

CDC Infection Control Guidelines

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Disclosures

The findings and conclusions of this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Presentation Objectives

- ❑ **Discuss review of CDC's 2003 infection control guidelines for dental health-care settings**
 - Review potential topics, methods, status
- ❑ **Present overview of other CDC recommendations**
 - *Guide for Infection Prevention in Outpatient Settings: Minimum Expectations for Safe Care*
 - *CDC Updated Recommendations for Management of Hepatitis B Virus (HBV) in Health Care Workers and Students*
 - *Updated US Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Postexposure Prophylaxis*



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Morbidity and Mortality Weekly Report

Recommendations and Reports

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Guidelines for Infection Control in Dental Health-Care Settings — 2003



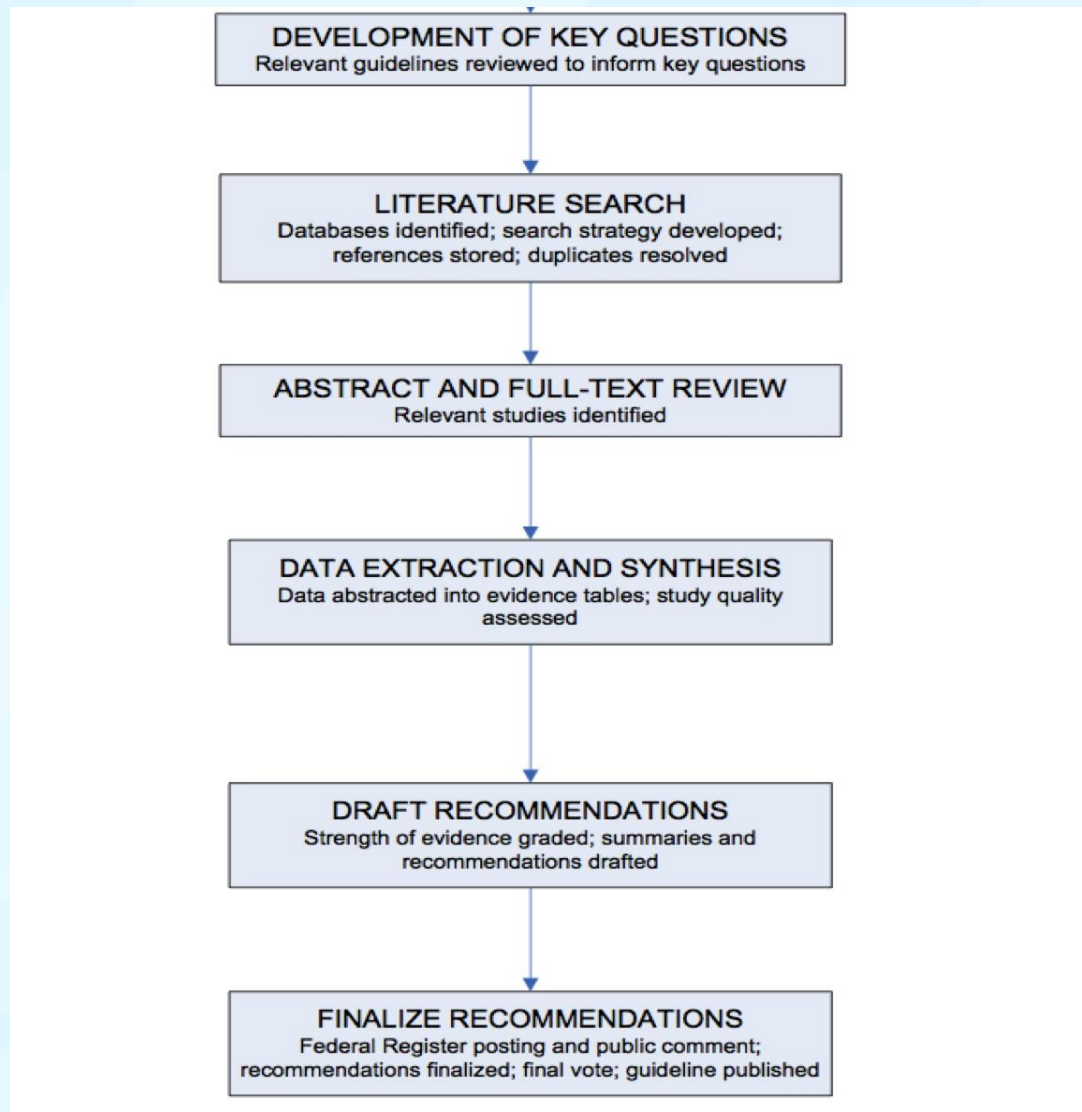
INSIDE: Continuing Education Examination

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

Scope and Purpose of Review

- ❑ Guidelines are 10 years old**
- ❑ Recommendations are generally consistent with existing CDC guidelines and little new science**
- ❑ Unresolved issues: review scientific evidence to determine if evidence sufficient to make recommendation**
- ❑ Some areas in need of clarification**
- ❑ New CDC guidelines and standards not covered in 2003**

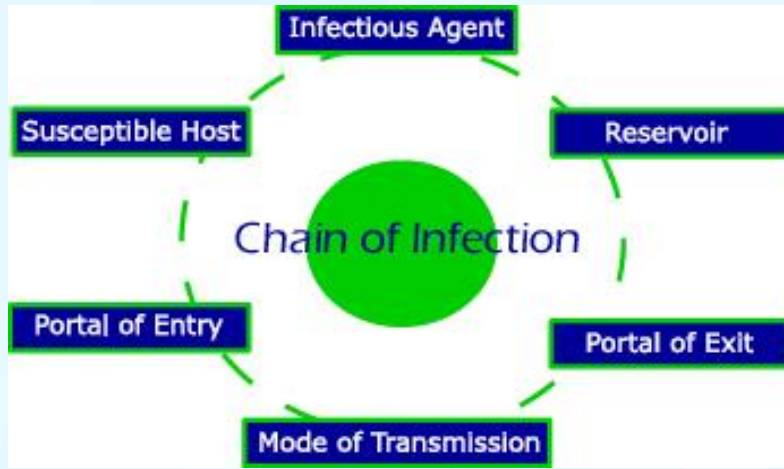
Review Process



Hierarchy of Evidence



Categories of Potential Topics



Risk of Transmission



Intervention

Equipment



Potential Topics by Category



Risk of Transmission

- Surgical smoke
- Burs and endo files
- MRSA, CJD



Intervention

- Double gloves



Equipment

- Sterilization monitoring
- Chemical and Biologic Indicators

Surgical Smoke

- ❑ **Current infection prevention problem/concern**
 - **Is there a risk of occupational infection from exposure to plumes or surgical smoke created during laser or electrosurgical procedures**
- ❑ **Discussed in 2003**
 - **Some viruses and bacteria detected in laser plumes**
- ❑ **What was recommended**
 - **No recommendation – unresolved issue**

Burs, Endodontic Files, Broaches

- ❑ **Current problem/concern**
 - **Overarching issue: Single vs Repeated Use**
 - **Is there a risk for disease transmission from repeated use**
- ❑ **Discussed in 2003 - Special Considerations**
 - **Difficult to clean**
- ❑ **What was recommended**
 - **No recommendation but text stated that it might be practical to consider them single use**



Prions

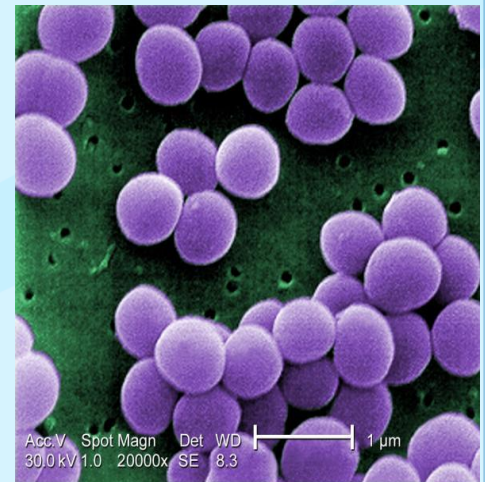
Creutzfeldt-Jakob Disease

- ❑ **Current infection prevention problem/concern**
 - **Is there a risk of disease transmission from use of instruments contaminated with CJD prions?**
 - **Pulpal tissue**
- ❑ **Discussed in 2003 guidelines – Special Considerations**
 - **Resistant to standard sterilization procedures**
- ❑ **What was recommended**
 - **Unresolved issue**
 - **Provided a list of precautions to consider when treating patients with known CJD (e.g., treat difficult to clean items such as burs and broaches as single use)**



Methicillin-Resistant Staphylococcus Aureus

- ❑ **Infection prevention problem/concern**
 - **Is there a risk of disease transmission from dental treatment of patients with MRSA?**
- ❑ **Not covered in 2003 Guidelines**
- ❑ **CDC Review published 2008***
 - **Strict adherence to standard precautions**



* Klevens RM, Gorwitz RJ, Collins A. Methicillin-Resistant Staphylococcus aureus: A Primer for Dentists JADA 2008;139;1328-37

Double Gloving

- ❑ **Infection prevention problem/concern**
 - Does double gloving decrease/prevent the risk of disease transmission OR blood contact of hands?

- ❑ **Discussed in 2003**
 - Perforation studies suggested additional protection from blood contact
 - Effectiveness in preventing disease transmission not demonstrated

- ❑ **What was recommended**
 - No recommendation – unresolved issue



Sterilizers

- ❑ **Current infection prevention problem/concern**
 - **Since 2003**
 - **Guidelines and standards made additional recommendations (i.e. daily monitoring when processing multiple loads)**
 - **New classes of chemical indicators since 2003**

- ❑ **What was recommended**
 - **Monitor at least weekly using BI**
 - **Monitor each load with mechanical and chemical indicators**

- ❑ **Current Efforts:**
 - **Review 2008 CDC guidelines**
 - **Review ANSI/AAMI standards**
 - **Consult with FDA**



**Where
are
we?**



Current Status of Guideline Review

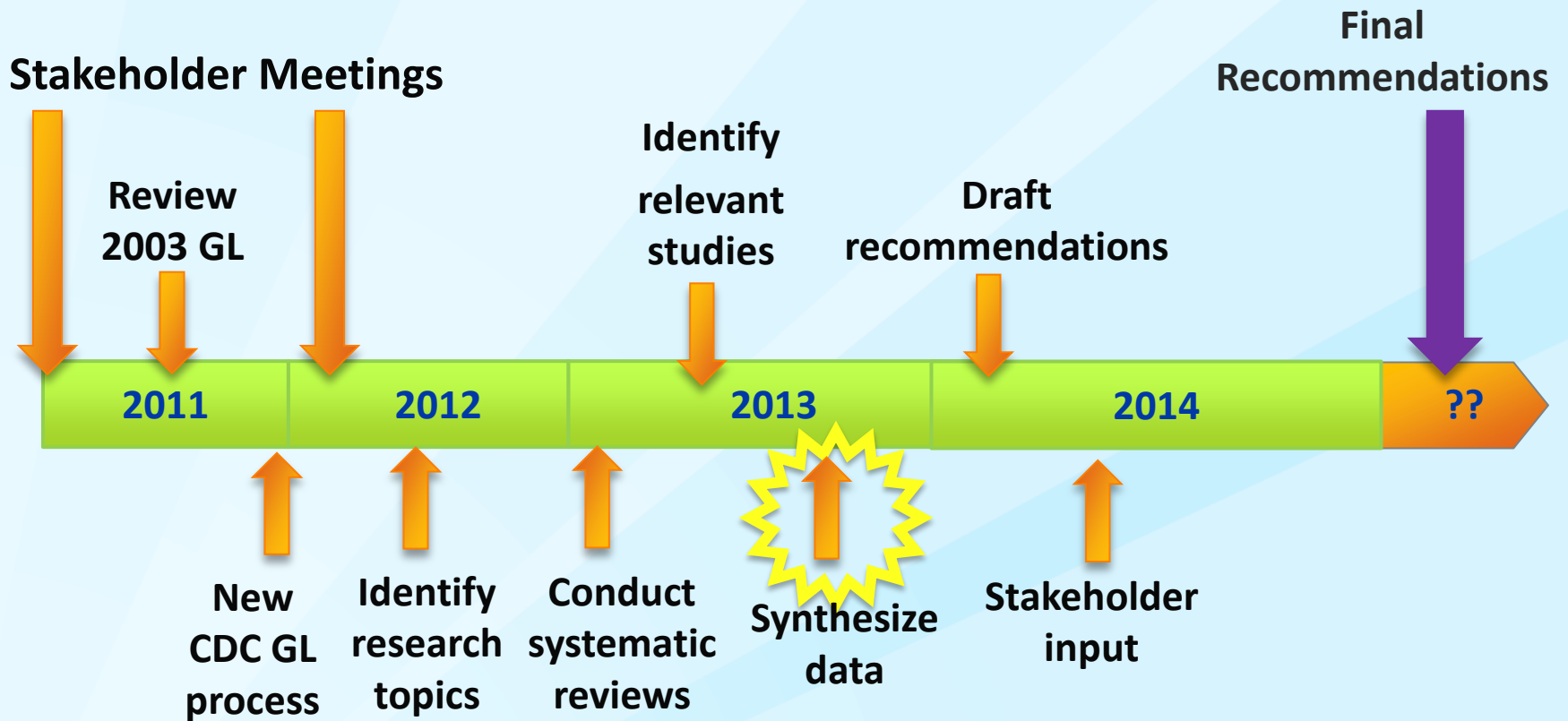
- ❑ Reviewed related CDC Guidelines, guidelines of other organizations, and standards**
- ❑ Conducting systemic review of literature**
- ❑ Currently synthesizing the information from relevant studies**
- ❑ Developing plans for discussions with FDA and EPA**
- ❑ Developing plans for stakeholder input**

Stakeholders

Groups or individuals whose activities could be affected by implementation of the guidelines have legitimate reasons for providing input

- ❑ Organized dentistry
- ❑ Academia and research
- ❑ Industry
- ❑ Non-Governmental Organizations
- ❑ Federal agencies

TIMELINE



Guide for Infection Prevention in Outpatient Settings: Minimum Expectations for Safe Care

In Outpatient Settings

The transition of healthcare delivery from acute care hospitals to ambulatory care settings, along with ongoing outbreaks and patient notification events, have demonstrated the need for greater understanding and implementation of basic infection prevention guidance. Guide to Infection Prevention in Outpatient Settings: Minimum Expectations for Safe Care distills existing infection prevention guidance from the Centers for Disease Control and Prevention (CDC) and its Healthcare Infection Control Practices Advisory Committee (HICPAC).

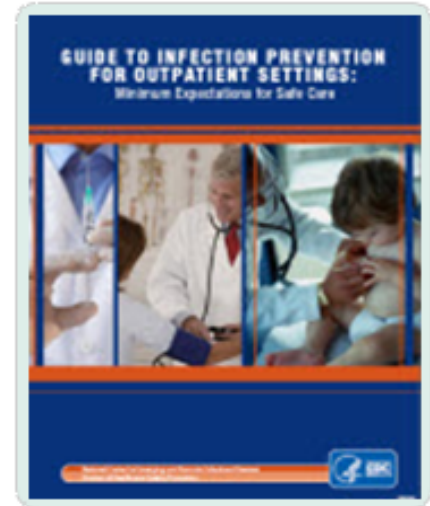
Infection Prevention Guide

Guide to Infection Prevention for Outpatient Settings: Minimum Expectations for Safe Care

This summary guide of infection prevention recommendations for outpatient (ambulatory care) settings.

Infection Prevention Checklist

The Infection Prevention Checklist for Outpatient Settings: Minimum Expectations for Safe Care is a companion to the Guide to Infection Prevention for Outpatient Settings: Minimum Expectations for Safe Care. The checklist should be used for two purposes:



<http://www.cdc.gov/HAI/settings/outpatient/outpatient-settings.html>

GUIDE TO INFECTION PREVENTION FOR OUTPATIENT SETTINGS:

Minimum Expectations for Safe Care

2011



2011 Guide Summary

❑ Basic infection prevention recommendations for outpatient settings

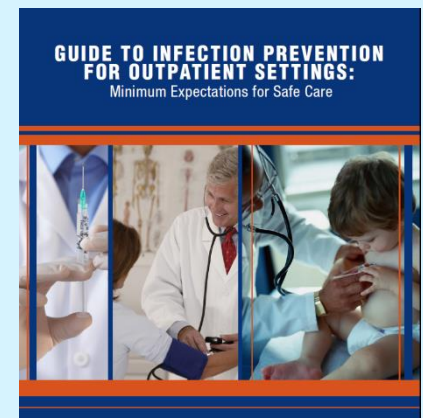
- Administrative measures
 - Education and training of all HCP
 - Report process and outcome measures

❑ Standard Precautions

- Hand hygiene
- Injection safety
- Medical equipment
- PPE
- Environmental cleaning
- Resp hygiene/cough etiquette

❑ Resources

- Disinfection and sterilization
- FDA device information
- Transmission based precautions



Checklist for Infection Prevention for Outpatient Settings

Infection Prevention Checklist

Section I. Administrative Policies and Facility Practices

1. Facility Policies	Practice Performed	If answer is No, document plan for remediation
<ul style="list-style-type: none"> Written infection prevention policies and procedures are available, current, and based on evidence-based guidelines (e.g., CDC/HICPAC), regulations, or standards <i>(Note: Policies and procedures should be appropriate for the services provided by the facility and should extend beyond OSHA bloodborne pathogen training)</i> 	Yes No	
<ul style="list-style-type: none"> Infection prevention policies and procedures are re-assessed at least annually or according to state or federal requirements 	Yes No	
<ul style="list-style-type: none"> At least one individual trained in infection prevention is employed by or regularly available to the facility 	Yes No	
<ul style="list-style-type: none"> Supplies necessary for adherence to Standard Precautions are readily available <i>(Note: This includes hand hygiene products, personal protective equipment, and injection equipment.)</i> 	Yes No	

Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly Report

Recommendations and Reports / Vol. 61 / No. 3

July 6, 2012

**Updated CDC Recommendations for the Management of Hepatitis B
Virus–Infected Health-Care Providers and Students**

Background

- ❑ **In 1991, CDC provided recommendations for preventing transmission of HIV and HBV to patients during “exposure-prone” invasive procedures.**
- ❑ **At the time, these went through considerable internal debate, in large part related to HIV.**

Background:

The 1991 Recommendations

- ❑ **No restriction on anyone *not* performing “exposure prone procedures” (EPPs)**
- ❑ **EPPs to be defined by institution**
- ❑ **HCWs performing EPPs need to work under guidance of an expert panel (not defined)**
- ❑ **HCWs doing EPPs need to inform prospective patients (both HBV and HIV)**

Background: Recent Events

- ❑ **Increase in the number of medical and dental students born to mothers in or from highly endemic geographic areas (>2%) for HBV (e.g., Asia, Africa, Middle East)**
- ❑ **Instances of restrictions or prohibitions for HBV-infected providers and students that are not consistent with CDC and other previous recommendations**

Inconsistencies in Management of HBV-infected Surgeons, Dentists, Students

Examples from 2010–2011:

- ❑ Several medical, osteopathic, and dental students accepted, then denied entry or, if enrolled, evaluated for dismissal**
- ❑ Surgeon required to be tested weekly and demonstrate no viral load**

Important Trends Leading to the Update of CDC's 1991 Guidelines

- ❑ No HCW/student transmission to patients**
- ❑ Decreasing trends in HBV incidence and prevalence**
- ❑ Improved treatments for chronic HBV infections**
- ❑ Other recent guidelines**

Recommendations 2012

- ❑ **Chronic HBV infection should not preclude practice or study of medicine, surgery, or dentistry**
- ❑ **All HCWs and students should receive vaccination per current CDC/ACIP recommendations**
- ❑ **People doing EPPs should receive pre-vaccination testing**

Recommendations (continued)

Exposure of any patient to blood of HBV-infected HCW/student should be handled similarly to the opposite situation (HCW exposed to HBV-infected blood): testing, prophylaxis, etc.

HPV Infected HCWs

***who do not* perform EPPs**

- ❑ **Should not be subject to any restriction on activities or study**
- ❑ **Specifically, medical/dental students:**
 - **Do not need expert panel oversight**
 - **Do not need to maintain low or undetectable viral load**
 - **Should be treated as a matter of student/occupational health**

HPV Infected HCWs ***who do* perform EPPs**

- ❑ **Strict adherence to standard precautions**
- ❑ **Need guidance/oversight by expert panel**
- ❑ **Need to maintain low viral load: CDC recommends HBV DNA < 1000 IU/ml***
- ❑ **Regular monitoring every 6 months**
- ❑ **Refraining from EPP if viral load > 1000 IU/ml**

* more than 1 log lower than lowest level in a transmitting surgeon

CDC does *not* recommend:

- ❑ Repeated demonstration of persistently undetectable viral load of > twice/year
- ❑ Pre-notification of patients
- ❑ Mandatory antiviral therapy
- ❑ Conformation to any restriction that essentially prevents practice or study

CDC *does* recommend that:

- ❑ **Hospitals, medical, osteopathic, dental schools, and other institutions be aware of these guidelines and have written policies in place for the HCW or student found to be HBV-infected**

Actions by the U.S. Department of Justice

- ❑ Two accepted students who were denied matriculation have been reinstated**
- ❑ The school has paid \$75,000 in restitution to the 2 students**
- ❑ At least one other student has been allowed to matriculate (w/o DoJ action)**

US PUBLIC HEALTH SERVICE GUIDELINE

Updated US Public Health Service Guidelines for the Management of Occupational Exposures to Human Immunodeficiency Virus and Recommendations for Postexposure Prophylaxis

David T. Kuhar, MD;¹ David K. Henderson, MD;² Kimberly A. Struble, PharmD;³
Walid Heneine, PhD;⁴ Vasavi Thomas, RPh, MPH;⁴ Laura W. Cheever, MD, ScM;⁵
Ahmed Gomaa, MD, ScD, MSPH;⁶ Adelisa L. Panlilio, MD;¹
for the US Public Health Service Working Group

Guidelines Outline

- ❑ **Principal changes from previous PEP guidelines**
- ❑ **Health care personnel and exposure**
- ❑ **Risk of occupational transmission of HIV**
- ❑ **Anti-retroviral (ARVS) toxicities and interactions**
- ❑ **Selection of HIV PEP regimens**
- ❑ **Resistance to ARVs**
- ❑ **ARV drugs during pregnancy and lactation**
- ❑ **Management by emergency physicians**

Guidelines Outline

- **Recommendations for the management of HCP potentially exposed to HIV**
 - **HIV PEP**
 - **Source patient testing**
 - **Timing and duration of PEP**
 - **Selection of PEP drugs**
 - **Follow-up of exposed HCP**
 - **Postexposure testing**
 - **Monitoring and management of PEP toxicity**

What the Guidelines Emphasize

- ❑ **Prompt management of occupational exposures**
- ❑ **Selection of effective and tolerable PEP regimens**
- ❑ **Potential toxicities and interactions of PEP drugs**
- ❑ **Consultation with experts for postexposure management strategies**
- ❑ **Counseling and follow-up of exposed personnel**

Principal Changes from Previous PEP Guidelines

- ❑ Elimination of risk stratification for exposure incidents (previously determined drugs)**
- ❑ 3-drug (or more) PEP regimen for all**
- ❑ Expanded list of ARVs for PEP**
- ❑ Emphasis on tolerability and convenience of PEP regimen**
- ❑ New recommendations for follow-up HIV testing**

CDC Infection Control Guidelines

- ❑ Dental Health Care Settings – under review**
- ❑ Outpatient Settings – 2011**
- ❑ HBV infected HCWs and students – 2012**
- ❑ Management of Occupational Exposures to HIV and PEP – 2013**



New Home

Questions?

Please contact us at:

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