Infection Control Policy

Section	Number
IV	50

TITLE: Infection Control in Nationwide Children's Hospital Personnel

POLICY: Healthcare workers who have infectious diseases and/or have been exposed to infectious diseases are required to follow work restriction guidelines to protect patients, patient families, guests, other healthcare workers, and themselves from cross-contamination.

PURPOSE: To prevent transmission of infectious diseases from patients and/or employees.

SPECIAL INSTRUCTIONS:

A. General Guidelines
   1. A medical record will be maintained by the Employee Health Services (EHS) on Nationwide Children's Hospital staff which includes health information obtained during the new hire health assessment, immunization records, results from screening programs, and reports on work-related illnesses or exposures.

   2. Employees will notify the EHS nurse and/or employees' supervisors of infections in employees that potentially require work restrictions or exposure follow-ups.

   3. The EHS will report statistics, significant findings, and patterns or trends as needed to the Department of Epidemiology and the Infection Control Committee.

   4. Employees who have lesions or open wounds on their hands that are still draining should report to EHS prior to working for assessment. The employee will be assessed to determine if the employee's lesion or wound puts them or others at risk for infection. EHS will make the determination if it is acceptable for the employee to work. Epidemiology will assist with this determination as requested by EHS.

   5. All employees must report to EHS on an annual basis to receive a Tuberculin skin test (TST) or complete a TB questionnaire if the employee has a history of a positive TST.

   6. Any employee diagnosed with an immunocompromised condition should notify EHS.

B. New Employees
   1. New hire evaluation consists of a medical history, TB surveillance with Quantiferon Gold testing, and immunization update.

Subject: Infection Control in Nationwide Children's Hospital Personnel

C. Protection of Employees from Exposure to Infectious Diseases
   1. All employees will adhere to the Infection Control Manual policies.

   2. All employees will follow established work restriction guidelines.

D. Immunization of Employees
   The following immunizations are provided by Employee Health Services:
   1. Hepatitis B Vaccine
      a) Provided at no charge to all employees who have potential for occupational exposure to blood and body fluids. Refer to the Exposure Control Plan located in the Infection Control Manual Section VII for the job titles of employees with occupational exposure.
      b) The Hepatitis B series consist of three doses: initial, one month, and 6 months. Antibody titers are drawn on employees 6 weeks after completion of the vaccine. Up to six total doses are provided to employees who do not have antibodies after the initial 3 doses. A progressive system of notification to employees and supervisors is in place through EHS for employees not in compliance with Hepatitis B vaccine protocols. The final notification prohibits the employee from working until they are in compliance.

   2. Influenza Vaccine
      a) The Joint Commission and CDC recommend annual influenza vaccination for all health care workers. The benefits of mandatory vaccination include the following:
         - Protecting our patients.
         - Protecting our Hospital employees and our medical staff.
         - Protecting our community.

         Nationwide Children's Hospital has a mandatory influenza vaccination program. This policy statement has been reviewed and is supported by Nationwide Children's Hospital Administration and Medical Staff Officers.
      b) The mandatory influenza vaccination program will be implemented as follows:
         - Annual influenza vaccine is mandated for all employees of Nationwide Children's Hospital, Inc., and its related and affiliated corporations (including Ohio Health nursery staff), and independent contractors (including physicians) who will be on site. Consistent with the statement of The Joint Commission, the Hospital will provide the vaccine at no cost to employees and all licensed health care providers under contract with the Hospital. Administrative policy VIII-3 already requires influenza vaccination for students and rotating residents. It will be necessary to assure compliance with this policy and to the extent the rotating residents or students are not vaccinated, we will determine who will purchase and administer vaccine to them. The Medical Staff members who are either not employed by or under contract with Nationwide Children's Hospital, Inc., are strongly encouraged to obtain the flu vaccine. Such Medical Staff members may be vaccinated at designated locations within the Hospital.
         - Unless an exception has been granted as outlined below, consequences for refusing the vaccines will include:
            → NCH Employees and PAA Physicians – unless and until employees provide proof of vaccinations, administered by the deadline, employees and PAA physicians will not be eligible for a pay increase or bonus payment and a letter will be placed in their personnel file noting non-compliance with this policy.
            → Students/ Rotating residents – will not be allowed to work at the Hospital without vaccination.
            → Independent Contractors – will not be permitted on site and not paid for services if not vaccinated.

- Exceptions to mandatory vaccination will require approval by the Physician Director of Epidemiology or Employee Health Physician or Human Resources, as applicable. They are as follows:
  - → True medical contraindications such as anaphylaxis to vaccine, known allergy to vaccine component, or severe egg allergy. This must be documented by the primary care provider or sub-specialist caring for the employee.
  - → Individuals with a history of Guillain-Barre Syndrome onset within six weeks of receiving flu vaccine may be excluded from the vaccine. At the individual's request, employee health will administer a dose of vaccine with their physician's approval.
  - → Religious objection that is reviewed by Human Resources and confirmed that the objection is based on the individual's religious beliefs.
  - → If adequate influenza vaccine is not available for all NCH employees and PAA physicians, the Department of Epidemiology will prioritize the available vaccine supply to appropriate NCH employees and PAA physicians; and those not on the priority list will be exempt for that season.
- The deadline for receiving immunizations will be determined by the Physician Director of Epidemiology each year. Factors guiding the decision will include: vaccine supply, whether influenza vaccine is currently circulating, and CDC recommendations.

3. Rubeola-Measles Immunization
   a) All current employees should be immunized unless they can provide the following: documentation or history of MMR vaccine since 1980, documentation or positive history of the disease, or documentation of positive antibodies to measles (rubeola).
   b) All new hires should be immunized unless they can provide the following acceptable evidence of immunity to measles:
      - U.S. born before 1957: history of doctor-diagnosed disease or lab evidence i.e. positive antibody titer.
      - U.S. born in or after 1957 but before 1975: documentation of 2 doses of live measles virus vaccine on or after their 1st birthday, lab evidence i.e. positive antibody titer or documentation of physician-diagnosed measles.
      - U.S. born in or after 1975: documentation of 1 dose of live measles vaccine after school entry, or lab evidence i.e. positive antibody titer or documentation of physician diagnosed measles.
      - Foreign born: documentation of 2 doses of live measles virus vaccine on or after their 1st birthday or lab evidence i.e. positive antibody titer.
   c) Employees who cannot provide the acceptable evidence of immunity to measles will have antibody titers done.
   d) Employees with negative titers will be offered the vaccine.
   e) If the employee refuses the vaccine, a waiver should be signed.
   f) Pregnant employees should not receive the vaccine.

4. Rubella Immunization
   a) All current employees born in 1957 or later should be immunized unless they can provide the following: documentation or history of MMR vaccine since 1980, documentation or positive history of the disease, or documentation of positive antibodies to rubella.
   b) All new hires born in 1957 or later should be immunized unless they can provide the following: documentation of receipt of live virus vaccine on or after their 1st birthday, or lab evidence i.e. positive antibody titer.
   c) Adults born before 1957 likely experienced infection with rubella and can be assumed to be immune to rubella. However, women who are in their childbearing years should ensure their immunity with a serological test (antibody).

d) Employees that cannot provide the acceptable evidence of immunity to rubella will have antibody titers done. Employees with negative titers will be offered the vaccine.
e) If the employee refuses the vaccine, a waiver should be signed.
f) Pregnant employees should not receive the vaccine.

5. Mumps: Individuals should be immunized unless they can provide the following acceptable evidence of immunity to mumps:
   a) Born before 1957: history of doctor-diagnosed disease or lab evidence (i.e. positive antibody titers).
   b) Born in or after 1957: documentation of two doses of live mumps vaccine or lab evidence (positive antibody titer).
   c) Pregnant individuals should not receive the vaccine and a waiver form signed.

6. Tetanus, Diphtheria, Pertussis (Tdap) Vaccine
   a) Tdap vaccine is recommended for all healthcare personnel regardless of when they received their previous dose of Td vaccine.
   b) All new employees will receive the Tdap vaccine if they have not been previously vaccinated.
   c) When vaccine supply is an issue, the priority will be vaccination of healthcare personnel with direct contact with infants aged <12 months.
   d) Pregnant healthcare workers will be asked to discuss the Tdap vaccine with their personal physician.
   e) Tdap is offered at no charge to employees.

7. Chickenpox Immunization
   a) Varicella vaccine will be offered to all employees who have a negative documented history and a negative varicella antibody test through EHS. Individuals who are pregnant, lactating, have allergy to neomycin, leukemia, lymphoma, or are in an immunocompromised state, i.e. congenital immunodeficiency or HIV infection, will be evaluated by EHS for the possible risks associated with receiving the vaccine versus the risks of acquiring natural disease from a work-related exposure.
   b) Varicella vaccine series consists of 2 doses for adults: an initial sub-c injection of 0.5ml reconstituted vaccine and a second injection 4-8 weeks after the first. Routine testing for varicella immunity after two doses of vaccine is not necessary for the management of vaccinated health-care workers whom may be exposed to varicella, because 99% of persons are seropositive after the second dose. Seroconversion, however, does not always result in full protection against disease. Testing vaccinees for seropositivity immediately after exposure to VZV is a potentially effective strategy for identifying persons who remain at risk for varicella. Refer Appendix 4 for needed follow-up actions for varicella vaccine recipients who are exposed to VZV.
   c) Any recommended varicella antibody-negative employee who chooses not to comply with receiving the vaccine series will sign a release stating this non-compliance, and may be subject to review for failing to do so.

8. Meningococcal vaccine
   a) All microbiology lab personnel should receive the meningococcal vaccine. The meningococcal conjugate vaccine is recommended for microbiology lab personnel between the ages of 18 and 55 years, and the tetravalent polysaccharide vaccine for those > 55 years.
   b) The vaccine is offered through Employee Health Services. Microbiology lab personnel not receiving the vaccine will need to sign a waiver.

Subject: Infection Control in Nationwide Children's Hospital Personnel

E. Restrictions for Employees with Infectious Diseases
   1. Employees who have symptoms of or the potential of a transmissible infectious disease should report promptly to their supervisor and/or EHS. When the employee's supervisor is aware of any employee who has contracted or has been exposed to an infectious disease, this information must be reported to EHS. EHS will notify the Epidemiology Department when Epidemiology's involvement is required.

   2. Work restrictions for the majority of encountered infectious diseases that employees may have are summarized in the attached appendixes.
      a) Appendix 1 - Work Restrictions For All Employees.
      b) Appendix 2 - Work Restriction Guidelines For Food Service Employees.
      c) Appendix 3 - Work Restrictions For Employees with Direct Patient Contact or Involved in Sterile Processing Activities.

   3. Employees with bloodborne diseases such as Hepatitis B, Hepatitis C and HIV should notify EHS and their manager for evaluation of their appropriateness for continued work activity. EHS will contact the Medical Director of Epidemiology. The Medical Director of Epidemiology will determine if it is appropriate for the employee to work in his/her current position or if a committee needs to evaluate the appropriateness. The committee, if needed, will consist of the EHS physician, the employee's department head or section chief, Human Resources director or designee, Medical Director of Epidemiology, and the employee's treating physician. The Epidemiology staff is available as a consultant.

F. Employee Exposures to Infectious Diseases
   1. Blood and Body Fluid Exposures
      a) Refer to Infection Control Policy IV-20 "Employee Exposures to Patients' Blood or Body Fluids" and Infection Control Policy VII-1 the "Exposure Control Plan."
      b) Chemoprophylaxis is recommended for many situations following occupational exposure to an HIV-positive patient. When chemoprophylaxis is appropriate, **initiation within 1-2 hours of exposure is optimal, but can be initiated up to 24 hours after the exposure**. Refer to Infection Control Policy IV-20.

   2. Tuberculosis
      a) Refer to Infection Control Policy V-25 "Tuberculosis - Management of Patients, Parents, Employees, or Guests with Documented or Suspected *Mycobacterium tuberculosis*" and Infection Control Policy IX-1 "Tuberculosis Exposure Control Plan."

   3. Other Diseases
      a) Refer to Appendix 4 - Employee Health Service Guidelines for Follow-up of Exposures to Infectious Diseases.

G. Work Assignment Guidelines for Pregnant Healthcare Workers Caring for Patients with Infectious Diseases
   1. Appendix 5, is a reference guide for pregnant healthcare workers. This guideline applies to suspected or confirmed disease. The isolation requirements for each disease must be followed as listed in the Infection Control Manual.

H. The Department of Epidemiology's Consultative Role
   1. The Epidemiology Department is available for consults and to obtain and supply resource material upon request.

Subject: Infection Control in Nationwide Children's Hospital Personnel

2. Identifying the need for an exposure follow-up may originate in EHS or the Department of Epidemiology. If the EHS nurse identifies the need for further investigation, then he/she will notify the Epidemiology Department.

   The Department of Epidemiology will notify the Department Manager or designee of the department where the initial exposure occurred. The Department Manager or designee is responsible for notifying other involved departments/institutions as indicated on the Infectious Disease Exposure Follow-up form. Individual department managers are responsible for notifying their staff of the exposure and required follow-up, and contacting Employee Health Services. EHS will follow-up with the individual employees and provide them the appropriate prophylaxis prescribed by the EHS physician as listed in Appendix 4. Epidemiology is available for consult on all infectious disease exposures.

3. EHS and the Epidemiology Department will work closely to monitor trends and/or clusters of infections in patients and employees.

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Subject: Infection Control in Nationwide Children's Hospital Personnel

APPENDIX 1
WORK RESTRICTIONS FOR ALL EMPLOYEES

DISEASE/CONDITION	REMOVE FROM DUTY	PARTIAL WORK RESTRICTIONS	DURATION
Conjunctivitis - Infectious		Departments that fall under Appendix 2 and 3 will be work-restricted. Employee Health Services and/or Department of Epidemiology will evaluate other employees on an individual basis.	Until drainage stops
Coronavirus Pneumonia (CVP) also called Severe Acute Respiratory Syndrome (SARS)	Yes		Based upon CDC's May 2003 recommendations which may be superceded as a new information becomes available. Exclusion from duty should be continued for 10 days after the resolution of fever provided respiratory symptoms are absent or improving. During this period, infected workers should avoid contact with persons in the facility and in the community.
Hepatitis A	No	Good hand hygiene required	
Herpes Zoster-Shingles	Yes		Employees whose rash can not be completely covered must be removed from duty until the rash is completely dry and scabbed. Employees must report to EHS prior to reporting back to work. Employees whose rash can be completely covered may work except on the Hem/Onc ward or clinic, Neonatal Services Unit or PICU and with patients in other areas who are newborns and/or immunocompromised. The employee must first report to EHS to be evaluated on an individual basis concerning the ability of the rash to be covered completely.
Post-exposure of susceptible person	Yes		Refer to Appendix 4
Influenza – Refer to Respiratory Illness	Yes		
Meningococcal Infections	Yes		Until 24 hours of effective treatment

Subject: Infection Control in Nationwide Children's Hospital Personnel

WORK RESTRICTIONS FOR ALL EMPLOYEES

DISEASE/CONDITION	REMOVE FROM DUTY	PARTIAL WORK RESTRICTIONS	DURATION
Monkeypox	Yes		Until all lesions are crusted. Additionally, employees must avoid close contact with immunocompromised persons until all crusts have separated. For employees who develop symptoms i.e., fever, sore throat, cough without rash, work restrictions should be continued for 7 days after fever onset. If rash does not develop during this time, work restrictions may be discontinued. Affected employees should continue symptoms surveillance for an additional 14 days. If symptoms return or if rash develops, do not report to work and call EHS immediately. If EHS is not available, call Epidemiology.
Mumps Active Post-exposure of susceptible person	Yes Yes		Minimally until 5 days after onset of swelling. Employees are likely to be contagious during the entire period of parotid gland swelling. The employee can not return to work until parotid gland swelling is gone. 12 days after first exposure until 26 days after last exposure.
Pertussis and Parapertussis	Yes		From the beginning of the catarrhal stage through the 3rd week after onset of paroxysms or until 5 days after start of effective therapy.
Respiratory Illness 1. Respiratory illness with a fever of at least 100°F and/or confirmed Influenza.	Yes		Restrict from work until at least 24 hours after no longer having a fever (without the use of fever reducing medicines such as acetaminophen). Those with ongoing respiratory symptoms should be considered for evaluation by Employee Health to determine appropriateness of contact with patients. Employees caring for patients in Protective Environment (PE) such as hematopoietic stem cell transplant patients (HSCT) should be temporary reassigned or excluded from work for 7 days from symptom onset or until resolution of symptoms, whichever is longer.

Subject: Infection Control in Nationwide Children's Hospital Personnel

WORK RESTRICTIONS FOR ALL EMPLOYEES

DISEASE/CONDITION	REMOVE FROM DUTY	PARTIAL WORK RESTRICTIONS	DURATION
2. Upper respiratory tract infections with < 100° F temperature.	No	HCW who develop acute respiratory symptoms without fever, may still have influenza infection and should consider evaluation by EHS. Good hand hygiene and cough etiquette; when sneezing/or coughing. Certain patients who acquire respiratory virus may develop serious disease. Employees with colds or other respiratory infections **should avoid contact with high risk patients** such as those with underlying heart or lung disease, neonates, young infants or immuno-compromised patients. If this is not possible then a mask should be worn while providing patient care.	
Rubella Active Post-exposure of susceptible person	Yes Yes		Until 7 days after onset of rash. Refer to Appendix 4
Rubeola-Measles Active Post-exposure of susceptible person	Yes Yes		Until 7 days after rash appears. Refer to Appendix 4
Scabies	Yes		Until treated. Household contacts and sexual partners should also be treated.
Severe Acute Respiratory Syndrome (SARS) also called Coronavirus Pneumonia (CVP)	Yes		Based upon CDC's January 2004 recommendations which may be superceded as new information becomes available. Exclusion from duty should be continued for 10 days after the resolution of fever provided respiratory symptoms are absent or improving. During this period, infected workers should avoid contact with persons in the facility and in the community.
Streptococcal Pharyngitis	Yes		Until 24 hours after the initiation of appropriate antibiotic therapy.

Subject: Infection Control in Nationwide Children's Hospital Personnel

WORK RESTRICTIONS FOR ALL EMPLOYEES

DISEASE/CONDITION	REMOVE FROM DUTY	PARTIAL WORK RESTRICTIONS	DURATION
Tuberculosis		Refer to Infection Control policies V-25 and IV-1.	
Active disease	Yes		
Latent disease	No		
Varicella Zoster- Chickenpox Active	Yes		Until all lesions are scabbed and dry.
Post-exposure of susceptible person	Yes		Refer to Appendix 4
Attenuated disease from varicella vaccine	Yes		Employees whose rash cannot be covered completely must be removed from duty until the rash is completely dry and scabbed. Employees whose rash can be covered completely may work except on the Hematology/Oncology ward or clinic, Neonatal Services Unit, PICU or with patients in other areas who are newborns and/or immunocompromised. The employee must first report to EHS to be evaluated on an individual basis concerning the ability of the rash to be covered completely.

Subject: Infection Control in Nationwide Children's Hospital Personnel

APPENDIX 2

WORK RESTRICTION GUIDELINES FOR FOOD SERVICE EMPLOYEES

Employees with the following conditions must not prepare or serve food or handle utensils to be used for food for the duration indicated. Employees must also follow Appendix 1.

DISEASE/CONDITION	REMOVE FROM DUTY	PARTIAL WORK RESTRICTIONS	DURATION
Amebiasis	Yes		Symptomatic cases should be excluded from work until symptoms are resolved. Treatment of symptomatic and asymptomatic is generally recommended. Asymptomatic employees may return to work or continue to work but be re-assigned to tasks which do not involve direct food contact. They may resume original duties upon submission of 3 consecutive negative stools.
Campylobacteriosis	Yes		Food handlers should not be allowed to resume original duties until asymptomatic and until 48 hours after initiation of effective antibiotics or, if untreated, after 2 consecutive follow-up specimens are found to be negative.
Conjunctivitis- Infectious	Yes		Until drainage stops.
CRYPTOSPORIDIUM	Yes		Until symptoms stop and after three consecutive follow-up stool specimens are found to be negative.
CYCLOSPORA	Yes		Until symptoms stop and appropriate treatment has begun.
Diarrhea*-Unknown Etiology *defined as 6-8 watery stools lasting longer than 2 days with no known cause.	Yes		Until symptoms stop or cause of diarrhea is determined.
Escherichia Coli 0157: H7 or Hemolytic Uremic Syndrome	Yes		Until symptoms stop and after two consecutive follow-up stool specimens are found to be negative.
Giardiosis	Yes		Food handlers should not be allowed to resume original duties until asymptomatic and until 72 hours after initiation of effective antibiotics or, if untreated, after 3 consecutive follow-up specimens are found to be negative.
Hepatitis A	Yes		Until 10 days after onset of symptoms.
Jaundice	Yes		Until symptoms stop or cause of jaundice is determined.

Subject: Infection Control in Nationwide Children's Hospital Personnel

WORK RESTRICTION GUIDELINES FOR FOOD SERVICE EMPLOYEES

DISEASE/CONDITION	REMOVE FROM DUTY	PARTIAL WORK RESTRICTIONS	DURATION
Noroviruses And Norwalk Agent Gastroenteritis	Yes		For three additional days after symptoms stop.
Salmonellosis	Yes		Symptomatic employees must be excluded from work. Asymptomatic food handlers with questionable hygienic habits should not be allowed to resume food handling duties until 2 consecutive follow-up stool specimens are negative for salmonella. Antibiotic treatment is usually not recommended.
Shigellosis	Yes		Symptomatic employees should be excluded from work. Antibiotic treatment is generally recommended. Food handlers should not be allowed to resume original duties until 2 consecutive follow-up stool specimens are negative for shigella.
Staphylococcal or Streptococcal Skin Lesions	Yes		Employees may not work if the lesions are present on hands or other uncovered areas of the body. Their sites of infection must be assessed by Employee Health Services to determine on an individual basis if working is permitted.
Vibrio Cholerae	Yes		Until symptoms stop and after two consecutive follow-up stool specimens are found to be negative.
Vomiting	Yes		Until symptoms stop or cause of vomiting is determined.
Yersinia	Yes		Until symptoms stop and after two consecutive follow-up stool specimens are found to be negative.

Subject: Infection Control in Nationwide Children's Hospital Personnel

APPENDIX 3

WORK RESTRICTION GUIDELINES FOR PERSONNEL WITH DIRECT PATIENT CONTACT OR INVOLVED IN STERILE PROCESSING ACTIVITIES

In addition to the work restrictions for all employees outlined in Appendix 1, employees with the following conditions must follow the outlined precautions.

DISEASE/CONDITION	REMOVE FROM DUTY	PARTIAL WORK RESTRICTIONS	DURATION
AIDS/HIV Positive	Employees with bloodborne diseases such as Hepatitis B, Hepatitis C, and HIV should notify Employee Health Services and their manager for evaluation of their appropriateness for continued work activity. Employee Health Services will contact the Medical Director of Epidemiology. The Medical Director of Epidemiology will determine if it is appropriate for the employee to work in his/her current position or if a committee needs to evaluate the appropriateness. The committee, if needed, will consist of the Employee Health Service physician, the employee's department head or section chief, Human Resources director, or designee, Medical Director of Epidemiology and the employee's treating physician. Epidemiology is available as a consultant.		
Conjunctivitis- Infectious	Yes		Until drainage stops
Cytomegalovirus Infections	No	Instruct on handwashing.	
Diarrhea*-Unknown Etiology *defined as 6-8 watery stools lasting longer than 2 days.	Yes	Instruct on handwashing.	Until diarrhea stops
Enteroviral Infections		Restrict from care of infants, neonates, and immunocompromised patients and their environment.	Until symptoms resolve
Hepatitis A	Yes		Until 7 days after onset of symptoms
Hepatitis B Acute or chronic	Same as AIDS/HIV positive		

Subject: Infection Control in Nationwide Children's Hospital Personnel

WORK RESTRICTION GUIDELINES FOR PERSONNEL WITH DIRECT PATIENT CONTACT OR INVOLVED IN STERILE PROCESSING ACTIVITIES

DISEASE/CONDITION	REMOVE FROM DUTY	PARTIAL WORK RESTRICTIONS	DURATION
Hepatitis C	Same as AIDS/HIV positive		
Herpes Simplex Genital Hands-herpetic Whitlow	No Yes		 Until lesions heal
Herpes Simplex Orofacial	Healthcare workers can not care for neonatal or other immuno-compromised patients	Healthcare workers with direct patient contact but do not work with neonatal or other immuno-compromised patients will be required to cover area with a mask or bandaid and utilize strict handwashing. Drainage must be contained.	Until lesions are dried and crusted
Lice	Yes		Until treated
Multi-Resistant Organism	Consult Epidemiology		
Staphylococcus or Streptococcus Skin Infections	Yes	Employees may work if lesions are not present on hands and lesions can be covered and drainage contained while on duty.	Until lesions heal

Subject: Infection Control in Nationwide Children's Hospital Personnel

APPENDIX 4

EMPLOYEE HEALTH SERVICES GUIDELINES FOR FOLLOW-UP OF EXPOSURES TO INFECTIOUS DISEASES

DISEASE/CONDITION	DEFINITION OF EXPOSURE	FOLLOW-UP ACTION
AIDS/HIV infection	Refer to Infection Control Policy IV-20. If exposure is to a known HIV+ patient or if source patient is unknown.	Infection Control Policy IV-20.
Bioterrorism Agents	Refer to Infection Control Policy XI-5.	Refer to Infection Control Policy XI-5 for post exposure management.
Coronavirus Pneumonia (CVP) also called Severe Acute Respiratory Syndrome (SARS)	Refer to Severe Acute Respiratory Syndrome (SARS) in this appendix.	Refer to Severe Acute Respiratory Syndrome (SARS) in this appendix.
Cruetzfeld - JACOB	Exposure to blood/body fluids by way of percutaneous or mucous membranes.	Rinse percutaneous wound with 1 Eq/L sodium hydroxide for several minutes, then thoroughly rinse with water. Do not apply sodium hydroxide to mucous membranes. Instead, irrigate with 0.9% sodium chloride for a minimum of 15 minutes. Avoid vigorous scrubbing or abrasion of skin. Notify EHS immediately.
Haemophilus Influenzae type b (HIB)	None	Prophylaxis not indicated for healthcare workers.
Hepatitis B	Refer to Infection Control Policy IV-20.	Refer to Infection Control Policy IV-20.
Hepatitis C	Refer to Infection Control Policy IV-20.	Refer to Infection Control Policy IV-20.
Herpes Zoster (Shingles)	An employee who does not have documented history of chickenpox, a positive varicella titer, or has not received varicella vaccine **and** is in a room for 60 minutes or longer with an individual who has shingles in the blister state which are not completely covered.	Remove from workdays 10 - 21 after exposure. If employee does not acquire disease, vaccine series should be initiated to develop immunity.
Influenza	Healthcare Workers (HCW) who have had a recognized, unprotected close contact to a person with influenza virus infection during the person's infectious period. Close contact is defined as having cared for or lived with a person who has influenza or having been in a setting where there was a high likelihood	Post exposure antiviral chemoproprophylaxis should be considered. This decision will be made based on availability of antivirals and when the contact occurred. Staff should monitor for symptoms of Respiratory Illness or Influenza. Refer to Respiratory illness in the Work Restriction section of this policy for the criteria and duration of work restrictions listed under Respiratory Illness.

Subject: Infection Control in Nationwide Children's Hospital Personnel

EMPLOYEE HEALTH SERVICES GUIDELINES FOR FOLLOW-UP OF EXPOSURES TO INFECTIOUS DISEASES

DISEASE/CONDITION	DEFINITION OF EXPOSURE	FOLLOW-UP ACTION
Influenza (continue)	of contact with respiratory droplets and/or body fluids of such a person. Examples of close contact include kissing or embracing, sharing eating or drinking utensils, physical examination, or any other contact between persons likely to results in exposure to respiratory droplets. Close contact typically does not include activities such as walking by an infected person or sitting across from a symptomatic patient in a waiting room or office. Persons with influenza infection should be considered potentially contagious one day before to 7 days following illness onset. Persons who continue to be ill longer than 7 days after illness onset should be considered potentially contagious until symptoms have resolved. Children, especially younger children, might be contagious for longer periods.	
Lice	Employees not considered to have exposures unless lice or nits are found on employees.	Prophylaxis is not indicated. If lice or nits are found on employee, treat. Usually treated with Kwell®.
Meningococcal Meningitis and Meningococcal Disease	Intimate exposure to respiratory /oral secretions that may occurs with mouth-to-mouth resuscitation, intubation, endotracheal tube management or suctioning while not wearing a mask.	Chemoprophylaxis should be administered as soon as possible ideally within 24 hours after identification of the index patient. Chemoprophylaxis administered after 14 days after onset of illness in the index patient is probably of limited or no value. Rifampin 600 mg every 12 hours x 2 days orally or Ciprofloxacin 500 mg orally x 1 dose. EHS will dispense the Ciprofloxacin during their regular hours. Otherwise, a prescription will need to be obtained from ER or MD. Monitor for symptoms for 1 month after exposure. If pregnant, Ceftriaxione 250 mg IM x 1 may be used. Pregnant employees will be counseled on symptoms of meningococcal meningitis and instructed to see their physician if any symptoms occur.
Monkeypox	In the room with an animal or a human suspected to have Monkeypox or their environment of care before recommended infection control precautions for Monkeypox were implemented or	Healthcare workers who have exposure to Monkeypox need not be excluded from duty, but should undergo active symptom surveillance until 21 days after their last day of exposure. Symptoms of concern include fever (temperature $\geq$ 99.3ºF), sore throat, cough, or

Subject: Infection Control in Nationwide Children's Hospital Personnel

EMPLOYEE HEALTH SERVICES GUIDELINES FOR FOLLOW-UP OF EXPOSURES TO INFECTIOUS DISEASES

DISEASE/CONDITION	DEFINITION OF EXPOSURE	FOLLOW-UP ACTION
	were breached. Lab workers who handled specimens without needed precautions.	skin rash. Contacts should measure their body temperature at least twice daily during the symptoms surveillance period. EHS will coordinate the surveillance system. Workers with unprotected exposure who develop symptoms of Monkeypox should not report for duty, but should stay home and report symptoms to EHS by phone. EHS will contact Epidemiology. EHS will also provide guidance to the employee in seeking a healthcare evaluation. Receipt of Smallpox vaccine should be considered up to 14 days after exposure.
Mumps	In the room with an individual with mumps and the employee does not have a documented positive titer or the employee was born in 1957 or after and can not provide documentation of immunization since 1980. A mask does not protect an individual from exposure.	If presumed susceptible or has documented negative antibodies, remove from work 12 days from first exposure to the patient with mumps until 26 days after the last exposure to the patient with mumps.
Pertussis and Parapertussis	Prophylactic erythromycin is indicated for exposed personnel who had no mask on and had direct contact with respiratory droplets regardless of vaccination status.	Azithromycin is the chemoprophylaxis agent of choice. Erythromycin is effective. However, recent information suggests a potential for serious and life-threatening complications of erythromycin in selected adults, particularly those receiving certain medications. Since it may be difficult to elicit adequate information to avoid the risks associated with erythromycin, erythromycin will be replaced with azithromycin. Trimethoprim-sulfamethoxazole is less effective but can be used as an alternative for those who are allergic to or who cannot tolerate macrolide antibiotics such as erythromycin, azithromycin and clarithromycin.
RSV	None	If employee develops symptoms, follow guidelines for employees with upper respiratory infections.
Rubella	In the room with an individual with rubella and the employee does not have a documented positive titer or the employee was born in 1957 or after and can not provide documentation of immunization since 1980. A mask does not protect an individual from exposure.	If presumed susceptible or has documented negative antibodies, remove from work 14 days from initial exposure (this could include a period of up to 7 days prior to the onset of rash) until 21 days after the last exposure (this could occur as long as 14 days after onset of rash.)

Subject: Infection Control in Nationwide Children's Hospital Personnel

EMPLOYEE HEALTH SERVICES GUIDELINES FOR FOLLOW-UP OF EXPOSURES TO INFECTIOUS DISEASES

DISEASE/CONDITION	DEFINITION OF EXPOSURE	FOLLOW-UP ACTION
Rubeola-Measles	In the room with an individual with measles and the employee doesn't have documented positive titer or the employee was born in 1957 or after and can not provide documentation of immunization since 1980. A mask does not protect an individual from exposure.	Susceptible personnel who have been exposed will be relieved from duty 8 days from the initial exposure through 12 days after the last day of exposure.
Scabies	Prolonged skin to skin contact, such as holding, feeding, or bathing.	Remove from work until treated. 2nd treatment recommended but not required to return to work.
Severe Acute Respiratory Syndrome (SARS) also referred to as Coronavirus Pneumonia (CVP)	In the room with an individual with SARS or their environment of care before recommend infection control precautions for SARS were implemented or were breached. For example they did not wear all of the required protections i.e. N95 mask, goggles, gloves, gowns and perform hand hygiene. Exposed healthcare workers must notify their managers and/or supervisors and EHS immediately.	Based upon CDC's January 2004 recommendations which may be superceded as a new information becomes available. **Healthcare workers who have been in the room with an individual with SARS will fall under one of the three categories below:** 1. Healthcare workers who **have unprotected high-risk exposures** to SARS should be excluded from duty for 10 days following the exposure**.** They should be vigilant for fever and respiratory symptoms**. Unprotected high-risk exposure is defined** as presence in the same room as a probable SARS patient during a high-risk aerosol-generating procedure or event and where recommended infection control precautions are either absent or breached. Aerosol-generating procedures or events include aerosolized medication treatments, diagnostic sputum induction, bronchoscopy, endotracheal intubation, airway suctioning and close facial contact during a coughing paroxysm. Healthcare workers who are excluded from duty should limit interactions outside the home, and should not go to work, school, church or other public areas. 2. Healthcare workers who have **other** unprotected exposures to patients with SARS need not be excluded from duty, but should undergo active surveillance for fever and respiratory symptoms, including measurement of body temperature at least twice daily for 10 days following the exposure. EHS will coordinate the surveillance system. Workers with unprotected exposure who develops symptoms of SARS should not report for

Subject: Infection Control in Nationwide Children's Hospital Personnel

EMPLOYEE HEALTH SERVICES GUIDELINES FOR FOLLOW-UP OF EXPOSURES TO INFECTIOUS DISEASES

DISEASE/CONDITION	DEFINITION OF EXPOSURE	FOLLOW-UP ACTION
Severe Acute Respiratory Syndrome (SARS) also referred to as Coronavirus Pneumonia (CVP) - continued		duty, but should stay home and report symptoms of SARS to EHS by phone. EHS will notify Epidemiology. EHS will also provide guidance to the employee in seeking a healthcare evaluation. The symptoms are listed below under "Management of Symptomatic, Exposed Healthcare Worker". 3. Healthcare workers who have cared for or otherwise been exposed to SARS patients **while adhering** to the recommended infection control precautions should be instructed to be vigilant for fever and respiratory symptoms, including measurement of body temperature at least twice daily for 10 days following the last exposure to a SARS patient. If symptoms develop, they should not report for duty but should stay home and report symptoms to EHS by phone. EHS will notify Epidemiology. EHS will also provide guidance to the employee in seeking a healthcare evaluation. The symptoms are listed below under "Management of Symptomatic, Exposed Healthcare Workers". Managers of the departments that the potential SARS patient occupied will maintain a listing of healthcare workers who entered the room. This list will be forwarded to Epidemiology and EHS. **Management of Symptomatic, Exposed Healthcare Workers** 1. Any healthcare worker who has cared for or been exposed to a SARS patient who develops fever (measured temperature > than 100.4° F [>38° C] **OR** one or more clinical findings of respiratory symptoms e.g. cough, shortness of breath, difficulty breathing, hypoxia, radiographic findings of either pneumonia or acute respiratory distress syndrome within 10 days following exposure should not report for duty. The healthcare worker should stay home and report symptoms to their manager and EHS immediately. If the symptoms begin while at work, the healthcare worker should be instructed to immediately apply a surgical mask, and isolate themselves in a room and phone EHS. They should call the Patient Care Services Supervisor if EHS is closed. Guidance will be provided on seeking a health care evaluation. Symptomatic health-care workers should use infection control precautions to minimize the potential for

Subject: Infection Control in Nationwide Children's Hospital Personnel

EMPLOYEE HEALTH SERVICES GUIDELINES FOR FOLLOW-UP OF EXPOSURES TO INFECTIOUS DISEASES

DISEASE/CONDITION	DEFINITION OF EXPOSURE	FOLLOW-UP ACTION
Severe Acute Respiratory Syndrome (SARS) also referred to as Coronavirus Pneumonia (CVP) - continued		transmission. In advance of clinical evaluation healthcare providers should be informed that the individual may have been exposed to SARS so arrangements can be made, as necessary, to prevent transmission to others in the healthcare setting. Epidemiology needs notified of any symptomatic employees. 2. If symptoms do not progress to meet the suspected SARS case, definition within 72 hours after first symptoms' onset, the heathcare worker may be allowed to return to work after consultation with EHS and Epidemiology. Healthcare workers who meet or progress to meet the case definition for suspected SARS (e.g., develop fever and respiratory symptoms) infection control precautions should be continued until 10 days after the resolution of fever, provided respiratory symptoms are absent or improving. During this period, infected workers should avoid contact with persons both in the facility and in the community. Suspected SARS should be reported to local health authorities immediately. If the illness does not progress to meet the case definition, but the individual has persistent fever or unresolving respiratory symptoms, infection control precautions should be continued for an additional 72 hours, at the end of which time a clinical evaluation should be performed. If the illness progresses to meet the case definition, infection control precautions should be continued as described above. If case definition criteria are not met, infection control precautions can be discontinued after consultation with EHS, Epidemiology and the evaluating clinician. Factors that might be considered prior to discontinuing infection control precautions include the nature of the potential exposure to SARS, nature of contact with others in the residential or work setting, and evidence of an alternative diagnosis. **Laboratory workers exposed to SARS see Appendix 6**.
Tuberculosis	Refer to Infection Control Policy V-25 and IX-1.	Refer to Infection Control Policy V-25 and IX-1.

Subject: Infection Control in Nationwide Children's Hospital Personnel

EMPLOYEE HEALTH SERVICES GUIDELINES FOR FOLLOW-UP OF EXPOSURES TO INFECTIOUS DISEASES

DISEASE/CONDITION	DEFINITION OF EXPOSURE	FOLLOW-UP ACTION
Varicella Zoster (Chickenpox)	An employee who does not have a documented history of chickenpox, positive varicella titer or has not received varicella vaccine and **is in a room for 60 minutes or longer with an individual who is contagious with chickenpox.**	Remove from workdays 10 from initial exposure through day 21 after last exposure. Vaccine series should be initiated if used within 5 days of the exposure to prevent illness or modify varicella severity. Action needed if the employee received the varicella vaccine prior to exposure includes: The employee needs tested for seropositivity immediately after exposure to VZV. Varicella is unlikely to develop in persons who have detectable antibody: persons who do not have such antibody can be retested in 5-8 days to determine if an anamnestic response is present, in which case development of disease is unlikely and the employee does not need work restricted. Employees who do not have a positive titer, remain susceptible and must be removed from work days 10 from initial exposure through day 21 after last exposure.

Subject: Infection Control in Nationwide Children's Hospital Personnel

APPENDIX 5

WORK ASSIGNMENT GUIDELINES FOR PREGNANT HEALTHCARE WORKERS CARING FOR PATIENTS WITH INFECTIOUS DISEASES

The following is a reference guide for pregnant healthcare workers. This guideline applies to suspected or confirmed disease.

DISEASE/CONDITION	PREGNANT HEALTHCARE WORKERS
Varicella Zoster (VZV) Chickenpox	Reassign only if healthcare worker, pregnant or not, has never had chickenpox. An immune worker may safely provide care.
CMV	Reassignment not recommended because of ubiquitous nature of virus; greater risk to pregnant healthcare worker may be with unidentified CMV excreter. Healthcare workers should practice excellent technique with all patients when handling diapers, blood, urine, saliva and tears and practice good, consistent handwashing. Higher risk of seroconversion with exposure to toddlers in a daycare center.
Hepatitis A	No reassignment necessary.
Hepatitis B	No reassignment necessary. Hepatitis B vaccine strongly recommended after delivery if not already immunized. Hepatitis B vaccine and HBIG may be given to pregnant employees with an occupational exposure to Hepatitis B.
Hepatitis non A, non B	No reassignment necessary.
Herpes simplex	No reassignment necessary.
HIV	No reassignment necessary.
Influenza A and B (Note below recommendations for Influenza A - H1N1)	No reassignment necessary.
Influenza A – H1N1	Reassignment consideration: Pregnant women who will likely be in direct contact with patients with confirmed, probable, or suspected influenza A - H1N1 (e.g., a nurse, physician, or respiratory therapist caring for hospitalized patients), should consider reassignment to lower-risk activities, such as telephone triage. If reassignment is not possible, pregnant women should wear a mask and avoid participating in procedures that may generate increased small-particle aerosols of respiratory secretions in patients with known or suspected influenza, including the following procedures: – Endotracheal intubation – Aerosolized or nebulized medication administration – Diagnostic sputum induction – Bronchoscopy – Airway suctioning – Positive pressure ventilation via face mask (e.g., BiPAP and CPAP) – High-frequency oscillatory ventilation

Subject: Infection Control in Nationwide Children's Hospital Personnel

WORK ASSIGNMENT GUIDELINES FOR PREGNANT HEALTHCARE WORKERS CARING FOR PATIENTS WITH INFECTIOUS DISEASES

DISEASE/CONDITION	PREGNANT HEALTHCARE WORKERS
Parvovirus (5th Disease)	Reassignment of pregnant worker if patient is in aplastic crisis or has chronic hemolytic anemia because causative agent may be parvovirus or if pregnant healthcare worker has known negative titer.
RSV	No reassignment necessary unless ribavirin aerosol in use.
Rubella (German Measles)	Reassign only if healthcare worker, pregnant or not, has never had rubella or rubella vaccine. Immune status must be documented by positive titer or date of administered vaccine. An immune worker may safely provide care.
Rubeola (Measles)	Reassign only if healthcare worker, pregnant or not, has never had rubeola. An immune worker may safely provide care.
Shingles (Herpes Zoster)	Reassign only if healthcare worker, pregnant or not, has never had chickenpox. An immune worker may safely provide care.
Toxoplasmosis	Reassignment not necessary. Pregnant women should not empty or clean cat litter boxes, or eat raw or undercooked pork, lamb, beef or poultry. Hands should be washed thoroughly after handling raw meat.
Tuberculosis	No reassignment necessary.

Subject: Infection Control in Nationwide Children's Hospital Personnel

Appendix 6

I. Management of Laboratory Workers Exposed to SARS

A. Management of exposed laboratory workers who are asymptomatic

Decisions regarding activity restrictions (e.g. work) should be discussed with Employee Health Services. Asymptomatic exposed workers generally do not need to be excluded from duty. However, a worker who has had a high-risk exposure may need to be furloughed. **(Refer to the BSL 3 Exposure Follow-up form.)**

1. Exposed workers should be instructed to be vigilant for the development of fever (e.g. measure and record body temperature twice daily for 10 days after the date of the last unprotected exposure), lower respiratory symptoms, or any of the following: sore throat, rhinorrhea, chills, rigors, myalgia, headache, diarrhea. Exposed workers should immediately notify the supervisor if symptoms develop.
2. Exposed workers should be actively monitored for symptoms prior to reporting for duty.

B. Management of exposed laboratory workers who develop symptoms within 10 days of exposure

1. The exposed laboratory worker who develops fever, lower respiratory symptoms, sore throat, rhinorrhea, chills, rigors, myalgia, headache, or diarrhea should:
   - Immediately put on an N95 mask if at work, *and*
   - Immediately notify the supervisor and the supervisor may notify Employee Health, Epidemiology or another designee as appropriate.
2. Decisions on returning to work should be guided by Nationwide Children's Hospital approved policies and regulations defined by the health department.

II. Management of Symptomatic Laboratory Workers Exposed to SARS With No Recognized Exposures

Laboratory workers who develop a fever or lower respiratory symptoms and who have no recognized exposure should immediately contact the supervisor. The supervisor should immediately contact Employee Health, Epidemiology or a designee as appropriate who should review the worker's illness and potential laboratory exposures to determine if any SARS precautions or additional consultations are necessary.