After reading this article, the reader should be able to:

► describe who should manage the recapping and disposal of used needles.
► describe when to wear personal protective equipment.
► describe the importance of proper post-exposure management procedures.
► describe an approach to solving infection prevention problems in staff meetings.
Avoid Contact with Blood and Other Body Fluids

Continued from page 1

By not immediately reporting her eye exposure, Skye put herself at increased risk of infection because no medical evaluation or follow-up of the incident was obtained. Flushing the eyes may not have been sufficient to avoid infection with agents potentially present in Mrs. Guyland’s saliva. As it turned out Mrs. Guyland did not have intraoral herpes lesions but Skye did not know that at the time of her exposure.

Also, Mrs. Guyland was unnecessarily exposed to environmental microbes. Skye put on her patient care gloves too early. She touched a variety of surfaces during operatory preparation and then proceeded with patient care using the same gloves. Also in the stress of the exposure situation Skye forgot to replace her gloves when she returned to chairside after flushing out her eye. Thus, Mrs. Guyland was contaminated with whatever microbes were on the environmental surfaces that Skye touched with her gloved hands while she was away from chairside.

Prevention and Empowerment:
Skye should have received training about the importance of wearing personal protective barriers (PPE: gloves, mask, protective clothing and eyewear) for all patient care activities. She assumed that since no air/water syringe or handpieces were planned for use with Mrs. Guyland, a gown and gloves would be sufficient protective barriers. She was wrong! Her training also should have included information about

hapatitis

bacterial/viral con-junctivitis, keratitis and endophthalmi-tis. The eyes also may serve as a portal of entry for some hepatitis vi-ruses. 1, 2, 3 The risk of hepatitis virus transmission is not well documented though the con-centration of virus in saliva of hep-a-titis B virus (HBV)- or hepatitis C virus (HCV)-infected persons is several orders of magnitude lower than that found in blood. Herpes infections of the eye can be quite dangerous with the recurrent form of ocular herpes infection possibly leading to blindness. Most adults are infected with human herpes virus type 1 (herpes simplex virus), and approximately 10% experience recurrent lesions in or around the mouth and nose. Patients with active oral herpes lesions as well as some of those who are asymptomatic can shed the virus into their saliva. 4
oral lesions that may have a potential to be infectious for the dental team (e.g., herpes lesions). Skye should have considered this when Dr. Chasen told her Mrs. Guyland had “bumps” in her mouth.

Her training also should have emphasized the importance of reporting ALL exposure incidents immediately. This is essential to receiving appropriate medical evaluation and follow-up. Preventing a harmful infection often relies upon quick treatment after exposure. An example is receiving human immunodeficiency virus (HIV) prophylaxis as soon as possible if indicated in the medical evaluation.6

Gloves used for patient treatment should be put on just before starting the treatment. Changing gloves with appropriate hand hygiene needs to be a standard practice whenever leaving a patient and returning to chairside. Also, eyewash apparatus needs to be installed on all sinks in the office for the most efficient way to flush the eyes.

There is a chance that Skye received appropriate training on the topics mentioned above, but that she simply did not heed the warnings for whatever reasons. But the important question is -- why take unnecessary risks?

Bertha Rae wanted to empower Skye with infection prevention information without embarrassing her, so she scheduled a brief training session for the next staff meeting. At that meeting Bertha Rae brought up the problems of not wearing proper barriers and of not changing contaminated gloves before contacting the patient. She did this without accusing Skye of anything because she wanted to just state “potential” problems and then focus on solutions.

She started out by saying: “You simply cannot predict when an exposure may occur, so you must always be prepared to avoid contact with blood and other body fluids.” Then she said: “Can anyone tell us how to best prevent exposure to our patients’ saliva?” June spoke up and said: “Wear all the barriers with every patient.” Then Bertha Rae asked: “When should we put on our patient care gloves?” June again spoke up and said: “Just before entering the patient’s mouth for the first time?”

Bertha Rae then cited some Occupational Safety and Health Administration (OSHA) rules and Centers for Disease Control and Prevention (CDC) guidelines related to the proper use of barriers and the procedures for post-exposure management. She also encouraged the staff to be proactive and seek out training information on the OSAP website (www.osap.org).

Skye would have learned about proper use of PPE and post-exposure follow-up if she would have just accessed OSAP’s website (http://www.osap.org; “Resources” on the left-hand menu; “Ask Lily...”; “Access Program Here”; language; “Menu” on left-hand side; click on “Avoid contact with blood and other body fluids”).

Some related regulations and recommendations

- “The employer shall ensure that the employee uses appropriate personal protective equipment…” (OSHA).7

- “Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated” (OSHA).7

- “Wear a surgical mask and eye protection with solid side shields or a face shield to protect mucous membranes of the eyes, nose, and mouth during procedures likely to generate splashing or spattering of blood or other body fluids” (CDC).6

- “Wear a new pair of medical gloves for each patient, remove them promptly after use, and wash hands immediately to avoid transfer of microorganisms to other patients or environments” (CDC).6

- “Develop a comprehensive postexposure management and medical follow-up program; include policies and procedures for prompt reporting, evaluation, counseling, treatment, and medical follow-up of occupational exposures” (CDC).6

- Training shall contain… “an explanation of the modes of transmission of bloodborne pathogens… an explanation of the procedures to follow if an exposure incident occurs…” (OSHA).7

Continued on page 4
Avoid Contact with Blood and Other Body Fluids

Scenario 2

The incident:
Last week Dr. M was seeing a new patient, Kate Handlemeyer. After he finished giving her a mandibular block he laid the syringe on the bracket table. Pantella (the chairside assistant) picked up the syringe and when removing the needle she stuck her finger.

Potential Consequences:
Contaminated needlesticks can transmit bloodborne infectious agents of hepatitis B, hepatitis C and HIV-disease.\(^6\) Hepatitis B is a well-recognized risk for dental health care personnel (DHCP), but vaccination and use of standard precautions have greatly reduced this risk. Hepatitis C is not easily transmitted through occupational exposure, and the low risk for DHCP is similar to that among people in other occupations.

As of December 2002, CDC has confirmed occupational HIV-seroconversion in 57 American health care workers – none of which have been DHCP. Thus the risk of acquiring HIV-disease after percutaneous exposure of DHCP to HIV-infected blood is surely quite low. In fact, to date, no DHCP is known to have become HIV-positive following documented occupational exposure to an infected patient’s blood or body fluid (though 6 dental personnel/138 health care workers (HCW) have possible occupationally acquired HIV disease).

Since saliva is teeming with microbes, needlesticks involving saliva can result in bacterial infections at the injury site.

Prevention and Empowerment:
Dr. M should have taken care of the used needle himself after injecting Ms. Handlemeyer by safely re-capping the needle followed by its removal and disposal in a sharps container. It’s best to take care of a disposable sharp yourself rather than put someone else at risk. This is why sharps containers should be near the site where sharps are used and found. Unfortunately disposable dental syringes are not in common use, so the needle has to be removed from the syringe for disposal.

This is a dangerous activity, and the fact that there are sharp points on both ends of a dental needle make it worse. When Pantella decided to handle the needle, she should have safely recapped the needle before she tried to remove it from the syringe.

Considering this scenario, think about your office and determine if there is a solid culture of safety in the atmosphere for all of the staff to avoid contact with patients’ blood and saliva. Think about suggesting some ways to enhance communication about safety. For example, have each staff choose a safety topic (see below for a few suggestions) and prepare a related, step-by-step, compliance checklist for discussion at an upcoming staff meeting. Hold a contest for the best hand-made safety poster, phrase or jingle. Convince the doctor to provide a free lunch for the winner.

Safety topics for empowerment checklists

- Sharps safety
- Post-exposure procedures
- Operatory prep
- Operatory clean-up
- Donning and removing personal protective equipment (PPE)
- Location of MSDSs, chemical lists, OSHA standards, exposure control plan, emergency exit plan, eyewash stations, PPE, fire extinguishers

Some related regulations and recommendations:

- “Develop a written personnel health program for DHCP that includes policies, procedures, and guidelines for education and training; immunizations; exposure prevention and post-exposure management; medical conditions, work-related illness, and associated work restrictions; contact dermatitis and latex hypersensitivity; and maintenance of records, data management, and confidentiality” (CDC).\(^6\)

- “Ensure that DHCP who handle and dispose of potentially infective wastes are trained in appropriate handling and disposal methods and that they are informed of the possible health and safety hazards” (CDC).\(^6\)

- Disposable contaminated sharps shall be discarded immediately or as soon as feasible after use … in proper containers easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (OSHA).\(^7\)
What’s Wrong With This Picture?

Can you identify any breach in infection control and safety procedures in this photo? Check your answers below.

1. The dental assistant and patient have no gloves on.
2. The assistant is not wearing protective eyewear.
3. The dentist’s eyeglasses do not have side shields.
4. The dentist appears to be wearing street clothes.

Did You Know?

Have you been challenged with the task of initiating staff meetings about infection prevention and compliance? Noel Kelsch, RDHAP gives us some tips on how to spark discussions during staff meetings.

- Bring your suggestions to staff meetings in a positive manner in the form of a challenge to overcome and with suggestions to solve the problem.
- Focus on the solution to a problem and not the problem or a particular person who may have the problem.
- Give everyone some part of ownership in the solution of problems.
- During the staff meeting, ask everyone if they have any suggestions to ensure a smoother compliance with a solution.
- Once the solution has been agreed on, review the tasks that will be performed and who will be performing them.
- Have clear guidelines of how the problem is to be solved and the role of each staff member involved.

Drilling Down With OSAP

OSAP provides a wealth of infection prevention and safety information on its web site http://www.osap.org.

For example, on the home page highlight the "Guidelines/ Standards" on the left-hand menu; click on “Guidelines by Topic Areas”; and you’ll see the “Toolkit Index” which is an alphabetical search engine to link you to multiple sites on a variety of topics. Try it!

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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- Patterson Dental ➤ pattersondental.com
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- PDI, The healthcare division of Nice-Pak ➤ pdipdi.com
  Live a healthier life with clinically proven products that safely clean, disinfect and control disease infection.

- Septodont ➤ septodontusa.com
  Septodont, providing better dentistry through pain control, restoratives and infection control products.

- SmartPractice ➤ smartpractice.com
If you have received this newsletter from a friend or associate, you can access other helpful resources and timely information on infection control and safety by becoming a member of the OSAP community.

**Member registration is easy.**

Online at [www.osap.org](http://www.osap.org) or by phone: 1-800-298-OSAP (6727) within the U.S. or 1-410-571-0003 outside the U.S.

**Current membership levels:**

- Individual member (within the U.S.) $110
- Individual member (outside the U.S.) $160
- Web-only member (anywhere) $100
- Student member $25
- Corporate memberships are welcome; please contact OSAP for more information.

*Note: The OSAP Board voted to maintain these rates through June 30, 2011.*

**Glossary**

**Aphthous ulcers:** also called canker sores, are small, shallow lesions that develop on the soft tissues in the mouth and at the base of the gums. Unlike cold sores, canker sores don’t occur on the surface of your lips and aren’t contagious.

**Conjunctivitis:** inflammation of the eye membranes

**Endophthalmitis:** an inflammatory process that involves the ocular cavity and adjacent structures

**Keratitis:** inflammation of the cornea of the eye

**Stenson’s duct:** the connection through which saliva passes between the parotid salivary gland and the mouth

**Links to Resources**


Continuing Education

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. Protective eyeglasses required by OSHA as part of PPE need to:
   a. be scratch resistant.  
   b. have solid side shields.  
   c. be tinted.  
   d. be fog-resistant.

2. Disposable contaminated sharps should be discarded:
   a. immediately or as soon as feasible after use.  
   b. immediately after the patient is dismissed.  
   c. at the end of each ½-day clinic session.  
   d. just before the next patient is seated.

3. When should a staff person report his/her chairside exposure to a patient’s oral fluids?
   a. Immediately after the patient is dismissed  
   b. Just after the next patient is seated  
   c. At the end of the ½-day clinic session  
   d. Immediately

4. Who should manage the re-capping and/or disposal of a used anesthetic needle?
   a. The person who administered the anesthetic  
   b. The chairside dental assistant  
   c. The person working in the sterilizing room  
   d. The housekeeping staff

5. When temporarily leaving a patient which barrier(s) must always be removed and replaced before returning to the patient?
   a. Mask  
   b. Protective clothing  
   c. Gloves  
   d. Protective eyewear

6. Gloves used for patient treatment should be put on just:
   a. before placing fresh surface covers on disinfected operatory surfaces.  
   b. before getting the patient from the waiting room.  
   c. before taking the medical history.  
   d. before starting patient treatment.

7. Aphthous ulcers:
   a. are not contagious.  
   b. occur only in the stomach.  
   c. occur only in the eyes.  
   d. are the same as herpes lesions.

8. Inflammation of the membranes of the eye is called:
   a. endophthalmitis.  
   b. conjunctivitis.  
   c. opticitis.  
   d. hepatitis.

9. Inflammation of the cornea of the eye is called:
   a. iritis.  
   b. opticitis.  
   c. keratitis.  
   d. pulpitis.

10. Stenson’s duct is the connection through which saliva passes between the ______________ salivary gland and the mouth.
    a. submaxillary  
    b. sublingual  
    c. submandibular  
    d. parotid

*ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. Concerns or complaints about a CE provider may be directed to the CE provider or to ADA CERP at ADA.org/goto/cerp. Please email the OSAP central office at office@osap.org or call 1-410-571-0003 if you wish to be in contact with the course author/creator(s) with any questions or for clarification of course concepts. All participants assume individual responsibility for providing evidence of contact hours of continuing education to the appropriate authorities and for the maintenance of their individual records.

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Infection Control In Practice  Volume 10, No. 3  June 2011  www.OSAP.org  7
What’s It All About?

This issue presents scenarios describing various breaches of infection control and safety protocol in the dental setting that may lead to the development of an infectious disease or unnecessary personal contamination. Always remember that you must avoid contact with blood and saliva and empower yourself and others with confidence about infection prevention.

Discover some techniques to:

• reaffirm the importance of following post-exposure management procedures.

• initiate problem-solving discussions about infection prevention.

• motivate staff compliance with infection prevention and safe practices.

Read On!

In the next issue.....Make and keep objects safe for use