Infection Control Consideration for Dental Services in Sites Using Portable Equipment or Mobile Vans

Kathy J. Eklund, RDH MHP
keklund@forsyth.org
AACDP Annual Symposium
April 25, 2010
DRAFT 4-25-2010

The following information is intended to provide Guidance for implementing infection control measures in dental settings that use portable dental equipment. This information does not reflect the official views of CDC nor should this information be construed as CDC recommendations or guidelines.

DRAFT 4-25-2010
Objectives

- Discuss challenges in implementing IC practices in portable and mobile dental settings
- Review a draft Infection Control site assessment tool
- Receive feedback from participants about:
  - Content
  - Format
  - Dissemination strategies

Introduction and Background

- Many community and school-based dental programs use portable dental equipment or mobile vans
- Provide services in variety of environments where resources are limited
- Need guidance for implementing and developing “best practices” for infection control
Types of Settings

- Schools
- Homes/homebound
- Residential facilities:
  - Nursing homes,
  - Homeless shelters,
  - Correctional facilities
- Emergency/disaster relief

Community settings
- Churches
- YMCA
- Community centers

Community event sites
- Health fairs
- Special Olympics

Settings Using Portable Equipment
Mobile Van

Populations Served

- Children
- Adults
- Elderly
- Homebound
- Nursing home
- Homeless
- Migrant workers
- Disabled
- Incarcerated persons
SEE IC

Goal of infection control:
- Prevent healthcare-associated infections among patients
- Prevent injuries and illnesses among HCP

Implement CDC IC Guidelines and develop IC best practices to break the chain of infection
- Safe, Efficient, and Effective Infection Control
- Evidence-Based
- Best Practices
"... the recommended infection control practices are applicable to all settings in which dental treatment is provided."

Dental infection control recommendations from the Centers for Disease Control and Prevention (CDC) apply to all settings where dental services are provided, including those that use portable dental equipment or mobile van systems. Such settings often present challenges in implementing these guidelines.
History

- Phase 1 - Jennifer Cleveland and Kathy Eklund with a small working group in Boston developed Draft Infection Control Considerations for settings using portable dental equipment.
- Phase 2 – Presentation of Draft Considerations
  - 2008 NOHC
  - 2008 OSAP
  - Others

Current:

- 2009 The Organization for Safety and Asepsis Procedures (OSAP) formed a national advisory group to develop a practical community site assessment and corresponding infection control and safety checklists.
- Checklists offer infection control guidance for
  - oral health surveys,
  - screenings,
  - preventive care
  - treatment.
The Infection Control Checklist for Dental Settings Using Mobile Vans or Portable Dental Equipment is organized around:

- Level of anticipated contact with mucous membranes, blood or saliva contaminated with blood
- 4 Basic Principles of Minimizing Transmission of Bloodborne and other Infectious Diseases
Principle 1  
Take Action to Stay Healthy

Principle 2  
Avoid Contact with Blood & OPIM

Principle 3  
Make Objects Safe for Use

Principle 4  
Limit the Spread of Contamination

Take Action to Stay Healthy

- Immunizations
- Hepatitis B
- Vaccine preventable
- Annual Influenza
- Hand hygiene

DRAFT 4-25-2010
Hand Hygiene/Antisepsis for Routine Dental Procedures

<table>
<thead>
<tr>
<th></th>
<th>Soap &amp; Water</th>
<th>Anti-microbial Soap &amp; Water</th>
<th>Alcohol-based Hand Rub Alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>If hands are visibly soiled with blood, body fluids, or proteinaceous material</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>If hands are not visibly soiled</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

DRAFT 4-25-2010

Principle 2
Avoid Contact with Blood and Body Fluids

- Avoid injuries
- Personal Protective Equipment

DRAFT 4-25-2010
Principle 3 Limit the Spread of Contamination

Use evacuation to control spatter
Avoid Contamination (touching)

Selecting Disinfectants
Manage Clinical Contact Surfaces (Surface Barrier or Clean/Disinfect)
Barriers
- Remove
- Replace

VS.

Cleaning and Disinfection
- Disinfectant Sprays
  - Spray
  - Clean/wipe
  - Spray
- Disinfectant Wipes

Limit the Spread of Contamination

Household Waste Management

Regulated Waste
**Principle 4**  
*Make Objects Safe for Use*

- Clean, heat sterilize or disinfect reusable patient care items that ...
- Monitor processes....
- Contain and dispose of single use items

---

**Reusable Items, Disposable Items or Mix**
Transporting Contaminated Instruments for Offsite Processing

Onsite Instrument Processing on a Mobile Van
Contain and Dispose of Single Use Items

Infection Control Considerations for Dental Services in Sites Using Portable Equipment or Mobile Vans - DRAFT GUIDANCE

This guidance is based on general principles of infection control and is determined by the provider's level of anticipated contact with the patient's oral mucous membranes (MM), blood or saliva contaminated with blood

- DRAFT Guidance on Infection Control Considerations for Dental Services in Sites Using Portable Equipment or Mobile Vans
- http://www.osap.org/?page=ChartsChecklist
Infection Control Considerations for Dental Services in Sites Using Portable Equipment or Mobile Vans - DRAFT GUIDANCE

The guidance tools are designed to:
- help dental programs determine what factors present challenges to providing safe, quality care and
- make decisions about possible adaptations or the need to select another site to provide services.

Forms are formatted to answer specific questions about the site, personnel and procedures.

The Forms

Answers to the questions on the forms should be analyzed in terms of the level of services to be provided and any special circumstances related to the site or the patient population.

Space is provided on the forms to summarize findings and decisions and create an action plan to overcome any identified challenges.
The **Site Assessment** tool is best used when considering a new site to deliver services, although existing sites also should be assessed to determine possible problems that may have been overlooked or have not yet been addressed.

For mobile vans, questions would relate to both the van and the site where it is parked.

---

### Infection Control Considerations for Dental Services in Sites Using Portable Equipment or Mobile Vans

<table>
<thead>
<tr>
<th>Name and Type of Setting:</th>
<th>Date of assessment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of Proposed Services:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Considerations</th>
<th>Acceptable?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**PERSONNEL**

- Site personnel available as point person for fielding questions and concerns
- Site personnel available for facilitating follow-up of exposures to infectious agents

**PHYSICAL**

- Reasonably accessible route into/within building to transport equipment and supplies
- Adequate space for equipment (e.g., chairs, lights, sterilizers)
- Adequate space for supplies

[OSAP Logo]
<table>
<thead>
<tr>
<th>Considerations</th>
<th>Acceptable?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate space for Patient intake and staging</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Adequate space for Radiographic equipment</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Adequate space for Instrument cleaning and processing or secured holding area</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Adequate space for safe handling of Medical waste (regulated and non-regulated)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Adequate space for Sharps Disposal</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Adequate space for Long and short-term storage</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Non-carpeted areas to provide services</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Availability and close proximity of running water</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Adequate room lighting</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Waste disposal requirements for regulated and non-regulated waste known and acceptable</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Ability to cover or clean and disinfect environmental surfaces in service area</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Adequate ventilation for disinfectants, etc</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Acceptable housekeeping practices for site and treatment area</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Site restrictions on chemicals, etc are known and can be accommodated</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
Tool - *Determination of Level of Risk*

Prior to using the Checklist, programs should **determine the level of risk** for transmission of infections and bloodborne diseases both to providers and to those receiving services. This will be different for programs only doing dental screenings versus those providing clinical services.

**DRAFT 4-25-2010**

---

**Determine the Level of Risk**

**Table I. Levels of Anticipated Contact Between Provider and Patients During Oral Health Surveys, Screenings, and Treatment**

<table>
<thead>
<tr>
<th>Level*</th>
<th>Mucous Membranes (MM)</th>
<th>Blood or Saliva Contaminated with Blood</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>II</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>III</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Adapted from Summers, et al. JADA 1994*
Risk Level I

- The provider anticipates contact both with the patient’s mucous membranes and blood or saliva contaminated with blood: for example, during composite placement using an air-water syringe.

Risk Level II

- Contact with the patient’s mucous membranes, but not with blood or saliva contaminated with blood
  - oral health survey that includes using a mouth mirror and dental explorer, fluoride varnish application or sealants.
  - Use of an air/water syringe, however, would raise risk to a Level I.
Risk Level III

- **No** contact with the patient’s mucous membranes or blood or saliva contaminated with blood
  - oral health screening limited to a visual inspection of the oral tissues
  - using a disposable tongue blade or mirror for retraction or an explorer to only check a tooth surface for sealants.

www.wuortho.com/palo-alto-community.html

Tool- *Match IC Principles to Level of Risk*

Once the level of risk has been ascertained, **match the 4 Basic Principles to the Levels of Risk** to determine which of the three Checklist columns to use and next steps.
### Tool - Draft Infection Control Checklist

- **ALL PROGRAMS SHOULD MEET THE MINIMUM REQUIREMENTS BASED ON THE CENTERS FOR DISEASE CONTROL AND PREVENTION’S (CDC) GUIDING PRINCIPLES OF INFECTION CONTROL**

- Use the appropriate column to help inform your provision of safe dental care to your particular program

---

<table>
<thead>
<tr>
<th>Level I</th>
<th>Checklist 1</th>
<th>Checklist 2</th>
<th>Checklist 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principles of Infection Control</strong></td>
<td><strong>Level I</strong></td>
<td><strong>Level II</strong></td>
<td><strong>Level III</strong></td>
</tr>
<tr>
<td>Contact with MM and Blood or Saliva with Blood</td>
<td>Yes</td>
<td>Yes, if not immune</td>
<td>Yes, if dental provider</td>
</tr>
<tr>
<td>Immunizations</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hepatitis B Vaccine preventable</td>
<td>Yes</td>
<td>Yes, if not immune</td>
<td>Yes, if not immune</td>
</tr>
<tr>
<td>Annual Influenza</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hand hygiene</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- **Personal Protective Equipment (PPE)**
  - Gloves
  - Surgical Masks
  - Protective eyewear or chin-length face shield
  - Gown/long sleeve outer clothing
  - Avoid injuries
  - Handling sharp instruments
  - Written policy with exposure control plan

- **Control contamination, e.g., high volume evacuation**
- **Waste handling**
- **Surfaces**

- **Make instruments safe for use**
- Dispose or heat sterilize

---

DRAFT 4-25-2010
<table>
<thead>
<tr>
<th>Level I</th>
<th>Level II</th>
<th>Level III</th>
<th>INFECTION CONTROL PRACTICE</th>
<th>Yes</th>
<th>No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Hand Hygiene, Continued</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If not, are alcohol-based hand sanitizers available?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td></td>
<td>Is staff properly trained in the use of alcohol handrub products?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td>Personal Protective Equipment (PPE) (e.g., gloves, masks, protective eyewear, protective clothing)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wear mask if have respiratory infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a protocol that outlines what PPE are worn for which procedures?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is PPE storage available and close to care?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td>Are facilities available to disinfect PPE (DHCP eyewear, patient eyewear, heavy duty utility gloves)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a list of what surfaces will be cleaned, disinfected or barrier protected and the process and products to be used?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If chemical disinfectants are used, is there a protocol for how they are managed, stored and disposed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td></td>
<td>Environmental Surfaces: Clinical Contact Surfaces (e.g., light handles and countertops)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a list of which housekeeping surfaces will need to be cleaned and disinfected and how often?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are sinks available close to the area where care is provided?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level I</th>
<th>Level II</th>
<th>Level III</th>
<th>INFECTION CONTROL PRACTICE</th>
<th>Yes</th>
<th>No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Infection Control Program Operating Procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a written infection control program?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a designated person(s) responsible for program oversight?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are there methods for monitoring and evaluating the program?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Immunizations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are DHCP adequately immunized against vaccine-preventable diseases? Immunizations should meet or exceed federal, state and local guidelines. (May not be necessary for screenings)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Only if DHCP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hepatitis B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Annual Influenza</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Additional immunizations needed for program:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Hand Hygiene</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are sinks available close to the area where care is provided?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level I</td>
<td>Level II</td>
<td>Level III</td>
<td>INFECTION CONTROL PRACTICE</td>
<td>Yes</td>
<td>No</td>
<td>Comments</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
<td>-----------</td>
<td>---------------------------</td>
<td>-----</td>
<td>----</td>
<td>----------</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td></td>
<td>Safe Handling of Sharp Instruments and Devices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are DHCP trained in the safe handling and management of sharps?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are sharps containers safely located as close as possible to the user?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a written protocol for transporting and disposing of sharps and sharps containers?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td></td>
<td>Management and Follow-Up of Occupational Exposures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a written policy and procedures manual for post-exposure management?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a designated person responsible for post-exposure management?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a mechanism to document the exposure incident?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Where is the closest medical facility for wound care and post-exposure management?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a mechanism to refer the source and DHCP for testing and follow-up?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there a mechanism for expert consultation by phone?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OSAP Requests Your Valuable Input

- PLEASE NOTE, if you wish to assist the taskforce by field-testing this draft information, you may download the draft documents from the OSAP website. Please return completed forms by May 15 to the Project Director, Beverly Isman RDH MPH ELS by:
  - fax: +1 (530) 759-7089 or
  - email: bev.isman@comcast.net

- OSAP will officially launch the new Guidance at the Organization's annual symposium June 10-13 in Tampa, FL.
The Draft

DRAFT Guidance on Infection Control Considerations for Dental Services in Sites Using Portable Equipment or Mobile Vans

http://www.osap.org/?page=ChartsChecklist

OSAP 2009-2010 Taskforce Members

- Bev Isman, Project Coordinator
  - Amy Carter
  - Jenny Cleveland
  - Kathy Eklund
  - Andrea Hight

- Larry Hill
- Catherine Hough
- Theresa Mayfield
- Mark Siegal
- Sheila Strock
- Janet Yellowitz

DRAFT 4-25-2010
2007 Focus Group Contributors

- **Helen Bednarsh, RDH, MPH** - Director, HIV Dental, BPHC
- **Corinna Culler, RDH, MPH** - Clinical Instructor/Program Coordinator, Boston University School of Dental Medicine
- **MaryAnn Cugini, RDH, MHP** - Director, External Research Collaborations, The Forsyth Institute
- **Mark Doherty, DMD, MPH, CCHP** - Director of Commonwealth Mobile and Oral Health Services
- **Kathy Dolan, RDH** - Program Manager, Tufts Community Dental Program
- **Michelle Henshaw, DDS, MPH** - Assistant Dean Community Partnerships and Extramural Affairs Boston University School of Dental Medicine
- **Chris Kerle-Weylman, RDH** - SBHC Program of BPHC
- **Debra November-Rider, RDH, MS(c)** - IRB Administrator, The Forsyth Institute

CMOHS Taunton MA

DRAFT 4-25-2010
ForsythKids Project - Cape Cod MA

References


Summers, Chet, Practical Infection Control for Dental Sealant Programs in a Portable Dental Care Environment Presented at the National Public Health Dental Sealant Program Conference Friday, August 26, 1994. Columbus OH
References

- Carter Nancy, et.al., *Seal America The Prevention Invention, 2nd Edition* 2007 (in association with the American Association of Community Dental Programs and National Maternal and Child Health Resource Center)
  Available at: [http://www.mchoralhealth.org/seal/](http://www.mchoralhealth.org/seal/)
- US AIR FORCE Dental Infection control Program check-up

Distance Learning - Continuing Education Resources

- 7 module distance learning program
- School-based sealant programs – Module 2 Infection Control
  - [http://www.ohiodentalclinics.com/curricula/sealant/mod2_0.html](http://www.ohiodentalclinics.com/curricula/sealant/mod2_0.html)
References

  Available at: http://www.osap.org

Your Comments