

A Risk Management Review: Infection Prevention and Control in Dental Practices

Today's program

Today's speaker is Theresa Essick, VP, Patient Safety & Risk Solutions, MedPro Group (Theresa.Essick@medpro.com)

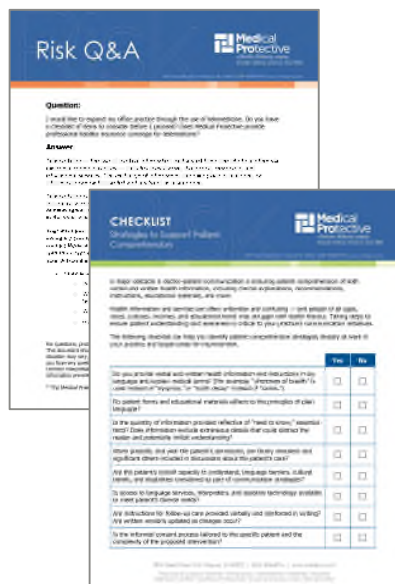
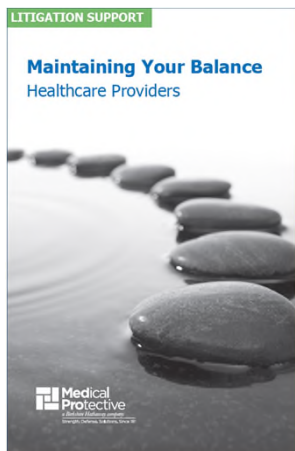
Theresa has more than 35 years of experience in the healthcare industry. She joined Medical Protective in 1998 and has been leading the Patient Safety & Risk Solutions Group for more than 12 years. Theresa's experience in healthcare has given her a broad understanding of the unique obstacles that providers must address on a daily basis. Her past experience includes clinical management of a surgical office practice and a critical care hospital unit.

Theresa's background also includes implementation of electronic record systems in medical offices and oversight of industrial health issues, such as workers' compensation and wellness program development. Prior to starting her own independent consulting practice, she worked as a consultant for Coopers & Lybrand in their healthcare division. She also managed the North Carolina medical cost containment program of a national property and casualty carrier for several years.

In addition to her long-standing leadership role, Theresa continues to provide clinical risk management services to clients across the country through application of creative consulting strategies, design of comprehensive educational components, and promotion of long-term partnerships with clients. Theresa is licensed as a registered nurse in North Carolina. She is a member of the American Society for Healthcare Risk Management and the North Carolina Society for Healthcare Risk Management, and she is a Certified Professional in Healthcare Risk Management.

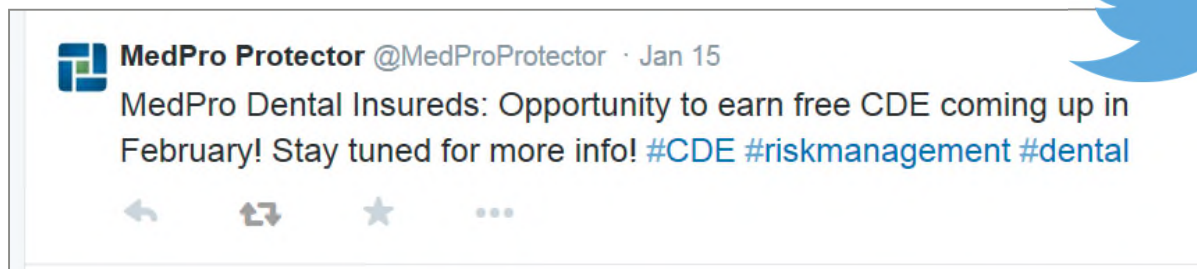


Did you know...







- All of the risk resources available to you as a MedPro insured?
- How to contact your clinical risk consultant?

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MedPro Protector @MedProProtector · Jan 15
MedPro Dental Insureds: Opportunity to earn free CDE coming up in February! Stay tuned for more info! #CDE #riskmanagement #dental



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Today's faculty, as well as CDE planners, content developers, editors, committee members, and Patient Safety & Risk Solutions staff at MedPro Group have reported that they have no relevant financial relationships with any commercial interests.



At the conclusion of this session, the participant will be able to:

- Discuss the necessary components of an infection prevention and control program in the dental office.
- Review practices in the dental office that decrease the risk of disease transmission to patients and to dental health-care personnel.
- Describe the importance of the dentist's behavior in setting the standard of practice in the office.



Today's program

Today's speaker is Gail E. Harris, RN, MS, MA, CIC, Senior Patient Safety & Risk Consultant, MedPro Group
(Gail.Harris@medpro.com)

Gail offers a wealth of education and consulting experience, as well as a strong clinical background with special emphasis on corporate risk management, infection control, and adult education.

Gail's experience as a corporate risk manager has been invaluable to her clients as they develop effective business and enterprise risk management strategies. Gail's clients welcome her expertise on the clinical aspects of infection control and realistic approaches to challenges such as antibiotic resistance and the increased portability of diseases. Further, Gail's skill as an educator ensures the effectiveness of learning activities.

Gail is a registered nurse and earned her master's degrees in infection control and adult education. She currently serves on the Board of Directors of the Certification Board of Infection Control and Epidemiology (CBIC). Gail also is a member of the American Society of Healthcare Risk Management, and she previously served on the Board of Governors of the National Patient Safety Foundation (NPSF).



Today's program

Today's speaker is Brenda Wehrle, BS, LHRM, CPHRM, Senior Patient Safety & Risk Consultant, MedPro Group
(Brenda.Wehrle@medpro.com)

Brenda serves MedPro Group insureds in North Carolina, South Carolina, Tennessee, and Georgia. She is an industry-recognized patient safety and risk management professional with more than 25 years of experience.

Most recently, Brenda served as a corporate leader in clinical risk management. Her professional background also includes broad experience in community healthcare facilities, including acute care, long-term care, ambulatory surgery, behavioral health, and physician practices. These opportunities have afforded Brenda valuable insight into the challenges of providing healthcare in today's world and have provided her with extensive experience conducting site surveys, leading root cause analysis teams, developing innovative loss-prevention programs, and providing consultative risk management guidance.

Brenda also has been an instructor at the Florida Risk Management Institute and has presented training and educational sessions to introduce best practices at the national level. She has experience in infection control, patient and employee safety, quality, accreditation, and credentialing. As a TeamSTEPPS master trainer, Brenda helps healthcare leaders, providers, and staff use communication and teamwork strategies to improve working relationships, enhance patient safety, and reduce the risk of error.

Brenda earned a bachelor of science degree in medical microbiology from the University of Wisconsin. She is licensed as a healthcare risk manager in Florida, is a member of the American Society for Healthcare Risk Management (ASHRM), and has had her American Hospital Association certification as a professional risk manager (CPHRM) since 2004.

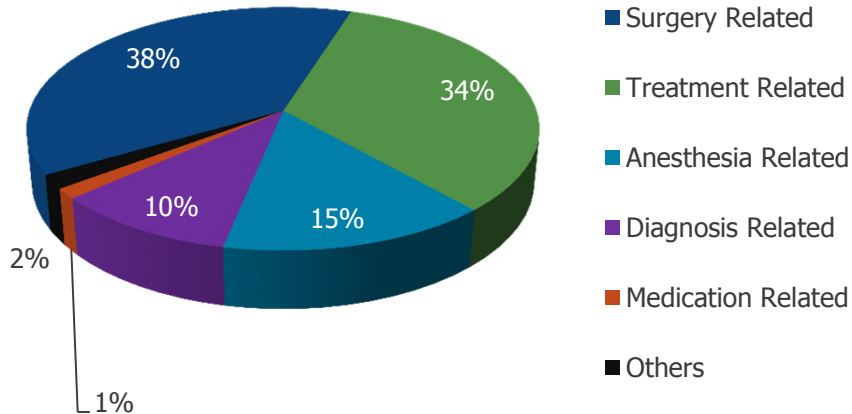


Claims trends

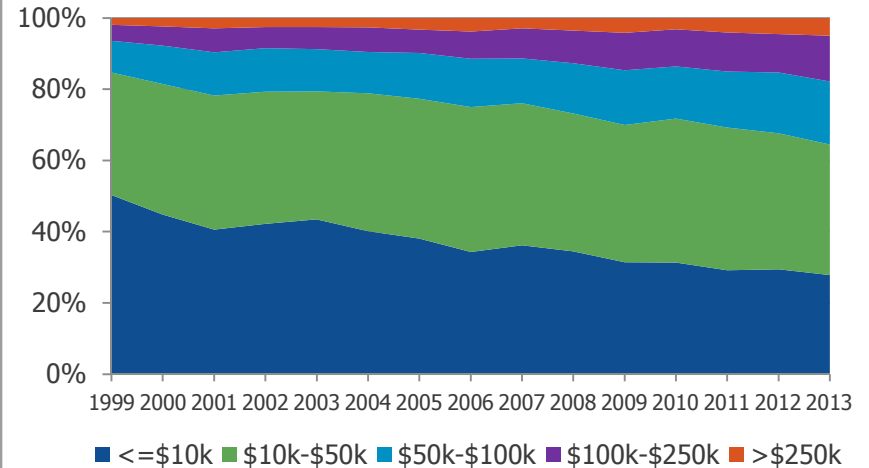


Claims trends: NPDB

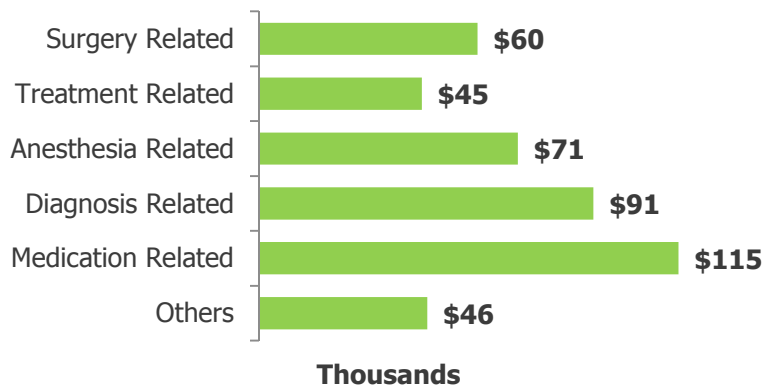
Percentage of Claims by Allegation Group, 2004-2013



Range of Payments



Average Indemnity by Allegation Group, 2004-2013



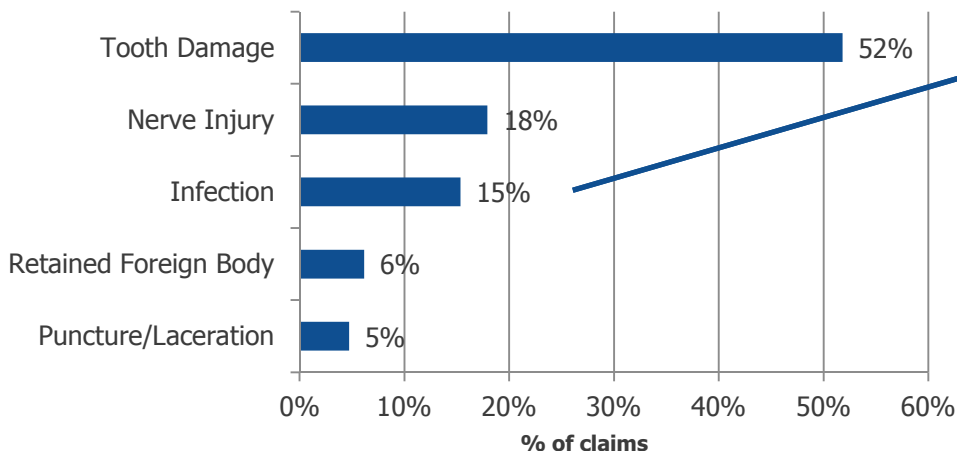
Procedural and treatment claims account for more than 2/3 of the indemnity-paid dental claims over the past 10 years. Medication related claims are the most expensive, followed by diagnosis and anesthesia related claims.

Payments under \$50K continue to represent the majority, but the percentage of more expensive claims has started to rise over the past few years.

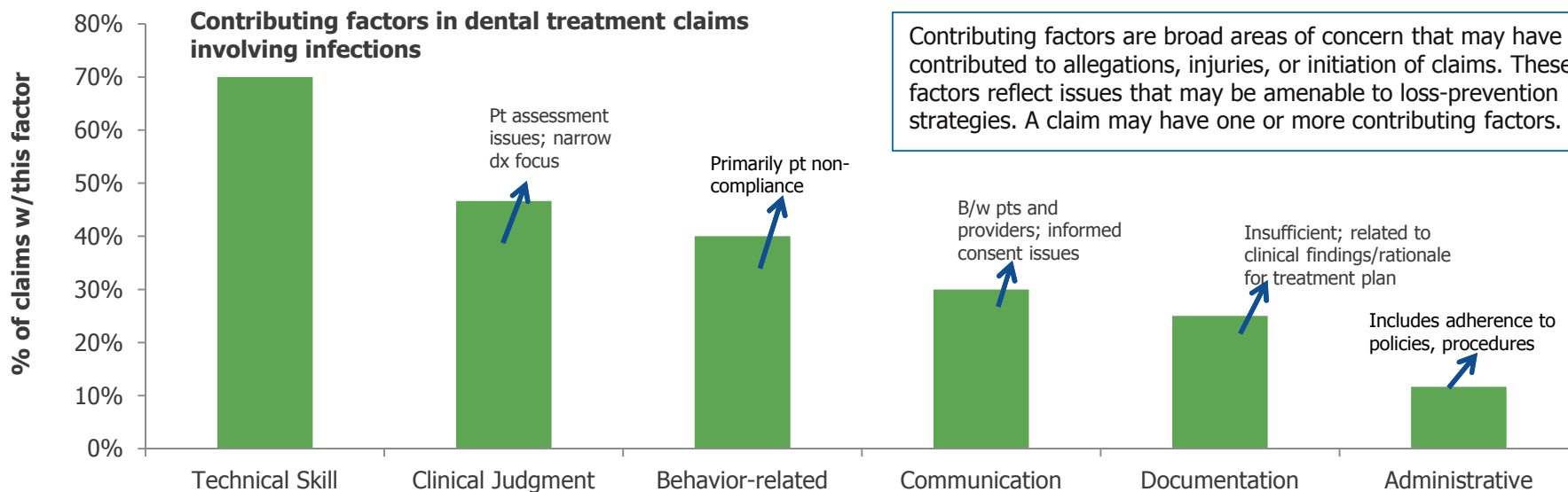


Claims trends: MedPro Group

Injuries in dental claims



Post-treatment infections are one of the top injuries seen in dental treatment claims.



Contributing factors are broad areas of concern that may have contributed to allegations, injuries, or initiation of claims. These factors reflect issues that may be amenable to loss-prevention strategies. A claim may have one or more contributing factors.



If saliva was red . . .



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The dental office infection prevention and control (IP&C) program

Should have a coordinator:
dentist or other dental
healthcare personnel
(DHCP) knowledgeable or
willing to be trained,
assigned the responsibility
for the program



Infection prevention and control program

Program plan should be written:

- Policies, procedures, practices
- Supporting documents
- Federal, State, and local regulations and statutes should be known and included
- Disease transmission principles included
- Principles of IP&C, occupational health, reflect current science
- Blood-borne pathogens
- Engineering controls that eliminate or isolate the hazard
- Work practice controls
- Personal protective equipment (PPE)



Infection prevention and control program

- Educate DHCP regarding the principles of IP&C
- Identify work-related infection risks
- Institute preventive measures
- Ensure prompt exposure management and medical follow-up



Infection prevention and control program

Employee health history

- Immunization record
 - Hepatitis B
 - Influenza
 - Measles
 - Mumps
 - Rubella
 - Varicella
- TB testing

- The Advisory Committee on Immunization Practices (ACIP) recommends all HCWs have immunity to these.
- Federal and State regulations should be followed.



Hepatitis B vaccine



- OSHA requirements
- Offered to employees at no cost
 - Dentists
 - Dental hygienists
 - Dental assistants
 - Laboratory technicians
- Early in employment
- Employee may decline

Hepatitis B vaccine

- Eligibility based on job description and risk
- Offered free
- Within 10 working days of initial assignment
- Vaccine at 0,1, and 6 months
- Antibody titer testing 2 months after series is finished
- Documentation in record



Infection prevention and control program

- Need qualified medical services:
 - Local hospital employee health program
 - Occupational medicine physicians
 - Educational institution
 - Infectious disease physicians
 - Internal medicine physicians
 - Family practice physicians
- Assist with immunization and with postexposure
 - CDC Post-Exposure Prophylaxis (PEP) Hotline
1-888-448-4911



Case study #1

A dentist calls his malpractice carrier's risk consultant with an urgent request to consult.

He hired a new dental assistant 89 days ago. He has been training her with OJT as well as sending her to a local community college for a part-time dental assistant program.

Today, she came back from school with a specific request.

She requested the hepatitis B vaccine, stating that her school program strongly advised her to get this vaccine.

The dentist called because he wants to fire this employee before her 90-day probationary period is over — tomorrow.

He says: "I'm not paying all that money for the vaccine."



Case study #2

At 4:45 p.m. on a Friday afternoon, the malpractice carrier risk consultant receives an “emergent” call from a dentist.

He says that one of his dental assistants was stuck with a needle used on patient Mike Brown early this morning.

This dentist wants to know if there is anything he should be doing about this.

The patient has gone home and so has the dental assistant.

The dentist does not have any kind of an exposure control plan, isn't sure if his dental assistant has had hepatitis B vaccine, and wants to know if he has to do anything now or if he can wait until Monday.



- Avoiding exposure
 - Standard precautions
 - Applies to contact with:
 - ✓ Blood
 - ✓ All body fluids, secretions, excretions (except sweat) regardless of whether or not they contain blood
 - ✓ Non-intact skin
 - ✓ Mucous membranes



Infection prevention and control program

- Standard precautions:
 - Used on all patients, regardless of their infection status
- Transmission-based precautions:
 - Airborne, droplet, and contact
 - Rarely used in dentistry
 - Used for diseases such as tuberculosis, influenza, varicella



Components of standard precautions



- Hand hygiene
- Barrier precautions
- Respiratory hygiene/cough etiquette
- Safe injections practices

Hand hygiene

- Handwashing with soap and water
- Alcohol-based hand rubs: 60 percent to 95 percent alcohol
- Compliance with hand hygiene is led by the behavior of the dentist
- Fingernails short, artificial nails not recommended
- Nonsurgical dental procedures:
 - Before treatment
 - Between appointments
 - After glove removal
 - Before re-gloving
 - When hands visibly soiled
 - Before leaving treatment areas



Hand hygiene

- Surgical hand hygiene:
 - Antimicrobial soap, following recommendations, usually 2–6 minutes; hands and forearms
 - Alcohol-based rub with residual: prewash and dry; apply product, dry, then glove



Barrier precautions

- Personal protective equipment (PPE):
 - Disposable gloves
 - Eyewear with solid side shields
 - Masks
 - Protective clothing for splash, splatter, contact with body fluids, touching contaminating objects
- Type of protection should be related to the dental procedure not the patient's infectiousness!



**Single use
means
single use!**

Barrier precautions



- Environmental barriers:
 - Protect clinical contact surfaces that are difficult to clean:
 - ✓ Chair switches
 - ✓ Head rests
 - Clean and disinfect those surfaces not barrier protected

Barrier precautions

- Dams:
 - In many restorative and endodontic procedures, a dental dam is routinely used and provides an effective intraoral barrier, affording protection for DHCP and the patient.



Respiratory hygiene/cough etiquette

- Grew from observations during SARS outbreaks
- Minimizes the transmission of respiratory pathogens via droplet or airborne route
- Turn head away from others
- Maintain spatial separation, > 3 feet
- Contain the cough



Safe injection practices

- One needle, one syringe, one patient.
- Use single-dose vials whenever possible.
- Do not combine leftovers from single-dose vials.
- If multi-dose vials are used:
 - Keep away from patient treatment areas.
 - Cleanse access diaphragm with 70 percent alcohol.
 - Always use sterile needle and sterile syringe.



Engineering Controls:

- Identify, evaluate, and select devices with engineered safety features at least annually as they become available on the market.

Work-Practice Controls:

- Safe practices:
 - Puncture resistant containers.
 - Do not recap used needles with both hands.
 - Methods for “passing” sharp instruments or needles.



Post-exposure Management:

- Follow CDC recommendations after percutaneous, mucous membrane, or non-intact skin exposure to blood or OPIM.
- Utilize medical services to assist with protocol for source patient and for employee follow-up.
- Deliver first aid as necessary.
- Documentation of incident is essential.
- Circumstances of incident must be evaluated.



Cleaning

- Removal of visible soil from objects or surfaces, accomplished by manual or mechanical means, using water with detergents or enzymatic products. Cleaning is an essential step in either disinfection or sterilization as many processes will be ineffective in the presence of bioburden.

Disinfection

- A process that eliminates many or all pathogenic organisms on inanimate objects, with the exception of bacterial spores. Usually accomplished by liquid chemicals or wet pasteurization. Many factors affect this process.

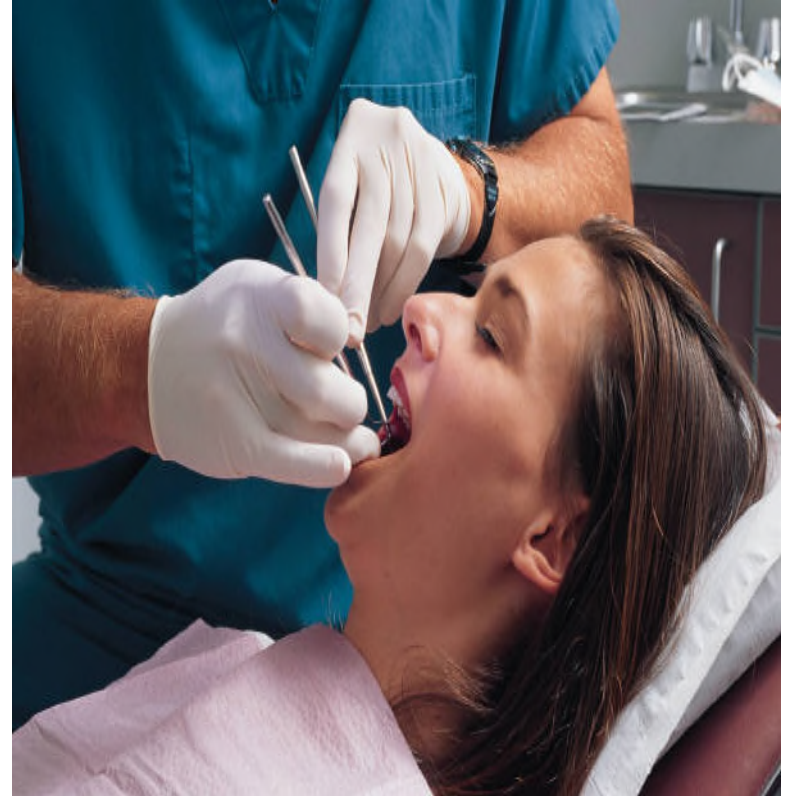
Sterilization

- Complete elimination or destruction of all forms of microbial life. This is accomplished by physical or chemical processes and is impacted by many parameters.



Contaminated patient care items:

- Critical
- Semi-critical
- Noncritical



Do not disinfect
when you can
sterilize!



Transporting patient care items

Instruments should be placed in an appropriate container at the point of use to prevent percutaneous injuries during transport to the instrument processing area.



- Central processing area divided into four sections:
 - Receiving, cleaning, and decontamination
 - Preparation and packaging
 - Sterilization
 - Storage
- When physical separation cannot be achieved, spatial separation might be satisfactory.



- Removal of debris as well as organic and inorganic contamination.
- Achieved by scrubbing with a surfactant, detergent, and water or by an automated process such as an ultrasonic cleaner or washer-disinfector.
- After cleaning, instruments should be rinsed with water.
- Splashing should be minimized.



Preparation and packaging

- Cleaned instruments should be inspected, assembled into sets or trays, and wrapped, packaged, or placed into container systems for sterilization.
- Hinged instruments processed open and unlocked.
- Internal chemical indicator should be placed in every package. External chemical indicator when internal indicator cannot be seen from outside the package.



- Sterilization should be done in equipment cleared by the FDA for this purpose.
- Manufacturers recommendations must be followed for loading.
- Packs should dry inside the sterilizer.
- Appropriate parameters must be followed and monitored.



Sterilization monitoring

Mechanical monitoring

- Some sterilizers print out time, temp, and pressure

Chemical monitoring

- Indicate exposure to sterilization process

Biological monitoring

- Best assessment of process; done at least weekly; every load for implantables; record keeping



Storage of supplies



- Enclosed area for storage.
- Event-related sterility vs. date-related sterility.
- Do not store under sinks or other locations where they might get wet.

Instrument processing personnel

- Must have written processes.
- Must document training of personnel who perform these tasks.
- Job descriptions should include competency check lists.
- Competencies should be re-assessed on a regular basis, at a minimum, annually.
- Employee record should indicate competencies and training.



Case study #3

A dental practice uses cassettes to package and sterilize their prophy equipment.

Their process is to clean, decontaminate, and package the instruments; load the sterilizer; and turn it on as they are leaving.

On a particular morning, they unloaded the sterilizer and began using the equipment.

Later in the morning, they noticed that the chemical indicators in all of the remaining cassettes had not “turned.”

It appeared that the sterilizer had not been turned on the night before.

Seven cassettes had already been used on patients.



Dental unit waterlines, biofilm, and water quality

- Use water that meets EPA standards for drinking water.
- Consult with manufacturer for methods to maintain water quality.
- Discharge water and air for 20-30 seconds after each patient from any device connected to the dental water system that enters the patient's mouth.



Possible Disease Outbreak in Dental Clinics
Validates the Need for Infection-Control
Protocols

St. Louis VA Medical Center Dental Infections:
Nearly 2,000 at Risk

Senate Hearing Sought on Dayton VA Dental
Clinic



Outbreak #1

Who	Three patients and two volunteers
What	Identified with acute hepatitis B
Where	Mission of Mercy Clinic held for 2 days at a high school in West Virginia
When	June 2009
How	Unsure of method of transmission but might be related to improper cleaning of equipment, also no Infection Preventionist involved with this clinic
Mitigation	Notification letters mailed to 1,137 patients and 826 volunteers recommending testing for hepatitis B, hepatitis C, and HIV.



Outbreak #2

Who 1,800 patients

What Potential exposure

Where VA dental clinic in Missouri

When February 2009 to March 2010

How Breach in instrument processing

Mitigation 1,800 patients were notified that they could have been exposed to hepatitis B, hepatitis C, or HIV. Testing, evaluation and counseling was offered.



Risk management words of wisdom



Be sure to have an IP&C coordinator who is skilled.

Your IP&C program should be written, but doesn't need to be as long as the telephone directory.

Employee health is a key component of your program.



Risk management words of wisdom



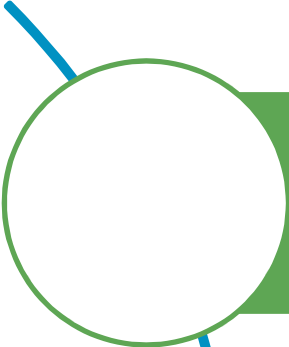
Establish an appropriate relationship with a medical service to assist with your employee health program.

Remember that the dentist's behavior is the standard-setter for the practice.

Be sure that employees are appropriately trained and educated regarding infection prevention and control.




Risk management words of wisdom



The employees who clean, decontaminate and sterilize your instruments should be well trained. This training should be re-confirmed and documented.



No staff should come to work when they are sick.



Patients who are sick should be re-scheduled, unless there is an emergency.



If it says “For single patient use” or “disposable,” it means just that. Do not reuse or reprocess!



What questions do
you have?



Thank You!



THANK YOU for your participation!

Please use this link to access the CDE test
and webinar evaluation:

<http://www.medpro.com/webinar-infection-prevention>

