENE**

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CDHO Page 18

Protective Covering

Whenever spatter or spray is anticipated during dental hygiene procedures, the use of a water-resistant gown is required. Clinical and laboratory coats or jackets are not a substitute for gowns where a gown is indicated.

- A gown must be worn if it is anticipated that arms and/or clothing will be in contact with blood, body fluids, secretions or excretions.

Contaminated PPE must never come in contact with clean surfaces; for example, a contaminated gown must be removed and discarded prior to removing sterilized items from the sterilizer.

RCDSO Page 16

Protective clothing

When it is anticipated that a dental procedure is likely to generate splashes or sprays of blood, saliva or other body fluids, protective clothing must be worn, such as a gown.

Discourage the wearing of uniforms and scrubs outside the dental office.

Masks

Surgical masks that cover the nose and mouth must be worn during dental procedures to protect the respiratory mucosa from coming in contact with droplets and spatter. Masks also form the basis of protection for diseases spread by the droplet route (e.g. influenza). Masks lose efficiency over time and must be changed when they become contaminated (wet, visibly soiled and/or according to manufacturer's directions) and between clients.

Masks are:

- to be worn by OHCWs when performing aseptic or invasive procedures
- to be securely covering the nose and mouth and substantial enough to prevent droplet penetration
- to be put on immediately before the procedure for which it is required
- to be removed and discarded immediately after the intended use
- not to be re-used (must be changed after each client or more frequently as needed)
- not to be touched while being worn
- not to be hung around the neck or under chin
- not to be folded or stored in a pocket.

CDHO Page 24

According to the Ministry of Health and Long-Term Care document *Occupational Health and Safety and Infection Prevention and Control in Health Care Settings*, during a pandemic influenza warning, a N95 respirator is required for OHCWs.

5. Conclusions

Go to:

The results of the present study indicate that the protective performance of N95 filtering facepiece respirators is affected by the wearer's movements. Thus, healthcare providers should be educated to properly select, fit, and wear appropriate N95 filtering facepiece respirators in the emergency department.

Wolters Kluwer

Medicine®

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Medicine (Baltimore). 2017 Oct; 96(42): e8308.
Published online 2017 Oct 20. doi: 10.1097/MD.0000000000008308

PMCID: PMC5662401
PMID: 29049235

Comparing the protective performances of 3 types of N95 filtering facepiece respirators during chest compressions

A randomized simulation study

CDHO Page 20

Prescription eyeglasses for oral health care workers are not considered appropriate eye protection as they do not provide protection against splashes around the top and sides of the glasses.


OLDIES BUT GOLDIES
Mumps
Measles
Scarlet Fever
Anti-Vaxx

- hepatitis B
- measles
- mumps
- rubella
- varicella
- influenza
- diphtheria
- pertussis
- tetanus
- polio

It is important that all OHCWs know their personal immunization status and ensure that it is up to date. In this regard, OHCWs should consult with their physician or other primary family health care provider about the status of their immunizations. Baseline and annual tuberculosis skin testing may also be considered. In addition, the Canadian Immunization Guide sets out recommendations and schedules for adults, including those engaged in the provision of health care.

MINIMIZING DROPLET SPATTER

By their very nature, the provision of dental services can involve the creation of droplets, spatter and spray contaminated with blood, saliva, other body fluids and debris.

As previously noted, rubber dam should be used whenever feasible, and high-volume suction must be used whenever the creation of droplets, spatter and spray is possible.

All OHCWs must know the dental office's exposure prevention policies and exposure management protocol and review them periodically.

Category	Definition	Reprocessing
Critical reusable instruments	Penetrate soft tissue or contact bone (e.g. all surgical instruments, periodontal scalers, etc.)	Cleaning followed by sterilization
Semi-critical reusable instruments	Contact mucous membranes or non-intact skin (e.g. mouth mirrors, amalgam condensers, reusable impression trays, handpieces, etc.)	Cleaning followed by sterilization
Non-critical reusable items	Contact intact skin, but not mucous membranes, or do not directly contact the patient (e.g. radiograph head / cone, blood pressure cuff, facebow, pulse oximeter, etc.)	Cleaning followed by low-level disinfection

CDHO Guidelines Page 28

Category	Use	Minimum level of reprocessing	Examples
Critical	Enters sterile body site or vascular system	Cleaned and sterilized	Periodontal scalers, ultrasonic scaler tips and surgical instruments
Semi-critical	Comes in contact with mucous membranes or non-intact skin	Cleaned and sterilized If items are heat sensitive, then they need to be replaced by single-use items	Handpieces including motors and impression trays
Noncritical	Comes in contact with only intact skin and not mucous membranes	Clean and low-level disinfection	Stethoscope, blood pressure cuff, shade guide, bib chain/holder

All critical and semi-critical instruments used in dentistry, including handpieces, are available in heat-tolerant and/or single-use (disposable) forms. All heat-tolerant reusable critical and semi-critical instruments must be heat-sterilized between uses. All single-use items must be disposed following use.

High Level (Cold Soak)

The use of high-level disinfectant (HLD) is highly discouraged because of its toxic vapours, special ventilation requirements, and its inability to destroy some microorganisms.

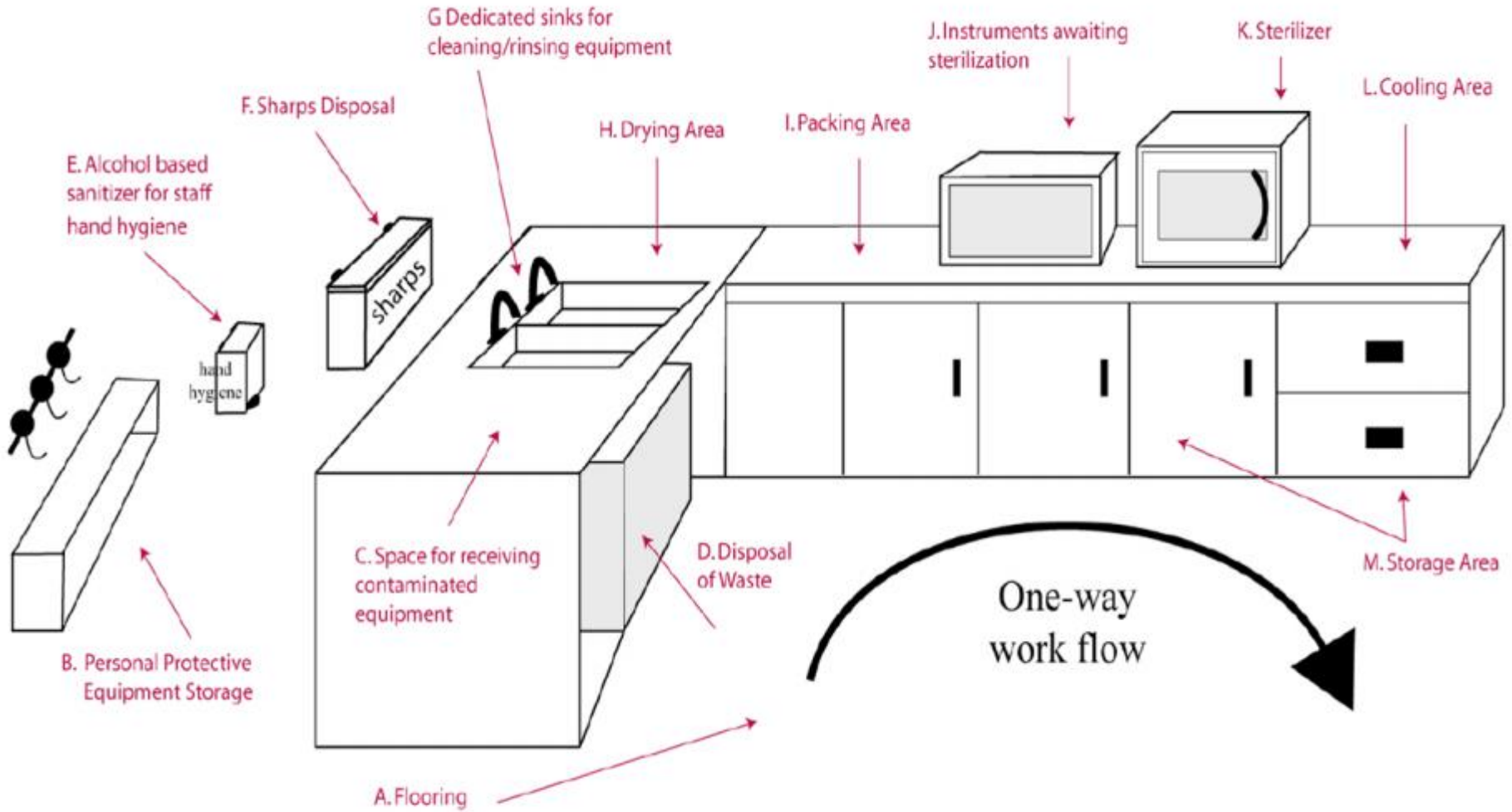
All newly-purchased reusable critical and semi-critical instruments must be inspected and sterilized prior to first use, in accordance with the manufacturer's instructions. If the instructions are unclear, incomplete or inadequate, the manufacturer must be contacted for clarification or additional information. If clear, validated instructions are unavailable for an instrument, it must not be used.

Single-use devices are usually not heat-tolerant and cannot be reliably cleaned or disinfected. Therefore, they must be disposed of appropriately after use.
Single-use items will be labelled with icons similar to the following:

The instrument reprocessing area must have separate sections for:

- receiving, cleaning and decontamination;
- rinsing and drying;
- preparation and packaging;
- sterilization;
- storage.

Reprocessing Checklist Highlights – Section 4



College of Physicians and Surgeons of Alberta. Reprocessing critical & semi-critical equipment : a physician tool kit. Edmonton, AB: College of Physicians and Surgeons of Alberta; 2008 [cited 2017 Oct 13]. Available from: http://cpsa.ca/wp-content/uploads/2015/04/IPAC_Reprocessing__A_Physician_Toolkit.pdf?pdf=Reprocessing-Toolkit

RCDSO Page 22

An emergency eye-wash station must be available to allow OHCWs to flush their eyes in the event of a significant exposure to blood-borne pathogens or hazardous chemical agents. A plumbed or self-contained eye-wash station that meets occupational health and safety requirements must be situated within a 10-second walk (i.e. 16 to 17 metres) of the reprocessing area.

To prevent contamination and maintain one-directional workflow, do not store sterile and single-use items on the dirty side of the reprocessing area.

RCDSO PAGE 25

CDHO Page 29

Any instruments or sharps that are transported to the reprocessing area must be transported in a leak-proof, puncture-resistant and sealed container (e.g. plastic tray with hard plastic cover) or cassette.

CDHO Page 30

Cleaning Reusable Dental Instruments/Devices

Cleaning is the removal of gross debris, organic and inorganic matter including blood and saliva. The following criteria must be incorporated into cleaning routines:

- Instruments must be pre-cleaned of gross debris immediately after use at chair side to ensure that organic material will not dry on them.
- If cleaning cannot be performed immediately, instruments must be kept moist and placed in a puncture-resistant holding container and soaked with a detergent or an enzymatic cleaner to prevent drying of organic material. If an instrument is not cleaned, remaining organic and inorganic matter may prevent effective disinfection and sterilization.
- All instruments and devices must be cleaned according to manufacturers' direction. This may include disassembly of removable parts and opening of hinges.

RCDSO PAGE 20

Organic matter may accumulate on brushes used for cleaning instruments. Cleaning brushes must be inspected frequently and discarded when worn or damaged. At the end of every day, cleaning brushes must be sterilized or discarded.

Automated systems must be routinely tested for efficacy according to the manufacturer's instructions, each day that automated washers are used and at least weekly for ultrasonic cleaners.

6.7	Ultrasonic washers and or washer/ disinfectors, if used, are tested for efficacy at least weekly or according to manufacturer's recommendations.		High

Scican Ltd. 1440 Don Mills Road, Toronto, Ontario, Canada. M3B 3P9

Product Advice Sheet – SD-424

HYDR*IM* Washer Disinfectors - Recommended (minimum) Testing Requirements*

- **Daily tests and checks**.
  - Undertaken by - **the User.**
    - door lock check

- wash arm rotation check (turning and potential blockage of nozzles)
- door seal check
- load carrier check
- check and clean chamber filters (screens)
- check load before releasing load - visual examination (inspection under magnification, when appropriate) of each load for residual soil

- **Weekly tests and checks**.
  - Undertaken by - **the User.**
    - Daily checks, plus:
    - Residual protein testing
      - SciCan recommends the Browne Ninhydrin Protein Detection Kit.)

      *Note: There are a number of commercially available tests on the market which **may** be similar. If these tests are chosen, then we would advise the nearest to Ninhydrin equivalence wherever possible.*

- **Monthly tests and checks**.
  - Undertaken by - **the User.**
    - Daily and weekly checks, and
    - Residual soil testing with surrogate device.
    - SciCan has tested and approved the following surrogate soil test devices
      - Browne STF Load Check system
      - Simicon RI Cleaning Indicators
      - SteriTec Wash Check

RCDSO PAGE 21

Rinsing and drying

After cleaning, instruments must be rinsed with water to remove detergent residue, dried (e.g. lint-free cloth) and visually inspected to ensure all debris has been removed.

CDHO PAGE 32

Preparing and Packaging of Reusable Dental Instruments/Devices

All cleaned instruments must be prepared and packaged in a manner that will maintain sterility until use. Preparing and packaging must include the following:

- Instruments requiring sterilization must be packed and/or wrapped according to MIFUs.
- Instruments must be prepared for packaging in a manner that will allow adequate air flow and steam penetration (e.g. avoid over filling packages).
- Hinged instruments must be packaged and processed open and unlocked.
- Disassembled instruments/devices must remain disassembled until use.
- Suitable packaging materials could include peel pouches of plastic/paper, and woven or nonwoven sterilization wrap that is compatible with the sterilization process being used.

7.3	Each package is labelled with date processed, sterilizer used, cycle or load number and the health care provider's initials in a manner that does not puncture or dampen the package. If instruments are not visible, (e.g., in a wrapped cassette) package contents should be labelled.		High

- Each package must be labelled before sterilization with:
  - Date processed
  - Sterilizer used
  - Cycle or load number
  - Initials of the OHCW who packaged the instruments.
- Labels must be placed on the transparent side of a plastic/paper pouch or directly on the closure tape of wrapped packages, taking care not to block the breathable area of the package.
- Permanent soft-tipped markers that have been validated for the sterilizer should be used ensuring they do not puncture or damage the packaging.
- The inside contents of the package need to be labelled if instruments are not visible (e.g. in a wrapped cassette).
- All packages must include both external and internal chemical indicators.

CDHO PAGE 33

Do NOT write directly on the paper side of peel pouches. .

RCDSO PAGE 22

RCDSO PAGE 22

Instrument packs must be allowed to dry inside the sterilizer chamber before removing and handling, in order to avoid wicking of moisture and, hence, contamination with bacteria from hands.

7.12	Instrument packs are allowed to dry inside the sterilizer chamber before removing and handling.		High

Sterilization Monitoring - Quality Assurance

- Maintenance
- Physical Parameters - preference is sterilizer with recording device or printer
- Chemical Indicators
- Biological Indicators
- all are necessary for safe care

Public Health Ontario | Santé publique Ontario

Sterilization Monitoring Log for Table-top Steam Sterilizers

The purpose of this document is to record process parameters for steam sterilization in community health care settings. This will assist with tracking of medical devices used on clients/patients/residents in the event of a recall or follow-up investigation. For more information, see the Best Practices for Cleaning, Disinfection and Sterilization of Medical Equipment/Devices or email ipac@oahpp.ca.

Sterilizer Model: _____ **Sterilizer Serial Number:** _____

Load Details	Pouch Contents	Sterilizer Readings Met*	Operator Initials	Quality Indicators*	Operator Initials
Date: _____ Time: _____ Load #: _____		Temperature: ☐ Yes ☐ No Time: ☐ Yes ☐ No Pressure: ☐ Yes ☐ No		Chemical indicator Change: ☐ Yes ☐ No Biological Indicator: ☐ Pass ☐ Fail	

Physical indicators must be checked and recorded for each load. If the sterilizer has a recording device, the physical parameters must be checked at the conclusion of the sterilization cycle for each load and documented. This is to verify that the pre-programmed cycle operated correctly, and that the required conditions for sterilization existed in the chamber. If the sterilizer does not have a recording device, the physical parameters must be checked during the sterilization cycle for each load and documented.

RCDSO PAGE 23

For these reasons, each package must have external and internal chemical indicators. Place a Type 1 chemical indicator on the outside of each instrument package. Also, place a Type 4, Type 5 or Type 6 chemical indicator inside each package. Some pouches incorporate Type 1 external and Type 4 internal chemical indicators.

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Air Removal Test (Bowie-Dick):

Sufficient air removal is necessary for steam penetration and contact with instrument surfaces. An air removal test with a Type 2 chemical indicator (Bowie-Dick) is used specifically for testing pre-vacuum sterilizers.

For pre-vacuum sterilizers, an air removal test must be performed at the beginning of each day that the sterilizer is used. An air removal process challenge device (PCD) must be placed in the chamber of an empty sterilizer as per the manufacturer's instructions for use.

RCDSO PAGE 23

PCD - Chemical Indicator

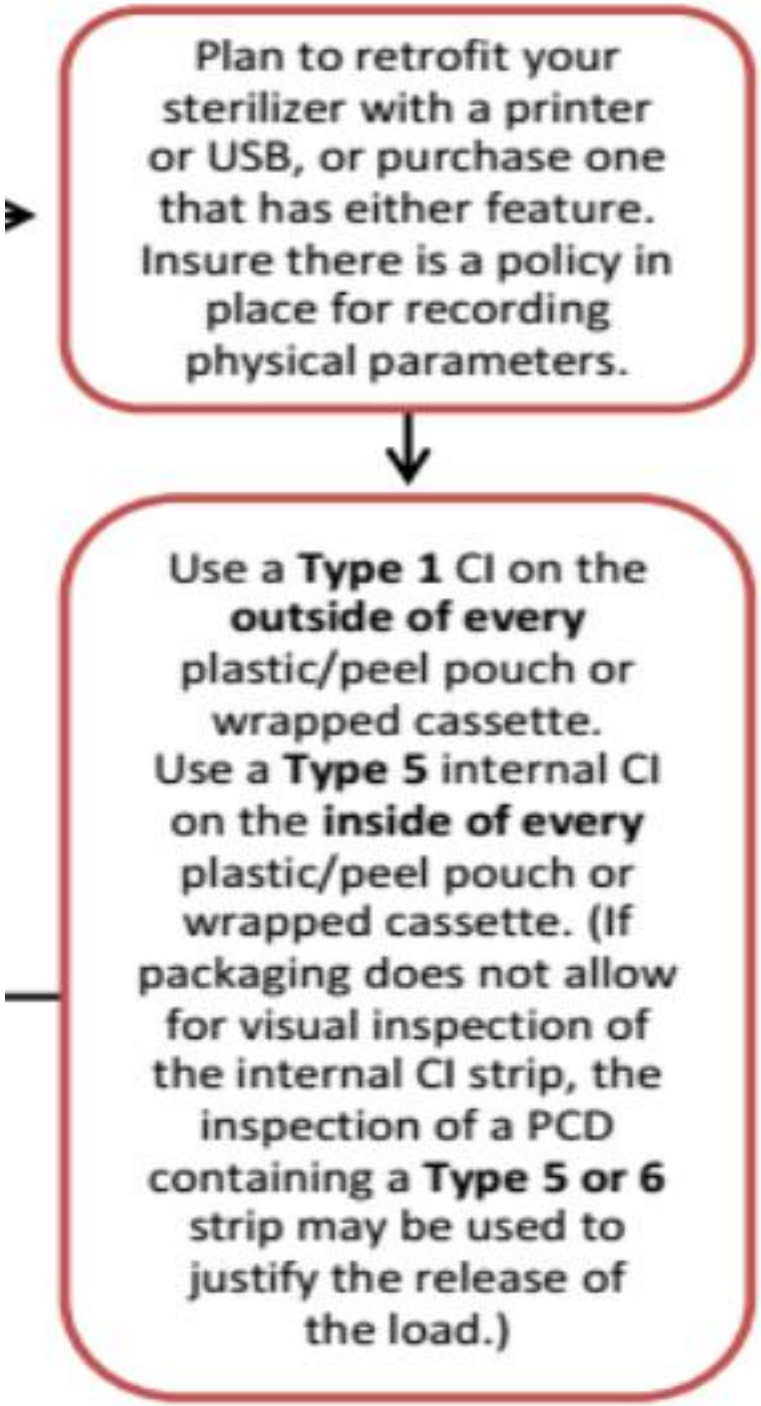
- commercially made or created in house
- package that reflects most difficult to sterilize
- marked PCD
- type 5 chemical indicator to justify release of load

RCDSO PAGE 24

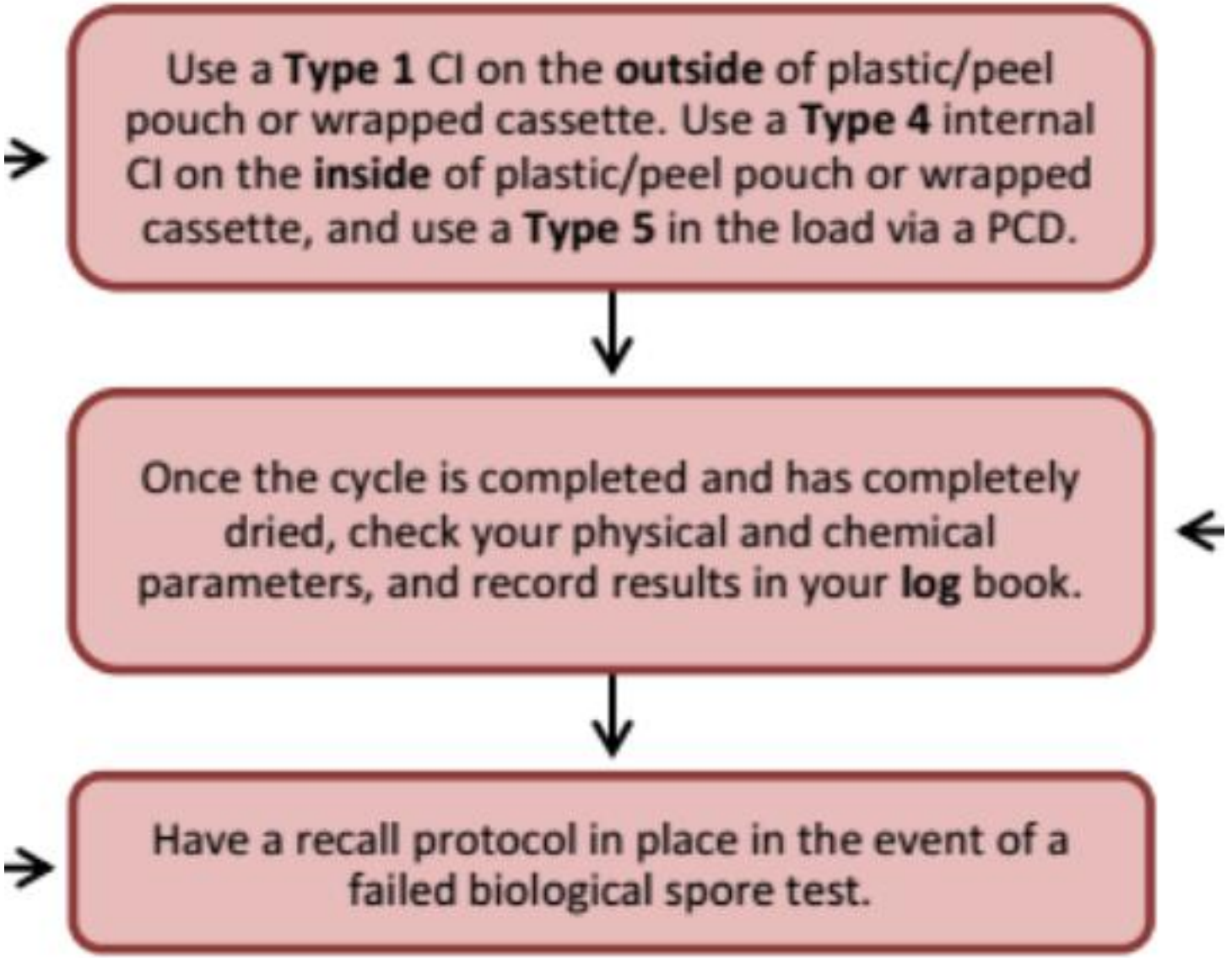
For routine loads, items in the reprocessed load should not be released until the results of the BI test are available. If quarantine pending BI results is not possible, evaluation of a Type 5 or Type 6 chemical indicator and the specific cycle physical parameters must be used to justify their release:

No printer
No quarantine

CDHO DECISION TREE



Printer/USB, No Quarantine



Biological Indicator Process Challenge Device

- commercially made or created in house
- package that reflects most difficult to sterilize
- marked PCD
- Biological Indicator, Type 5 Chemical Indicator
- every day sterilizer is used for each type of cycle (ie wrapped, plastics) preferably at same time each day
- in a full load

The daily operation of every sterilizer must be reviewed and documented. A log book must be kept for this purpose. Any malfunction must be noted and appropriate action taken. Like other administrative or office records, the log book must be maintained for at least 10 years from the date of the last entry in that record.

STEPS TO INVESTIGATE A POSITIVE BIOLOGICAL INDICATOR (I.E. FAILED SPORE TEST)

Flow chart - RCDSO website

CDHO's website

RCDSO PAGE 25

Critical and semi-critical instruments must be reprocessed in a manner that will maintain sterility during storage. This includes ensuring that the integrity of the package is maintained.

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Sharpening Stones

Sharpening stones must be sterilized according to validated MIFUs. Instruments must be cleaned and sterilized following sharpening and prior to being used on a client. If the sharpening stone is not a registered medical device with Health Canada then sharpening must not be conducted chairside.

"Exposing patients and dental health personnel to **water of uncertain microbiological quality**, despite the lack of documented adverse health effects, is inconsistent with generally accepted infection control principles."

2.6	Policies and procedures are in place for maintaining dental unit water quality.		I/E	☐	☐	☐	Refer to: Safe Drinking Water Act, 2002 ONTARIO REGULATION 169/03 Regulatory Standards for Drinking Water. Dentists and dental hygienists should consult with the manufacturer of their dental unit or water delivery system to determine the best method for maintaining acceptable water quality and the recommended frequency of monitoring.

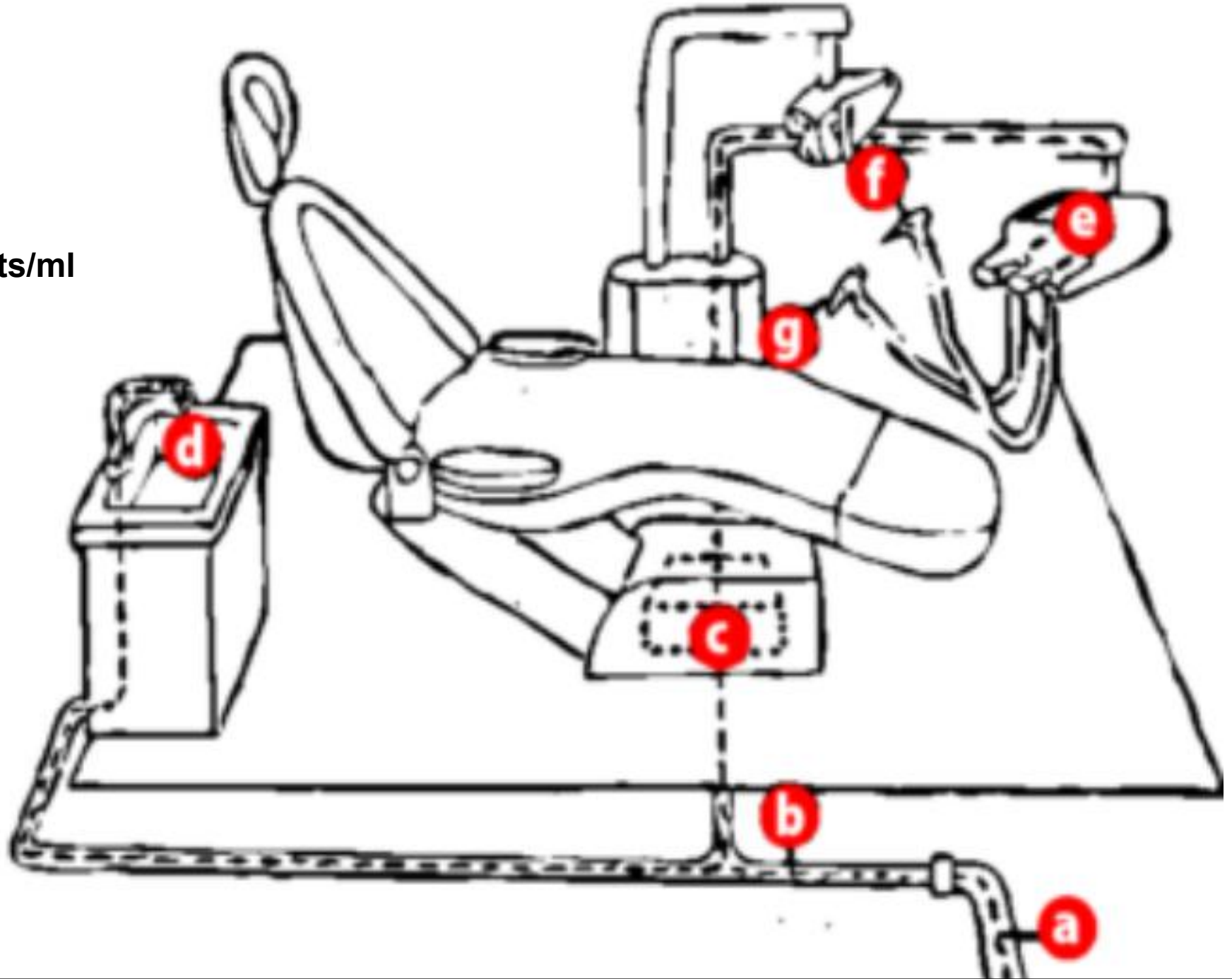
Inform and Educate (I/E): Provide information on best practices and mandatory legislated practice requirements. This may also include just-in-time education.

4.1	Staff have received training regarding water quality, biofilm formation, water treatment methods and appropriate maintenance protocols for water delivery system.		**Med**	☐	☐	☐	Refer to: IPAC Canada, Infection Prevention and Control Audit for General IPAC Practices in Dentistry. Additonal Resource: MMWR Recommendations and Reports December 19, 2003 / Vol. 52 / No. RR-17.

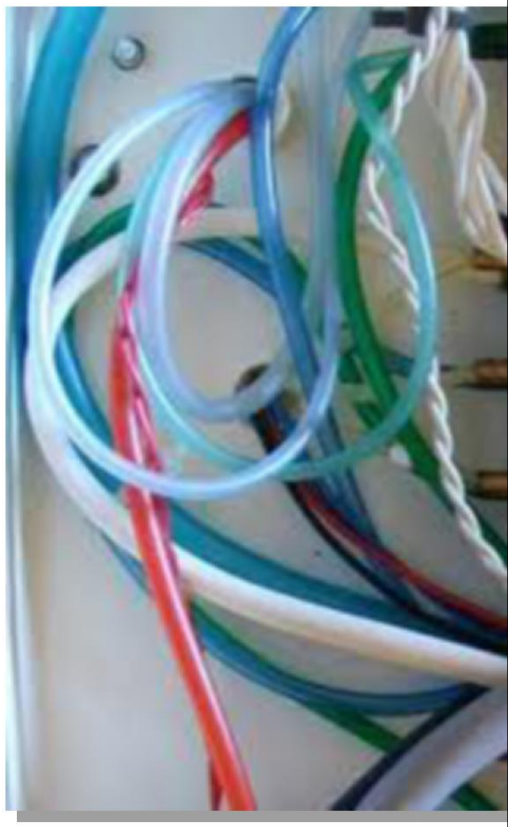
Recent Acknowledgement of problem.....

- 2011 - death due to legionella
- 2015, 2016 - USA - mycobacterium abscessus infections after pulpotomies
- 2017 - PHO checklists
- ignorance is no longer an excuse

A	2 colony forming units/ml
B	10 cfu/ml
C	10,000 cfu/ml
D	18,000 cfu/ml
E	400,000 cfu/ml
F	100,000 cfu/ml
G	200,000 cfu/ml



Ideal conditions for biofilm growth



- hardeners, additives in waterlines
- narrow bore tubing
- low flow rates
- low water pressure
- long periods of stagnation
- potential for retraction of oral fluids
- **whatever product is used, 100% compliance from dental staff is required**

4.2	Waterline heaters are not used.		**Med**	☐	☐	☐	Refer to: RCDSO Guidelines Infection Prevention and Control in the Dental Office, February 2010.	
4.3	All waterlines are purged at the beginning of each workday by flushing them thoroughly with water for at least 2 to 3 minutes. Before purging is carried out, handpieces, air/water syringe tips and ultrasonic tips are removed from the waterlines.		**Med**	☐	☐	☐	Refer to: RCDSO Guidelines Infection Prevention and Control in the Dental Office, February 2010.	
4.4	Handpieces using water coolant are run for 20 to 30 seconds after patient/client care. The handpiece is then removed.Cleaning and disinfection of clinical contact surfaces occurs before another sterilized handpiece is attached for use with the next patient/client.		**Med**	☐	☐	☐	Refer to: RCDSO Guidelines Infection Prevention and Control in the Dental Office, February 2010.	

4.5	Sterile water or sterile saline is used when irrigating open surgical sites and whenever bone is cut during invasive surgical procedures. Appropriate devices, such as bulb syringes or single-use disposable products, are used to deliver sterile irrigation solutions.		**Med**	☐	☐	☐	Refer to: RCDSO Guidelines Infection Prevention and Control in the Dental Office, February 2010.

Oral Surgical Procedures - The incision, excision, or reflection of tissue that exposes the normally sterile areas of the oral cavity. Examples include biopsy, periodontal surgery, apical surgery, implant surgery, and surgical extractions of teeth (e.g., removal of erupted or nonerupted tooth requiring elevation of mucoperiosteal flap, removal of bone or section of tooth, and suturing if needed). (Source Centers for Disease Control and Prevention *Guidelines for Infection Control in Dental Health-Care Settings - 2003*[2])

4.6	For offices using closed or other water delivery systems: The manufacturer's instructions related to dental units and equipment are followed for daily and weekly maintenance.		**Med**	☐	☐	☐	Refer to: RCDSO Guidelines Infection Prevention and Control in the Dental Office, February 2010.

For offices using closed or other special water delivery systems:

- The MIFUs must be followed for required maintenance.
- OHCW should be careful not to touch the tubing with fingers or soiled gloved hands when changing the water coolant bottle, as this can easily contaminate the entire system.

Manufacturer's instructions regarding testing, maintenance and preventative maintenance of lines, anti-retraction valves and other accessories must be followed.

Dental Handpieces and Other Devices

There are many different devices used in the dental office that contact mucous membranes and are attached to the air and/or waterlines of the dental unit, including:

- high- and low-speed handpieces including motors
- ultrasonic and sonic instruments
- prophylaxis angles / prophy jets
- air/water syringe tips

Dental handpieces including motors and devices can draw back oral fluids into their internal compartments, which can then be introduced into the oral cavity of another client during use.

- Flush out any potential client material that might have entered the turbine or air and waterlines by activating the device to discharge air and water for a minimum of 20 seconds after each use
- Dental handpieces and other intraoral devices that are attached to air or waterlines must be cleaned, lubricated and sterilized after each client use according to the MIFUs.

- **If components are permanently attached to dental unit waterlines** (e.g. electric handpiece motors, handles for ultrasonic devices, and attachments for saliva ejectors, high-volume suction and air/water syringes), they must be covered with barriers that are changed after each client use. The item must then be cleaned and disinfected with a low-level disinfectant before the next client is brought into the treatment room.

2.6	Policies and procedures are in place for maintaining dental unit water quality.		**I/E**	☐	☐	☐	Refer to: Safe Drinking Water Act, 2002 ONTARIO REGULATION 169/03 Regulatory Standards for Drinking Water. Dentists and dental hygienists should consult with the manufacturer of their dental unit or water delivery system to determine the best method for maintaining acceptable water quality and the recommended frequency of monitoring.

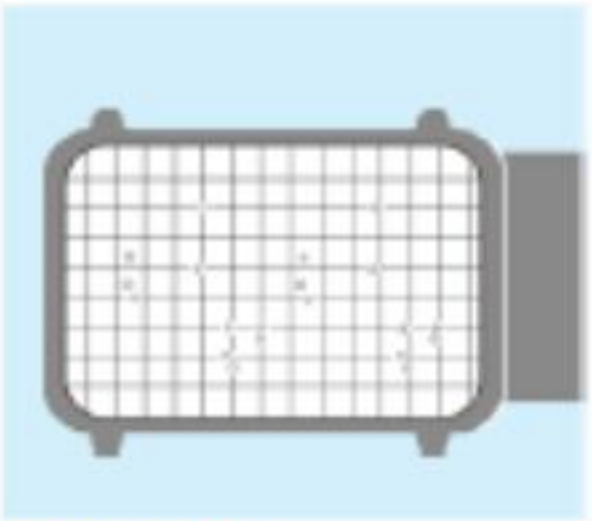

Citrisil
All-In-One
Dental Waterline Microbial
Contaminant Control Tablet


BluTab


E2O


SAMPLE
TEAM VISTA

MAINTAIN



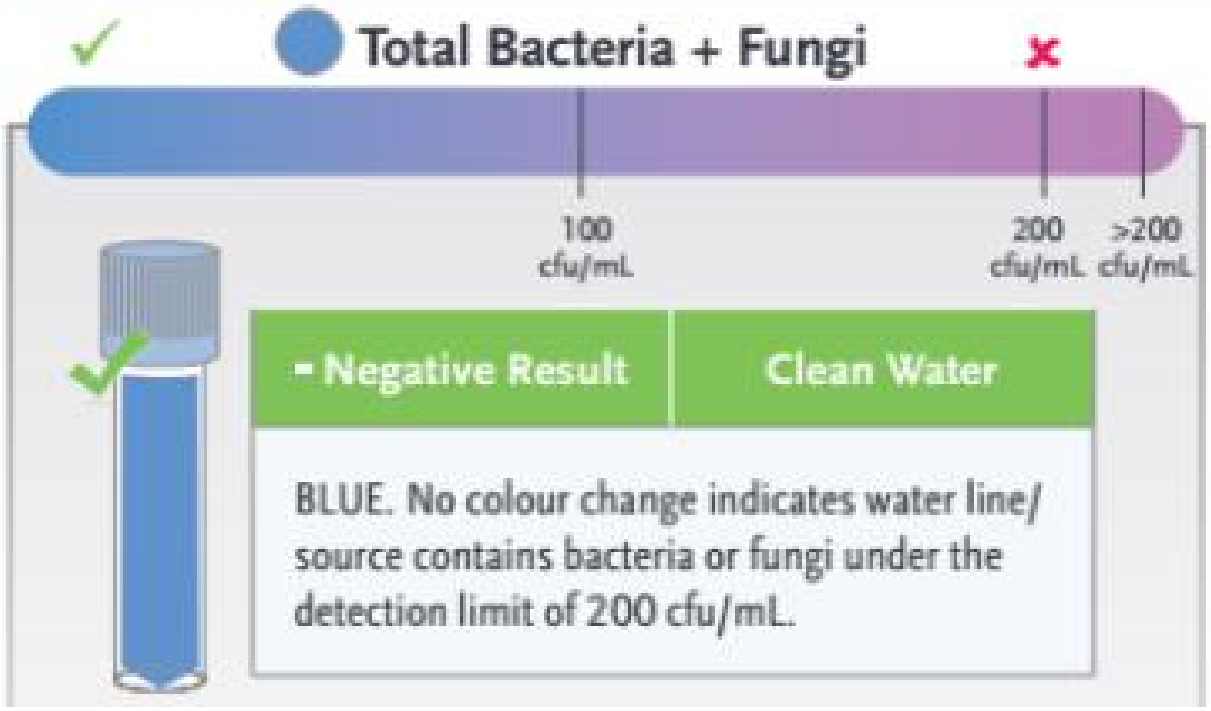
MONITOR

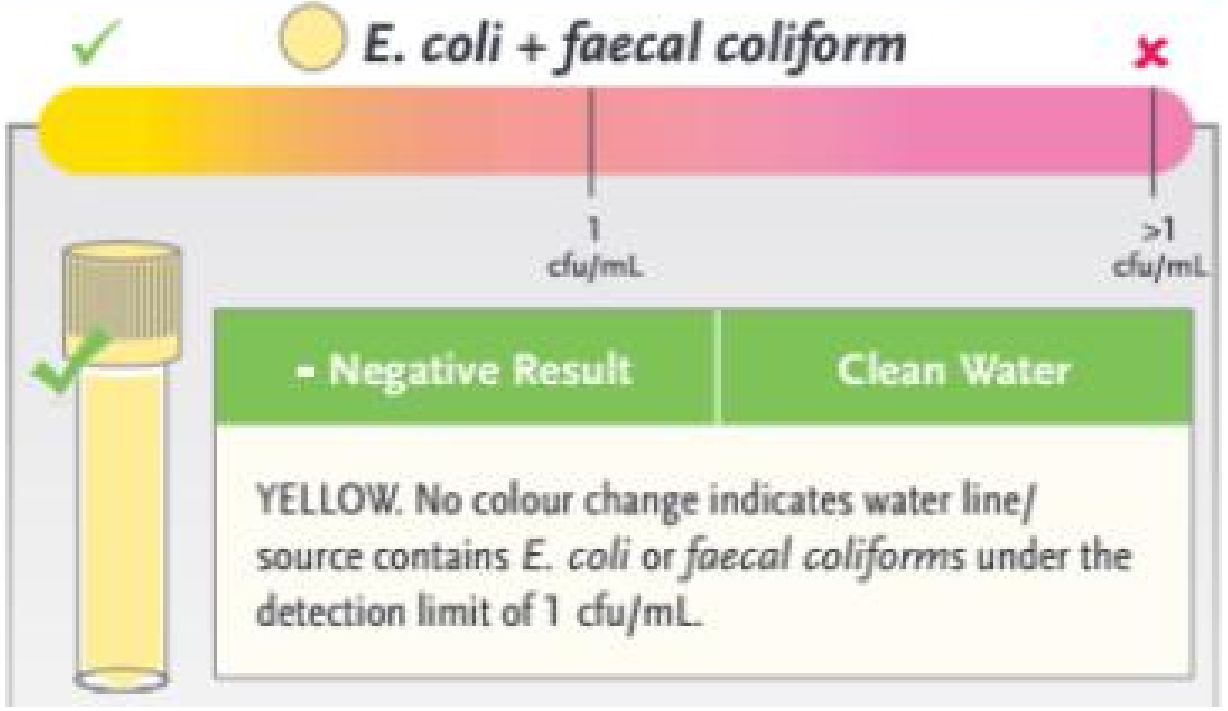
SHOCK

if > 200 CFU/ml

E|Line Water Quality Check | Results Chart

R3 1.800.265.9931 www.germiphene.com





E|one™

Water Quality Indicator

- One vial tests for bacteria, biofilm & fungi
- Broad detection
- Test detection limit 500 cfu/mL

FAST RESULTS

Convenient in house testing

RESULTS
quick read at
15 minutes

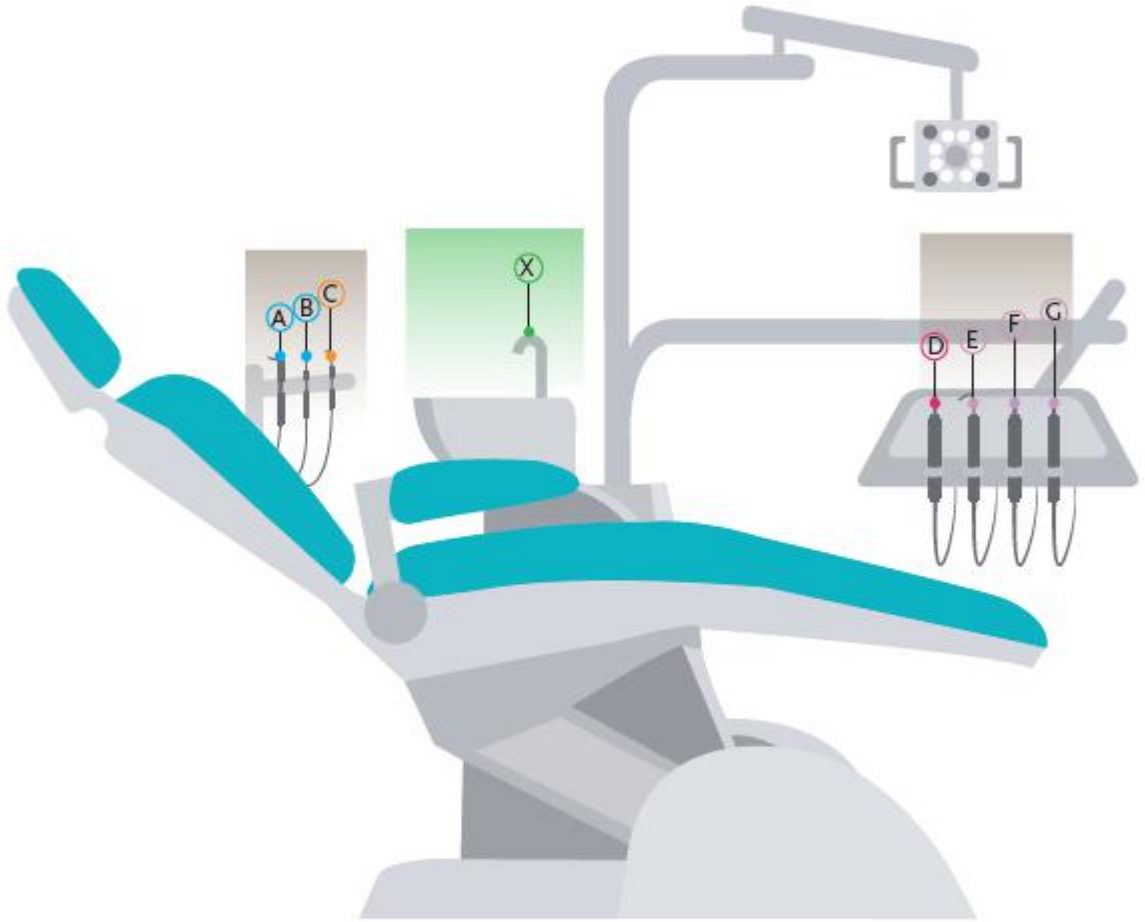
RESULTS
final read at
1 hour

EASY TO READ

Clear results

- **Pink:** Clean
  Less than 500 cfu/mL
- **Purple:** Contaminated
  Greater than 500 cfu/mL
- **Clear:** Highly contaminated
  Greater than 1000 cfu/mL

When to Test Your Dental Waterlines



	Quarter 1			Quarter 2			Quarter 3			Quarter 4		
	MONTH	MONTH	MONTH	MONTH	MONTH	MONTH	MONTH	MONTH	MONTH	MONTH	MONTH	MONTH
Handpieces, Scalers, Air/ Water Syringes	A B			C			D			E	F	G
Cuspidor Cupfill	X			X			X			X	X	X

This is a sample schedule for the above chair scenario. Quarter 4 was randomly chosen as the warmest quarter. Sources A–G can be tested any quarter, any month, as long as one line/source is tested quarterly, monthly in the warmest quarter, and each source is tested at least once a year. Multiple tests can be done on the same day or a different day within the quarter. Customize your schedule to efficiently meet you office's needs.

Questions, Concerns

Thank you