WHAT COULD "BUG" YOU AT WORK?

COMMUNICABLE DISEASES and EMPLOYEE HEALTH

Healthy People in Healthy Communities

Health Care

- There are numerous communicable diseases that health care workers may be exposed to
- Which ones are we most concerned about
- How best to prevent spread and how to protect ourselves

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How are diseases communicable?

- Airborne
- Droplet
- Contact
  - Direct
  - Indirect
    - Blood and Body Fluid
- Common Vehicle
- Vector borne
- Zoonotic

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Airborne

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Clinical Presentation, Microorganism, Infectious Disease	Infective Material *Route of Transmission (Italics)*	Incubation	Period of Communicability	Duration of Precautions	Comments
VARICELLA ZOSTER VIRUS INFECTIONS Chickenpox Varicella Zoster Virus (VZV) Active Chickenpox Susceptible Contact	Respiratory secretions, Lesion drainage *Airborne direct & indirect contact*	10-21 days	2 days before rash and until all skin vesicles are crusted& dry (usually 5-7days)	Until all vesicles dry & crusted Newborns: Refer to comments	Reportable Communicable Disease – Notify Public Health. HCWs should be immune to chickenpox. Non-immune HCWs should not care for the case during period of infectivity. Susceptible high-risk contacts should receive VZIG as soon as possible, within 96 hours of exposure. VZIG may extend the incubation period to 28 days. Consult Public Health.
HERPES ZOSTER Shingles Vesicular skin lesions indermatomal distribution Disseminated: More than one dermatomal distribution	Respiratory secretions, lesion drainage *Airborne, direct & indirect contact*	Respiratory secretions, lesion drainage	Variable	Until all lesions have crusted and dried	HCWs should be immune to chickenpox. Non-immune HCWs should not care for the case during period of infectivity. Susceptible high-risk contacts should receive VZIG as soon as possible, within 96 hours of exposure. VZIG may extend the incubation period to 28 days. Consult Public Health.
MEASLES Rubeola Active Measles Susceptible Contact	Respiratory secretions *Airborne*	7-18 days	5 days before onset of rash, (1-2 days before onset of initial symptoms), until 4 days after onset of rash (longer in immunocompromised patients) Potentially communicable during last 2 days of incubation period	For 4 days after start of rash. Duration of illness in immunocompromised patients From 5 days after first exposure through 21 days after last exposure	Reportable Communicable Disease – Notify Public Health. HCWs should be immune to measles. Non-immune HCWs should not care for the case during period of infectivity. Immunoprophylaxis is indicated for susceptible contacts.
MYCOBACTERIUM TUBERCULOSIS Respiratory Also: Mycobacterium africanum *Mycobacterium bovis* Multi-drug resistant TB (MDRTB) Non-Respiratory Tuberculosis Bone & joint infections Draining lesions PPD skin test positive with no evidence of current pulmonary disease	Respiratory secretions *Airborne* Lesion drainage *Direct & indirect contact*	Weeks to Years Variable	While organisms in Sputum Variable	As directed by Public Health	Reportable Communicable Disease – Notify Public Health. *Tuberculosis in young children is rarely contagious, assess visiting family members for cough. Assess for concurrent respiratory tuberculosis. Avoid procedures that may generate aerosols from drainage.

Droplet Transmission

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Clinical Presentation, Microorganism, Infectious Disease	Infective Material *Route of Transmission (Italics)*	Incubation	Period of Communicability	Duration of Precautions	Comments
COLD (COMMON) Adenovirus Coronavirus Influenza Parainfluenza Rhinovirus Respiratory Syncytial Virus (RSV)	Respiratory secretions *Droplet, direct and indirect contact*	Variable 2 – 14 days 2 – 4 days 1 – 4 days 1 – 3 weeks 2-3 days 2-8 days	Variable Until symptoms cease		Minimize exposure of immunocompromised clients, children with chronic cardiac or lung disease, neonates
RUBELLA German Measles Acquired Rubella	Respiratory secretions *Droplet, direct contact*	14-21 days	1 week prior to rash for 7 days after onset of rash	Until 7 days after onset of rash	Reportable Communicable Disease – Notify Public Health.
Congenital Rubella Syndrome	Urine Respiratory Secretions *Droplet, direct & indirect contact*		Prolonged shedding in respiratory tract and urine; can be up to one year	Until 1 year of age, Unless nasopharygeal and urine cultures done after 3 months of age are negative	Reportable Communicable Disease – Notify Public Health.
ERYTHEMA INFECTIOSUM Fifth Disease Parvovirus B-19	Respiratory secretions *Droplet, direct contact*	4-21 days	Fifth Disease: no longer infectious by the time the rash appears		Reportable Communicable Disease – Notify Public Health. Pregnant healthcare workers should contact Occupational Health Nurse
INFLUENZA Type A or B	Respiratory secretions *Droplet, direct & indirect contact*	1-4 days	5 days, shedding maybe longer in infants		Reportable Communicable Disease – Notify Public Health. (lab confirmed) Minimize exposure of immunocompromised clients.
MENINGITIS *Neisseria meningiditis* Meningococcus	Respiratory secretions *Droplet, direct contact*	2-10 Days	Until 24 hours of effective therapy has been received		Reportable Communicable Disease – Notify Public Health. Close contacts may require chemoprophylaxis.
MUMPS *Paramyxovirus*	Saliva *Droplet, direct contact*	12-25 days	2 days before to 9 days after onset.	Until 9 days after onset of swelling of salivary glands	Reportable Communicable Disease – Notify Public Health. Droplet Precautions for exposed susceptible clients should begin 10 days after first contact and continue through 26 days after last exposure
PERTUSSIS Boretella pertussis Whooping Cough Non-specific respiratory tract Infection in infants	Respiratory secretions *Droplet*	6-20 days	To 3 weeks after onset of paroxysms if not treated	To 3 weeks after onset of paroxysms if not treated; Or until 5 days of appropriate therapy received	Reportable Communicable Disease – Notify Public Health. Close contacts may require chemoprophylaxis.
HAEMOPHILUS INFLUENZAE TYPE b (HIB) Invasive disease	Respiratory secretions *Droplet, direct contact*	Variable	Most infectious in the week prior to the onset of illness and during the illness until treated		Reportable Communicable Disease – Notify Public Health.

Contact – Direct and Indirect

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Clinical Presentation, Microorganism, Infectious Disease	Infective Material *Route of Transmission (Italics)*	Incubation	Period of Communicability	Duration of Precautions	Comments
ANTIBIOTIC RESISTANT ORGANISMS (ARO) MRSA VRE ESBL Other resistant Gram Negative bacilli VISA/VRSA	Secretions or excretions *Direct & indirect Contact*	Variable	Variable Duration of colonization Until negative Duration of colonization		
DIARRHEA Acute diarrhea or dysentery unknown etiology possible infectious	Feces *Direct & indirect contact (fecal/oral)*	Variable A: 15-50 days E 15-64 days	Variable Duration of shedding Variable	Until feces normal or until specific agent identified or infectious etiology ruled out	*Consider Contact Precautions for incontinent clients if feces cannot be contained or for clients who contaminate their environment.
Bacterial *Campylobacter* *Cholera* *Escherichia coli 0:157 H:7* *Salmonella* *Shigella* *Vibrio parahaemolyticus* *Yersinia enterocolitica*				Until feces normal	*Consider Contact Precautions for incontinent clients if feces cannot be contained or for clients who contaminate their environment. Reportable Communicable Disease – Notify Public Health.
Clostridium difficile				Until feces normal for 48 hours	
Viral Calicivirus Coxsackievirus Norovirus Rotavirus Small round enteric Virus (SREV) Variable Until feces normal					*Consider Contact Precautions for incontinent clients if feces cannot be contained or for clients who contaminate their environment. Reportable Communicable Disease – Notify Public Health.
Other Amebiasis Crytosporidium Dientamoeba fragilis Dysentry Giardia Lamblia				Until feces normal	
Hepatitis A, E			Hep A: 2 weeks before to 1 week after onset of symptoms; shedding prolonged in newborn. Hep E: fecal shedding at least 2 weeks	1 week after onset of symptoms	Reportable Communicable Disease – Notify Public Health.

Clinical Presentation, Microorganism, Infectious Disease	Infective Material *Route of Transmission (Italics)*	Incubation	Period of Communicability	Duration of Precautions	Comments
STAPHYLOCOCCAL INFECTIONS **Wound & Skin:** Burns **(**Ritters Disease) Scalded skin syndrome Skin – Impetigo Wounds	Drainage, skin exudates (pus) *Direct or indirect contact*	Variable	As long as organism is in the exudate/ drainage	Until drainage resolved or contained by dressings	Minor: Drainage is contained by dressing Major: Drainage not contained by dressing. Refer to Methicillin Resistant Staphyloccocus aureus if patient has MRSA.
STREPTOCOCCAL INFECTION *Streptococcus pyogenes* **Necrotizing Fasciitis**	Drainage *Direct & indirect contact*	1-3 days	As long as organisms are in the exudates /drainage	Until 24 hours of appropriate antibiotic therapy	Minor: Drainage is contained by dressing. Major - Drainage not contained by dressings. Reportable Communicable Disease – Notify Public Health.
Respiratory: Pneumonia Pharyngitis	Respiratory secretions *Droplet, direct contact*	1-3 days	Until 24 hours of effective antibiotic Therapy	Until 24 hrs of Appropriate antibiotic therapy	
Wound & Skin: Burn infection Cellulitis Impetigo Skin infection Wound infection Erysipelas	Drainage, skin exudate, pus *Direct & indirect contact*	1-3 days	As long as organism is in the exudate/ drainage		Minor: Drainage is contained by dressing. Major: Drainage not contained by dressing.
Streptococcus pneumonia	Respiratory secretion *Direct & indirect contact, Droplet*	Variable	Variable		Reportable Communicable Disease – Notify Public Health.
DERMATITIS (inflammation of skin) Bacteria Virus Fungus	Skin exudates *Direct & indirect contact*	Variable	Variable	Until infectious etiology ruled out	Minor: Drainage is contained by dressing. Major: Drainage not contained by dressing.
CONJUNCTIVITIS Acute Bacterial Pink Eye Viral Adenovirus Enterovirus	Eye discharge *Direct & indirect Contact*		Until 24 hours of effective treatment		

Clinical Presentation, Microorganism, Infectious Disease	Infective Material *Route of Transmission (Italics)*	Incubation	Period of Communicability	Duration of Precautions	Comments
HERPES SIMPLEX Mucocutaneous: Localized Disseminated or primary and Extensive Neonatal	Skin or mucosal Lesions *Direct contact* Skin lesions or mucosal lesions; possibly all body secretions and excretions *Direct contact*	2 days to 2 weeks. Birth to 6 weeks	While lesions present.	Until lesions Resolve Duration of illness	
TINEA / RINGWORM Dermatophytes Trichophyton Microsporum, Epidemophyton, Malassezia furfur	*Direct contact*	Variable	Fungus persists as long as lesions are present		May be acquired from animals, close person to person contact, shared combs, brushes, sheets.
INFECTIOUS MONONUCLEOSIS Epstein-Barr virus	Saliva *Direct & indirect contact*	30-50 days			
OTHER					
LICE (Pediculosis) *Pediculus humanus* *Phthirus pubis*	*Direct & indirect contact*	7-10 days	Until 24 hours after initiation of treatment	Until effective treatment Usually until 24 hours after initiation of treatment	*Glove when treating client. Apply pediculicides as directed on label. Refer to: Pediculosis – Infection Control Guidelines
SCABIES *Sarcoptes scabiei* Norwegian Scabies Severe case	Mite *Direct & indirect Contact* Mite *Direct & indirect contact*	4-6 weeks. If reinfected, 1-4 days 4-6 weeks, If re-infected, 1-4 days	Until 24 hours after initiation of appropriate therapy Until mites and eggs are destroyed by treatment	Until 24 hours after initiation of appropriate Therapy Until the skin lesions have resolved and skin scrapings are negative	Refer to Scabies – Infection Control Guidelines

Blood and Body Fluid Transmitted and Zoonotic and Other

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Clinical Presentation, Microorganism, Infectious Disease	Infective Material *Route of Transmission (Italics)*	Incubation	Period of Communicability	Duration of Precautions	Comments
HEPATITIS Hepatitis B, C, D	Blood and certain other body fluids *Musosal or percutaneous exposure to infective blood and/or body fluids*	B: 45-180 days C: 2 weeks to 6 months D: 2-8 weeks	From onset of infection		Reportable Communicable Disease – Notify Public Health. Follow the **Bloodborne Infections -Protection for Employees** Policy. Report an exposure to infective material e.g., needlestick or blood spill/splash immediately to the Occupational Health Nurse.
HUMAN IMMUNO-DEFICIENCY VIRUS (HIV) INFECTION AIDs or HIV Antibody positive Suspected Human Immunodeficiency Virus Infection	Blood, body fluids containing visible blood, CSF, pleural peritoneal, pericardial, synovial, & amniotic fluids, semen, & vaginal secretions *Mucosal or percutaneous exposure to infective material, breast milk ingestion*	Weeks to years	From onset of infection		Reportable Communicable Disease – Notify Public Health. Follow the **Bloodborne Infections -Protection for Employees** Policy. Report an exposure to infective material e.g., needlestick or blood spill/splash immediately to the Occupational Health Nurse.
Zoonotic and Other					
CAT SCRATCH FEVER *Bartonella henselae*	*Cat scratch, bite or lick to non-intact skin.* *Not person to person.*				Acquired from animals (cats and others)
HANTAVIRUS	Rodent feces *Not person to person*	2-4 weeks	1-6 weeks		Reportable Communicable Disease – Notify Public Health.
TETANUS *Clostridium tetani*	*Not person to person*	3-21 days			Reportable Communicable Disease – Notify Public Health. Acquired from spores in soil which germinate in wounds, devitalized tissue.

Prevention

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Prevention

Routine Practices or Standard Precautions

1. Hand hygiene
2. Personal protective equipment
   - Gowns
   - Masks
   - Eye protection
   - Gloves
3. Respiratory etiquette

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Prevention

4. Client Management
   - Equipment
     - Cleaning, disinfecting and sterilizing – re-usable
       - Routinely shared – cleaned between pts.
     - Dedicate to patient
     - Safety engineered sharps – disposed immediately into sharps container
   - Environmental controls
     - Procedures for routine care, cleaning of environmental surfaces, furniture and other articles
     - Clean blood and body fluid spills immediately
     - Linens – collecting, handling, containing, transporting and laundering as per protocols
     - Waste – bagged to prevent contamination & dispose
   - Specimen collection
     - Leak proof containers
     - Prevent contamination of container exterior
     - Transport in impervious bag
     - PPE when handling specimen containers
     - Hand hygiene post handling
   - Education
     - HCWs receive education and training on Routines Practices
       - » Hand hygiene and PPE
     - Clients and families on infection prevention and control practices

Prevention

- Follow Additional Precautions as per IC.
  - Airborne, droplet and contact precautions or combination of.
    - Depends on the disease and how it is transmitted
  - Isolation

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Prevention

- Immunization
  - Mumps, measles, rubella
  - Hepatitis B
  - Pertussis (TdaP)
  - Tetanus and diphtheria
  - Influenza
  - Varicella (for those not immune)

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Prevention

- Ensure home care clients contain their cats and dogs prior to entering the home
- If cleaning areas with visible mouse feces
  - Need to follow specific cleaning protocols
    - Need to wear respiratory protection
    - Dampen to clean

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Contact:
Occupational Health Nurse
Rose Plessis
842-8217

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Questions?

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