Update on Guideline for Infection Prevention in Healthcare Personnel

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HICPAC Meeting
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Outline

- **Background**
  - General topics addressed in the 1998 Guideline

- **Update Plan**

- **Section 1**
  - Outline
  - Evidence base
  - Progress/Timeline

- **Section 2**
  - Outline
  - MRSA questions

- **Input from HICPAC**
Background

- **Guideline for Infection Control in Healthcare Personnel, 1998**
  - Audience: aimed at occupational health providers working in healthcare facilities
  - Focused on epidemiology and prevention of infections known to be transmitted in healthcare settings
  - Provided methods for reducing transmission of infections among healthcare personnel (HCP) and patients, such as
    - immunizations
    - management of HCP exposures to infections (e.g., postexposure prophylaxis) or illness
      - Work/patient care restrictions for HCP
General Topics Addressed-1998

Section 1:
- Infrastructure and routine practices of an occupational health service
  - Infection prevention objectives for an occupational health service
  - Elements of an occupational health service (e.g., Coordination with other departments, Medical evaluations, Immunization Programs)

Section 2:
- Epidemiology and Control of Selected Infections Transmitted Among HCP and Patients

Section 3:
- Special Populations (e.g., Pregnant Personnel, Laboratory Personnel)
Update Plan

- “Living” Guideline
  - Electronic format
  - Sections published/posted online sequentially
  - Update process includes HICPAC input and public comment

- Update will have
  - Revised organization
  - Expanded scope
    - Healthcare settings and audiences
  - Revised list of pathogens addressed (section 2)
Organization of Updated Guideline

- Section 1: Baseline infrastructure and routine practices of occupational health service
  - Descriptive text plus hyperlinks to supplementary materials that can be updated over time (e.g., preplacement immunizations for HCP)
    - Will publish before section 2

- Section 2: Epidemiology, Prevention, and Control of Selected Infections Transmitted Among HCP and Patients
  - Will address special HCP populations (e.g., pregnant, immunodeficient, temporarily practice outside U.S.) as part of each pathogen subsection and/or in a separate Section 3
## Section 1: Writing Group Members

### CDC
- David Kuhar (DHQP)
- Kathleen Irwin (DHQP)
- Marie De Perio (NIOSH)
- Amanda Overholt (DHQP)
- Kristin Roberts (DHQP)
- Mahnaz Dasti (DHQP)

### HICPAC members
- Hilary Babcock
- Tom Talbot
- Michael Tapper

### Other Experts
- Ruth Carrico
- Tammy Lundstrom
- Mark Russi (ACOEM)
- Connie Steed (APIC)
- David Weber (SHEA)
Section I: Outline

- Introduction
- Methods for Developing the Recommendations
- Infection Prevention Objectives for Occupational Health Service
- Elements of Occupational Health Services for Infection Prevention
  - Leadership & Management
  - Interdisciplinary Collaboration and Communication
  - Risk Assessment in the Healthcare Facility
  - Medical Evaluations (preplacement, periodic, and episodic; health counseling)
  - Health and Safety Education and Training
  - Immunization Programs
  - Management of Potentially Infectious Exposures and Illnesses
  - Management of HCP Records and Information
Section 1

Evidence Base for Guideline

- Systematic Literature Review
  - ~310 articles identified
- Related government and non-government Guidelines (~30)
- Government and non-government websites (~25)

Recommendations

- Refer to existing guidelines
- Regulatory requirements or standards
- “Good practice” statements
Section 1 Progress

- Literature review complete
- March – July 2016
  - Writing Group meetings every 2-4 weeks
  - Review of Section 1 sub-sections/discussion on each call
- July – September 2016
  - Refine Draft of Section 1
    - Ongoing review by the Writing Group
  - Draft review by HICPAC
## Section 2: Epidemiology and Prevention of Selected Infections Transmitted Among HCP and Patients

- **Introduction/Review of isolation precautions**

- **Specific pathogens:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Pathogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bloodborne Pathogens</td>
<td>Parvovirus, Pertussis, Poliomyelitis, Rabies, Rubella</td>
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<tr>
<td>(HIV, HBV, HCV)</td>
<td></td>
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<tr>
<td>Conjunctivitis</td>
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<td>CMV Disease</td>
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<tr>
<td>Diphtheria</td>
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<tr>
<td>Acute GI Infections</td>
<td>Scabies and Pediculosis, Staphylococcus aureus (MSSA/MRSA)</td>
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<tr>
<td>(Norovirus, C. diff, others)</td>
<td>Streptococcus (group A)</td>
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<tr>
<td>Hepatitis A</td>
<td>Tuberculosis</td>
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<tr>
<td>Herpes Simplex</td>
<td>Vaccinia</td>
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<tr>
<td>Measles</td>
<td>Varicella</td>
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<tr>
<td>Meningococcal Disease</td>
<td>Varicella</td>
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<tr>
<td>Multidrug-Resistant Gram</td>
<td>Viral Respiratory Infections</td>
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<tr>
<td>Negative Bacteria</td>
<td>(Influenza, RSV, others)</td>
</tr>
<tr>
<td>Mumps</td>
<td>Potential Agents of Bioterrorism (e.g., Anthrax)</td>
</tr>
</tbody>
</table>
Segmental Approach to Update Section 2

- Update high priority individual pathogens and/or logical “clusters” of highest priority to occupational health services
  - *Staphylococcus aureus* (MSSA/MRSA)
  - Measles (concurrently with Mumps and Rubella due to MMR vaccine cluster)
  - Pertussis (concurrently with diphtheria due to Tdap vaccine cluster)
Section 2: Outline for each Pathogen Subsection

- Overview/Epidemiology: pathogen, clinical manifestations, risk groups, transmission in healthcare settings, incubation period, period of communicability
- Methods to prevent transmission and acquisition (e.g., link to recommended isolation precautions, vaccination)
- Individual risk assessment, screening, and diagnosis
- Management of colonized, exposed, and/or infected HCP (e.g., postexposure prophylaxis, duty restrictions)
- Role of Occupational Health Services in outbreaks involving HCP
Evidence Base for Pathogen Updates

- Compile credible information (supported with literature review as needed) on selected topics
  - Rates of pathogen colonization in adults and HCP in U.S.
  - Clinical manifestations of infection
  - HCP sub-groups at higher risk for infection
- Identify important questions not addressed by other recent federal guidance
- Systematic Literature Review for these questions
Colonization

Absent a MRSA outbreak epidemiologically linked to HCP:

- Should HCP be routinely screened for MRSA because of evidence that they transmit infection to patients or other HCP?
- How should colonized HCP be managed?
  - Decolonization?
    - If so, how is successful decolonization defined?
  - Duty or patient care restrictions?
    - If so, type and duration of restrictions?
MRSA: Important Questions for Literature Review

- Infected HCP
  - What types of MRSA infections among HCP warrant duty restrictions?
    - Should HCP with skin and soft tissue MRSA infections that can be fully contained under a dressing be restricted from patient care duties?
      - Does this apply to all anatomic sites?
  - What criteria should be used for determining when duty restrictions are no longer needed?
MRSA: Important Questions for Literature Review

- Role of Occupational Health Services in Outbreaks Involving HCP
  - Management of HCP who are epidemiologically linked to MRSA outbreaks in healthcare settings
    - Collaboration with infection prevention services
    - Assessment, testing, counselling, and management
Section 2: MRSA Section Timeline

- **July - September 2016**
  - Finalize important questions, inclusion criteria, search terms
  - Conduct literature search (January 1999 – June 2016)

- **October - December 2016**
  - Revise pathogen draft with updated information
  - Seek HICPAC input
For Discussion

- Are there additional important questions regarding MRSA that should be addressed?
- Are there questions presented that we should not address?
- Other comments
Thank you!

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