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!
• East to use
• I like how the Canadian document roughly paralleled the SDS (or old MDSD) 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