


The image features the CDC logo centered on a dark blue background. The logo itself is a white rectangle with a blue background and diagonal lines. The letters 'CDC' are in a large, white, serif font. Below the letters, the slogan 'SAFER • HEALTHIER • PEOPLE™' is written in a smaller, blue, sans-serif font.

CDC

SAFER • HEALTHIER • PEOPLE™

Optimizing Occupational Health: ***Worker Protection Issues for Laboratory and Animal Care Workers***

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Prevention***

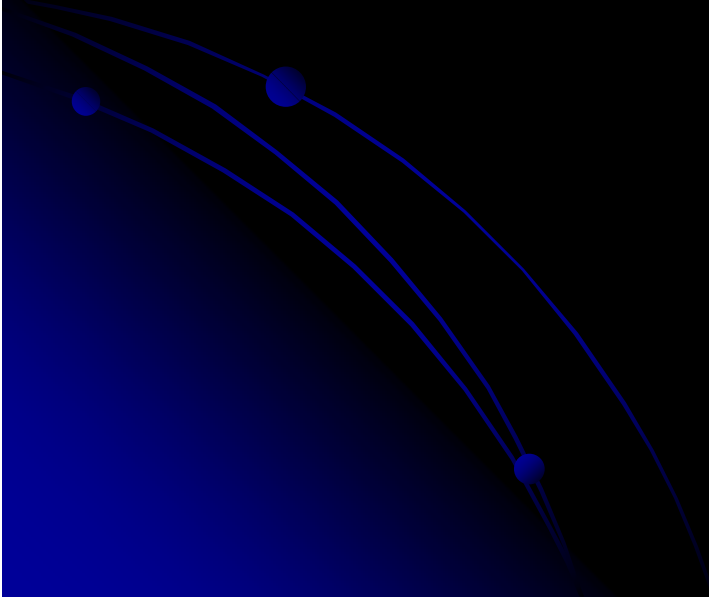
Overview

- **Update on Current Occupational Health Activities at CDC**
- **Strategies for Worker Protection in High-Containment Environments**
 - **Principles of Medical Surveillance**
 - **Vital Role of the Risk Assessment**
 - **Comprehensive Medical Preventive Care and Surveillance**
 - **Incident Management**
- **Post-exposure management issues**
- **Use of In-patient Containment Units after Potential Worker Exposure or Illness**

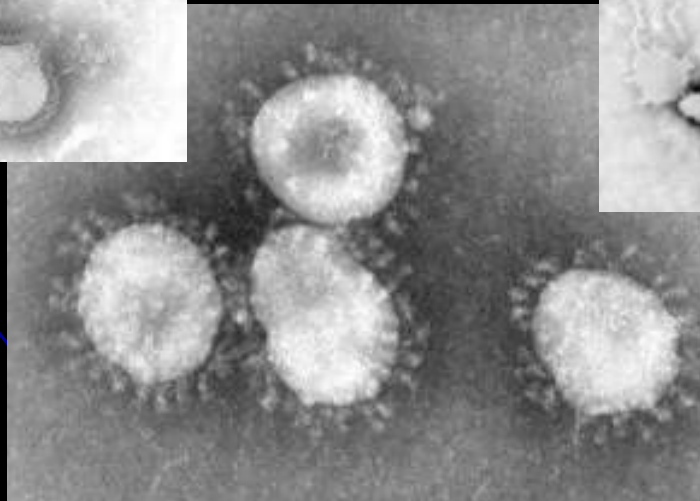
Occupational Health at CDC

Current Activities and Challenges





Occupational Hazards Numerous



Modern Safety Challenges in the High Containment Lab Environment

- People



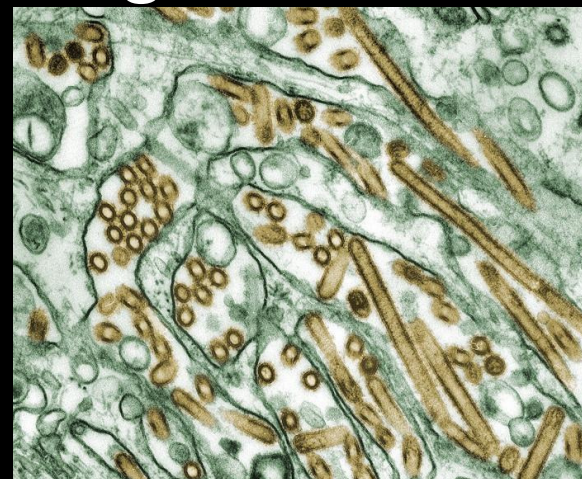
- Places




- Processes



- Pathogens



CDC's Worker Protection Strategy in High Containment Laboratories

- **Attitude and Aptitude**
 - **Risk Assessment**
 - **Hierarchy of Controls**
 - **Medical Surveillance**
 - **Incident Management**
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Attitude and Aptitude

- **“Working Safely at CDC is Repetitive”**
- **Role of the Safety Ethic**
- **Management Sets Tone and Pace for Safety in Every Institution**
- **Initial Investment in Safety Knowledge is Invaluable**
 - **Orientation**
 - **Training**
 - **Refresher Training**
- **Incidents Managed Openly and Transparently**

Role of Risk Assessments?

- **Basis for sound, comprehensive safety decisions**
- **Define potential exposure and other risks based upon actual job duties**
- **Should be universal, include all potentially affected personnel**
- **Tailored to each setting/space**
- **Customized for each process**

Hierarchy of Risk Reduction

- *Engineering Controls*
- *Administrative Controls*
- *Work Practice Controls*
- *Personal Protective Equipment*

- *Active Surveillance*

- *Vigilance*
- *Trigger Reporting*
- *Routine Interval Interventions*

Medical Surveillance Providers

- Knowledgeable of activity risks and all elements of risk assessment
- Readily available for consultation; barrier-free access by workers
- Access to specialists and diagnostics
- Familiar with reporting and compliance requirements
- Interested in work being performed
- Willing to actively communicate with organizational leaders and scientists

When Does Surveillance Begin?

Before placement of workers on the job

- **Pre-placement medical history**
 - **Medical assessments and interventions**
 - **Work-specific training and agent/method-specific education**
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Pre-placement Medical History

- **Evaluation of past medical history**
 - *Medical, surgical, social and family history*
 - *Allergies and sensitivities*
 - *Previous occupational history and activity*
 - *Medications and other treatments*
 - *Active conditions and review of major body systems*
 - *Review of past immunization history*

Medical Assessments and Interventions

- Target physical examination if necessary
- Baseline serum collection and storage
- Immunizations
- Titers when indicated



Medical Assessments and Interventions

- Other lab work
- Respirator medical clearance
- Respirator fit testing and training programs
- Interventions to protect research animals



Educate and Train Well

- Review general and patient-specific health risks of work being done
- Review first aid interventions
- Practice and drill for exposures and incidents



Educate and Train Well

- Review Red Flags and other triggers for action
- Provide written guidance for potential caregivers to all workers



First Aid Interventions

- **Pre-defined and pre-arranged**
- **Easy to follow guidance**
- **Widely known about and reviewed often**
- **Barrier-free access, available 24/7**
- **Linked to further assessment**
- **Never the only intervention**

Raising Red Flags

- **Maintain a high index of suspicion for exposure at all times**
- **Lower your threshold for action**
- **Fever and other atypical body symptoms should always prompt review of risks**



Raising Red Flags

- Unexplained fever should prompt immediate occupational health evaluation
- Understand incubation periods, modes of transmission and clinical symptoms
- Know that symptoms of lab-acquired infection and natural infection may differ



Periodic Medical Surveillance and Evaluation

- **Assess need for interval surveillance on case-by-case basis**
- **May need to assess titers and offer boosters**
- **Annual medical clearance to use respirator required**
- **Annual respirator fit testing and training required**



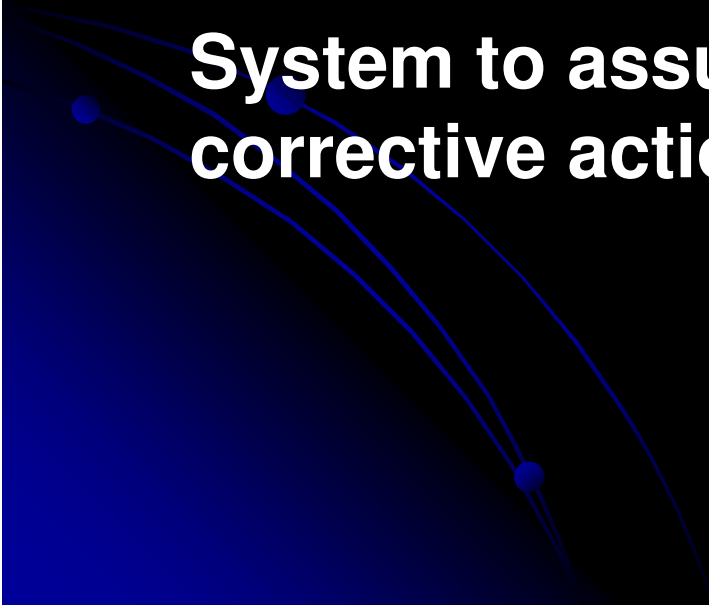
Limiting Impact of Exposures and Other Incidents

- **Assure awareness of first aid and decontamination activities**
- **Assure availability of prompt medical evaluation and follow-up as necessary**
- **Pre-plan for consultations with experts if needed**
- **Plan for “observation” needs of workers**
- **Assure timely incident investigation and remediation if required**

Post-Exposure Management

- Repeat or extend first aid measures if needed
- Evaluate patient, event and agent-specific risks
- Obtain supervisory, safety, expert or other specialty input
- Offer post-exposure prophylaxis, other treatments and interventions

Post-Exposure Management (continued)

- **Arrange for referral, monitoring or follow-up**
 - **Assure control for secondary or repeat exposures**
 - **Utilize Health and Safety Management System to assure follow-through with corrective action/prevention efforts**
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Outpatient or Inpatient Management?

- Quarantine vs. Isolation
- Decision Should be Guided by Clinical Picture and Exposure Risk Assessment
- Is Home an Appropriate Setting for Care or Observation?
- Is Illness Endemic? Exotic?
- Will Patient be Compliant with Care and Containment Instructions?
- Patient and/or Clinician Preference

In-Patient Hospital Biocontainment Units

- **Increasingly Part of National and International Landscape**
- **Medical Role**
- **Political Role**
- **Role in Emerging or Re-emerging Infections**
- **Role in Widespread Event/Pandemic Unclear**
- **CDC Experiences to Date**

In-patient Management Unit



Guests, Visitors, Students and Other Non-Employees in Your Facility

- **Logistical challenges in training, pre-placement evaluations and other interventions increase risk**
- **Blurring of supervisory control and “responsible party” issues increase risk**
- **Potential for barriers to appropriate preventive or medical support services**
- **Advanced planning needed to mitigate associated risks and liabilities**

Summary

- **Comprehensive medical surveillance and intervention plan is key to protect workers**
- **Risk assessments continue to be the cornerstone in planning appropriate medical surveillance**
- **Pre-placement, periodic and post-incident interventions important**
- **Forethought, training, and drilling lower risks**
- **Planning should address non-employee workers and transient visitors**

