

# Whiteboard Responses (PSD Webinar)

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*April 6, 2016*

## **What are other sources of data you use? What are their strengths and weaknesses?**

- CDC website
  - usually normally focused on patient and clinical care
  - website may not be up to date
- Canadian CDC
- CDC and NAAID pathogen information
  - weakness – technical jargon
- CDC, company websites, OSHA
- NIOSH
- OSHA.gov, NIOSH.gov; CDC.gov;
  - good information but s...
- HHS ASPR TRACIE
- State and federal regulations; although interpretation (e.g., OSHA) are sometime Cou
- National
- Wiser app for emergency response
- TOXNET at NLM
- PubMed, BMBL, WHO
- WHO
- WHO, CDC, MSF documents
  - scattered all over...written for various audiences and purposes
- ILO
- MSF
- Pathogen Safety Data Sheets
  - good technical starting point for creating specific
- Medical Universities
  - usually up to date and reliable
- Local experts
- Bio Lab scientist
- Google
- Google – to find better information
- Google and peer reviewed published literature
- Strengths: great literature review
- Transmission info lacking
- Many hospitals using precaution/isolation standards and not understanding what ca...
- Even in health care settings non-clinical worker info needed re: protection...

- Information of limited utility in understanding risk of transmission especially from surfaces

### **What elements should be included in a user-friendly, occupational safety and health oriented PSDS?**

- Epidemiological information
- Routes/exposures
- Modes of transmission
- Exposure assessment by jobs
- Recommended exposure procedures
- Differentiate bacterial, viral, fungal sources of infection and detail the different considerations for PPE, exposure control
- Routes of exposure and associated PPE to control exposure
- PPE
- Needs to include PPE needed for ...
- Industry specific PPE – law enforcement, EMS, etc.
- Recommended PPE and protocols differ by type of work so you need to figure that out
- Include prevention, not just “controls”
- Prevention measures
- How long viable on surfaces
- Advice on decontamination or environmental disinfection
- Disposal instructions
- Emergency nursing interventions
- Info on re-use if relevant
- Glossary of abbreviations used
- Suggestion/pictures
- Pictures/diagrams!
- Real life examples
- Quick card reference for bedside nurses
- Group exercises/activities
- Explanations of uncertainty (or why some people see different information based on relevant standards
- Develop a single algorithm for hazard assessment that can be applied to all infectious diseases for different populations
- Searchable
- A good navigable phone app
- INTERPOL has a wonderful “cheat card” for workers to quickly ID hazardous infectious...
- Like the one developed by Canada – made sense

### **What should be the key elements in a comprehensive exposure assessment for infectious diseases?**

- Description of agent, who is at risk of exposure, how to prevent exposure, determine appropriate PPE, what to do if exposed, training materials
- Exposure route
- Guidance for workers on recognizing routes...
- Route of entry
- Defined pathways
- Defined pathways to prevent exposure
- How much exposure/dose assessment
- Pathway of infected or potentially infected people through a workplace
- Estimating exposure risk - by workers not ID experts
- Dose and route
- Harmful levels of exposure
- Examples of exposure sampling
- Sampling protocols (sops)
- Sampling
- Sensitivity and specificity of sampling methods
- Representativeness of sampling methods
- Length of sampling
- Devices for sampling (grab? Integrated? Pumps? Wipe samples?)
- Who to assess and where to take samples (how fa...
- Volume/concentration
- Particle size
- Droplet aerosols, etc.
- Properties in the ambient air
- Types of tests that can be conducted to identify pathogens
- Virulence, incubation, and infectious dose
- Full inventory of pathogens, types, location, etc. Check out SOBANE method from...
- Pathogenicity (risk group); mode of transmission; stability in environment, Detailed info on procedure or tasks conducted by worker; Capability of worker populations (prior knowledge and abilities)
- Signs and symptoms
- Understanding of transmission and how the agents are measured
- Modes of transmission including which body fluids may contain the pathogen
- Environmental influences such as wind and sunlight
- Effects of surface substrates/materials and environmental conditions
- Emphasis on engineering controls not just PPE and work practices
- Precautionary principle – if there is no clear...
- Risk stratification
- High risk populations
- Water and food risks

- Airborne risks
- Utilize industrial hygiene sts as necessary
- Those at risk
- Worker participation, along with their rep (union or other)
- Ensure workers get to review the employer's risk assessment, to agree or disagree
- ID who is responsible for
- Chain of custody? QC/QA of samples!
- Easy to use
- I like how the Canadian document roughly paralleled the SDS (or old MSD) format we are familiar with

**Please provide examples of tasks, tools, and work environments that should be considered in a risk assessment for occupational exposure for Ebola.**

#### Tasks

- Cleaning inside aircraft
- Review Cal/OSHA's risk groups
- Decon
- Healthcare cleaning/decon of decontamination area during and after care
- Disposal of red bag trash
- Conduct a walkthrough of various facilities to identify the flow of the operation
- Registration
- Handling, storing, using (etc.) infected or contaminated material
- Contact only with potentially contaminated materials
- Direct contact with people

#### Tools

- PPE selection tool
- Job hazard analysis checklists
- What-if Analysis
- Differences in protocols for airport cleaning crews vs health facility crews
- Maintenance of plumbing hospital rooms
- How to decontaminate reusable PPE and other equipment that may be contaminated
- Differentiate protection vs contact level and risk level for exposure
- Hazard mapping tool
- Risk stratification
- Need to make one model that can be applied to viral, bacterial, and fungal agents

#### Work Environments

- Holding areas

- Room engineering
- In schools, teachers, students, bus drivers
- Hospitals/environmental services/security/basically from the entrance of the facility through the patient room
- Environmental services
- Commercial laundries contracting with healthcare facilities
- Inside EMS vehicles
- Negative pressure air
- Funeral homes
- Patient transport

#### Job title/function

- Housekeeping
- Janitors
- Biomedical researchers
- Airport cleaning crews
- Healthcare providers
- EHS
- Clinician
- Emergency responders
- Healthcare workers
- Custodial staff
- Morticians
- Construction workers performing ICRA related ...
- Nurses were exposed to liters of Ebola infected bodily fluids and had to rely on PPE st...
- Facilities maintenance and repair staff
- Security, police officers, triage ED personnel
- EMS – pre-hospital workers
- Clinical lab staff processing specimens
- Hotel workers in proximity to hospitals – cleaning rooms with BBP
- Environmental services workers who clean rooms, equipment, handle solid waste, etc.
- Security managing patient and ...
- Waste management workers
- HVAC workers
- Doctors
- Non-clinical workers
- Pathologists
- Waste haulers and disposal facilities as well as mortuary employees who will be handling waste by products (packaging, labelling and disposal)
- Law enforcement