

PRINCIPLES & PRACTICES OF EMPLOYEE HEALTH

DEVELOPED BY:
NC STATEWIDE PROGRAM FOR INFECTION CONTROL AND EPIDEMIOLOGY (SPICE)

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AGENDA

- ▶ Immunizations
- ▶ Tuberculosis
- ▶ Screening of personnel with infectious diseases or exposure to communicable diseases
 - ▶ Work restrictions
 - ▶ BBP occupational exposure
 - ▶ Management of HCP with and upper respiratory infection
 - ▶ Management of employees who handle food
- ▶ Post-exposure prophylaxis for vaccine preventable diseases
- ▶ Hand dermatitis/Latex allergy

IMMUNIZATIONS

► Screen for immunity to communicable diseases:

- Measles
- Mumps
- Rubella
- Varicella
- Pertussis



				Number of new cases					
Acute hepatitis A viral infection	---	---	56,797	29,087	31,441	13,397	1,670	3,365	12,474
Acute hepatitis B viral infection	---	---	8,310	19,015	21,102	8,036	3,374	3,409	3,322
Acute hepatitis C viral infection ¹	---	---	---	---	2,553	3,197	849	4,225	4,768
Diphtheria	5,796	918	435	3	4	1	—	—	1
<i>Haemophilus influenzae</i> , invasive	---	---	---	---	---	1,398	3,151	5,548	5,573
Lyme disease ²	---	---	---	---	---	---	30,158	42,743	33,666
Measles (Rubeola)	319,124	441,703	47,351	13,506	27,786	86	63	120	375
Meningococcal disease	---	---	2,505	2,840	2,451	2,256	833	353	327
Mumps	---	---	104,953	8,576	5,292	338	2,612	6,109	2,515
Pertussis (whooping cough)	120,718	14,809	4,249	1,730	4,570	7,867	27,550	18,975	15,609

OTHER VACCINES

- ▶ Hepatitis B
- ▶ Annual influenza
- ▶ COVID



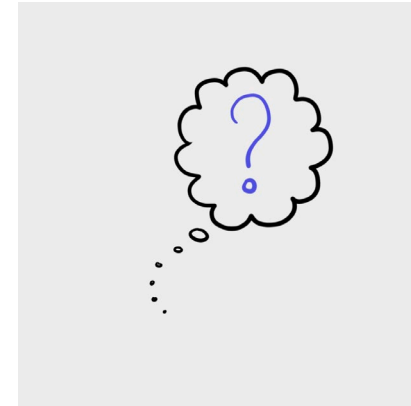
- ▶ Exemptions due to an approved religious or medical contraindication
- ▶ Vaccine exemptions should be evaluated each year
- ▶ Declination for Hep B

- ▶ <https://www.immunize.org/catg.d/p2017.pdf>

TIPS FOR ADDRESSING VACCINE HESITANCY

“The reluctance or refusal to vaccinate despite the availability of vaccines...”
(World Health Organization 2019)

- ▶ Build trust
- ▶ Be honest about side effects
- ▶ Provide reassurance
- ▶ Focus on protection of the healthcare worker and the resident/client
- ▶ Provide answers to commonly asked questions on the benefits and safety of vaccines



OSHA'S FEDERAL REGULATIONS: RESPIRATORY PROTECTIVE PROGRAM



- ▶ All new hires screened for TB infection and disease
- ▶ Annual symptom screen / testing determined by State regulations
- ▶ All new hire HCP with reactive TST or positive blood assay for *M. tuberculosis* (BAMT) provided counseling and follow-up with the NC DHHS for evaluation of latent TB infection (LTBI)
- ▶ Post exposure screening and testing
- ▶ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134>
- ▶ <https://epi.dph.ncdhhs.gov/phpr/docs/NCDPHRespiratoryProtectionGuidanceNov2021.pdf>

INFECTIOUS DISEASES / EXPOSURE TO COMMUNICABLE DISEASES

- Utilize NCDHHS and CDC recommendations for work restriction guidance

HCP w/ non-intact skin on exposed surface (include exposed surfaces on hand, wrists, face and neck).	May not provide direct care or have contact with equipment that is used for direct care (i.e., BP cuffs, food trays) until all lesions have healed/resolved.
HCP w/ non-intact skin under clothes and can be covered	May provide direct care. Lesions should be covered with a clean, dry dressing and must be entirely covered by clothing.
HCP with active varicella	May not return to work until all lesions are dry and crusted over.

- <https://epi.dph.ncdhhs.gov/cd/lhds/manuals/cd/toc.html>
- <https://epi.dph.ncdhhs.gov/cd/lhds/manuals/tb/toc.html>
- <https://www.cdc.gov/infectioncontrol/guidelines/healthcare-personnel/index.html>



OSHA's FEDERAL REGULATIONS: BLOODBORNE PATHOGENS



- ▶ December 6th, 1991 – Standard 1910.1030; Final Rule on Occupational Exposure to Bloodborne Pathogens
- ▶ January 18th, 2001 - Occupational Exposure to Bloodborne Pathogens; Needlestick and Other Sharps Injuries; Final Rule.
 - ▶ Additions to the exposure control plan
 - ▶ Sharps injury log required

OSHA's Definition - "Occupational Exposure"

Includes

- ▶ Healthcare employees whose duties involve "*reasonably anticipated contact*" with blood or other potentially infectious material
 - ▶ Contaminated sharps
 - ▶ Non-intact skin
 - ▶ Medical waste
 - ▶ Plumbing
 - ▶ Human bites that break the skin

TYPES OF OCCUPATIONAL EXPOSURES TO BLOODBORNE PATHOGENS



- ▶ Percutaneous injury (PI)
- ▶ Mucous membrane
- ▶ Non-intact skin



BODY FLUIDS LINKED TO TRANSMISSION OF HBV, HCV AND/OR HIV

Blood

Other Potentially Infectious Material (OPIM) includes:

- semen
- vaginal secretions
- cerebrospinal fluid
- synovial fluid
- pleural fluid
- pericardial fluid
- peritoneal fluid
- amniotic fluid
- saliva in dental procedures
- any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

BLOODBORNE PATHOGENS



- ▶ Pathogenic organisms that are present in human blood, ***and***
 - ▶ Can cause disease in humans
- ▶ ***Includes but not limited to:***
 - ▶ Hepatitis B virus (HBV)
 - ▶ Hepatitis C virus (HCV)
 - ▶ Human immunodeficiency virus (HIV)

WRITTEN EXPOSURE CONTROL PLAN (ECP)

- ▶ Must be reviewed/updated no less than annually (within 365 days of last review) *and*
- ▶ Be updated when procedures or equipment change *and*
- ▶ Must be accessible to all staff *and*
- ▶ Must contain all components of the BBP rule



EXPOSURE CONTROL PLAN

► Contains:

- Exposure determination
- Methods of Compliance
- Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up
- Communication of Hazards to Employees
- Recordkeeping requirements
- Procedure for evaluating circumstances surrounding exposure incidents.

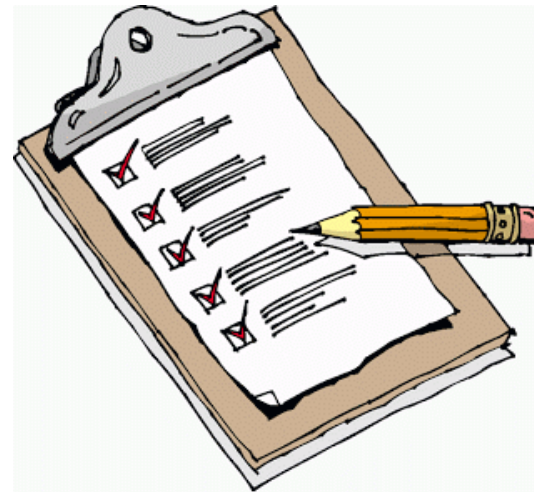
POST – EXPOSURE EVALUATION AND FOLLOW UP

Following a report of an exposure incident, the employer shall make, immediately available to the employee a confidential medical evaluation and follow-up including the following:

- ▶ Document the route of exposure
- ▶ Document the HIV, HBV and HCV status of source person, if known
- ▶ Notify the source person an exposure has occurred
- ▶ Test the source person for HIV, HBV and HCV (unless status known)
- ▶ Offer baseline testing to employee
- ▶ Offer counseling and post exposure prophylaxis, if indicated

POST EXPOSURE AND FOLLOW UP

- ▶ The employer must also obtain and provide the exposed employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation



RECORD KEEPING REQUIREMENTS

MEDICAL RECORDS

- ▶ Must maintain and keep confidential an accurate record for each employee with occupational exposure
 - ▶ Name and SS #
 - ▶ HBV status
 - ▶ Copy of results of post-exposure follow up
 - ▶ Copy of the healthcare professional's written opinion
- ▶ Must maintain for at least the duration of employment plus 30 years

MANAGING HCP WITH URI



- ▶ HCP who develop respiratory sx ***with fever*** ($>100.4^{\circ}\text{F}$ or $>38^{\circ}\text{C}$)
 - ▶ Instruct HCP not to report to work, promptly notify their supervisor and leave work
 - ▶ HCP should be restricted from work until at least 24 hours fever free (without the use of fever reducing meds)
 - ▶ Upon return to work, if sx such as cough are still present, HCP should be instructed to wear a properly fitted surgical mask (nose and mouth covered) in care areas. Adherence to respiratory etiquette and frequent hand hygiene is required!
 - ▶ If unable to contain secretions, they should be restricted from work until resolution of sx and/or ability to contain secretions.

MANAGING HCP WITH URI



- ▶ HCP who develop respiratory sx ***without fever***
 - ▶ If sx such as cough and sneezing are present, HCP should be instructed to wear a properly fitted surgical mask (nose and mouth covered) in care areas. Adherence to respiratory etiquette and frequent hand hygiene is required!
 - ▶ If unable to contain secretions, they should be restricted from work until resolution of sx and/or ability to contain secretions.
- ▶ Guidance for URI symptoms and work restrictions should be followed regardless of lab testing (e.g., influenza testing)
- ▶ During an outbreak, additional work restrictions (e.g., reassignments), exclusions or laboratory evaluation may be imposed.

MANAGEMENT OF PERSONNEL WHO HANDLE FOOD

- ▶ Personnel who handle food must inform their supervisor if they are experiencing:
 - ▶ Vomiting
 - ▶ Diarrhea
 - ▶ Jaundice
 - ▶ Sore throat with fever (100.4°F)
- ▶ Personnel who handle food must inform their supervisor if they are diagnosed with any of the following:
 - ▶ Norovirus
 - ▶ Hepatitis A
 - ▶ Shigella
 - ▶ Shiga toxin-producing *E.coli*
 - ▶ Salmonella typhi

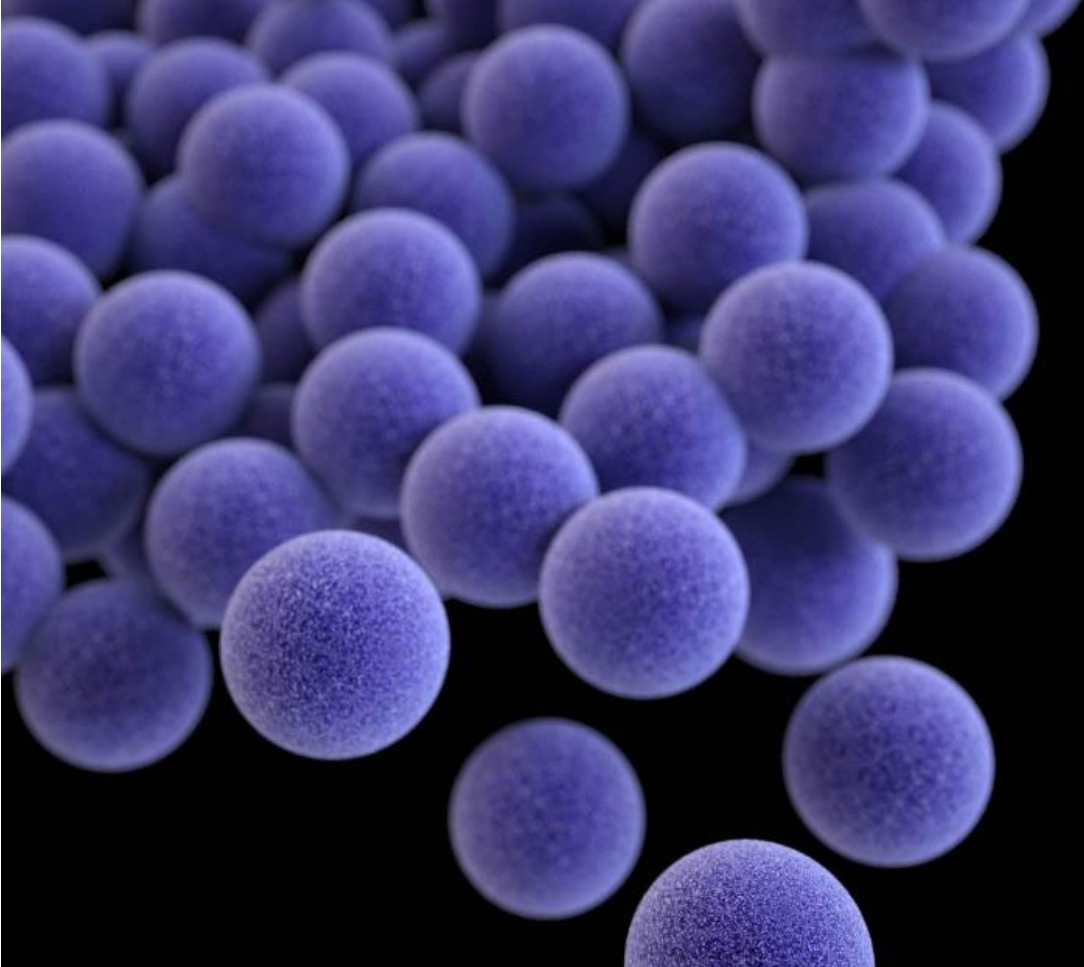


POST-EXPOSURE PROPHYLAXIS FOR VACCINE PREVENTABLE DISEASES



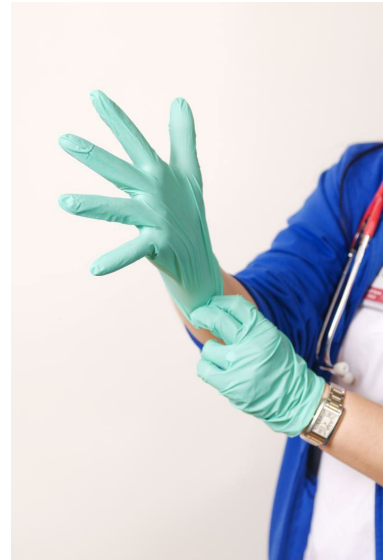
- ▶ Low vaccination rates can lead to outbreaks of vaccine preventable diseases
- ▶ Postexposure prophylaxis may be considered for the following:
 - ▶ Measles
 - ▶ Mumps
 - ▶ Varicella-zoster
 - ▶ Meningococcal disease
 - ▶ Pertussis
 - ▶ Influenza

INFECTIOUS PROCESSES WITH NO POST-EXPOSURE INTERVENTIONS INDICATED



- ▶ Herpes Simplex Virus (orofacial herpes simplex infections)
- ▶ Herpes Zoster Virus (shingles)
- ▶ Cytomegalovirus (CMV)
- ▶ Parvovirus (Human parvovirus B19)
- ▶ Respiratory Syncytial virus (RSV)
- ▶ Multi-drug-resistant Organisms (MDROs)

HAND DERMATITIS AND LATEX ALLERGIES



- ▶ Latex sensitivity / allergy
- ▶ Hand dermatitis:
 - ▶ “Health care workers (HCWs) are at increased risk of irritant contact dermatitis due to frequent hand washing and use of alcohol gel. This has increased the incidence of occupational skin diseases”.
- ▶ Malik M, English J. Irritant hand dermatitis in health care workers. Occup Med (Lond). 2015 Aug;65(6):474-6. doi: 10.1093/occmed/kqv067. Epub 2015 Jun 12. PMID: 26070815.
- ▶ <https://www.osha.gov/etools/hospitals/hospital-wide-hazards/latex-allergy#:~:text=Healthcare%20workers%20exposed%20to%20latex,possibly%20life%2Dthreatening%2C%20sensitivity.>

SUMMARY

- ▶ EH programs should provide a safe and healthy environment for personnel and patients/residents/clientele
- ▶ Health care facilities are required to protect their employees from occupational hazards including:
 - ▶ Occupational injuries and accidents (needlesticks, back injuries)
 - ▶ Infections (hepatitis, respiratory infections)
 - ▶ Toxicological hazards (exposure to cleaning compounds)
 - ▶ Stress (drug misuse-abuse, burn-out)

