

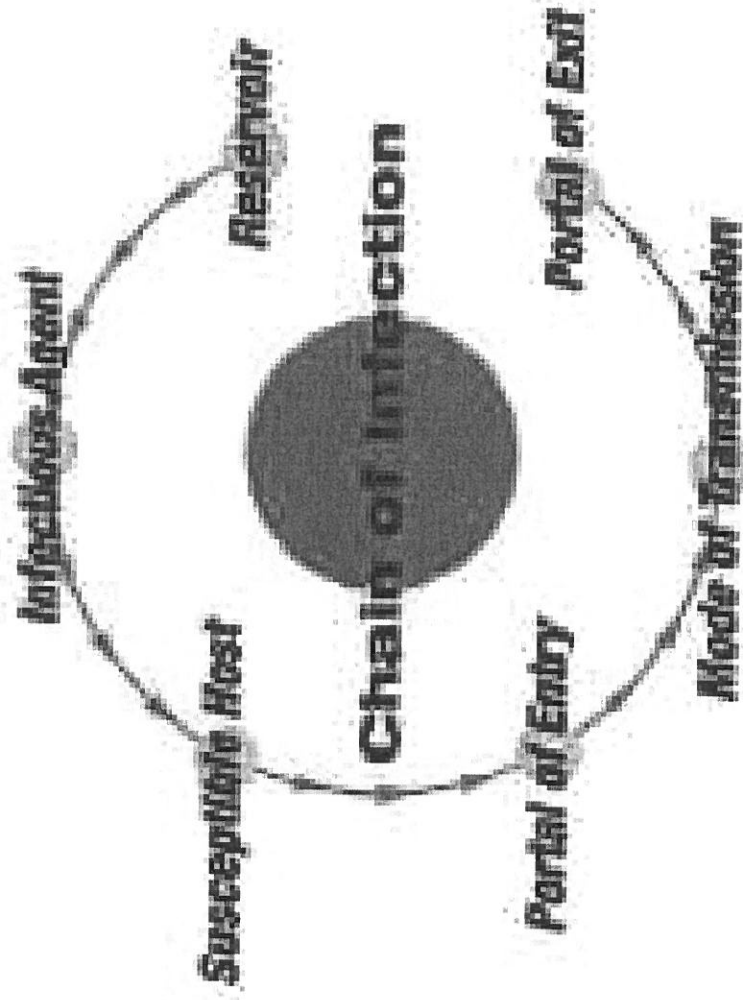
# Infection Prevention & Control

By Anita Lambert-Gale

# Why Infection Prevention?

- All health-care professionals share responsibility to adhere to scientifically accepted principles and practices of infection control, and to monitor the performance of those for whom they are responsible.
- Some states such as New York mandate this professional conduct.
- Reimbursement may be tied to outcomes.

# “Chain of Transmission”



# “Breaking the Chain”

- HANDWASHING!
- Safe Injection Practices
- Standard Precautions
- Isolation guidelines when required – should this patient be done at the ASC?

Hand Hygiene

**Saves  
Lives**



# Wash Your Hands...

- After contact with a patient's intact skin (as in taking a pulse or blood pressure, or lifting a patient).
- After contact with body fluids or excretions, mucous membranes, non-intact skin, or wound drainage.
- If moving hands from a contaminated body site to a clean body site during patient care.
- After contact with inanimate objects (including medical equipment) in the immediate vicinity of the patient.
- Before donning sterile gloves.
- Before inserting indwelling urinary catheters or other invasive devices.
- After removing gloves.
- Before and after eating.
- After handling trash.
- After sneezing, coughing on hands or using tissue.

# Other Aspects of Hand Hygiene

- Do not wear artificial fingernails or extenders when providing patient care.
- Keep natural fingernails less than 1/4 inch long.
- Wear gloves when it is reasonably anticipated that contact with blood or other potentially infectious materials, mucous membranes and non-intact skin will occur.
- Remove gloves after caring for a patient. Do not wear the same pair of gloves for the care of more than one patient and do not wash gloves between patients.

# Tips on How to Wash Your Hands Effectively

- When washing hands with soap:
  - Wet hands first with water (avoid HOT water)
  - Apply a nickel or quarter sized amount of soap to hands
  - Rub hands together for at least 20 seconds
  - Cover all surfaces of the hands and fingers
  - Rinse hands with water and dry thoroughly
  - Use paper towel to turn off water faucet



## When to use alcohol based handrub?

- If hands are NOT visibly soiled or contaminated with blood or body fluids, use an alcohol-based handrub for routinely cleaning your hands:

# Tips on how to use an alcohol based handrub

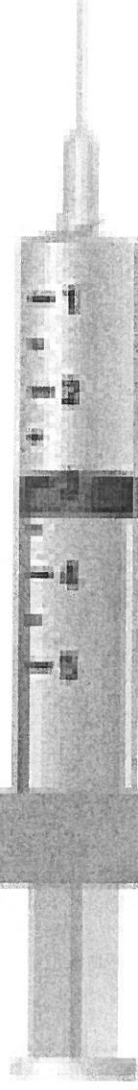
- Apply nickel or quarter sized amount of an alcohol gel or rinse to the palm of one hand, and rub hands together
- Cover ALL surfaces of your hands and fingers
- Including areas around/under fingernails
- Continue rubbing hands together until alcohol dries
- If you have applied a sufficient amount of alcohol handrub, it should take at least 10 – 15 seconds of rubbing before your hands feel dry

## More Tips on how to use an alcohol based handrub

- If after cleaning your hands 5 – 10 times with an alcohol based handrub, you feel a “build-up” of emollients on your hands, wash your hands with soap and water.
- If you clean your hands with an alcohol based handrub before putting on gloves, make sure the alcohol has dried completely before putting on gloves.

**1**

**ONE NEEDLE,  
ONE SYRINGE,  
ONLY ONE TIME.**



Safe Injection Practices Coalition

[www.ONEandONLYcampaign.org](http://www.ONEandONLYcampaign.org)

# Safe Injection Practices

- Unsafe injection practices have resulted in one or more of the following:
  - Transmission of bloodborne viruses, including hepatitis B and C viruses to patients;
  - Notification of thousands of patients of possible exposure to bloodborne pathogens and recommendation that they be tested for hepatitis C virus, hepatitis B virus, and human immunodeficiency virus (HIV);
  - Referral of providers to licensing boards for disciplinary action; and
  - Malpractice suits filed by patients.

# Maintain Aseptic Technique

- Medications should be drawn up in a designated "clean" medication area that is not adjacent to areas where potentially contaminated items are placed.
- Use a new sterile syringe and needle to draw up medications while preventing contact between the injection materials and the non-sterile environment.
- Ensure proper hand hygiene before handling medications.
- If a medication vial has already been opened, the rubber septum should be disinfected with alcohol prior to piercing it.
- Never leave a needle or other device (e.g. "spikes") inserted into a medication vial septum or IV bag/bottle for multiple uses. This provides a direct route for microorganisms to enter the vial and contaminate the fluid.
- Medication vials should be discarded upon expiration or any time there are concerns regarding the sterility of the medication.

# Safe Injection Practices

- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Never use the same syringe or needle to administer IV medications to more than one patient, even if the medication is administered into the IV tubing, regardless of the distance from the IV insertion site.
- Never enter a vial with a syringe or needle that has been used for a patient if the same medication vial might be used for another patient.

# Medication

- Labeled as single use:
  - Must never be used for more than one patient
  - Never combine leftover contents for later use;
- Medications packaged as multi-use:
  - should be assigned to a single patient whenever possible
  - Never use bags or bottles of intravenous solution as a common source of supply for more than one patient.



# Environmental Practices

- Housekeeping: Maintaining a clean environment
- Ventilation: Special room ventilation (e.g., positive pressure for the OR ) is required
- Waste management: Proper disposal of sharps and infectious waste
- Linen and laundry management.

# Cleaning, Disinfecting & Sterilizing

- Professionals who practice in settings where handling, cleaning, and reprocessing equipment, instruments or medical devices is performed by others should understand core concepts and principles:
  - Standard and Universal Precautions (e.g., wearing of personal protective equipment.
  - Cleaning, disinfection, and sterilization methods
  - Appropriate application of safe practices for handling instruments, medical devices and equipment in the area of professional practice.

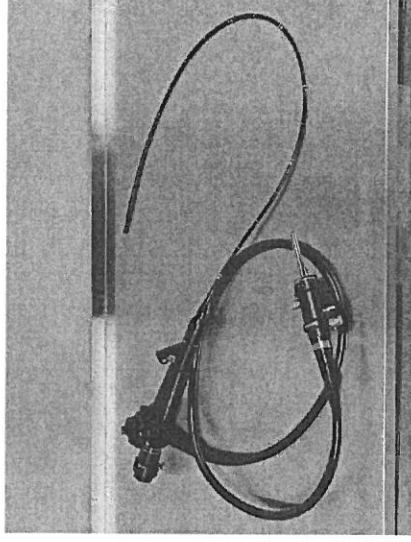
# Non-Critical Items

- Do not ordinarily touch the patient or touches only intact skin
- Examples; *Crutches; bed board; blood pressure cuffs*
- Require Intermediate to low level disinfection



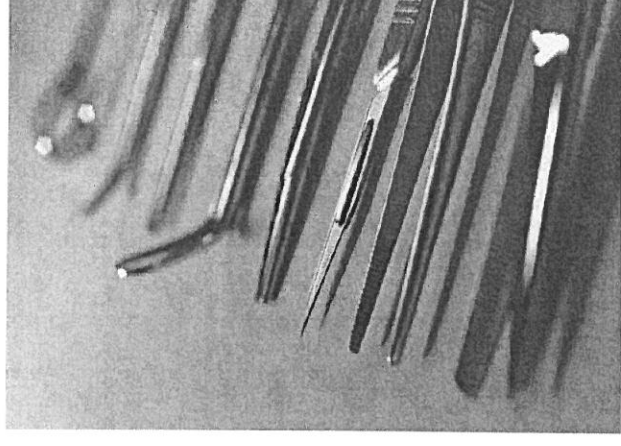
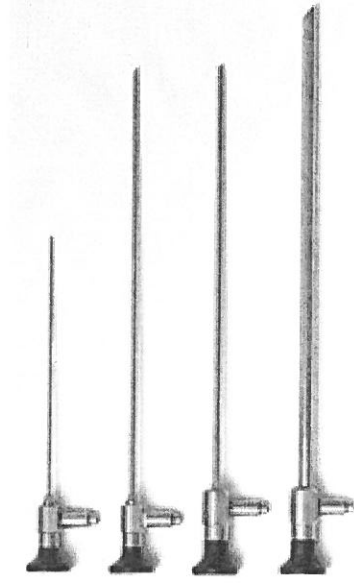
## Semi-Critical Items

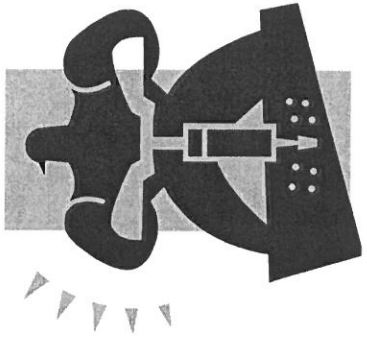
- Contact intact mucous membranes, do not ordinarily penetrate body surfaces
- Examples; *Non-invasive flexible and rigid fiberoptic endoscopes, endotracheal tubes; anesthesia breathing circuits; cystoscopes*
- Sterilize if feasible or at least high level disinfection



# Critical Items

- Enter sterile tissue or vascular system
- Examples; *Surgical instruments, implants*  
*laparoscopes, bronchoscopes*
- Sterilize

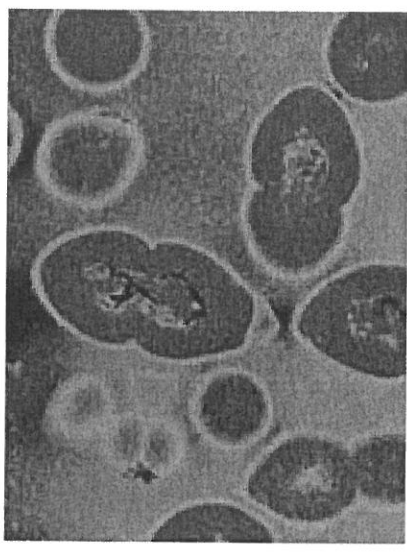
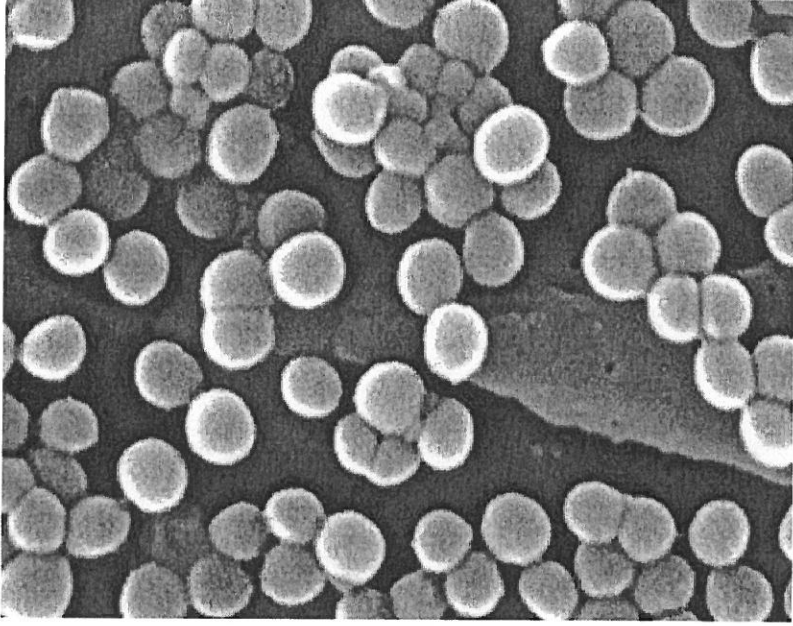
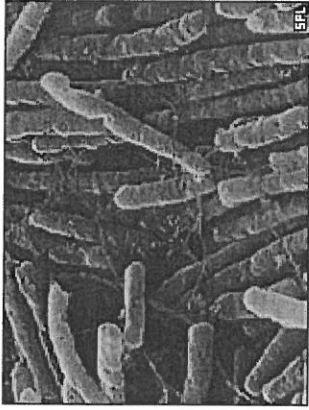




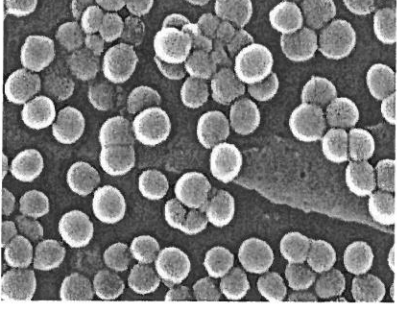
## Interim Life Safety Measures

- To ensure air quality, cleanliness of the environment and safety for all while construction, renovation, demolition, and repairs are in progress.
- \* *Guidelines for Environmental Infection Control in Health-Care Facilities*, published by the CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), 2003.

# What are Some Threats to our Facility?

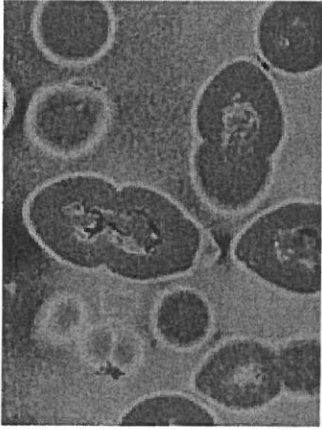


# MRSA



- Introduction in a facility
  - Unrecognized colonized or infected patient source
  - “Outgrowth” of resistant strains
- Prevention of Problems
  - Pay attention or treat “minor” infections
  - Prophylactic antibiotics
  - Meticulous aseptic technique
- MRSA persists on hands for more than 3 hours if not washed.

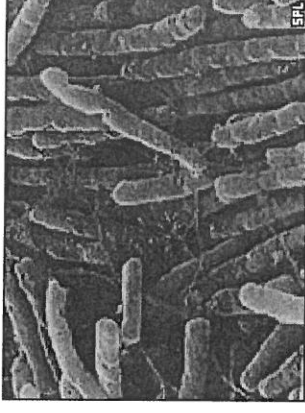




# VRE

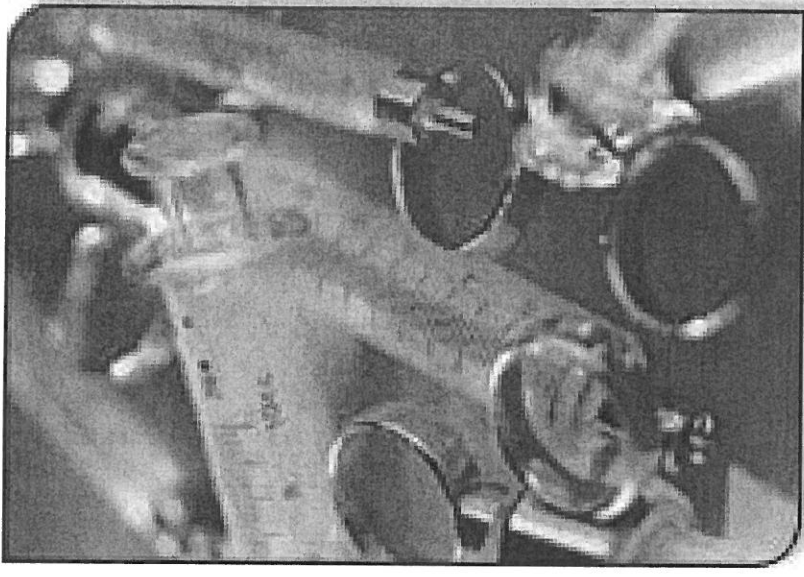
- Introduction in a facility:
  - Found in the GI tract including the oral cavity and gall bladder (colon mostly and GYN tract - vagina and urethra).
  - Staff can be carriers or spread by hands, rectal probes, or other contaminated items.
- Prevention of Problems:
  - Stringent isolation procedures with infected and colonized patients
  - Improve compliance with infection control practices especially hand washing.
  - Major reduction in antibiotic use

# C-diff



- Introduction into facility
  - Transmission - fecal-oral route via the hands of HCWs
  - Contaminated Environment (can remain viable in the environment for months)
- Prevention of problems
  - Recognize early
  - Contact precautions
  - Wash your hands
  - Environmental disinfection

# Protecting Yourself from Infection



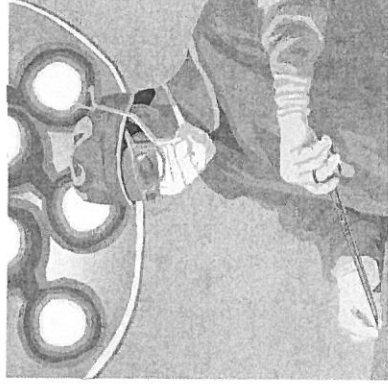
The needles that most commonly cause injuries are hypodermic needles, blood collection needles, suture needles, and needles used in IV delivery systems, according to the National Institute of Occupational Safety and Health.

# Preventing Sharps Injuries

- Avoid unnecessary use of needles and other sharp objects. Use safety devices if available.
- Use care in the handling and disposing of needles and other sharp objects
- Avoid recapping unless absolutely medically necessary.
- Pass sharp instruments by use of designated "safe zones".
- Disassemble sharp equipment by use of forceps or other devices.
- Avoid leaving exposed sharps of any kind on patient procedure/treatment work surfaces.

# Personal Protective Equipment

- Types of PPE and barriers and criteria for selection – Mask, gloves, gown, eye shields
- Choice of PPE and barriers is based on reasonably anticipated exposure of the HCW and on need for the patient to be protected
- Proper and effective use of PPE and barriers



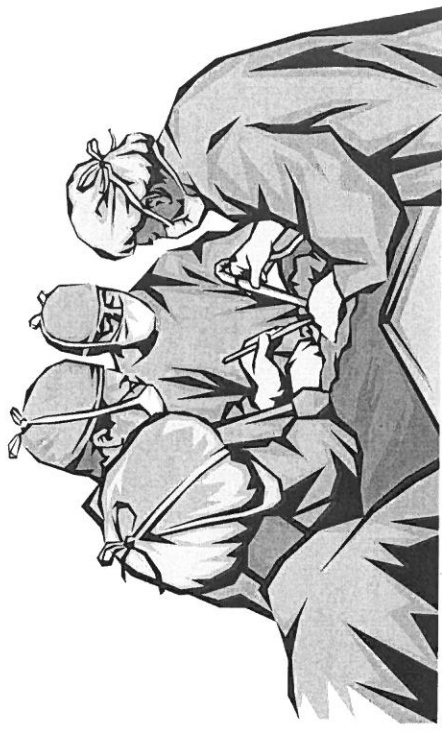
## In Summary

“All health-care professionals share responsibility to adhere to scientifically accepted principles and practices of infection control, and to monitor the performance of those for whom they are responsible.”

# Steps to Prevent Infection

- Prevent surgical site infections
  - Monitor and maintain normal glycemia
  - Maintain normothermia
  - Perform proper skin preparation using appropriate antiseptic agent and, when necessary, hair removal techniques
  - Think outside the wound to stop surgical site infections
- Prevent device-related infections
  - get the devices out
  - Use catheters only when essential
  - Use proper insertion and catheter-care protocols
  - Use drains appropriately—Remove catheters and drains when they are no longer essential

# Prevent Transmission



- Set an example
- Wash your hands or use an alcohol-based handrub
- Do not operate with open sores on hands
- Do not operate with artificial nails
- Promote good habits for the entire surgical team



<b>Facility Name:</b>  <b>St. Thomas Surgicare</b>	<b>Policy And Procedure Guideline Name:</b>  <b>Infection Prevention/Control Plan</b>	<b>Policy Number:</b>  <b>IC-2</b>
	<b>Subject Category:</b> <b>Infection Control/Prevention</b>	<b>Effective Date:</b> <b>December 1, 2016</b>
		<b>Revised Date:</b>
		<b>Page 1 Of 4</b>

**PURPOSE:**

To maintain a written plan for ongoing infection prevention including an assessment of risk, based on services provided, the population served, the community served; and strategies to decrease risk and provide for ongoing surveillance.

**STATEMENT:**

Recognizing the responsibility of the Center to provide a safe, functional and sanitary environment for patient care and employees and minimize infections and communicable diseases, the center will develop, maintain and annually review an Infection Control Plan to address the identification, prevention, control and reporting of infections. The goals of the plan include:

- Address prioritized risks
- Limiting unprotected exposure to pathogens throughout the organization,
- Enhancing hand hygiene,
- Limiting the transmission of infections associated with procedures
- Minimizing the risk of transmitting infections associated with the use of equipment, devices and supplies.
- Improving influenza vaccination rates among staff (including employees, Medical Staff Members and Allied Health Professionals) with a goal of 90% compliance by 2020.
- A plan to immediately implement corrective actions and preventative measures
- Ensure compliance with Safe Injection practices following the CDC "One and Only" campaign

This written plan and associated policies and procedure are based on nationally recognized infection control guidelines and developed by the facility leadership, in consultation with the Medical Director and Infection Control Nurse/Preventionist, and has been approved in writing by the Medical Advisory Committee and Board of Governors. The Infection Control Program will be under the direction of the Infection Control Nurse who shall work closely with the Medical Director to implement the Infection Control Plan. The Infection Control Program will be integrated into the Quality/Performance Improvement Program and findings will be reported to the Quality Council, Medical Executive Committee and to the Governing Board.

**PLAN:**

**RISK IDENTIFICATION** will include:

- Annual completion of the Infection Control Risk Assessment based on the geographic location, community and population served; and the epidemiologic impact on the organization (Community trends- TB, Hepatitis, MRSA including Community Acquired. VRE, (MDRO) Multi Drug Resistant Organism)
- Assessment of the care, treatment, facilities preparedness to mitigate risk, and services provided (procedure performed)
- Analysis of the Infection Surveillance and Control Data (monthly surgical site infection report and surgical site report trending, employee illness monitoring trends, Monthly Infection Control Walk Thru of Facility, review of hand washing compliance audits, review of sterilization logs and review of reasons for immediate use sterilization.(IUSS))
- Completion and review annually of the CMS Infection Control Worksheet

**PREVENTION** will include:

- Identification in writing of facility Infection Control Nurse/Preventionist. A job description will be maintained in the employee file and reviewed annually.
- Initial and annual training of Infection Control Nurse in the identification, prevention, control and reporting of infection documented and maintained in employee file
- Pre Admission Screening of patients for infectious and communicable diseases, including TB, MRSA, MDRO and others as identified by the CDC.
- Annual review of local Public Health data related to community trends for infectious diseases
- Annual review of disinfecting agents used by contracted services and facility for efficacy and approval by the infection control nurse/preventionist. (Ensure cleaning agents are EPA registered and used in compliance with manufacturer's recommendations).
- Annual review of facility policy/procedures for effectiveness in prevention of healthcare-associated infections (Review is to include a review of the current scientific literature)
- Reviewing Sterilization practice- Autoclave cleaning, biological indicators, Bowie Dick testing
- Control of bio-hazardous waste
- Monitoring of asepsis and compliance with center policies and procedures
- Monitoring of ventilation, air handling systems and water quality
- Monitoring of compliance with appropriate hair removal and timely administration of prophylactic antibiotics
- Monitoring of Safe injection practices
- Education- Annual Employee training BBP, OSHA, and hand hygiene, annual Infection Control/Prevention education for the Medical Staff
- Patient/Family Education- Discharge instructions, hand washing signs
- Development of a community resource list to coordinate the risks of infection
- Assessing employees for communicable diseases
- Annual influenza vaccination program
- Provide a functional and sanitary environment for the provision of surgical services.
- Techniques for pest control
- Procedures for decontamination after gross spills of blood or other body fluids

- Proper techniques for food storage and handling
- Ensuring compliance with infection control prevention and control regulations and other requirements, guidelines and recommendation

**CONTROL OF INFECTION** will include:

- Adherence to nationally recognized infection control guidelines. The following guidelines are utilized for infection control guidelines, CDC, APIC, AORN and AAMI standards, as identified in reference of the individual policies and procedures
- Appropriate antibiotic prophylaxis to prevent SSI: appropriate timing, appropriate choice of antibiotic and appropriate discontinuation following surgery.
- Surveillance of facility- Monthly Infection Control/Preventionist Checklist and Hand Hygiene compliance monitoring
- Education- Upon hire, annually, and periodically as needed, employee training BBP and OSHA, Hand hygiene, Infection Control
- Patient/Family Education- Discharge instructions, hand washing signs
- Human Resource Management- Employee illness trending
- Environmental Controls- including surgical attire, PPE, restricted use of artificial fingernails and/or extenders, and defining restricted areas.
- Pre Admission Screening of patients for infectious and communicable diseases, including TB, MRSA and MDRO.
- Annual employee Health Screening per Human Resources Policy- Health Certification, PPD testing, Hepatitis Vaccine, Annual Influenza Program
- Evaluation of employee immunization status for designated infectious diseases Development of a post exposure control plan which is in compliance with and current CDC recommendations
- Identification of an area infection control practitioner available for consultative purposes for the Infection Control Practitioner
- Medication usage review, in conjunction with pharmacist consultant, regarding antibiotic usage, including appropriateness and timeliness
- Implementation of corrective and preventative measures that result in improvement.

**REPORTING** will include:

- Monthly quality checklist by Infection Control Nurse/Preventionist
- Employee exposures and illness trends
- Infection Control Monthly Report from physicians
- Any reported infections will be reported via EDGE Risk Incidents
- Monthly Incident Summary Report from EDGE
- Performance Improvement mandatory reporting Infection Surveillance Report, Infection log, Infection Trend Log, Sterilization logs
- Quality Council monthly reports
- MEC and BOG quarterly reports and review of recommendations
- Local Health Department requirements for mandatory reporting of infectious diseases

**EVALUATION** will include:

- Investigation of all infections and communicable disease.
- Changes in scope of the program as related to addition of new programs or services

- Changes in risk analysis
- Emerging trends within the community that may effect the facility
- The success or failure of interventions for preventing and controlling infection
- Addressing concerns raised by leadership and others within the facility
- Addressing the evolution of relevant prevention and control guidelines that are based on evidence or expert consensus.
- Annual review of housekeeping and environmental contracts
- Annually the effectiveness of the Infection Prevention/Control Plan will be evaluated and results of evaluation documented (See Annual Infection Prevention/Control Plan Evaluation Tool)
- Annual evaluation of influenza vaccination rates
- Annual review of goals

**Reference:**

- Bennett, Gail (2009) *Infection Prevention Manual for Ambulatory Care* ; Rome, Georgia: ICP Associates APIC
- Joint Commission Standards for Ambulatory Surgery Centers 2015
- AAAHC Accreditation Handbook for Ambulatory Health Care 2015
- CMS Conditions of Overage, State Operations Manual, Rev. 137, 04-01-15
- ASC Infection Control Surveyor Worksheet, Exhibit 351, Rev. 142, 07-17-15

**Attachment:** Annual Infection Prevention/Control Plan Evaluation Tool

# TB Elimination

## Tuberculosis: General Information

### What is TB?

Tuberculosis (TB) is a disease caused by germs that are spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine. A person with TB can die if they do not get treatment.

### What are the Symptoms of TB?

The general symptoms of TB disease include feelings of sickness or weakness, weight loss, fever, and night sweats. The symptoms of TB disease of the lungs also include coughing, chest pain, and the coughing up of blood. Symptoms of TB disease in other parts of the body depend on the area affected.

### How is TB Spread?

TB germs are put into the air when a person with TB disease of the lungs or throat coughs, sneezes, speaks, or sings. These germs can stay in the air for several hours, depending on the environment. Persons who breathe in the air containing these TB germs can become infected; this is called latent TB infection.

### What is the Difference Between Latent TB Infection and TB Disease?

People with latent TB infection have TB germs in their bodies, but they are not sick because the germs are not active. These people do not have symptoms of TB disease, and they cannot spread the germs to others. However, they may develop TB disease in the future. They are often prescribed treatment to prevent them from developing TB disease.

People with TB disease are sick from TB germs that are active, meaning that they are multiplying and destroying tissue in their body. They usually have

symptoms of TB disease. People with TB disease of the lungs or throat are capable of spreading germs to others. They are prescribed drugs that can treat TB disease.

### What Should I Do If I Have Spent Time with Someone with Latent TB Infection?

A person with latent TB infection cannot spread germs to other people. You do not need to be tested if you have spent time with someone with latent TB infection. However, if you have spent time with someone with TB disease or someone with symptoms of TB, you should be tested.

### What Should I Do if I Have Been Exposed to Someone with TB Disease?

People with TB disease are most likely to spread the germs to people they spend time with every day, such as family members or coworkers. If you have been around someone who has TB disease, you should go to your doctor or your local health department for tests.

### How Do You Get Tested for TB?

There are tests that can be used to help detect TB infection: a skin test or TB blood tests. The Mantoux tuberculin skin test is performed by injecting a small amount of fluid (called tuberculin) into the skin in the lower part of the arm. A person given the tuberculin skin test must return within 48 to 72 hours to have a trained health care worker look for a reaction on the arm. The TB blood tests measures how the patient's immune system reacts to the germs that cause TB.

(Page 1 of 2)

## What Does a Positive Test for TB Infection Mean?

A positive test for TB infection only tells that a person has been infected with TB germs. It does not tell whether or not the person has progressed to TB disease. Other tests, such as a chest x-ray and a sample of sputum, are needed to see whether the person has TB disease.

## What is Bacille Calmette–Guèrin (BCG)?

BCG is a vaccine for TB disease. BCG is used in many countries, but it is not generally recommended in the United States. BCG vaccination does not completely prevent people from getting TB. It may also cause a false positive tuberculin skin test. However, persons who have been vaccinated with BCG can be given a tuberculin skin test or TB blood test.

## Why is Latent TB Infection Treated?

If you have latent TB infection but not TB disease, your doctor may want you to take a drug to kill the TB germs and prevent you from developing TB disease. The decision about taking treatment for latent infection will be based on your chances of developing TB disease. Some people are more likely than others to develop TB disease once they have TB infection. This includes people with HIV infection, people who were recently exposed to someone with TB disease, and people with certain medical conditions.

## How is TB Disease Treated?

TB disease can be treated by taking several drugs for 6 to 12 months. It is very important that people who have TB disease finish the medicine, and take the drugs exactly as prescribed. If they stop taking the drugs too soon, they can become sick again; if they do not take the drugs correctly, the germs that are still alive may become resistant to those drugs. TB that is resistant to drugs is harder and more expensive to treat. In some situations, staff of the local health department meet regularly with patients who have TB to watch them take their medications. This is called directly observed therapy (DOT). DOT helps the patient complete treatment in the least amount of time.

## Additional Information

CDC. Questions and Answers About TB  
<http://www.cdc.gov/tb/publications/faqs/default.htm>

<http://www.cdc.gov/tb>