COVID-19 HEALTH AND SAFETY PRINCIPLES

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AGENDA

1. Coronavirus basics
2. COVID-19
3. Workplace Practices
4. Testing
5. Syndromic (symptoms) surveillance

CORONAVIRUS BASICS

- Known strains of viruses that historically have caused the common cold
- Transmitted via droplet transmission
- No specific medical treatment
  - No vaccine
  - No antiviral medication
- Typically mild disease/symptoms

NOVEL CORONARVIRUS

3 severe outbreaks in the past 20 years

SARS (2003)

- China origin
- High death rate - 15% (50% for ages > 64)
- Limited spread (7,000 cases)

MERS (2012 - ongoing outbreaks)

- Middle east origin
- High death rate 37%
- Limited but ongoing cases (2,500 cases)

COVID-19

- China origin
- Death rate 1-5%
- Extensive worldwide transmission (8,700,000 cases)

COVID-19 BACKGROUND

- COronaVIrus Disease - 2019
- Discovered Wuhan, China
- 85,000 cases initially
- High concern for high death rate prompted notification/epidemic
- Death rate not as high as originally predicted
- Incubation period 14 days (time from exposure to infection)
- High proportion asymptomatic infections
- Vulnerable populations identified for severe disease/death

COVID-19 TRANSMISSION & SPREAD

- **Considered droplet transmission**
  - Not airborne transmission
  - Infectious particles combine with droplet nuclei of body fluids
    - Heavier particles that settle out of the air relatively quickly
    - Dispersed within 3-6 feet of source person
    - Not considered to stay in the air
- **Spread via close contact (<6 feet/>15 minute exposure)**
  - Face covering thought to prevent source spread
- **Spread via infectious particles on contaminated surfaces**
  - Environmental cleanings and hand hygiene paramount

WORKPLACE PRACTICES - ENVIRONMENTAL

- **Hand sanitizers before entering building and in common areas**

- **Daily (potentially twice a day) cleanings of the workplace**
  - Focus on common areas
  - Personal areas cleaning

- **Engineering and administrative controls**
  - Eliminate/minimize close contacts between employees/customers
    - Close contact defined as within 6 feet and greater than 15 minutes
    - Space work stations greater than 6 feet (if possible)
  - Policy to prevent interactions less than 15 minutes (and especially if the 6 feet rule cannot be followed)
  - Barrier protection

WORKPLACE PRACTICES - HEALTH

- **Culture of Health (tolerance of contagious illness in the workplace)**
  - Recommend zero tolerance
  - Do not come to work when sick
    - COVID-19
    - Any other potentially contagious illness (i.e. Flu, Strep throat, common cold)
  - Fever and symptoms screening
  - Exposure screening (close contact to ill persons)

- **Systematic approach**
    - Temperature screening onsite
    - Policy and procedures confirming no symptoms/close contact exposures

OSHA ENFORCEMENT MEMO - RECORDABILITY

- **COVID-19 has presumptive work relatedness unless investigation can show not work related**

- **Infectious Disease Exposure Control Plan may help mitigate risk**
  - Engineering, administrative, environmental, and PPE controls
    - Documenting no close contact
    - Barrier protections
    - Screening of employees before start of shift
    - Comparison of Infection rate (community:company)
  - Effectively identifying and removing ill/exposed employees
  - Return to work based on appropriate guidance

COVID-19 CASE MANAGEMENT

- **Identify ill and exposed employees promptly**
  - Utilize a systemic and programmatic approach
  - Up to date guidance
    - Symptoms and exposure screening
    - Return to work guidelines
  - Personal doctors notes not sufficient
    - CDC asked companies to not require return to work notes
      - Health care systems may be overwhelmed
    - Personal physicians may not be aware of CDC RTW guidance

COVID-19 TESTING

- **Two main categories of testing**
  - Virus (antigen) detects genetic material of the virus
  - Antibody testing detects immune response

- **Significant limitations to testing**
  - Availability (<5% of the U.S. population has been tested)
  - Accuracy (false negative and false positives)
  - Most tests are not FDA approved
    - Authorized under the Emergency Use Act (EUA)
    - Disclaimers on tests indicating results should not be used for diagnosis

COVID-19 TESTING CONTINUED

- **Virus testing detects genetic material of the virus**
  - Method is polymerase chain reaction (PCR)
    - Sample from nose/mouth
    - Any genetic material is chemically dissolved into particles
    - Particles go through chain reaction to multiply copies of genetic material
    - May detect non-viable virus
  - **Accuracy**
    - **False negative** - negative test when person is infected
      - Up to 30% chance of a false negative
      - Worst case scenario for employee health
    - **False positive** - positive test when person is no longer infected
      - May delay return to work unnecessarily

COVID-19 TESTING CONTINUED

- Antibody testing detects immune response
  - **IgM antibody represents acute response from immune system**
    - Positive after about a week of infection
    - Remains positive for up to 30 days
  - **IgG antibody represents recovery**
    - Positive after a few weeks of exposure
    - Unsure of duration
    - Unsure if this antibody confers immunity

SYNDROMIC SURVEILLANCE

- Screen for symptoms and exposure in lieu of testing
- Initial approach in the pandemic
- Remains the foundation
- Testing can augment but should not override

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