

TULALIP BAY FIRE DEPARTMENT

SNOHOMISH COUNTY FIRE DISTRICT #15

HIPAA (1-12)



WHAT IS HIPAA?

- Acronym for Health Insurance Portability & Accountability Act of 1996 (45 C.F.R. parts 160 & 164).
- Passed in the early 1990s to regulate questionable policies and practices of health maintenance organizations.
- Provides a framework for establishment of nationwide protection of patient confidentiality, security of electronic systems, and standards and requirements for electronic transmission of health information.





Why is it needed?

- Provides patients with legal rights and voices in how healthcare groups/companies use the protected health information (PHI)
- Privacy refers to protection of an individual's health care data.
- Defines how patient information used and disclosed.
- Outlines ways to safeguard Protected Health Information (PHI).





WHY COMPLY?

- To show our commitment to protecting privacy
- As an Observer, you are obligated to comply with Tulalip Bay Fire Department's privacy and security policies and procedures
- Our patients/members are placing their trust in us to preserve the privacy of their most sensitive and personal information
- Compliance is not an option, it is required.
- o If you choose not to follow the rules:
 - You could be put at risk, including personal penalties and sanctions
 - You could put Tulalip Bay Fire Department at risk, including financial and reputational harm





Why is Privacy and Security Training Important? Part 1

- Outlines ways to prevent accidental and intentional misuse of PHI.
- Makes PHI secure with minimal impact to staff and business processes.

It's not just about HIPAA – it's about doing the right thing!

• Shows our commitment to managing electronic protected health information (ePHI) with the same care and respect as we expect of our own private information.





Why is Privacy and Security Training Important? Part 2

- It is everyone's responsibility to take the confidentiality of patient information seriously.
- Anytime you come in contact with patient information or any PHI that is written, spoken or electronically stored, **YOU** become involved with some facet of the privacy and security regulations.
- The law requires us to train you.
- To ensure your understanding of the Privacy and Security Rules.





What is Protected Health Information?

- Protected Health Information (PHI) is individually identifiable health information that is:
 - Created or received by a health care provider, health plan, employer, or health care clearinghouse and that
 - Relates to the past, present, or future physical or mental health or condition of an individual;
 - Relates to the provision of health care to an individual
 - The past, present or future payment for the provision of health care to an individual.





HIPAA Definition

What Are Some Examples of Patient Identifiers?

- Names
- Medical Record Numbers
- Social Security Numbers
- Account Numbers
- License/Certification numbers
- Vehicle Identifiers/Serial numbers/License plate numbers
- Internet protocol addresses
- Health plan numbers
- Full face photographic images and any comparable images

- Web universal resource locaters (URLs)
- Any dates related to any individual (date of birth)
- Telephone numbers
- Fax numbers
- Email addresses
- Biometric identifiers including finger and voice prints
- Any other unique identifying number, characteristic or code





Why do we need to protect PHI?

- It's the law.
- To protect our reputation.
- To build trust between providers and patients.

It is the right thing to do.

If patients feel their PHI will be kept confidential, they will be more likely to share information needed for care.





Who or What protects PHI?

- Federal Government protects PHI through HIPAA regulations
 - Civil penalties up to \$1,500,000/year for identical types of violations.
 - Willful neglect violations are mandatory!
 - Criminal penalties:
 - \$50,000 fine and 1 year prison for knowingly obtaining and wrongfully sharing information.
 - \$100,000 fine and 5 years prison for obtaining and disclosing through false pretenses.
 - \$250,000 fine and 10 years prison for obtaining and disclosing for commercial advantage, personal gain, or malicious harm.
- o Our organization, through the Notice of Privacy Practices (NPP).
- You, by following our policies and procedures.





HIPAA Regulations

What Are the Patient's Rights Under HIPAA?

- The Right to Individual Privacy
- The Right to Expect Health Care Providers Will Protect These Rights





HIPAA & Your Responsibility

- Remember, it is your responsibility, as an Observer to comply with all privacy and security laws, regulations, and Tulalip Bay Fire Department's policies pertaining to them.
- Understand that violation of the confidentiality policy of the Tulalip Bay Fire Department's will result in Rider privileges being revoked.
- Violations of any law, regulation, and/or Tulalip Bay Fire Department's policy will result in Rider privileges being revoked.
- You shall immediately direct individuals inquiring about PHI to your immediate supervisor (Company Officer).







Disease Prevention Awareness

(13-80) 40 Minutes



Disease Prevention Awareness

Overview

- Enteric (Intestinal) Diseases
- Skin Infections
- Bloodborne Diseases
- Respiratory Diseases
- Exposure Control Plan





INFECTIOUS DISEASES ARE:

- The most common reason for visits to a doctor's office or emergency department.
- The most common reason for missed work and school days.
- The overall worldwide leading cause of death.





TRANSMISSION METHODS

- Direct Contact:
 - Non-intact skin
 - Mucous membranes
- Indirect Contact
- Inhalation
- Ingestion
- Penetration

Exposure significance must be determined at a hospital!





DISEASES DU JOUR

- Enteric diseases transmitted by fecal/oral route
- Respiratory diseases transmitted through respiratory droplets or airborne particles
- Bloodborne diseases
- Organisms can include:
 - Viruses
 - Bacteria
 - Mycoplasms
 - Fungii
 - Ameboas
 - Others





ENTERIC DISEASE

- Bacteria
 - E.coli
- Viruses
 - Noro-like viruses

Enteric means "pertaining to the intestines"





ECOLI 0157:H7

- Not the same bacteria that normally inhabits the human gut. (It is found in cattle & other domestic animals)
- A certain species of e.coli that can form a cytotoxin



It is very dangerous for young children

Cytotoxin is a substance that is toxic to cells





EVOLVING BACTERIA

- Genetic mutations
- Inheriting resistance genes from forerunners
- Sharing resistance genes with other bacteria

Evolution:

Norovirus has resistance to quaternary ammonia disinfectants E.coli 0157: H7 is currently susceptible to quaternary disinfection

Genes are shared between norovirus and e.coli. Now the quaternary products don't work for e.coli





Pro's and Con's

• Pro's:

- Kills organisms so they cannot spread disease
- Keeps environment clean and appealing

• Con's:

- Inadequate sanitizing can lead to stronger germs
- Mutations can occur with too frequent use





RECOMMENDATIONS FOR ENTERIC EXPOSURES

- Handle vomitus & feces with great caution
- Use gloves & mask
- Use goggles (maybe, if patient is vomiting)
- Disinfect your equipment
- Discard contaminated clothing
- WASH YOUR HANDS (or use alcohol-based hand sanitizers)

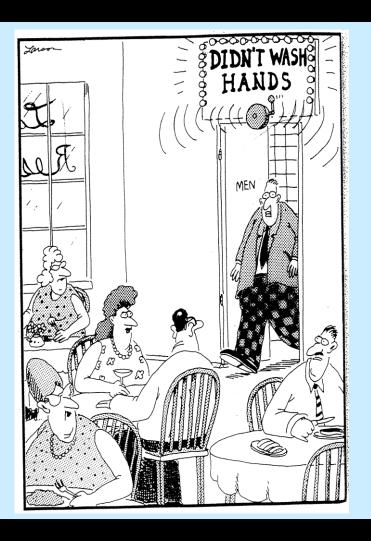


Be Careful Out There!





HAND WASHING



Public Health Message #1:

Wash your hands

The best way to stop the spread of disease.





ALCOHOL-BASED HAND SANITIZERS

• 2002: CDC: "If hands are not visibly soiled, use an alcohol-based hand rub for routinely decontaminating hands in clinical situations:





WHEN TO "DECONTAMINATE HANDS"

- Before direct contact with patient
- After contact with patient's intact skin
- After contact with body fluids, excretions, mucous membranes, non-intact skin, wound dressings
- After contact with inanimate objects in immediate vicinity of patient
- After removing gloves







SKIN INFECTIONS

- o Can be caused by bacteria
 - Staph (MRSA, VRSA)
 - Strep (Gr. A, Gr B)
- Can be caused by viruses
 - Chickenpox
 - Herpes
- Can be caused by fungi
 - Athletes foot







WHAT ARE MRSA AND VSRA?

- MRSA (VISA) and VRSA are types of staphlococcus aureus bacteria
- The disease has mutated so that it is resistant to antibiotics (penicillins, methicillin, oxacillin, nafcillin) & cephalosporins.
- They are among the most common hospital infections.







MANIFESTATIONS OF ILLNESS

- Impetigo
- Generalized infection
- o Sepsis
- Toxic Shock Syndrome







IMPETIGO

- Bacterial skin infection
 - Red
 - Pustular
- Regional, not disseminated
- Oozing
- Patient generally well







MRSA TERMINOLOGY & STATS

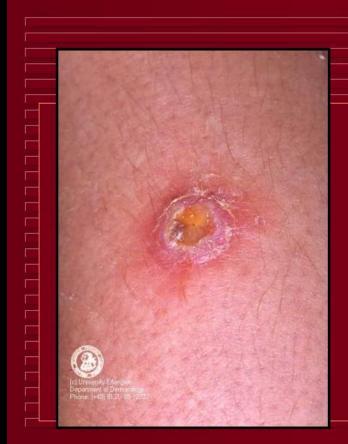
- CA-MRSA: Community-acquired MRSA
- HA-MRSA: Hospital-acquired MRSA
- Incidence of MRSA has increased in WA State from
 - 12% in 1999
 - 30% in 2003

(MRSA is not reportable in the State.)





MRSA



The single, enlarged, draining furuncle.

This is the prototype lesion caused by *Staphylococcus aureus* infection.





FACTORS ASSOCIATED WITH TRANSMISSION OF MRSA

- Close skin to skin contact
- Openings in the skin such as cuts or abrasions
- Contaminated items and surfaces
- Crowded living conditions
- Poor hygiene





RECOMMENDATIONS FOR MRSA EXPOSURES

- Handle skin lesions with caution
- Use gloves
- Cover any skin breaks that you might have
- Disinfect your equipment
- Discard contaminated clothing
- WASH YOUR HANDS (use alcohol-based hand sanitizers)

Be Careful Out There!





HERPES

- Contracted by contact with saliva, blood, urine, feces, semen, or vaginal fluid
- Viruses that cause skin sores and lesions
- Asymptomatic periods common
- Stress, sunlight, or other infections may trigger an outbreak
- May cause severe birth defects





Types of Herpes

- Simplex I: Oral herpes (cold sores)
- o Simples II: Genital
- Zoster: Shingles (from Chicken Pox)
- Whitlow: Fingers and nails
- Note: Viral shedding occurs even when the carrier is asymptomatic!







SHINGLES







BLOODBORNE PATHOGENS

- Hepatitis B (HBV)
- Hepatitis C (HCV)
- HIV (AIDS)

A pathogen is an organism capable of being transmitted in "blood, body fluids containing visible blood, semen and vaginal secretions."





OTHER POTENTIALLY INFECTIOUS FLUIDS

- OCSF
- Synovial fluid
- Pleural fluid
- Peritoneal fluid
- Pericardial fluid
- Amniotic fluid

"Risk for transmission of HBV, HCV, HIV infection from these fluids is unknown" CDC 2001



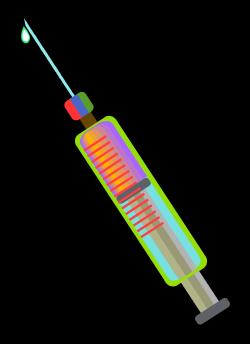


RELATIVE RISK OF GETTING BBP FROM A NEEDLE STICK

• Hepatitis B 1/3

• Hepatitis C 1/30

• HIV 1/300



Re: There is a vaccine to prevent Hepatitis B





HEPATITIS C INCIDENCE

- 3.9 Million with HCV in 2003
- About 30,000 new cases per year
- 10th leading cause of death
- The number of cases of HCV is expected to triple in next 10 years!
- There is no vaccine!
- HCV is a MAJOR health concern





BLOODBORNE PATHOGEN PREVENTION

- "Occupational exposures should be considered urgent medical concerns"
- Body Substance Isolation (BSI)
- Use proven products for barrier-protection and clean-up





BBP EXPOSURE NOTES

- HBV survived in dried blood at room temperature for at least one month
- Recommendations:
 - Pre-exposure vaccination
 - Standard precautions
 - HBIG within 1 wk of percutaneous exposure (75% protection)





BBP Exposure Notes

- HCV survival in environment is uncertain.
- HCV is not transmitted efficiently through occupational exposures to blood
- Recommendation:
 - Perform baseline test for anti-HCV
 - Follow-up testing 4 − 6 months post-exposure





BBP EXPOSURE NOTES

- HIV survival in environment is uncertain but probably very low.
- HIV transmission
 - Related to percutaneous exposure = .3%
 - Related to mucous membrane exposure = .09%
- Recommendation:
 - Perform baseline test for HIV
 - Refer immediately for evaluation and possible post-exposure prophylaxis (PEP)
 - Ensure follow-up care





SUMMARY FOR BBP

- Exposure Control Plan
- Annual Plan Review
- Stress importance of:
 - Hep B vaccination
 - Tetanus vaccination
 - Cleaning wounds
 - Immediate reporting
 - Adequate follow-up
- Cleaning contaminated equipment







ENVIRONMENTAL SANITIZING

- HBV, HCV and HIV (enveloped viruses) can be inactivated by:
 - Alcohols
 - Chlorine
 - Iodine
 - Oxidizing agents
- Schedule required

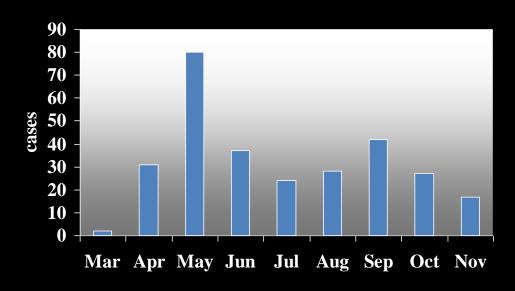




RESPIRATORY INFECTIOUS DISEASES

- The "most common" respiratory diseases:
 - TB
 - Pertussis (whooping cough)*
 - Influenza (the flu)
 - RSV

Pertussis Outbreak 2004







COVER YOUR COUGH!







WHAT IS PERTUSSIS?

Pertussis is a highly contagious respiratory infection caused by a bacterium called *Bordetella pertussis*.

It is one of the most common childhood diseases.





COMPLICATIONS

- Pneumonia is the most common complication and cause of death
- For infants: seizures & encephalopathy can result from hypoxia
- Otitis, anorexia, dehydration, pneumothorax, epistaxis, herniation, and broken ribs
- NOTE: 63% of infants < 6 mo of age need to be hospitalized





WHAT THE PERTUSSIS BACTERIA DO

- Attach to the respiratory cilia in the lungs
- Produce a toxin that paralyzes the cilia
- Inflame the respiratory tract
- Interfere with the clearing of respiratory secretions
- Can cause severe illness for months







TRANSMISSION

 Spread through droplets when an infected person coughs, sneezes or sings

• Greatest risk of spread is during the early stage (cold Sx)

- Transmission is very effective if proximity is within 3 ft
- Households can have up to 80% secondary attack rate.



PERTUSSIS (CONT'D): WHO IS AT RISK

- Anyone! Vaccine offers only 80-85 % protection
- Most at risk
 - Infants
 - Un-immunized children
 - Women who will deliver in the next 2 months can give the disease to their infants
 - Immuno-compromised individuals





TUBERCULOSIS

- Mycobacterium tuberculosis
- \circ Airborne bacteria (very small; 1 3 microns)
- Transmitted when someone coughs, sneezes, laughs or sings





TUBERCULOSIS (CONT'D.)

- Probability of transmission depends on:
 - Infectiousness of ill person
 - Environment where exposure occurred
 - Duration of exposure
 - Virulence of organism
 - Individual susceptibility





TUBERCULOSIS (CONT'D.)

- You are more likely to get TB disease after an exposure if you have:
 - Substance abuse
 - HIV
 - Recent infection
 - Diabetes
 - Silicosis
 - Prolonged corticosteroid therapy
 - Other serious disease or immuno-compromise





TB INFECTION VS. TB DISEASE

- TB infection
- The bacteria are in the body BUT THE PERSON IS NOT SICK
- Usually have a + TB test
- Can take medication to prevent
 the disease state
- CANNOT TRANSMIT TB

- TB disease
- The bacteria is growing in the body and the PERSON IS SICK
- TB test is usually +
- Medications can cure the disease
- CAN TRANSMIT TB





IF YOU GET EXPOSED

- Discuss exposure a doctor or occupational health professional
- o Get tested
- o If Rx, take the medication (ALL OF IT!)







Tuberculosis (cont'd.)

- \circ Incubation period: 2 10 weeks
- Symptoms of disease:
 - Productive, prolonged cough (>= 3wk)
 - Chest pain
 - Hemoptysis
 - Fever, chills, night sweats
 - Appetite loss & weight loss
 - Easy fatigability





TUBERCULOSIS (CONT'D.)

- Testing
 - Mantoux Tuberculin Skin test
 - Re-test 10 –12 weeks after exposure if initial test is negative
 - May need chest x-ray if TB test is positive





PPE RECOMMENDATIONS DURING TRANSPORT (PREVENT EXPOSURE!)

- Wear particulate respirators that have been certified by NIOSH (N95)
- Keep windows of vehicle open if possible
- Set heating & air-conditioning system on non-recirculate







Types of Respirators



Use N-95 or better





Make sure that mask is NIOSH approved





EQUIPMENT FOR THE PATIENT



Exhaust valves may allow bacteria, viruses and microbacteria to be expelled.





TB AND THE PATIENT: DURING TRANSPORT

- If patient is suspected of having TB
 - Place particulate respirator on them (not a surgical mask)
- If they are in need of respiratory assistance
 - Do Not Use a respirator that has an exhalation valve
- Ventilate the vehicle as much as possible





PANDEMIC INFLUENZA: WHAT'S THE BIG DEAL?

 Avian influenza virus has demonstrated the ability to infect humans

 So far, transmission between people has not been very effective







THE "FLU"

- Influenza is a respiratory disease
- Caused by viruses A, B or C
- Symptoms of fever, headache, muscle aches, coryza, cough
- Usually runs its course in 2-7 days
- Complications can include viral & bacterial pneumonias*



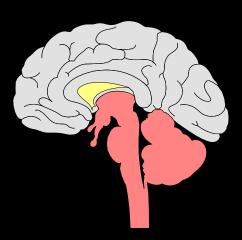
The elderly & others with chronic conditions can die because of complications of pneumonia.





MENINGITIS

- Contracted by direct contact with oral or nasal secretions
- An inflammation of the membranes that cover the brain and spinal cord
- May be viral or bacterial







MENINGITIS

- Incubation 2-10 days
- o Fever
- Headache
- Stiff neck
- O AMS
- Vomiting
- Rash (Severe sign)
- Convulsions, coma, death (Severe cases)







MENINGITIS TREATMENT

- Antibiotics reduce risk of death to <15%
- Supportive therapy
- Viral type recovery in 7-10 days
- Bacterial type worse & can cause death
- Vaccine available for some bacterial types
- No vaccine available for viral types

PPE: Gloves and Respirator





MEASLES

- A common disease that is highly contagious
- Spread by droplets & oral/nasal secretions
- o S/Sx: High fever, red watery eyes, rash
- Serious for adults! (deafness, death)
- Immunization essential
- Blood test for immunity

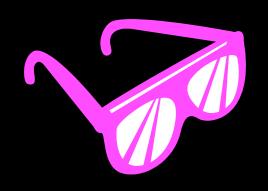


PPE: Gloves and Respirator





WHAT AM I GOING TO DO?

















SANITIZING TO PREVENT RESPIRATORY DISEASE TRANSMISSION

- Clean non-critical medical equipment surfaces with EPA-registered detergent/disinfectant
- Do not use alcohol to disinfect large environmental surfaces (it is flammable)
- Use barrier-protective coverings for difficult to clean surfaces, areas likely to become contaminated with droplets or airborne particles

"Good" bactericidal & viricidal & mycobacteriocidal properties listed for chlorine, some iodophors, alcohol, some phenolics.





WHAT DO YOU CURRENTLY DO?

• With patients who have:

- Diarrhea? Gloves/Glasses/Mask
- Vomiting? Gloves/Glasses/Mask
- Draining sores? Gloves/Glasses
- Bleeding? Gloves/Glasses/Gown/Mask
- Rash? - Gloves/Glasses
- Respiratory disease with uncontrolled coughing? Gloves/Glasses/Mask





EXPOSURE CONTROL PLAN

- If you think you may have been exposed, you probably have...
- Contact the Duty Officer immediately
- Initiate self care
- Remove and bio-bag contaminated clothing
- Obtain and complete the Exposure Control Packet
- Do all recommended follow-up tests
- Submit Accident Report to Admin.





IMMUNIZATIONS

- o HBV?
- Tetanus?
- Others?
- Are they current?







PPE

- Gloves minimum protection
- Face shield (eyes, nose, mouth) for splattering or spurting body fluids
- Gowns or Tyvek jump suits for bleeding
- Respirators for possible airborne diseases or productive coughs
- PPE does no good if not used!





CONTAMINATED LAUNDRY

- Ordinary washing does not decontaminate!
- Ordinary washing contaminates the washing machine!
- Decontaminate laundry prior to washing by soaking items for at least ten minutes
- A change of clothes at the fire station is an exposure plan requirement





CONTAMINATED ENVIRONMENTS

- Decontamination of contaminated surfaces is essential and required
- Regular sanitation schedule required
- Use appropriate sanitizing solution
- Be thorough or the germs will mutate





BE CAREFUL OUT THERE!

- You may not know with what organism a person is infected
- Assume the worst
- Protect Yourself
- We need you!







REFERENCES

- o CDC www.cdc.gov
 - MMWR's
 - o Guideline for Hand Hygiene in Health Care Settings; Oct 25, 2002/51(RR16); 1-44
 - Appendix: Disinfectants and Their Properties; Mar 25, 2005/54(RR04); 13
 - Updated U.S Public Health Service Guidelines for the Mangement of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis; Jun 29,2001/50(RR11); 1-42
- U.S Dept of Labor; www.osha.gov
 - Respirator Cleaning procedures 1910.134 App B-2
- o NIOSH: www.cdc.gov/niosh
 - Selection and Use of Protective Clothing and Respirators Against Biological Agents
 - Understanding Respiratory Protection Against SARS
- Thanks to North County RFA for providing us with the valuable Disease Prevention information.



