Empower Through Connections

Empowerment is the development of confidence in one’s own abilities. Last year we looked at empowerment through effective communication, leadership, motivation of others and proactive attitudes. This year we’ll continue this series by discussing empowerment through connections with people, places and things. We’ll explore various incidents (scenarios) of improper infection prevention and safety that could occur in a dental facility. Then we’ll describe how empowerment through connections can help prevent such incidents and include a listing of related regulations and recommendations. The first two issues were titled “Connect with Policies and Training” and “Empower by Connecting with Places”. Following the current issue will be “Empower by Connecting with Products and Equipment”, “Empower by Connecting with People”, and “Empower by Connecting with Research”.

Empower by Connecting with Compliance

Scenario 1
The Incident:
Last January Bethea (the instrument processing assistant in Dr. Walgang’s office) made a New Year’s resolution to not get any sharps injuries this coming year. She told Oliveta and Martydean (chairsides assistants in the office) about her resolution. Oliveta said, “Oh, I’ve never had a needlestick or other injury at work, why should we worry about that? Martydean said, “Well sometimes these exposures can’t be helped - we just need to be careful”.

What Oliveta and Martydean didn’t know was that last year Bethea got one contaminated needlestick and an instrument puncture with a periodontal probe that should never have happened. One time a syringe with a bent needle still attached was left in an instrument cassette, and when Bethea opened the cassette and reached inside the injury occurred. Another time a periodontal probe was returned haphazardly to the cassette at chairside and again when Bethea opened the cassette she stuck the palm of her hand. Although Bethea went through the post-exposure procedures, the information about the incidences was not shared with the rest of the office staff.

Learning Objectives

After reading this publication, the reader should be able to:
► describe the relationship between compliance and requirements.
► describe at least one approach to empower your office by connecting with compliance.
► define a culture of safety.
► describe ways that contribute to a culture of safety in a dental office.

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Empower by Connecting with Compliance

what is more devastating is that non-compliance can place patients as well as all of the office staff at risk for infectious disease or some other bodily harm. In this Scenario Bethea received sharps injuries because Oliveta and Martydean did not comply with certain aspects of office safety.

Another important part of compliance is that in order to comply one must know what is required. Thus, receiving proper training and keeping up to date with new regulations is very important.

The consequences of exposures to patients’ blood or saliva in the office include the possible transmission of bloodborne diseases such as hepatitis B, hepatitis C and HIV-disease. Other non-specific infections (usually localized rather than systemic in nature) also may occur at the exposure or injury site as a result of exposure to bacteria or other viruses in the blood or saliva involved.

Another often overlooked consequence of sharps injuries is the anxiety one goes through waiting for the results of the tests for bloodborne virus exposure – which, by the way, were all negative for Bethea on both occasions. This anxiety was the main reason for Bethea’s New Year’s resolution.

Prevention and Empowerment:
A good way to ensure compliance with the Bloodborne Pathogens Standard (BPS) and the Hazard Communication Standard (HCS) is to review and complete a model plan for each of these standards provided by the Occupational Safety and Health Act (OSHA) and modify them to align with your office staff and procedures.1

If Dr. Walgang and his staff had empowered themselves by complying with the BPS and the HCS requirements, as well as developing a sharps injury prevention program2 and a “Culture of Safety” for the office, it’s likely that Bethea’s injuries would not have occurred. The chairside assistants put Bethea at risk by not complying with proper procedures. Disposable sharps need to be placed in a disposable sharps container located chairside and never put into instrument cassettes or on instrument trays. Instruments need to be returned to cassettes or trays in a stable fashion taking care to avoid injuries. Based upon Oliveta’s and

Promote a culture of safety and individual accountability by having doctor(s) and team members sign a pledge to promote safety.
Martydean’s comments, there was not a culture of safety in Dr. Walgang’s office, and remedial training did not occur for the office staff after Bethea’s previous exposures.

A “Culture of Safety” refers to factors that influence overall attitudes and behavior about safety in the office. It’s one general strategy recommended by the Centers for Disease Control and Prevention (CDC) - National Institute for Occupational Safety and Health (NIOSH). A culture of safety reflects the shared commitment of the employer and employees toward ensuring the safety of the work environment.

The employer should openly support a safety culture by:
- providing an adequate supply of resources which includes proper training;
- engaging worker participation in safety planning;
- making available appropriate safety devices and protective equipment;
- introducing workers to a safety culture when they are first hired.

Other components of a safety culture include:
- identifying and removing sharps injury hazards;
- developing feedback systems to communicate safety (e.g., newsletters, bulletin boards, brochures, meeting agendas, rewards for identifying dangerous situations, celebrations for success and improvements);
- promoting individual accountability (e.g., assess safety compliance, have staff sign a pledge to promote safety);
- measuring improvements in safety (e.g., before and after survey of an event to identify staff perception of safety in the office; sharps injury reports);
- reinforcing the culture throughout the year.

Some Related Regulations (OSHA) and Recommendations (CDC):
- To reduce the chances of a sharps injury, dental personnel should wear puncture-resistant, heavy-duty gloves when handling or manually cleaning contaminated instruments and devices (CDC⁴, OSHA⁵).
- Dental personnel should not reach into trays or containers holding reusable sharp instruments that cannot be seen; instead use forceps to remove items or process using an instrument cassette. (CDC⁴, OSHA⁵).
- Dental personnel should never bend or break needles before disposal; the tip of an exposed needle on a syringe should not be pointed toward any part of the body; and passing a syringe with an unsheathed needle should be avoided (CDC⁴, OSHA⁵).
- Place used disposable syringes and needles, scalpel blades, and other sharp items in appropriate puncture-resistant containers located as close as feasible to the area in which the items are used (CDC⁴, OSHA⁵).
- Containers for contaminated sharps shall be:
  - easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used (e.g., near chairside in the dental operatory) or can be reasonably anticipated to be found (e.g., instrument processing area, dental lab work area);
  - maintained upright throughout use; and
  - replaced routinely and not be allowed to overflow (OSHA) ⁵.
- Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed (CDC⁴, OSHA⁵).
- Contaminated sharps which are being transported should be placed immediately, or as soon as feasible, in containers that are closable, puncture-resistant, leakproof on the sides and bottom, and labeled or color coded (OSHA) ⁵.

Scenario 2
The Incident:
Dr. Fluger was thinking about retiring from his dental practice in 6-12 months and had identified a possible associate (Dr. Plotter - a recent DDS graduate) to take over the practice. The building was just 10 years old, and the office had three fairly modern dental units, a nice film x-ray unit and darkroom, and small lab and storage room. Ezmerelda (Dr. Fluger’s wife) was the hygienist and his daughter (Krissy) was the dental assistant. There also was one front office person. Dr. Plotter was invited to visit the office to review the day-to-day operations before committing to come on board. He found the business end of the practice and patient load to be in good shape for not being computerized, but he was concerned about the outdated infection prevention program.

Some of the observed problems were that handpieces weren’t being sterilized - they were just wiped off with a disinfectant; instruments were packaged after being processed in the autoclave; the spore strips used to monitor the sterilization process had expired; no system was in place to ensure good quality treatment water; no eyewash stations; and a written exposure control plan that was dusty and dated 1998.

After speaking with Ezmerelda and Krissy, it was obvious they had not received adequate training on bloodborne pathogens; however they had both been vaccinated against hepatitis B. So Dr. P said to Dr. F: “let me work with you for 6 months to see if we can modernize your patient records and bring your infection prevention program into compliance where I’ll feel comfortable buying your practice”.

Potential Consequences:
Dr. F’s office was not only out of compliance with infection prevention requirements, but also likely didn’t know the continued on page 4
related OSHA requirements since their exposure control plan had not been updated for 14 years. Some consequences of non-compliance in his office are as follows.

- Just wiping off the outside of handpieces between patients does nothing to reduce the internal contamination that can possibly enter the next patient’s mouth.
- Not packaging instruments before sterilization allows them to become contaminated after sterilization and before they are presented to the next patient.
- If spore testing is not routinely performed with unexpired spore tests, then the safety of instruments used on patients cannot be assumed. Spore testing (biological monitoring) is the best way to directly show that the sterilizer is killing microbes. Since the spores in the spore tests (biological indicators) are more resistant and present in higher numbers than the common microbial contaminants found on patient care instruments, an inactivated spore strip indicates other potential pathogens in the load of instruments have been killed. Also chemical and physical monitoring was not consistently performed.
- The high microbial level present in untreated dental unit water is of particular concern for immunocompromised patients who can be overly susceptible to environmental microbes that may be present in the water such as members of the genera Legionella, Pseudomonas and non-tuberculous Mycobacterium.
- The consequences of not having an eyewash station can be devastating to one’s sight should a splash of a caustic substance occur.
- An outdated exposure control plan clearly shows that a culture of safety does not exist in Dr. F’s office.

Prevention and Empowerment:
Dr. Plotter had two computers installed and worked with the staff using software for managing patient records, scheduling and billing, and also instructed them on the importance of disinfecting the keyboards. He then used the following approach to motivate a culture of safety in Dr. Fluger’s office by recommending the steps below to empower the staff and bring them into compliance with current dental infection prevention recommendations.

1. Review the CDC’s program evaluation recommendations.  6
2. Review current infection prevention and safety laws and recommendations.
3. Make sure the office is accessing up-to-date infection prevention and safety information through a Practice Membership in OSAP.
4. Evaluate the infection prevention and safety training received by office personnel.
5. Evaluate the exposure prevention procedures being used with related safety products and equipment.
6. Make the necessary adjustments to provide appropriate training and establish standard operating procedures that comply with requirements and recommendations.

Some Related Regulations and Recommendations:
- The Exposure Control Plan shall be reviewed and updated at least annually (OSHA). 5
- Establish routine evaluation of infection control program, including evaluation of performance indicators, at an established frequency (CDC). 4
- Dental unit water should meet regulatory standards set by the Environmental Protection Agency for drinking water (fewer than 500 CFU/mL of heterotrophic water bacteria) for routine dental treatment output water (CDC). 4
- Consult with the dental unit manufacturer for appropriate methods and equipment to clean the dental unit waterlines and to maintain the recommended quality of dental water (CDC). 4
- Clean and heat-sterilize handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units between patients (CDC). 4
- Use mechanical, chemical, and biological monitors according to the manufacturer’s instructions to ensure the effectiveness of the sterilization process (CDC). 4
- Monitor sterilizers at least weekly using a biologic indicator with a matching control (i.e., biologic indicator and control from same lot number) (CDC). 4
- Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up (CDC) (OSHA). 5

Reader’s Poll Question
Are you satisfied with the ‘culture of safety’ in your working environment?

a) Yes  b) No  c) Comments

Answer this month’s Reader’s Poll question by accessing this link.
http://www.zoomerang.com/Survey/WEB22FXUQQLW

See page 6 for a summary of the May Reader’s Poll Question.
The 2nd edition of the National Scientific Conference of the Nigerian Oral & Maxillofacial Pathology/Medicine is scheduled to take place on the 17th and 18th July, 2012 in Lagos.


The conference will highlight the effects of systemic conditions on oral health care delivery, particularly in developing countries, and afford participants an understanding and appreciation of the scope of challenges facing oral health clinicians in the diagnosis and management of medically compromised dental patients and management of oral manifestations of systemic disease.

Jonathan Lawoyin DDS, MMSc
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What’s Wrong with this Picture?
Can you identify any breach in infection prevention and safety procedures in this photo? Check your answers below.

The CDC recommends protective clothing with long sleeves.

When placing the patient’s bib. The dental assistant should not be wearing examination gloves.

Answers:

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To download the quiz and answer key, visit the OSAP.org home page, select the red and yellow ‘Contagion’ text box; at the ‘Contagion’ page scroll down to: ‘Use this QUIZ’.

Connect with others!
If you’re a blogger or tweeter check out the bottom left-hand menu on OSAP’s home page http://www.osap.org.
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If you have received this newsletter from a friend or associate, you can access other helpful resources and timely information on infection prevention and safety by becoming a member of the OSAP community. EVERYONE has a role to play in ensuring safe, infection-free access to oral healthcare.

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Glossary

**Culture of Safety:** The shared commitment of the employer and employees toward ensuring the safety of the work environment, which is observable in the overall attitudes and behavior about safety in the office. It’s one general strategy recommended by the Centers for Disease Control and Prevention (CDC) - National Institute for Occupational Safety and Health (NIOSH).^3

Links to Resources


Reader’s Poll Question Results from May Issue

Have you ever been challenged in how to tactfully inform colleagues, employers or other office staff about breaches in infection prevention or safety?

a) Yes (100%)  b) No (0%)
If you wish to obtain one (1) hour of continuing education (CE) credit, complete the following test by selecting the best answer and fax or mail it to the OSAP Central Office for grading. Please include a check or credit card to cover the handling charges. Pending satisfactory results (at least seven out of ten), you will be issued a letter for one (1) CE credit hour. OSAP is recognized by the American Dental Association as a CERP Provider.*

For each item, pick the best answer.

1. A culture of safety:
   a. refers to factors that influence overall attitudes and behavior about safety.
   b. is a culture of bacteria that have been killed.
   c. is a group of people that study various cultures in Asia.
   d. was the first program established by the World Health Organization to teach school children about various African cultures.

2. Where should sharps containers be located in a dental office?
   a. In the sterilizing room
   b. At chairsides
   c. Only in the dental laboratory
   d. Where sharps are used or may be reasonably anticipated to be found

3. Who might be the most vulnerable to infection with the environmental bacteria present in untreated dental unit water?
   a. Middle-aged men
   b. Middle-aged women
   c. Immunocompromised patients
   d. Patients already infected with the hepatitis B virus

4. Where can one obtain a model plan for complying with the Hazard Communication Standard?
   a. The Centers for Disease Control and Prevention
   b. The Occupational Safety and Health Administration
   c. The Food and Drug Administration
   d. The Environmental Protection Agency

5. Dental personnel should not reach into trays or containers that are holding ________ that cannot be seen.
   a. reusable sharp instruments
   b. low-speed handpiece motors
   c. metal air/water syringe tips
   d. face masks

6. Which of the following should not be a characteristic of a sharps container?
   a. Made of glass so one can see how full it is
   b. Be puncture resistant
   c. Be closable
   d. Be leakproof on the sides and bottom

7. According to the Centers for Disease Control and Prevention how often should a dental sterilizer be monitored with biological indicators?
   a. At least daily
   b. At least weekly
   c. At least monthly
   d. At least bimonthly

8. How often does OSHA require the exposure control plan to be reviewed?
   a. At least monthly
   b. At least bimonthly
   c. At least annually
   d. At least every two years

9. The Centers for Disease Control and Prevention recommend that the microbial content of dental unit water should be at least as good as ________?
   a. sterile water.
   b. water for injection.
   c. drinking water.
   d. river water.

10. When should workers first be introduced to a culture of safety?
    a. After a 6 month long trial period
    b. When hired
    c. When being reviewed for a promotion
    d. After a second exposure to contaminated material

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What’s It All About?

This issue presents scenarios describing various breaches of infection prevention and safety protocol in the dental setting that may lead to the spread of infectious agents to patients. Always remember to connect with compliance to empower yourself and others in the office with confidence on how to safely deliver oral healthcare.

Do you know what a culture of safety is?

Do you know how to establish a culture of safety?

Do you know how to evaluate compliance with infection prevention requirements in the office?

Read On!

In the next issue: Empower by Connecting with Products and Equipment