Forms & Checklists for Infection Prevention

VOLUME 2

APIC

Forms & Checklists for Infection Prevention, Volume 2

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Forms & Checklists for Infection Prevention, Volume 2

Printed in the United States of America
First edition, October 2017
ISBN: 978-1-933013-70-1

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Acknowledgments

Development of this book required input and expertise from a team of editors, who assembled materials from a range of facilities and other resources including the public domain. The Association for Professionals in Infection Control and Epidemiology acknowledges the valuable contributions from the following individuals.

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Declarations of Conflicts of Interest

Only individuals who have made declarations of potential conflicts have been listed here.

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Introduction

Forms & Checklists for Infection Prevention, Volume 2 was designed to provide additional resources for the infection preventionist (IP) from novice to expert, aiming to complete the scope of responsibilities in infection prevention begun in *Forms & Checklists for Infection Prevention, Volume 1*. The editors have selected and organized this compilation of forms, checklists, policies, and guidelines to create a convenient resource for IPs. These resources are not intended to be all inclusive—instead, they provide a variety of samples to aid IPs in creating, improving, and enhancing their infection prevention and control programs.

This second volume of resources is presented in five sections: Patient Care Policies, Department Policies, Occupational Health, Construction and Renovation, and Long-Term Care. Each section provides sample forms, policies, guidelines, and links to additional resources and background reading in Section Resources pages. The samples may be modified to meet an individual facility's needs for their particular demographic population. Please note that every effort has been made to verify the internet links provided as resources; however, at times the location of information may change.

Infection prevention is the discipline responsible for prevention of healthcare-associated infections, dating back to the first half of the 18th century. Each passing century has given birth to new and formidable pathogen adversaries against which infection prevention continues its fight. IPs work against the spread of disease through education, prevention, and control of transmission in the healthcare environment.

The resources in this book can help IPs to create structured infection prevention programs, develop staff, patient, and visitor awareness, and promote a safe healthcare environment for patients, visitors, and staff members. These resources can also raise awareness of expanded infection prevention opportunities with collaboration between hospitals and long-term care settings to promote our vigilant efforts to prevent, reduce, and protect against both existing and emerging pathogens.

It is only through continued teamwork, collaboration, research, and education that we can be successful stewards. The IPs who shared their time, resources, and expertise hope that you will find this book useful, and that it will spark the continued motivation to communicate and share your research, accomplishments, and lessons learned as we face the future of existing and emerging infectious diseases and the continued challenges to protect our patients through prevention and control.

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October 2017

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Patient Care Policies

1-1. Cleaning and Disinfecting Patient Care Equipment

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jun 2016 SUPERSEDES: May 2016
DEPARTMENT: Infection Prevention	POLICY NO: 5076-517
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 6/16

NewYork-Presbyterian
Brooklyn Methodist Hospital

Purpose

To minimize the risk of transmitting infections, between patients or employees, via contact with equipment that may be contaminated.

Policy

Non-critical patient care equipment (touch intact skin) must receive low-level disinfection with a hospital grade disinfectant before use on each patient. Surfaces must be pre-cleaned when visibly soiled before being disinfected. Low level disinfection is performed following the manufacturer's instruction for use (IFU) using either bleach germicidal disposable wipes (4 minute wet time), the Super Sani-Cloth germicidal disposable wipe (2 minute wet time) or a hospital grade disinfection product such as Q256 (10 minute wet time).

Procedure

The following grid outlines the procedure to be utilized for cleaning some of the most commonly used patient care equipment:

Shared Equipment All In-patient Care Units

Equipment	User	Timing	Product	Other
Automated Vital Sign machine	Nursing	Before use on each patient	Sani-cloth	
BP cuffs/machines	Nursing	Before use on each patient	Sani-cloth	
Geri chairs/recliners	EVS	Daily & discharge room cleaning	Sani-cloth	
Commode	EVS	Daily & discharge room cleaning	Bleach wipes	
Glucose monitors	Nursing	Before use on each patient	Sani-cloth	
IV poles*	EVS/SPD	Daily & discharge room cleaning	Sani-cloth	
Bedside tables/trays	Nursing/EVS	Daily & discharge room cleaning	Sani-cloth	
Patient lift equipment	Nursing	Before use on each patient	Sani-cloth	

Equipment	User	Timing	Product	Other
Thermometers	Nursing	Before use on each patient	Sani-cloth	
Exergen: Temporal Scanner	Nursing	Before use on each patient	Alcohol wipes	Manufacturer IFU
Walkers	Nursing/PT/OT	Before use on each patient	Sani-cloth	Obtain from Rehab
Wheelchairs	Nursing/PT/OT			
Transporter	Before use on each patient	Sani-cloth		
Bladder Scanner	Nursing/MD/PA	Before use on each patient	Sani-cloth	
Glucose monitors	Nursing	Before use on each patient	Sani-cloth	
Accu-Vein Machine	Nursing	Before use on each patient	Sani-cloth	
Bair hugger, balloon pump, etc.	Nursing	Daily & discharge room cleaning	Sani-cloth	
CPM	Nursing/Rehab Tech	Daily & discharge room cleaning	Sani-cloth	Rehab Tech Discharge cleaning
Syringe pump	Nursing	Before use on each patient	Sani-cloth	
EKG & ECHM machines	Nursing	Before use on each patient	Sani-cloth	
Oto/ophthalmoscope	Nursing	Before use on each patient	Sani-cloth	
Feeding pumps**	Nursing	Before use on each patient	Sani-cloth	
IV Pumps**	Nursing	Before use on each patient	Sani-cloth	
Medication carts***	Nursing/Pharmacy	When visibly soiled	Sani-cloth	
Medication refrigerator	Nursing	Weekly	Sani-cloth	
Seizure pads	Nursing	Before use on each patient	Sani-cloth	
PADS seizure	Nursing	Before use on each patient	Sani-cloth	

ICUs & Step-Down Units

Equipment	User	Timing	Product	Other
Balloon pump	Nursing	Before use on each patient	Sani-cloth	
Doppler machines	Nursing/MD/PA	Before use on each patient	Sani-cloth	
Portable Telemetry transmitter	Nursing	Before use on each patient	Sani-cloth	
Portable transport monitor	Nursing	Before use on each patient	Sani-cloth	
Cardiology machines (TCP, Art Seg)	Nursing	Daily & discharge room cleaning	Sani-cloth	

Pediatric & OB

Equipment	User	Timing	Product	Other
Apnea monitor			Sani-cloth	
Bili light			Sani-cloth	
Circumcision board	Nursing	Before use on each patient	Sani-cloth	
Fetal monitor	Nursing	Before use on each patient	Sani-cloth	
Infant warmer		Daily & discharge room cleaning	Sani-cloth	
Isolettes/incubator	Nursing	Daily & discharge room cleaning	Sani-cloth	
Scale	Nursing	Before use on each patient	Sani-cloth	

Use bleach wipes for patients on Contact Isolation for C. difficile. Wet time bleach wipes 4 minutes, sani-cloth for 2 minutes, and Q256 solution for 10 minutes.
**Extra IV poles are to be placed in the soiled room and picked up daily by Sterile Processing Department (SPD) staff for cleaning.*
***Used feeding pumps are placed in the soiled room for pick up by SPD staff – in high use areas pumps will be cleaned on the unit bagged and placed in the clean storage room.*
***Used IV pumps are placed in the soiled room for pick up and cleaning by SPD staff – in high use areas pumps will be cleaned on the unit bagged and placed in the clean storage room.*
****Cassettes are steam cleaned before refilling by Pharmacy staff. Wheels and outer surfaces are cleaned by Environmental Services Staff (EVS) weekly.*

Discharge Room Cleaning

All reusable patient care equipment in the room when the patient is discharged will be cleaned by the EVS using a hospital grade disinfectant solution following the manufacturer's IFU. Items to be cleaned and disinfected include but are not limited to the bed, bedside table and stand, chairs and recliners, IV poles, SCD, and commode. After cleaning some items maybe be bagged and placed in a clean storage area.

IV Pumps and Feeding Pumps

SPD staff will round three times per day to collect used pumps. In high volume areas, SPD staff will clean the pumps using a hospital grade disinfectant, bag and place the clean pumps into the clean storage area. In low volume areas, the used pumps are collected and are brought to SPD where they are placed into the decontamination room for cleaning. They are manually hand cleaned using a disinfectant. Once the item is cleaned, a clear plastic bag is placed over the equipment, and it is stored for retrieval to any unit that may request them.

IV Poles

Used IV poles not currently needed for patient care will be placed in the dirty utility room. SPD staff will round three times per day to collect used IV poles which are taken to SPD and cleaned. Clean IV poles are bagged and stored for retrieval to any unit that may request them.

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-2. Comparison of Characteristics of Selected Chemicals

Comparison of the characteristics of selected chemicals used as high-level disinfectants or chemical sterilants

	HP (7.5%)	PA (0.2%)	Glut (≥2.0%)	OPA (0.55%)	HP/PA (7.35%/0.23%)
HLD Claim	30 m @ 20°C	NA	20-90 m @ 20-25°C	12 m @ 20°C	
5 m @ 25°C in AER	15m @ 20°C	Before use on each patient	Sani-cloth		
Sterilization Claim	6 h @ 20°	12m @ 50-56°C	10 h @ 20-25°C	None	3 h @ 20°C
Activation	No	No	Yes (alkaline glut)	No	No
Reuse Life[1]	21d	Single use	14-30 d	14d	14d
Shelf Life Stability[2]	2 y	6 mo	2 y	2 y	2 y
Disposal Restrictions	None	None	Local[3]	Local[3]	None
Materials Compatibility	Good	Good	Excellent	Excellent	No data
Monitor MEC[4]	Yes (6%)	No	Yes (1.5% or higher)	Yes (0.3% OPA)	No
Safety	Serious eye damage (safety glasses)	Serious eye and skin damage (conc soln)[5]	Respiratory	Eye irritant, stains skin	Eye damage
Processing	Manual or automated	Automated	Manual or automated	Manual or automated	Automated
Organic material resistance	Yes	Yes	Yes	Yes	Yes
OSHA exposure limit	1 ppm TWA	None	None[6]	None	HP-1 ppm TWA
Cost profile (per cycle)[7]	+ (manual), ++				
(automated)	+++++ (automated)	+ (manual), ++			
(automated)	++ (manual)	++ (manual)			

Modified from Rutala[69].
Abbreviations: HLD=high-level disinfectant; HP=hydrogen peroxide; PA=peracetic acid; glut=glutaraldehyde; PA/HP=peracetic acid and hydrogen peroxide; OPA =ortho-phthalaldehyde (FDA cleared as a high-level disinfectant, included for comparison to other chemical agents used for high-level disinfection); m=minutes; h=hours; NA=not applicable; TWA=time-weighted average for a conventional 8-hour workday.
[1]number of days a product can be reused as determined by re-use protocol
[2]time a product can remain in storage (unused)
[3]no U.S. EPA regulations but some states and local authorities have additional restrictions
[4]MEC=minimum effective concentration is the lowest concentration of active ingredients at which the product is still effective
[5]Conc soln=concentrated solution
[6]The ceiling limit recommended by the American Conference of Governmental Industrial Hygienists is 0.05 ppm.
[7]per cycle cost profile considers cost of the processing solution (suggested list price to healthcare facilities in August 2001) and assumes maximum use life (e.g., 21 days for hydrogen peroxide, 14 days for glutaraldehyde), 5 reprocessing cycles per day, 1-gallon basin for manual processing, and 4-gallon tank for automated processing. + = least expensive; +++++ = most expensive

Reference

George Allen and CDC: https://www.cdc.gov/hicpac/Disinfection_Sterilization/table_4.html

1-3. Chlorhexidine (CHG) Bathing

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Sep 2016 SUPERSEDES: Aug 2016
DEPARTMENT: Infection Prevention	POLICY NO: 5076-518
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 9/16

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy Statement

- Patient is receiving Chlorhexidine (CHG) baths for prevention of Surgical Site Infection (SSI) are to receive at least two baths using hospital approved rinse-free 2% CHG wipes for pre-op antiseptic prior to surgery. The first bath is given on the evening before surgery and second one, the morning of surgery as per MD/NP/PA order.
- Patients receiving CHG baths for CLABSI and CAUTI prevention are to receive one bath per day. These patients include all adult ICU patients, all adult non-ICU patients with central lines, and pediatric patients >2 months of age.
  - **In Adult & Pediatric Critical Care units:** routine bathing will be provided DAILY using Chlorhexidine Gluconate 2% CHG wipes for all adult patients and all pediatric patients >2 months of age.
  - **In Adult non-critical units:** routine bathing will be provided DAILY using Chlorhexidine Gluconate 2% CHG wipes for patients with central venous catheters, urinary catheters, and patients scheduled for surgery.
  - **In Pediatric non-critical care units:** routine bathing will be provided DAILY using Chlorhexidine Gluconate 2% CHG wipes for all patients >2 months of age with central venous catheters, urinary catheters, and patients scheduled for surgery.

  EXCLUSION: All newborn Nursery patients.

Purpose

To decrease the risk for the development of healthcare-associated infection by reducing the bacterial load on the patient's skin. Chlorhexidine (CHG) has a broad antimicrobial activity and kills and prevents the growth of bacteria on the skin. Evidence has shown the utilization of CHG bathing can decrease the potential for central line-associated bloodstream infections (CLABSI), surgical infections (SSI), and catheter-associated urinary tract infections (CAUTI).

Applicability

Population Served

- ☐ Adult
- ☐ Psychiatry
- ☐ Obstetrics
- ☐ Pediatrics

Care Setting

- ☐ Ambulatory Care (clinic based)
- ☐ Critical Care
- ☐ Emergency Department
- ☐ Inpatient Non-Critical Care
- ☐ Procedure/Diagnostic Area
- ☐ Peri-op
- ☐ Step-down

Supportive evidence-based data:

- Preoperative skin antisepsis can reduce the risk of infection at the surgical site (Lee et al., 2013)
- Chlorhexidine-based solutions reduce the density of skin colonization with pathogens, thus lowering the risk for horizontal transmission between healthcare workers and patients. Moreover, CHG acts by disrupting cytoplasmic membranes and remains active hours after application with broad spectrum of activity (Climo et al., 2009 & O'Horo et al., 1012).
- CHG daily bathing can significantly decrease healthcare-associated infections including CLABSI, SSIs, and CAUTIs (Huang et al., 2016).

Do not use CHG SOAP or WIPES:

- In premature or low birthweight infants, infants receiving phototherapy or children less than 2 months of age
- On patients with known allergies to Chlorhexidine gluconate or any other ingredients in this product
- For lumbar puncture or contact with the meninges
- On open skin wounds or as a general skin cleanser

Equipment

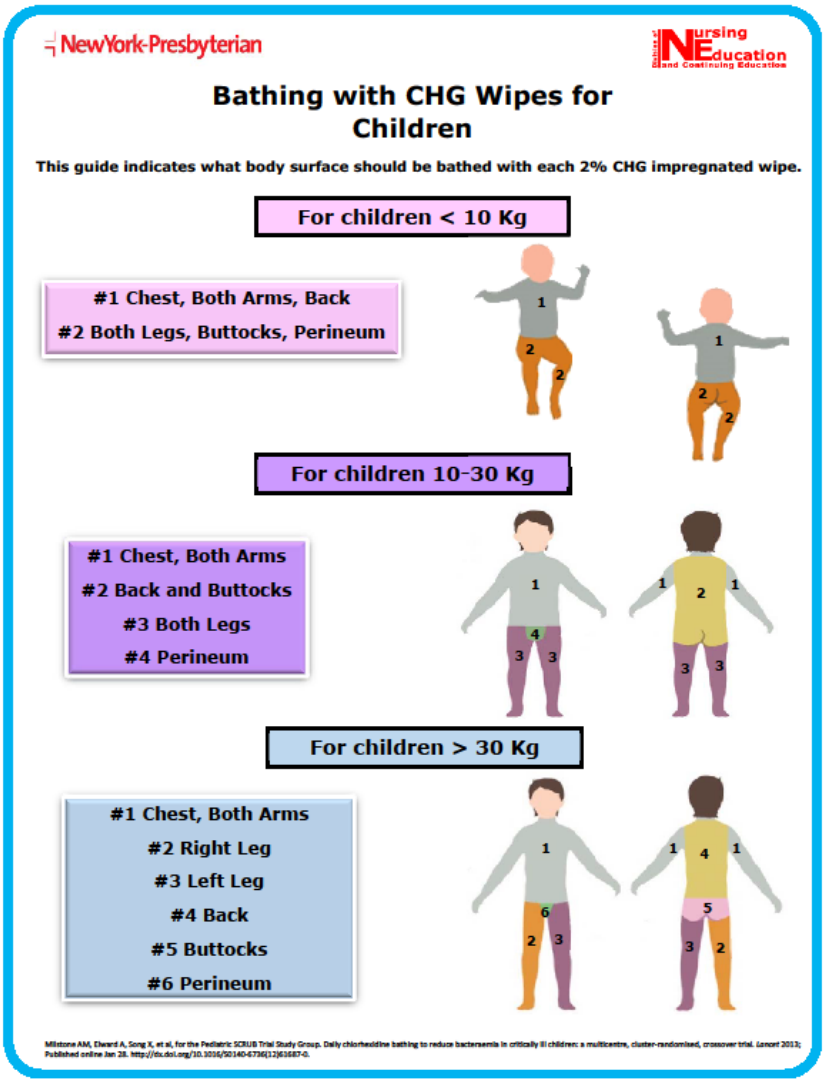
- Clean gloves
- Clean towels
- 1 package 2% CHG wipes
- Clean hospital gown

Procedure for Adults and Pediatrics

A. Instructions for bathing/prepping with the 2% CHG wipes:

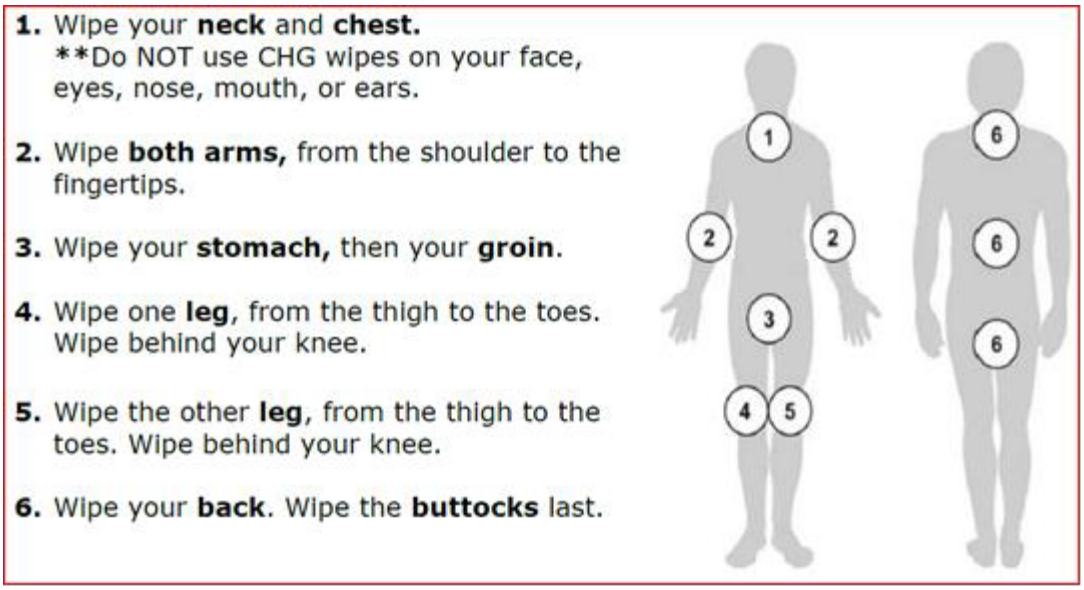
1. Patients who are non-ambulatory should be bathed/prepped with the 2% CHG wipes.
2. Patients who are ambulatory and who may want to shower may do so with regular soap and water. They should then be wiped down using the CHG wipes.
3. 2% CHG wipes should be used on skin that is clean and dry. If a patient's skin is visibly soiled they should be bathed with plain soap and water prior to using the CHG wipes.
4. CHG wipes are safe to use on lines and tubes and may be used right up to and over occlusive dressings. When bathing, clean the six inches of tubes/lines nearest patient.

5. **For adults:** use 6 disposable wipes (3 packs of 2 wipes) to prep the entire body.
   For pediatrics (to prep the entire body):
   i. use 2 disposable wipes (1 pack) for children <10kg
   ii. use 4 disposable wipes (2 packs) for children 10-30kg
   iii. use 6 disposable wipes (3 packs) for children > 30kg



6. Wipes should be retrieved from central sterile room **(Do not microwave the package prior to use).**
7. Wipe each area with a vigorous back and forth motion. Be sure to wipe each area of the body thoroughly, paying particular attention to the surgical site (e.g. sternum and inner thighs).

8. Use one clean cloth to prep each area of the body as listed in the steps below: (For pediatrics – see Appendix A Diagram)
    i. Neck and chest



    ii. Both arms, starting at the shoulder and ending at fingertips. Be sure to thoroughly wipe both axillae.
    iii. Abdomen, right and left hip, followed by the groin. Be sure to thoroughly wipe folds in the abdominal and groin areas.
    iv. Both legs, starting at the thigh and ending at the toes. Be sure to wipe behind the knees.
    v. Back, starting at the base of the neck and ending at the waistline.
    vi. Buttocks.
9. Allow the skin to air dry. **DO NOT RINSE.** It is normal for the skin to have a temporary "tacky" feel for several minutes after the 2% CHG wipes have been applied to the skin. **Do not** apply any powders or deodorants. Dress patient in a clean hospital gown.

B. After the bath:

1. Change bed linens.
2. Discard used linen in laundry bag/hamper.
3. Position patient appropriately.
4. Check and provide for patient's comfort and safety. Reposition bed to the lowest level. Verify call device, telephone, and bedside table are within patient's reach. For intubated patient, elevate HOB 30 degrees or as ordered.
5. Report any skin changes or pressure areas observed during bath to the RN/MD/NP/PA.

Patient Education

- Provide the following hand-outs, as indicated:

- Preparing your skin with Chlorhexidine Disposable Cloth
- Cleaning your skin with Chlorhexidine Disposable Cloth (CHG wipes for adults)
- Bathing your child with Chlorhexidine Gluconate (CHG) Soap

- Use teach-back to assess patient's comprehension

Documentation

1. Document the procedure in Cerner.
2. Record any abnormal skin assessment and MD/NP/PA notification.
3. Document patient education in Cerner.

References

Association of Operating Room Nurses (AORN). Recommended practices for Skin Preparation of Patients: Standards, Recommended Practices and Guidelines. Denver: AORN; 2013: 75-80.

Sage® 2% Chlorhexidine Gluconate Cloth Manufacturer Instructions (2006).

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Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-4. Outbreak Investigation, Influx Infectious Patients

POLICY & PROCEDURE DESCRIPTION: Infection Prevention		DATE ISSUED: Jun 2015 SUPERSEDES: Jul 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-504	
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 6/15	

NewYork-Presbyterian Brooklyn Methodist Hospital

Policy

Recognition of a suspected fever/rash coughs illness

- Multilingual signage will be placed at the walk-in entrance to the emergency department and primary care clinics stating that any patient with fever and rash illness immediately inform security or triage staff.
- **Security guards at the entrance to the emergency department or clinics, as well as triage, receptionist and all primary care staff should be trained to be alert for patients with any rash illness, recent travel history, and immediately notify the appropriate nursing or medical staff to expedite the patient's placement in an airborne infection isolation room.**
- All ambulance or pre-hospital transport services should be alert to the need to pre-notify the emergency department staff if transporting a patient with fever and rash illness so that the patient can be immediately placed on isolation upon arrival.

Isolation of a suspected case of fever, rash, cough illness pending initial clinical evaluation by Emergency department or clinic staff

1. **A surgical mask should be immediately placed on patients presenting to security or triage staff with fever and rash illness, recent travel history and the patient should be escorted directly to the airborne infection isolation room.** If suspected patients are initially seen in clinical areas *(e.g. primary care clinics)* that do not have airborne infection isolating rooms, a surgical mask should be placed on the patient, and he/she should be isolated from other patients and staff as best as possible pending clinical evaluation *(e.g. an enclosed examination room separated from other patients at the end of the hallway).*
2. Further details on isolation precautions that should be taken for the care of suspected smallpox cases are outlined. These precautions may be discontinued once the medical evaluation has ruled out smallpox or other potentially communicable disease that are spread by airborne transmission (e.g. varicella).

A. Contact information for the NYC DOHMH: The NYC DOHMH should be consulted immediately for any patient deemed to be at **moderate** or **high risk** for a highly contagious communicable disease (i.e. Ebola, smallpox, measles). **NYC DOHMH staff are available for consultations on a 24 hour, 7 days per week basis:**

To report such a suspect case of smallpox to the NYC DOHMH: During normal business hours, call the Bureau or Communicable Disease and ask to speak to the physician on duty: 212-788-9830

During nights, weekends, and holidays, contact Poison Control Center to reach the On-Call physician at: 212-764-7667 (212-POISONS) or 1800-222-1222

(If there are difficulties reaching the NYC DOHMH, please contact the NYSDOH. During normal business hours, call 518-473-4436; after hours, call the duty officer at 518-465-9720 and ask to speak to a medical epidemiologist).

B. NYC DOHMH's initial triage of calls: The NYC DOHMH has medical epidemiologists that are available on a 24-hour, 7 days a week basis to assist providers in consultation with the NYSDOH and CDC.

C. On-site evaluation by the NYC DOHMH rapid assessment team: If the patient is deemed to be at **moderate** or **high risk** for highly contagious communicable disease (HCCD), and no other etiology can be quickly determined, an on-site evaluation by the NYC DOHMH will be initiated. The NYC DOHMH rapid assessment team will include at least one medical epidemiologist and a laboratorian to assist with collection and packaging of clinical specimens for testing at the NYC Public Health Laboratory and/or the CDC. NYC DOHMH will have arrangements in place with dermatology specialists for emergency consultation on site or via telephone and electronic mail *(to view electronic digital images of the rash lesions).*

If necessary, the NYC DOH will arrange urgent transportation to the CDC to expedite testing; preliminary results should be available within 8-12 hours or the specimen's arrival in Atlanta to guide further clinical and public health management of the patient.

D. Notification of other City, State and Federal Agencies: The NYC DOHMH will notify their epidemiological counterparts at the NYSDOH's Bureau of Communicable Disease Control and CDC regarding all suspected cases, as well as other supporting agencies when indicated *(e.g. the NYC Office of Emergency Management and the Federal Bureau of Investigation and the New York Police Department, through the Joint Terrorism Task force).*

Management of the patient pending NYC DOHMH Evaluation and/or laboratory test results for smallpox:

Pursuant to Section 11.57 in the NYC Health Code and Section 2.27 in the New York State Sanitary Code, the NYC DOHMH and NYSDOH advise hospitals to take the following steps for managing suspected **moderate** or **high risk** patients while awaiting the arrival of the NYC DOHMH rapid assessment team and/or laboratory test results.

Care of patients suspected presenting with Highly Contagious Communicable Disease (HCCD)/ rash/fever/cough

1. The patient should be kept in an airborne infection isolation room in the emergency department, or (depending on the number of symptomatic patients being admitted) sent to WP5 for management of patients with suspect smallpox, or other highly communicable disease. The airborne infection isolation room should have a toilet and sink for the patient, and for inpatient rooms, ideally a bath or shower.
2. Infection control personnel and on-call hospital administrative staff should be immediately notified regarding the suspected case. If not already involved, consultations should be requested from dermatology and infectious disease specialist.
3. A standardized isolation room sign noting the need for airborne and contact precautions should be displayed outside the patient's room.
4. The door to the patient's room should be kept closed.

5. All personal protective equipment (e.g. gowns, gloves, masks, hoods and booties) should be stocked outside the door to the patient's room. If available, the patient should be placed in an airborne infection isolation room with an anteroom that has a sink, so that persons leaving the room can dispose of their protective clothing and equipment, and wash their hands before exciting the hallway.
6. Minimize the number of persons who enter the patient's room, as well as the traffic in and out, as much as possible. Visitors should be limited to immediately family members who have already had contact with the patient prior to the hospitalization.
7. All hospital staff (including transport personnel) and visitors must don contact and airborne personal protective equipment prior to entering a suspected or confirmed smallpox patient's room (i.e. disposable gloves, gowns, hoods and booties, and an N-95 or higher respiratory mask) regardless of their prior smallpox vaccination status. All staff should have undergone fit testing for respiratory masks.
8. Ensure that all staff and visitors entering that room are instructed in the meaning of contact, airborne and standards precautions.
    a. After use, all personal protective equipment should be placed into a plastic biohazard bag and left in the patient's room (gowns and gloves) or outside of the room (respiratory mask).
    b. Dedicated equipment (e.g. blood pressure cuff and stethoscopes) should be left in the room when possible. No personal equipment (e.g. stethoscopes) should be used on the suspect patient and then taken out of the room for use on the other patients.
    c. Use disposable items whenever possible. Arrange to have food brought into the room in disposable containers.
    d. Dispose of all non-sharps waste in biohazard bags and when bags are removed from the room, place in a second biohazard bag. Consider autoclaving these bags before disposal or transport for incineration.
    e. Place all laundry and linens (e.g. bedding, towels) in water-soluble biohazard bags that can be later used to transport the laundry. Since laboratory test results for **moderate** or **high-risk** patient should be available within 24-48 hours, consider keeping all linens and other patient's laundry in the patient's isolation room until everything has been ruled out.
9. Infection control staff should track the names, job duty (for staff), home address, and all contact numbers (including home and work telephone, cellular phone, and beepers) for all hospital and ambulance staff, visitors and others who entered that patient's room and had potential contact with the patient from the moment he/she entered the hospital. The NYC DOHMH will provide a form for tracking contacts.
10. Care should be taken when handling clinical laboratory specimens and laboratory requests should be limited to those tests that are essential to patient management. All clinical specimens should be placed in double, zip-lock bags that are tightly sealed and properly labeled prior to transport to the laboratory. Specimens should be hand-carried to the laboratory and pneumatic tube system should not be used.
11. **Management of the Emergency Department or clinical area where the suspect patient at moderate or high risk for HCCD/plague/fever/rash cough illness was initially seen prior to isolation, pending NYC DOHMH evaluation and/or laboratory test results.**
12. Tracking and Management of potential contacts: In addition to tracking persons who have contact with the suspect patient after he/she is placed in an airborne infection isolation room, the infection control staff should also keep a log tracking all "potential contacts" of the suspect **moderate** or **high risk** case-patient prior to his/her being placed in isolation. This log should

include all other patients and visitors who had potential contact with the suspect patient in the emergency department, as well as other areas in the hospital, during the period when the suspect patient was not appropriately isolated. If the patient visited another part of the hospital (e.g. cafeteria) or was transported to another location during their evaluation (e.g. radiology) prior to being placed in isolation, the contact tracking should be extended to these additional areas.

a. **For purposes of tracking, "potential contacts" are defined as persons who were in close proximity (i.e. within 3 feet) to the suspect case-patient (if this can be determined by emergency department or clinic staff), as long as the suspect case-patient did not have a significant cough. IF the suspect case-patient has significant cough or it is not feasible to determine which persons were in close proximity contact, all persons in the same room (i.e. waiting room) as the patient should be considered potential contacts.**

b. The names, home address, and 24-hour contact information (including home and work telephone, cellular phone, and beepers), should be noted for all "potential contacts" in the emergency department or clinic (including hospital and ambulance staff, visitors or other patients) who were potentially exposed to the suspect case-patient before he/she was placed in isolation.

c. The NYC DOHMH will send staff to interview and counsel all "potential contacts" (including emergency department and clinic staff, other patients, and visitors), as well as provide educational materials (e.g. fact sheets) and 24-hour NYC DOHMH telephone hotline number for all contacts to use in case they have additional questions or concerns after leaving the hospital. (**NOTE:** The NYC DOHMH will also be responsible for tracking the case-patient's household and other close contacts outside the hospital.)

d. To ensure the ability to interview all contacts, all visitors and other patients in the emergency department, clinic or other areas of the hospital who had "potential contact" with the suspect moderate or high risk case-patient before he/she was placed in isolation should ideally be moved to a separate room apart from the emergency department until interview by NYC DOHMH staff. Potential contacts should be urged by the hospital not to leave until NYC DOHMH staff arrives on-site. If potential contacts refuse to wait, the hospital should reiterate the importance of staying and obtain contact information (including address, home and work telephone, cellular phone) prior to the "potential contact" leaving the hospital.

Clinical Assessment of Plague – Incubation for 1-7 days

Plague initial signs and symptoms may be nonspecific with fever, chills, malaise, myalgia, nausea, prostration, sore throat and headache. Commonly a lymphadenitis develops in those lymph nodes that drain the site of the fleabite, where there may be an initial lesion. This is bubonic plague, and it occurs more often in lymph nodes in the inguinal area (90%) and less commonly in those in the auxiliary and cervical areas. The involved nodes become swollen, inflamed and tender and may suppurate. Fever is usually present. All forms, including instances in which lymphadenopathy is not apparent, may progress to septicemic plague with bloodstream dissemination to diverse parts of the body, that include the meninges. Endotoxic shock and disseminated intravascular coagulation (DIC) may occur without localizing signs of infection. Secondary involvement of the lungs is of special significance, since respiratory droplets may serve as the source of person-to-person transfer with resultant primary pneumonic or pharyngeal plague; this can lead to localized outbreaks or devastating epidemics. Through naturally acquired plague usually presents a bubonic plague, purposeful aerosol dissemination as a result of bio-warfare or a terrorist event would be manifest primarily as pneumonic plague.

A. Bioterrorism Measures: Pestis is distributed worldwide, techniques for mass production and aerosol dissemination are available, and the fatality rate of primary pneumonic plague is high and there is real potential for secondary spread. For these reasons, a biological attack with plague is considered to be of serious public health concern. A few sporadic cases will likely be missed or at least not attributed to a deliberate bioterrorist act. Any suspect case of plague should be reported immediately by telephone to the local health department. The sudden appearance of many patients representing with fever, cough, a fulminant course, and high case-fatality rate should provide a suspect alert for anthrax or plague; if cough is primarily accompanied by hemoptysis, this presentation favors the tentative diagnosis of plague. For a suspected or confirmed outbreak of pneumonic plague, follow the treatment and containment measures outlined in 9B above.

NYC DOHMH staff will seek to obtain reliable emergency contact information in the event that the "suspect" case is confirmed as plague so that these persons can be immediately called with instructions on where and when to receive vaccination. These persons will also be counseled on:

- Their potential exposure and the likelihood of the suspect case being confirmed as plague;
- The risk of their being infected with plague given the type and length of exposure that they had to the suspect patient (with consideration of whether the suspect case patient has significant cough symptoms);
- The expected time when laboratory test results will be available from the CDC (i.e. how long it will take to determine whether the suspect case-patient does indeed have plague) and how they will notified of the results;
- The consequences of a positive diagnosis (i.e. that if plague is confirmed, the NYC DOHMH and/or the hospital would be contacting them within 24 hours after the diagnosis is confirmed to ensure that they immediately receive plague vaccine) and the fact that they would not be infectious to their household and close contacts immediately after exposure, even if the suspect case did not have plague (i.e., that they can go home while awaiting laboratory test results and do not need to be quarantined as persons exposed to plague would not be considered infectious until they are symptomatic, which will be at least 12 days after their contact with the index patient).
- As it may take time for the NYC DOHMH to arrive on site, the hospital staff should designated staff person(s) to counsel patients and visitors on the key points outlined above. The NYC DOHMH will provide the hospital with pre-prepared fact sheets for use in educating persons who were potentially exposed to smallpox about their risk and what steps the NYC DOHMH will take in the event that plague is confirmed.
- The NYC DOHMH should be notified of any patient or visitor who had "potential contact" with the suspect moderate or high risk case-patient before they are placed in effective isolation and for whom there is concern that it may be difficult to locate these persons after they leave the hospital (e.g. homeless). If deemed necessary, the NYC DOHMH will make arrangements to house these persons in order to ensure the ability to locate and vaccinate the individual(s) in the event that plague is confirmed.

B. Decisions regarding whether the emergency department or clinic area should be "quarantined" or whether the hospital should consider temporary "termination of services": If the suspect case is rapidly and effectively triaged and isolated on arrival to the emergency department or clinic, there is no need to quarantine the hospital, emergency department, or clinic area or to consider termination of medical services. There are only limited situations under which an emergency department or clinic should be quarantined or patient services be terminated due to the presence

of a patient with suspected smallpox/plague due to concerns about the potential for airborne transmission. The only circumstances under which these actions might be considered would be:

a. If the patient could not be effectively isolated for some reason,

b. The patient has a significant cough and was not recognized immediately and spent time in the waiting room where aerosolization may have occurred, or

c. If the emergency department/clinic has been disrupted (e.g. by multiple patients, or by panic among patients, families and staff) to such an extent that the emergency department/clinic can no longer function to provide patient care.

The decision to quarantine is to be made by the NYC DOHMH and/or NYSDOH. The decision to terminate services for reasons related to HCCD/plague should be done by senior hospital administrative staff, in consultation with the NYC DOHMH and NYSDOH. The NYSDOH's office of Health System Management should be involved in any decision regarding termination of services in the emergency department or hospital:

During normal business hours (8:30AM – 5:30PM), call the Regional Director's Office at 212-268-7185

During non-business hours, call the Regional Disaster Coordinator at 845-331-7183 or the Regional Director at 917-584-9023

Accordingly, it would be extremely unlikely if not impossible for there to be any risk of smallpox/plague transmission to staff, patients or visitors who did not have direct contact with the suspect patients at <u>any</u> time, especially if the suspect case patient is rapidly placed in an appropriate airborne infection isolation room. Therefore, it should not be necessary to consider quarantine of the entire hospital buildings, or termination of all acute care services while awaiting NYC DOHMH evaluation or laboratory test results for **moderate** to **high-risk** smallpox/plague cases.

If the patient was coughing significantly while in the emergency department, the area should be temporarily closed and the housekeeping staff should ideally be limited to persons who were vaccinated against smallpox at least once previously. (**NOTE:** The smallpox vaccine was routinely given in the United States until 1972, was recommended for health care providers until 1976, and was administered in the military until 1990. While previous vaccination may not confer complete protection, staff with one or more smallpox vaccinations in the past may have some protection against severe illness.)

After the DHHS prevaccination program has been completed, housekeeping staff that clean the affected area should be limited to those who have recently received smallpox vaccine as part of the DHHS program.

C. <u>Patients with communicable disease decontamination emergency department or clinic area:</u> All equipment and surfaces in the emergency department or clinic that may potentially have been in contact with the suspect case patient (including in the waiting room and any other rooms in which the patient was placed prior to moving to the isolation room) should be cleaned with standard EPA-registered hospital disinfectants (e.g. quaternary ammonium compounds) or sodium hypochlorite, especially in any areas where a suspect case-patient has been coughing. The manufacturer's instructions for proper use of the disinfectant (with respect to dilution and contact time) should be strictly adhered to.

These previously or recently (after the DHHS prevaccination program begins) vaccinated staff would still need to use appropriate personal protective equipment (i.e. disposable gloves and gowns and a fit-tested N-95 or higher respiratory mask) while cleaning the area.

D. Ventilation system in the emergency department: The ventilation system in the emergency department should not be turned off unless emergency department air is recirculated to other parts of the facility.

General recommendations for the hospital administration and emergency response (disaster) committee to ensure effective operation of the hospital while awaiting laboratory confirmation.

A. Activation of the hospital's emergency response (disaster) plan: The decision whether to activate the hospital's emergency response (disaster) plan should be made based on the individual circumstances of the event. However, for a suspect case-patient thought to be at moderate to high risk for smallpox or if media attention or staff/patient/visitor's concerns are high enough so that the hospital is even potentially at risk for being unable to function normally, the emergency operations center and incident command system should be notified. The Emergency Response (disaster) Committee should ensure that the internal notification procedures and contact lists include all essential staff that might be needed in the event of a smallpox emergency (e.g. infection control, infectious disease, dermatology) as well as emergency contact information for all key city and state agencies (e.g. NYC DOHMH and NYSDOH and the NYC Office of Emergency Management).

B. Notifications: The NYC DOHMH should be notified immediately when a patient is determined to be at moderate to high risk for smallpox. The NYC DOHMH will notify the NYC Office of Emergency Management, the NYSDOH and CDC and will maintain communications with them throughout the event. The NYC Office of Emergency Management will notify all other appropriate agencies.

C. Communicable Issues:

a. Internal: The NYC DOHMH will work closely with the hospital staff to develop educational materials and fact sheets, as well as provide speakers for internal briefings, if needed.

NOTE: In the event of a suspect case that is being preliminarily worked up, it is strongly recommended that all clinical care staff be advised to minimize discussion of the suspected smallpox/plague diagnosis in open areas where other may overhear and misinterpret the situation. This will avoid unnecessary panic or a leak to the media for a case that may quickly be determined NOT to be.

b. External: The Public Affairs office at the NYC DOHMH will work closely with the hospital staff if a public statement or press conference is needed while awaiting laboratory test results, to ensure consistent messages about the likelihood of smallpox and the steps being taken by the hospital and government agencies to determine the diagnosis, as well as any contingency plans being put into place, if indicated.

Telephone contact information for the NYC DOHMH's Public Affair office is as follows:

During business hours: call 212-788-5290

After hours, call the Poison Control Center at 212-764-7667 (212-POISONS) or 1800-222-1222 and ask for the NYC DOHMH Press Officer on-call.

c. Security Issues: Ensure sufficient security is present to implement isolation and to respond to any potential disruptions that may occur due to the concerns about smallpox/plagues (e.g. significant media attention)

   Security plans should include:

   i. Ability to minimize points of access and egress to the physical plant.
   ii. A rapid identification process for hospital staff and local, state, and federal emergency workers.
   iii. An external vehicular "flow of traffic" prioritizing emergency vehicle access, supply delivery needs, and law enforcement access.
   iv. A method for routing persons other than patients to and from the facility.
   v. A triage protocol to route additional patients that may have smallpox based on fever and rash symptoms for immediate clinical evaluation to an appropriate, pre-designated site with sufficient airborne infection isolation rooms.
   vi. Ensuring that appropriate protective equipment is provided to security staff, when indicated.

Upon notification that the City must go on cough/fever/rash/smallpox/plague alert the following procedure will be followed.

The Security departments will lockdown the hospital as per their departmental policy.

Patient will be directed to the appropriate area by hospital personnel in PPE stationed at all entrances.

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 3rd Edition (2009)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-5. List of Multidrug-Resistant Organisms (MDROs)

MDROs are defined as microorganisms, predominantly bacteria, that are resistant to one or more classes of antimicrobial agents. Although the names of some of the MDROs describe resistance to only one agent (e.g. MRSA, VRE, VISA, VRSA), these pathogens are frequently resistant to many available antimicrobial agents.

MRSA – (Methicillin-resistant *Staphylococcus aureus*) is a *S. aureus* bacterium that is resistant to beta-lactam antibiotics, including methicillin, oxacillin, penicillin and amoxicillin. It is often resistant to many other antibiotics as well

VRE – (vancomycin-resistant *Enterococcus*) is an enterococcus with resistance to vancomycin

VISA – (vancomycin-intermediate *S. aureus*) and VRSA (vancomycin-resistant *S. aureus*) are strains of S. aureus that are resistant to most antibiotics, including having intermediate or greater resistance to vancomycin

Beta-lactamases are enzymes produced by certain gram-negative and gram-positive bacteria such as *Staph aureus, Klebsiella pneumonia* and *Escherichia coli.* These beta-lactamases disrupt the actions of certain antibiotics, such as penicillin, ampicillin, and cephalosporins, making them ineffective. Later cephalosporins, i.e. extended spectrum cephalosporins, were originally resistant to the actions of these beta-lactamases and, therefore, effective against many bacteria. In the mid-1980s, however, it became evident that a new type of beta-lactamase was being produced by *K. pneumonia* and *E. coli* that could render these newer antibiotics ineffective. The organisms that produce these extended spectrum beta-lactamases are being collectively called ESBLs.

In addition to the above named MDROs there are others such as multi-drug resistant *S.pneumoniae, K. pneumoniae* carbapenemase (KPC)-producing organisms also called carbapenemen-resistant Enterobacteriaceae (CRE), *Acinetobacter baumannii* and *Stenotrophomonas maltophilia*.

See CDC: Management of multidrug-resistant pathogens in healthcare settings (2006).

Reference

George Allen, RN, PhD, FAPIC, CIC, CNOR

1-6. Bed Bug Policy

GUIDELINES: Bed Bug Infestation: Prevention, Identification and Management	
DEVELOPED BY: Environmental Services, Infection Control	POLICY NO: 9200-068
APPROVED BY: Environmental Services, Infection Control	EFFECTIVE DATE: Jul 2015
DISTRIBUTION: All	REVISED DATE: Jul 2016
RESPONSIBLE PARTIES: Environmental Services, Infection Prevention, Nursing, Social Services, Engineering	REVIEWED DATE: Jul 2016

NewYork-Presbyterian
Brooklyn Methodist Hospital

Purpose

To prevent and control the spread of bed bugs within NYMH facilities and describe the processes and procedures to manage patients admitted to the hospital or seen in the outpatient setting with exposure to beg bugs.

Background

The common bed bug *(Cimex lectularius)* has long been a pest, feeding on blood, causing itchy bites and generally irritating their human hosts. The Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention (CDC), and the United States Department of Agriculture (USDA) all consider bed bugs a public health pest. However, unlike most public health pests, bed bugs are not known to transmit or spread disease. Although bed bugs could theoretically act as a disease vector, they have never been shown to transmit disease. However, their bites may result in welts that may cause itching; scratching of bites may result in secondary infection.

They can, however, cause other public health problems, so it's important to pay close attention to preventing and controlling bed bugs. Although bed bugs are not known to transmit disease, they are a pest of significant public health importance. Bed bugs fit into a category of blood-sucking ectoparasites (external parasites) similar to head lice *(Pediculus humanus capitis)*. Bed bugs, like head lice, feed on the blood of humans but are not believed to transmit disease. Other ectoparasites, such as body lice *(Pediculus humanus corporis)*, are known to transmit several serious diseases. Differences in the biology of similar species of pests, such as body lice and head lice (or bed bugs) can greatly impact the ability of pests to transmit disease.

Experts believe the recent increase in bed bugs in the United States may be due to more travel, lack of knowledge about preventing infestations, increased resistance of bed bugs to pesticides, and ineffective pest control practices. Environmental Services Management Staff with the help of all departments shall work together to identify, treat, and control the spread of bed bugs in accordance with recommended guidelines. Bed Bug control will be handled by experts in this field from those on contract with NYMH.

Transmission

Direct transmission with an infected person and their living space. Bed bugs cannot fly or jump and they cannot easily climb metal or polished surfaces; they can be transported, transmitted and spread through luggage, bags, mattresses and infested furniture, clothing and other personal items.

Identifying Characteristics

Bed bugs are wingless, reddish-brown and oval shaped nocturnal insect with a flattened body that feed exclusively on the blood of humans and warm-blooded animals. Bed bugs are approximately one-fourth (¼) of an inch in length. Immature bedbugs (nymphs) are smaller and lighter in color; their size depends on the amount of blood consumed. When engorged, their bodies change from brown to a dull red color as they swell.

ADULT

NYMPH/IMMATURE

ENGORGED ADULT

Adults and nymphs hid in cracks and crevices and walls, furniture or other items. They are also found on the tufts, seams and fold of mattresses.

Prevention

The current national problem with bed bugs is likely due to the convergence of three human behaviors: lack of awareness of the historical and biological link humans have with bed bugs, increased international travel, and past over-reliance on pesticides. Bed bugs are a “nest parasite” that resides in the human nest—the bedroom. Over time, bed bugs have evolved to develop resistance to many of the chemical pesticides currently used.

Integrated pest management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with people and the environment.

Bed bug control is most effective when an IPM approach is implemented with diligent participation by the residents.

A comprehensive IPM program to control bed bugs may include a number of methods such as:

- using monitoring devices,
- removing clutter where bed bugs can hide,
- applying heat treatment,
- vacuuming,
- sealing cracks and crevices to remove hiding places,
- using non-chemical pesticides (such as diatomaceous earth) and
- judicious use of effective chemical pesticides.

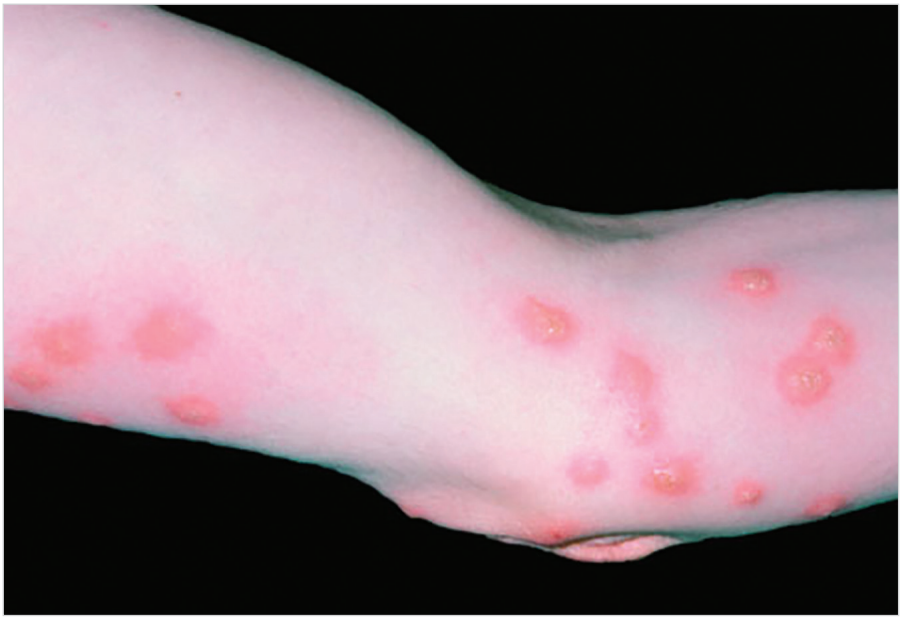
The underlying philosophy of bed bug IPM is based on the fact that bed bug infestations will not go away without intervention. Intervention is most effective when populations are low.

Clinical Presentation: Identifying Bed Bug Exposure/Infestations

Bed bug bites occur in any bare skin exposed while sleeping (face, neck, shoulders, arms and hands). Engorgement takes about three to ten minutes, yet the person seldom knows they are being bitten. Symptoms vary with the individual. Some develop an itchy red welt or localized swelling, which sometimes appears a day or so after the bite period. Some people do not react to bed bug bites at all and may have no reaction.

Bed bug bites can be misidentified, which gives the bed bugs time to spread to other areas. Bed bug bites can look like bites from other insects (such as mosquitoes, spiders and fleas), and appear as rashes (such as eczema or fungal infections), or even hives.

The welts and itching may look like mosquito bites though they tend last for longer periods. Bites may not become immediately visible, and can take up to nine days to appear. Bed bug bites tend to not have a red dot in the center such as is characteristic of flea bites. A trait shared with flea bites is the tendency toward arrangements of sequential bites. Bites are often aligned three in a row.



Bites on the skin are a poor indicator of a bed bug infestation. A far more accurate way to identify a possible infestation is to look for physical signs of bed bugs. For example, spots on bedding, as described below, are one of the earliest and most accurate methods.

When cleaning or changing linen, look for:

- Dark spots (about this size: •) which are bed bug excrement and may bleed on the fabric like a marker would
- Eggs and eggshells, which are tiny (about 1mm) and white
- Skins that nymphs shed as they grow larger
- Live bed bugs
- Rusty or reddish stains on bed sheets or mattresses caused by bed bugs being crushed

When not feeding, bed bugs hide in a variety of places. Around the bed, they can be found near the piping, seams and tags of the mattress and box spring, and in cracks on the bed frame and head board.

If the room is heavily infested, you may find bed bugs in the seams of chairs and couches, between cushions, in the folds of curtains, in drawer joints, in electrical receptacles and appliances, under loose wall paper and wall hangings—even in the head of a screw. Since bed bugs are only about 1/8-1/4 inch, they can squeeze into really small hiding spots. Hatchlings are the size of poppy seeds. If a crack will hold a credit card, it could hide a bed bug.

Monitoring

Workplace monitoring for evidence of a bed bug infestation is to be carried out on a regular basis by all staff members and Environmental Services (EVS) staff; this includes inspecting the immediate environment for the presence of:

- live bed bugs
- dead bed bugs
- shed skins of bed bugs
- dark spots on mattress
- black speckled droppings on mattress
- bites on individuals sitting, resting, or sleeping in the area

Bed bugs are nocturnal pests that typically hide during the day in seams, cracks, and crevices of mattresses, furniture, picture frames, wall openings (e.g., outlets, light switches, screw holes, or openings for wires or pipes), and carpeting. Small, dark brown-colored stains in these areas may be evidence of bed bugs, in addition to items a) through d) noted above. With identification of any of the above evidence of a possible bed bug infestation, call the environmental services department.

Procedure Following Bed Bug Identification

Note: The procedure for all ambulatory patients should include the steps outlined below as well as providing the patient with education regarding bedbug abatement and prevention as per New York City Department of Health Public Alert (see Section 2 of this book).

Clinical Staff:

Upon identification that a patient has been exposed to bed bugs the patient will be placed on Contact Precautions.

Assist the patient to remove clothing and remove personal belongings immediately and double bag and with the patient's permission dispose of the contaminated items. (In the event the patient or patient's family refuses to destroy the items advise cleaning the items in hot water, detergent and dry in high heat for 15 minutes).

Assist the patient to shower as this allows for inspection of the body for identification of additional bugs as well as inspection of the skin integrity due to bites.

Transfer the patient to another room for 24 hours of observation period to indicate no further presence of bed bugs.

Notify physician and follow treatment orders.

Bites should be managed symptomatically with topical emollients, topical corticosteroids, oral antihistamines or some combination of these treatments.

Staffs suspecting the presence of bed bugs are to contact:

- Environmental Services
- Infection Preventionist

Patients and or staff in the affected area may need to be relocated to eliminate the possibility of further contamination.

Implement process for closing patient room/space areas for decontamination.

Bag and contain all unnecessary clutter.

Infested bedding and linens will need to be double bagged and tied securely before they are discarded.

Environmental Services Management Staff will inspect any room/area that is reported to have a concern. Initial evaluation shall determine if the department can handle the necessary cleaning required for the affected space. Inspection should include all surfaces and areas in the room that are known to potentially harbor bed bugs.

The affected room/space will be closed for decontamination if a specimen is found.

Collect the suspect bug in a specimen container; give to pest Control Company for identification.

The Environmental Services manager shall contact the exterminator for additional services as deemed necessary to support identification and treatment options.

Any treatment of the area / room must be directed by environmental services and the agents used, are to be approved, IN ADVANCE, by the Director of Environmental Services to ensure the safety of patients and staff.

The patient room/space will be closed for decontamination. Furniture is not to be removed from the room.

A thorough inspection requires dismantling the bed and examining upper and lower surfaces. Cracks and crevices of bed frames should be examined. Things to look for are the bugs themselves, and the light brown, molted skins of the nymphs. Dark spots of dried beg bugs excrement are often present along mattress seams or whenever the bugs have resided.

Notify EVS to contact pest control services to have room inspected and treated which will include the following:

Successful treatment of mattresses and box springs is difficult and infested components may need to be discarded. Note: Encasement of the mattress may be effective if it is designed for that purpose.

Treated fabric surfaces should be allowed to remain wet for 10 minutes. Torn or damaged mattresses should be bagged and discarded.

The pest control service should inspect adjacent rooms for bed bug infestation.

Upholstery or drapery that cannot be laundered or treated with insecticides must be double bagged and tied securely before discarding.

Vacuuming can help remove some of the bugs before treatment with insecticides. Afterward, dispose of the vacuum bag in a sealed trash bag. Bed bugs, especially the eggs, can be difficult to dislodge and the vacuum cleaner will need to be taken out of service, bagged and tied securely. Consult the pest control representative for treatment for equipment.

Engineering

Engineering should inspect for cracks and crevices between baseboards, on wood bed frames, floors and walls and fill them with caulking. Repairs should be made on peeling wallpaper, loose light switches and outlet covers. Openings where pipes, wires or other utilities come directly into the room should be addressed.

Procedure: Post Bedbug Infestation

The room may be unblocked and used for patients when the pest control company, engineering and EVS have confirmed there is no further evidence of bed bugs and all repairs have been made.

Bed bug control is an ongoing effort that may require numerous visits to inspect and re-treat the infested area. Infestation should be significantly reduced following the initial treatment. Regular inspections and treatments should continue until there is no further evidence of bed bugs.

Resume ongoing bedbug monitoring.

Resources

Centers for Disease Control and Prevention FAQs

The New York City Department of Health and Mental Hygiene: Stop Bedbug Safely

Joint Statement on Bed Bug Control in the United States from the U.S. Centers for Disease Control and Prevention (CDC) and the U.S. Environmental Protection Agency (EPA)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-7. Clostridium difficile Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention		DATE ISSUED: Apr 2016 SUPERSEDES: Mar 2015
DEPARTMENT: Infection Prevention	POLICY NO: 5076-515	
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 4/16	

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

Clostridium difficile is a gram-positive, spore-forming, anaerobic bacillus responsible for antibiotic-associated diarrhea, and capable of causing pseudomembranous colitis. The recent emergence of new, so-called, B1 or toxinotype III strains has been associated with worldwide outbreaks of increasingly severe disease with high morbidity and mortality. CDAD (Clostridium difficile-associated diarrhea) developing in patients hospitalized at acute care hospitals in the US is estimated to extend the length of stay an average of 3.6 days and add $3669 in cost per case.

Clinical Illness

Clostridium difficile causes a spectrum of illness from mild self-limited diarrhea, diarrhea, to fulminant life-threatening colitis. Symptoms include diarrhea, abdominal pain, and fever. Intravascular fluid depletion due to diarrheal losses and intra-abdominal sequestration may be profound and lead to hypotension, shock, and renal failure. Leukocytosis is frequently marked and the CT scan usually shows diffuse colonic wall edema in severe cases.

Transmission

The transmission of *Clostridium difficile* is primarily through contaminated environmental surfaces and the contaminated hands of healthcare workers. The organism is ingested, survives gastric acid, and colonizes the gut. Prevalence rates of colonization in both patients and healthcare workers (HCWs) are low, may be transient, and range from 1% to 10%.

Criteria For Diagnosis Of CDAD

Healthcare-associated *Clostridium difficile* should be diagnosed if the following are true.

- A case is diagnosed clinically and proven by toxin assay PCR or colonoscopy.
- Symptoms begin 72 hours or more after admission (note overlapping causes of diarrhea), or less than 30 days after discharge.
- In cases diagnosed after discharge, hospital attribution can be excluded if no antibiotics were administered in the hospital or the patient has resided in another health care facility for at least 72 hours.

Diagnosis

Clostridium difficile should be suspected in any patient who has taken antibiotics within the past 60 days. Although most cases are acquired in a hospital or skilled nursing facility, community-acquired cases are becoming increasingly common. 25% of cases will have a recurrence.

- Testing for both *Clostridium difficile* Toxin A and B and PCR confirmation (NAAT).
- Stool samples must be submitted to the lab for testing during the admission process. Stool collected on day 4 after admission, if positive, is considered a healthcare-associated infection (HAI). Stools not collected within 48 hours will be discontinued.
- Only loose stool (takes the shape of the container) is accepted for testing. Formed stools will not be tested.
- Collected stools should be sent to the lab within 2 hours.

Treatment Guidelines

- Oral metronidazole is preferred for treatment of mild to moderate disease.
- For patients with severe or fulminant disease, oral vancomycin, or oral metronidazole plus oral vancomycin should be used.
- For patients who are not able to take oral medication (vomiting, sever ileus), metronidazole may be given IV and vancomycin enemas may be considered.
- Physicians should be provided with education about the emergency of new strains of Clostridium difficile, the potential rapidity of clinical deterioration, and the need for critical care.
- Surgical intervention should be considered early for non-responders (colectomy).

Infection Control

- Adopt a policy for antibiotic controls to minimize excessive and excessively broad antibiotic use in the facility.
- Patient with CDAD will be isolated as follows:
  - o Private room; cohorting of positive cases permissible when private rooms are not available
  - o Special Plus contact precautions lavender sign (gowns and gloves for anyone entering the room)
  - o Isolation continued until diarrhea has ceased for 48 hours and patient is continent
  - o If there appears to be an epidemic situation, consider preemptive isolation prior to test results
- Patient with prior history of *Clostridium difficile* will be isolated preemptively if readmitted with diarrhea.
- Hand hygiene policy specifies soap and water for *Clostridium difficile* rather than alcohol hand sanitizer since alcohol does not kill spores.
- Every attempt will be made to stop all other antibiotics except for *Clostridium difficile* treatment.
- All anti-peristaltic drugs will be discontinued, including codeine and morphine derivatives if possible.

- Through daily and terminal cleaning:
  - o Housekeeping should be educated about CDAD
  - o Sodium hypochlorite product should be used daily and for terminal cleaning of *Clostridium difficile* room

Additional Elements

- Appropriate at-risk patients should be educated about CDAD.
- Staff will be educated about CDAD including:
  - o medical staff
  - o Focused education for housekeeping staff
- *Clostridium difficile* results will be communicated immediately to the Infection Prevention, the attending physician, and the nursing unit.
- There will be a tracking mechanism to assess the impact of *Clostridium difficile* and its control (statistics such as cases/month, cases per 100 bed-days, etc. should be reported). Results will be reported to the institution's infection control committee as well as to the NHSN.

References

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Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-8. Legionella Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Mar 2015 SUPERSEDES: Jan 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-503
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 3/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

Introduction

New York Methodist Hospital (Hospital) Administration, the Department of Infection Control Department of Facilities has established a Legionella prevention, surveillance, and control program. This policy is based on the updated New York State (NYS) Department of Health (DOH) 2005 guidelines (July 14, 2005 Memorandum and Guidelines) on the prevention and control of healthcare facility-associated Legionnaires' disease in hospitals and the CDC and HICPAC guidelines for environmental control of Legionella in healthcare facilities.

Purpose of Policy

The purpose of this policy is to establish a comprehensive program to ensure the prevention, surveillance and control of Legionella. This policy includes standards for monitoring and surveillance, staff and patient education, investigation and control, and communication.

Background and Disease Information

Legionellosis is a bacterial disease that is associated with two distinct illnesses:

Pontiac fever (a self-limited 1 to 2 day incubation period, influenza-like illness, also known as non-pneumonic legionellosis) and Legionnaires' disease (a progressive pneumonia with a 2 to 10 day incubation period that may be accompanied by Cardiac, Renal and Gastrointestinal involvement). The causative agent in 90% of infections is L. pneumophila. L. pneumophila is further classified into serogroups, of which serogroup 1 is most common. Many other Legionella species can cause disease in humans, including L. micdadei, L. bozemanii, L. dumoffii, and L. longbeachii.

Legionella species are naturally occurring, Ubiquitous Aquatic Organisms. They prefer warm water temperatures with the ideal temperature for growth ranging from 77 to 115˚F (25 to 46˚C). Approximately 125-250 cases of *Legionella* infections are reported each year in New York State. Cases may be community-acquired or healthcare facility-associated and result from exposure to contaminated water aerosols or aspirating contaminated water.

Certain host factors will place persons at greater risk for acquiring Legionnaires' disease, including persons with severe immunosuppressant from solid organ or hematopoietic stem cell transplantation or persons with hematological or non-hematological malignancies. Other persons who may also be at risk are those with end-stage renal disease, HIV/AIDS, diabetes mellitus, and chronic lung disease, as well as the elderly, cigarette smokers, and persons who receive immunosuppressive drugs. The disease is rare among children.

Most cases of Legionnaires' disease are treated successfully with antibiotics, including macrolides and quinolones. However, Legionnaires' disease can be fatal in persons with weakened immune systems and serious underlying illness.

Surveillance and Monitoring

NYM Hospital has a proactive and comprehensive surveillance and monitoring program to prevent healthcare facility-associated Legionnaires' disease. The surveillance encompasses both clinical surveillance and environmental surveillance, including routine water sampling in patient care areas at all campuses. The Hospital works closely with the New York State Department of Health and its water management consultants to ensure a safe and protective environment for patients and staff. The clinical and environmental surveillance programs are detailed below. Additionally, caregiver clinical guidelines and standards for diagnosis are included in the Clinical Management section to ensure that patients with pneumonia are assessed appropriately for Legionellosis.

A. Clinical Surveillance

1. Surveillance Definitions

a. *Community-Associated Legionnaires' Disease:* The patient was in the community for the entire incubation period and the onset of illness within 48 hours of admission.

b. *Possible Healthcare Facility-Associated Legionnaires' Disease:* The patient was not in the facility during the entire incubation period.

c. *Definite Healthcare Facility-Associated Legionnaires' Disease:* The patient was in the facility for the entire incubation period.

2. Respiratory Specimen: The Clinical Microbiology Laboratories will submit isolates to the NYCDOH for confirmation and speciation by direct fluorescent antigen assay.

3. Environmental Sampling: If a healthcare facility-associated Legionnaires' disease case is suspected, environmental water sampling will be conducted in areas of the hospital where the patient was cared for.

4. Readmissions: When the Hospital has a possible or definite facility- associated case, Infection Control will review patients readmitted with pneumonia within the incubation period (2-10 days) to determine if further investigation for Legionella spp. is warranted.

5. Reporting: The Department of Infection Control is responsible for reporting and investigating single or multiple cases of Legionellosis. If any cases of Legionella infection are detected, the Department of Infection Control will report cases as follows:

a. All community and healthcare facility-associated cases of Legionellosis are reported to the NYC DOH.

b. Possible and definite healthcare facility-associated cases of Legionellosis are reported to the NYM Hospital Senior Administration, the Department of Facilities, affected department(s), and Public Affairs.

B. Clinical Management

1. Pneumonia – Symptoms

Legionnaires' disease cannot be distinguished clinically from pneumonia caused by other agents. Therefore, clinicians should maintain a heightened awareness and include *Legionella* as a causative agent in the differential of all healthcare facility-associated pneumonia that occurs in patients who are at increased risk for acquiring Legionellosis. Additionally, Legionella disease should be considered in the differential diagnosis in adults admitted from long-term care

facilities to the hospital with signs and symptoms consistent with pneumonia. Although 80% of Legionella infection is community- acquired, *Legionella* may be healthcare facility-associated as described in the definitions in the Clinical Surveillance Section, A.1.

2. "High-Risk" Patient Populations

Patients at high risk for contracting Legionnaires' disease are those patients with severe immunosuppressant cell transplantation or patients with hematological or non-hematological malignancies and persons who receive immunosuppressive drugs.

Other patients who may also be at risk are those with end-stage renal disease, HIV/AIDS, diabetes mellitus, and chronic lung disease, as well as the elderly and cigarette smokers.

3. Diagnosis of Legionnaires' Disease

Physicians will order appropriate tests for patients with pneumonia symptoms.

a. Obtain chest x-ray as clinically indicated

b. Test patients by both:

- culturing lower respiratory specimens for Legionella
- obtaining urinary specimens for the detection of urinary antigen for L. pneumophila serogroup 1

c. Clinical treatment advice may be obtained through the Divisions of Infectious Diseases and Department of Infection Control.

d. The Clinical Microbiology Laboratories will save clinical isolates of Legionella spp. to further epidemiological investigation

4. Use of Sterile Water

a. *Respiratory Therapy/Patient Care Services:* Nebulizers and other respiratory care equipment, including equipment from home, must be filled with sterile water. See Respiratory Care Policy and Procedure for Equipment Cleaning and Disinfecting.

b. *Nursing:* Enteral tubes should be flushed with sterile water and enteral feedings must be diluted with sterile water per Nursing policies.

c. *Irrigation of Tubes/Catheters:* Use sterile water/saline for irrigation of tubes/catheters

d. Any medications reconstituted or diluted with water must use sterile water.

C. Microbiology Testing

1. For all cases of suspected pneumonia:

a. Lower respiratory specimens collected from all inpatients will be cultured for Legionella spp. using standardized enriched and selective media.

b. Physicians should consider ordering the rapid urine antigen assay specific for L. pneumophila serogroup 1 if Legionnaire's disease is suspected.

2. The Clinical Microbiology Laboratories will be notified by the NYCDOH immediately of the identity of the isolate by phone and fax.

3. The Laboratories in turn will notify the Department of Infection Control and Hospital Administration.

4. A written confirmation of the results will be sent by mail from the NYCDOH to the Directors of the Clinical Microbiology Laboratories.

D. Facility and Physical Plant Surveillance

1. Primary Treatment/Control Program: Based on expert advice the following measures are being implemented:

a. Installation of silver/copper ionization units in New York City buildings with inpatient populations.

b. Installation of silver/copper ionization units in all high-risk outpatient buildings.

c. In all facilities referenced in (a) and (b) above, injection of chlorine in all cold water to a level of 0.5 ppm.

2. Routine Maintenance by Facilities

a. *Cold Water:* Potable cold water is maintained and distributed at <68˚F (20˚C).

b. *Hot Water:* In those buildings with hot water storage tanks, water should be stored above 140˚F (60˚C). All water distributed in patient areas should be maintained and distributed at a final temperature of no more than 110˚F (43˚C); exceptions will be made based on NYS-DOH recommendation for modification.

c. *Maintenance:* Hot water storage tanks and cooling towers are maintained according to the manufacturer's recommendations and current industry standards. Hot water storage tanks and cooling towers are drained, cleaned, and disinfected annually.

d. *Monitoring:* A daily operation log and maintenance manual will be maintained by Facilities. The use of biocides, anticorrosives, and disinfectants are recorded. Records on repairs, alterations, operating terms, monitoring, routine disinfecting, and inspections will also be recorded by Facilities.

e. *Circulation:* Water lines in patient areas that have been dormant or unused will be disinfected and flushed before being placed back on line.

f. *Daily Flushing:* Environmental service personnel shall flush all hot and cold water sinks and showers on a daily basis in buildings with water restrictions during the room cleaning process on inpatient units.

g. *Construction/Water Disruption:* When the hot water distribution system is opened for repair/construction or subject to water changes, the system will be thoroughly flushed before being returned to service. The need to disinfect using a high temperature or a chlorination flush before returning to service will be evaluated on a case-by-case basis. If only a portion of the system is involved, disinfection may be used on only that portion of the system. Precautions will be taken to prevent patient exposure to aerosols during flushing. See Potable Water System Disruption Policy.

h. *Aerators:* No aerators are permitted in high risk areas as determined by the Legionella Task Force.

i. Routine Disinfection

- Supplementing the Primary Treatment and Control Program, Facilities may perform regular disinfection by either superheating the system or shock hyper chlorination, frequency to be determined by the Legionella Task Force.
- Routine disinfection measures may be enhanced or modified based upon clinical surveillance or environmental sampling.
- Each outlet should be flushed for 5-10 minutes with water at 160-170˚F (71-76˚C), or with water containing = 2ppm for chlorine residual.
- For chlorine disinfection, chlorine should remain in the system for a minimum of two hours (not to exceed 24 hours), after which the system is thoroughly flushed.

3. Environmental Sampling and Culturing for Legionella.

Culturing for Legionella spp. in water samples will be performed regularly as part of a comprehensive strategy to prevent Legionnaires' disease.

a. Methodology for collecting, reviewing, and maintaining samples is consistent with industry and regulatory guidelines.
   - o All Legionella isolates from water samples will be catalogued by date, location, and type of sample and saved for comparison to any future clinical Legionella isolates.
   - o Whenever possible, water samples will be collected during the first two weeks of the month and results will be reviewed by members of the department of Infection Control, Department of Facilities, and Task force by the end of the month.
   - o Actions based on positive environmental results will be followed as discussed herein (see Table 1).

b. The locations of water sampling sites are guided by expert consultants in the field and are reviewed regularly by the Department of Infection Control and Facilities. Sites where water samples positive for Legionella spp. were obtained will be recultured at the next sampling time.

c. In the absence of a clinical case of Legionella, the frequency of culturing water samples for the potable water and cooling tower systems is at least quarterly or as otherwise determined by the Legionella Task Force.

d. In buildings on water restrictions, the frequency of culturing water samples for the potable water and cooling tower systems is monthly.

e. Frequency of culturing water samples in facilities with possible or definite healthcare facility-associated Legionnaires' disease will be dictated by the Legionella Task Force in conjunction with expert consulting advice and recommendations from appropriate regulatory agencies. When a possible case is identified, additional sampling will be undertaken as deemed necessary.

Legionella Investigation and Control

A. Legionella Detection In Water Sources

1. Based on expert advice, the Hospital has developed action levels regarding the Legionella concentration in the hot and cold water systems and cooling towers. See Tables 1 on the following page.
2. Action Levels will be communicated from Facilities personnel to the Senior Vice President of Facilities, the Chief Medical Officer, and the Department of Infection Control. Hospital Senior Administration will communicate with staff and patients accordingly.

Table 1: Legionella Action Levels for Potable Water as Indicated by Colony Forming Units (cfu) Detected in Water Sampling

Legionella spp. Action Level/Concentration	Action Potable Water
ACTION LEVEL GREEN: SYSTEM UNDER CONTROL No Samples * > 1 cfm/mL or 1 outlet ** with 1 to 10 cfm/mL	☐ Continue routine maintenance. ☐ Retest system in accordance with the schedule.
ACTION LEVEL YELLOW: REVIEW PROBLEM AND REVIEW WATER MANAGEMENT PROGRAM 1 sample *> 10 cfu/mL	☐ Requires special review by the Legionella Task Force for further action level.
ACTION LEVEL ORANGE: INVESTIGATE PROBLEM AND REVIEW WATER MANAGEMENT PROGRAM 2 or more outlets ** in a building with 1 to 10 cfu/mL	☐ Task Force may opt to place inpatient or high risk outpatient areas on water restrictions. ☐ Check free chlorine residuals. ☐ Check copper-silver ion residuals and operation. ☐ For buildings with active water treatment, flush system through all outlets. ☐ Sampling to continue monthly until there have been 3 months of non-actionable results. ☐ Surveillance for cases of Legionnaires' disease
ACTION LEVEL RED: INVESTIGATE PROBLEM AND REVIEW WATER MANAGEMENT PROGRAM 2 or more outlets ** in a building with >10 cfu/mL	☐ Place all patients on water restrictions. ☐ Disinfect as per Section V, D(2) (l) above. ☐ Check operating temperatures and bring unit back online upon completion of disinfection. ☐ Sampling to continue monthly until there have been 3 months of non-actionable results. ☐ Surveillance for cases of Legionnaires' disease

** Sample refers to a water specimen that is collected and tested for Legionella.*
*** Outlet refers to a location (e.g., sink, shower) from which water sample are collected and tested for Legionella. Multiple samples may be collected from each outlet.*

B. Water Restrictions

1. The final decision to initiate or terminate a water restriction resides with the Chief Medical Officer or designee.
2. Water restrictions are indicated by the action levels discussed herein (see Table 1) or based on the identification of cases through clinical surveillance. The Hospital COOs and VPs will be notified of water restrictions by the Chief Medical Officer or designee. The COOs and VPs will ensure appropriate implementation of restrictions, signage, staff and patient communication.
3. Water restrictions entail:

a. *Inpatient Units:* If a unit is on water restrictions the following apply.

- Bottled Water: Only use New York State certified bottled water for drinking, taking medication, and tooth brushing/mouth care (bottled water is obtained via bubblers/coolers on floor or in individual bottles).
- Showering/Bathing: Patients who are identified as high risk (see Section V B.2, High Risk Patients) should not shower/bathe. Use waterless bathing systems (i.e., bath in a bag) or sponge baths with bottles water as a possible alternative.
- Use of Ice Permissible: The use of ice from ice machines is permitted because the ice machines are only connected to the cold water system. See Recommendation of CDC and the Healthcare Infection Control Practice Advisory Committee (HICPAC), June 6, 2003, 52 (RR 10), 11-42.

b. *Outpatient Areas:* If an outpatient area is on water restrictions the following apply.

- o Bottled Water: Only use New York State Certified bottles water for drinking and taking of medications and tooth brushing/mouth care (bottles water is obtained via bubblers/ coolers in outpatient area or in individual bottles).
- o Use of Ice Permissible: The use of ice from ice machines is permitted because the ice machines are only connected to the cold water system. See Recommendation of CDC and the Healthcare Infection Control Practice Advisory Committee (HICPAC), June 6, 2003, 52 (RR 10), 11-42.

4. Termination of Water Restrictions: based on the final decision of the Chief Medical Officer or designee, water restrictions may be lifted when the following occurs:
   a. Three consecutive months of non-actionable results for the building; and
   b. No healthcare facility-associated cases during the three month period.
5. Communication to patients and staff regarding the lifting of water restrictions will be implemented in a timely manner.

Communication

A. Authorization

All global staff and patient communications on Legionella will be developed by the Department of Infection Control with final authorization and sign off by the Chief Medical Officer.

B. Staff Communication

Information will be disseminated via infonet, email, and/or mail.

C. Patient Communication

Patients will receive communication on the unit and within admissions package.

D. Water Restriction Notification/Signage

Signage will be prominently displayed in specified areas.

1. Hospital Operations will notify Patient Support Services/Accommodations of the locations for sign distribution for patients and staff. The Operating COOs and VPs will be notified of any signage or notifications to be posted or distributed.
2. Facilities Management will place, maintain and monitor approved water restriction and water disruption/maintenance signage.
3. Signage content will be approved by the Department of Infection Prevention and Hospital Administration.

Responsibility

Department of Infection Prevention. The above policy is based on the current NYS DOH standards.

Hospital Reference

Facilities Management Manual.

* * * * * * * * *

The above policy is based on the current NYS DOH standards. Any questions regarding the policy should be addressed with the Department of Infection Prevention

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-9. High-level Disinfection Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Apr 2015
DEPARTMENT: Infection Prevention	POLICY NO: 5076-516
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 4/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

To safely and effectively high level disinfect clean instruments which are not required to be sterilized. Semi-critical items (items that touch mucous membranes or non-intact skin) will be chemically disinfected in accordance with the manufacturer's recommendation of the item, and the manufacturers of the disinfecting solution.

Procedures

Personal Protective Equipment (PPE) and gloves must be worn during the cleaning process to protect against exposure to infectious agents or toxic chemicals.

1. The probe must be pre-cleaned and dried BEFORE the High Level Disinfection process can commence in the Trophon.
2. When the device is ready, screen message will say: **LOAD PROBE AND INDICATOR.**
3. Open the chamber door and ensure the probe is straight and not touching the walls or the bottom. The tip of the probe must be above the embossed line.
4. After correctly loading the probe into the chamber, a chemical indicator shall be placed into the holder on the floor of the device chamber.
5. A chemical indicator must be used for each disinfection cycle and can only be used once.
6. Close the door to the chamber. If the door is not properly closed, screen message will say: **CLOSE CHAMBER DOOR.**
7. The next message will say: **IS THE PROBE CLEAN AND DRY?** Respond **YES** if the probe has been pre-cleaned and dried.
8. When the cycle has been successfully completed, the device will sound an audible alarm. The next screen message will say: **CYCLE COMPLETE REMOVE AND WIPE PROBE.**
9. Remove the used chemical indicator from the device and verify the chemical indicator color change from red to orange or lighter to validate successful high-level disinfection before discarding.
10. Document the chemical indicator results on the log after each use.
11. Remove the probe after the cycle is complete. Wipe the probe with an absorbent, single-use, dry, lint-free cloth. Visually inspect the probe and ensure any peroxide residue is removed.

The following information should be recorded for the quality control testing of the Trophon.

- Date
- Trophon LCD Indicator Status (pass or fail)
- Chemical Indicator Status (pass or fail)
- Cycle number
- Operator Initials

Chemical Indicators:

- Chemical indicators should be stored at room temperature 59˚F – 86˚F.
- Store in a dry and clean environment out of direct heat.
- Do not store near chemicals such as sterilizing agents, acids, bases, bleaches, and other disinfectants.

Trophon SONEX-HL Cartridge:

Storage

- Cartridges should be stored at temperature between 59˚F and 77˚F.
- Store cartridge in all original packaging in correct directional orientation until use.
- Keep away from excessive heat.

Removing and Installing the Disinfectant Cartridge:

1. The device will automatically prompt you to run a purge cycle if the cartridge has been in the device too long and has expired.
2. Screen message will say: **REPLACE THE CARTRIDGE AND CLOSE CARTRIDGE DOOR.**
3. Cartridge door opens automatically. DO NOT use excessive force to pull down the cartridge door.
4. Life the cartridge out by touching the areas exposed while the bottle is in the holder and avoid touching pierced areas.
5. Empty used cartridges should be disposed of in the nearest waste receptacle.
6. Verify the expiration date before inserting a new SONEX-HL cartridge.
7. Remove the cap from the new cartridge neck first into the holder.
8. Once the cartridge is in place close the cartridge door and the device is ready for use.
9. Document the replacement of the cartridge on the daily log sheet.

Contingency Plans

1. Each department will maintain a back-up plan to be used if any critical component of the high-level disinfection process is not available. For Trophon service issues and/or concerns contact 1800-437-1171 option 5.
2. Acceptable alternatives to the Trophon process are as follows:
    a. Sterilize instruments that will tolerate processes such as gas, steam, or liquid sterilization.
    b. Temporarily suspend or postpone procedures.

Yearly competencies will be completed for each staff member that uses the Trophon and kept in the employee file.

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-10. Scabies Treatment

Scabicides are products that are available to kill scabies mites. They are only available by prescription.

For classic scabies one or more of the following products may be used:

Medication	Brand Name	Comments
Permethrin cream 5%	Elimite	Approved by the US Food and Drug Administration (FDA) for persons at least 2 months of age. Two or more applications, each about a week apart may be necessary to eliminate all mites
Crotamiton lotion 10%	Eurax, Crotan	FDA approved for treatment of scabies in adults. Frequent treatment failures have been reported
Crotamiton cream 10%	Multiple brands	Safe to use in children, including infants under 2 months of age.
Sulfur (5%-10%) ointment	None available	FDA approved for the treatment of scabies, but not recommended as a first-line therapy. Lindane can be toxic to the brain and other parts of the nervous system. Lindane should not be used to treat premature infants, persons with seizure disorders, and pregnant or breast feeding women.
Lindane lotion 1%	Stromectol	An oral antiparasitic agent approved for treatment of worm infestation. Although evidence suggest that it may be safe and effective for treatment of scabies it is not FDA approved.

For crusted scabies both oral and topical agents should be used:

Medication	Brand Name	Comments
Ivermectin	Stromectol	Although evidence suggest that it may be safe and effective for treatment of scabies it is not FDA approved. Should be administered together with a topical agent. Depending on infection severity, Ivermectin should be taken in 3 doses (approximately days 1, 2, & 8), 5 doses (days1,2,8,9, &15), or 7 doses (days 1, 2, 8, 9, 15, 22, & 29).
Permethrin cream 5%	Elimite	Approved by the US Food and Drug Administration (FDA) for persons at least 2 months of age. Topical permethrin should be administered every 2-3 days for 1-2 weeks to treat crusted scabies.
Benzyl benzoate 25% (with or without tea tree oil)	None available	Maybe used as an alternative to topical permethrin. May cause skin irritation. Lower concentrations may be used in children (10% or 12.5%)
Keratolytic cream	None available	May be used to help reduce the crusting of the skin and aid in the absorption of the topical permethrin or benzyl benzoate.

Reference

George Allen, RN, PhD, FAPIC, CIC, CNOR

1-11. Tuberculosis Control Plan

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jan 2017 SUPERSEDES: Mar 2015
DEPARTMENT: Infection Prevention	POLICY NO: 5076-007
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 1/17

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

The three primary goals of NewYork-Presbyterian Brooklyn Methodist Hospital's Tuberculosis Control Program are the achievement of early detection, isolation, and treatment of persons with active tuberculosis (TB).

Supervisory responsibility for the TB Control Program is assigned to Infectious Disease and Infection Control personnel. The TB control program is reviewed annually and included in the annual Infection Control Education Programs.

I. Hierarchy of TB Control Measures

The TB control program should be based on the hierarchy of TB control measures.

A. Administrative controls

B. Engineering controls

- Posted airborne precautions sign
- Negative pressure room
- Portable High-Efficiency Particulate Air (HEPA)

C. Personal Protection Equipment (PPE) – N95 Respirator or Powered Air Purifying Respirator (PAPR)

- The proper use of respirators in identified areas, i.e. isolation rooms, bronchoscopy room, and morgue.
- Implementation of a respiratory protection program.

D. Other necessary control measures

- Educational training of Hospital staff about TB
- Development and implementation of a program for testing for TB infection by tuberculin skin testing (TST) or infrared gamma release assay (IGRA).

II. Risk Assessment

TB control measures for NewYork-Presbyterian Brooklyn Methodist Hospital are based on a careful assessment of the risk of TB transmission in the facility.

A. The elements of risk assessment include:

- The number of TB patients admitted to the area or unit.
- The results of the analysis of health care workers TST or IGRA conversions.
- The analysis of possible patient TB transmission.

B. Low risk areas or groups are those in which:

- The TST/IGRA conversion rate is not greater than in areas or groups without occupational exposure to TB patients;
- There are no cluster of TST/IGRA conversion
- There is no evidence of patient-to-patient transmission; and
- In the case of an area, there are less than six (6) patients with active TB hospitalized per year.

C. Immediate Risk areas or groups are those in which

- The TST/IRGA conversion rate is not greater than in areas or groups without occupational exposure to TB patients or than previous rates in the same area or group;
- There are no cluster of TST/IRGA conversions;
- There is no evidence of patient-to-patient transmission, and
- In the case of an area, there are six (6) or more patients with active TB hospitalized per year

D. High risk area or groups are those in which:

- The TST/IGRA conversion rate is significantly greater than area without occupational exposure to TB patients or than previous rates in the same area or groups; or
- There is cluster of TST/IGRA conversions; or
- There is evidence of patient-to-patient transmission

E. Active case surveillance

Data on the number of active TB cases among patients and health care workers is systematically collected, reviewed, and used to:

- Estimate the number of isolation rooms needed,
- Recognize clusters of nosocomial transmission, and
- Assess the level of potential occupational risk.

F. Drug susceptibility surveillance

Data on drug susceptibility characteristics of Mycobacterium Tuberculosis isolates reviewed to identify the frequency and patterns of resistance. This information may:

- Indicate a need to modify the initial treatment regimen or
- Suggest evidence of nosocomial transmission or
- Suggest increased occupational risk

III. Airborne Precautions Protocol

All patients with documented or suspected infectious pulmonary or laryngeal TB must be placed on airborne precautions immediately.

A. Patients with upper lobe/cavitary lesions in one or both lungs and a high index of suspicion for TB.

B. Patients with pulmonary infiltrates and positive TST/IGRA. Keep airborne precautions isolation until 3 smears are negative for acid-fast bacilli (AFB) and pulmonary or infectious disease writes a note to discontinue airborne precaution. Chest x-ray may just show minimal interstitial infiltrates and may not be typical of the radiographs found in nonimmunocompromised individuals. Similarly, symptoms of cough, fever, and purulent sputum may not be elicited. Keep in respiratory isolation until 3 smears are negative for AFB and pulmonary or infectious disease writes a note to discontinue respiratory isolation.

C. Those patients with non-pulmonary TB and those with an open abscess or lesion in which the concentration of organisms are high also must be placed on airborne isolation.

D. Airborne precautions consist of:

- A negative pressure room
- The door must be kept closed
- Particulate respirators must be worn by all persons who enters the room
- Gowns are indicated only if needed to prevent gross contamination of clothing
- Gloves are not indicated.
- Hands must be washed after touching the patient's contaminated articles and before taking care of another patient.
- Articles are rarely involved in transmission of TB. However, articles should be thoroughly cleaned and disinfected of discarded.

E. An airborne precaution room must be a single patient's room, with negative pressure.

F. If all negative pressure rooms are occupied, a single room with a portable HEPA filter may be used as an interim measure.

IV. Diagnosis

A. Sputum smear or polymerase chain reaction (PCR) results should be available within 24 hours.

B. TB cultures results should be final within 3-6 weeks of submission of the original specimen.

V. Reporting

A. All suspected or confirmed cases of TB must be reported to the New York City Department of Health within 24 hours by Infection Prevention personnel.

B. A tuberculosis case that must be reported is demonstrated by:

- Presence of tubercle bacilli, or
- chest roentgenogram showing infiltrate or cavity, or
- significant active pulmonary fibrosis and nodulation, apparently originating from infection by tubercle bacilli, or
- unexplained pleurisy with effusion, or
- clinically active extra-pulmonary (meningeal, bone, kidney, etc.) TB (NYCDOH TB Control Manual)

C. All nosocomial transmission incidents must be reported to New York State Department of Health, Office of Infection Control. (See policy reporting of nosocomial outbreaks, #5076-024).

D. If any TB (with positive AFB smear) threatening to leave the hospital against medical advice, please notify the Infection Control staff who will call the New York City Bureau of Tuberculosis Control at 212-788-4162.

- If the patient is infectious, the infection control nurse can also contact the Regulatory Affairs unit before 5:30pm, if they are unable to contact the above supervisor.
- However, if the patient is threatening to leave after 5:30pm, or during weekend, infection control or nursing supervisor should call Poison Control Unit 212-764-7667 for intervention.

VI. Discharge of an Infection (sputum smear positive) Tuberculosis patient

A. Health care providers must submit a Hospital Discharge approval Request Form (TB 354) at least 72 hours prior to the anticipated discharge date. The DOHMH will review the form and approve or request additional information before the patient can be discharged from the health care facility.

B. Weekday (non-holiday) discharge: the TB 354 form should be completed and faxed to the Bureau of TB Control between 8am – 5pm at 212-788-4179. The TB staff will review the discharge plan, and within 25 hours, notify the provider prior to discharge. Original faxed form should be placed in the front of the patient's chart; documentation of discharge request as well as Bureau of TB staff's decision including their name should be placed in physicians note.

C. Weekend and Holiday Discharge: all arrangement for discharge should be made in advance.

VII. TST Testing

A. All staff, including Medical, Nursing, and Respiratory staff, must have TB screening exams yearly and at least every six months for employees working in a high risk area.

B. The employee health records should document the date tested, testing materials used, and size of reaction to the test in millimeters and interpretation.

C. A running total of skin test results are maintained to monitor conversions in staff.

D. Staffs that have had Bacillus Calmette-Guerin (BCG) vaccine may be tested with IGRA.

Hospital Reference

Infection Prevention Manual. Reporting of Hospital Acquired outbreaks (5076-024)

Regulatory References

APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

American Thoracic Society, Center for Disease. Diagnostic Standards and Classifications of Tuberculosis. Am. Rev. Respir. Dis 2000: 161:1376-1395

Berg, Rosemary, ed. *The APIC Curriculum for Infection Control Practices*, Volume III; Supplement to Volume I and II, Association for Practitioners in Infection Control, Dubuque, Iowa, Kendel/Hunt Publishing Company, 1988.

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-12. Post-Exposure Prophylaxis to Prevent Transmission of HIV

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jan 2017 SUPERSEDES: Mar 2015
DEPARTMENT: Infection Prevention	POLICY NO: 5076-008
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 1/17

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

Although preventing blood exposures is the primary means of preventing occupationally acquire human immunodeficiency virus (HIV) infection, appropriate post-exposure management is an important is an important element of workplace safety.

Personnel who have had a significant occupational exposure to blood/body fluids as a result of a needle stick injury, laceration, and or mucous membrane exposure will be offered Post Exposure Prophylaxis (PEP) to prevent transmission of the HIV virus.

The purpose of this policy is to provide health care providers with updated information on the management of persons with occupational exposures to HIV and other blood borne pathogens. It has been prompted by new information on HIV post exposure prophylaxis (PEP) and occupational transmission published by the Centers for Disease Control and Prevention (CDC), including new evidence that anti-viral prophylaxis may reduce the risk of transmission, and provisional CDC recommendations for post-exposure prophylaxis. PEP should be offered or recommended for significant exposures to HIV. The clinical management of occupational HIV exposures has become more complex requiring careful evaluation and occasional consultation to determine the most appropriate course of action. In considering when to offer or recommend antiviral agents for prophylaxis, the nature of the exposure and associated risk for transmission must be weighted again the potential side effects and the likelihood that the health care workers will tolerate the treatment and remain compliant for the duration of the prescribed regimen.

Evaluating health care workers following occupational exposure requires an assessment of both the nature of the exposure and the relative likelihood that the source patient is HIV-infected. If PEP is recommended based upon these characteristics, the following steps are encouraged (see Appendix A, PEP Following Occupational Exposure).

The following information will be used to determine the category of exposure:

Category One

The source patient is known or unknown HIV+ with one or more symptoms or diseases associated with active HIV infection and the incident involved the blood, or body fluids contaminated with visible blood, or a laboratory specimen containing HIV (e.g. suspensions of concentrated HIV virus) from the source patient in any of the following circumstances:

- Injection via needle stick or deep laceration (e.g. cut with sharp object or scalpel into the employee)
- Exposure that is prolonged or that which involves an extensive area of skin that is chapped, abraded, or afflicted with dermatitis.
- Contact with mucous membrane (e.g. eye, mouth).

Category Two

The source patient known HIV+, with no symptoms of HIV disease (asymptomatic carrier) or is at high-risk for having positive HIV antibody test and the incident involved blood or body fluids to which universal precautions apply (semen, vaginal secretions, cerebrospinal fluid, or amniotic fluid) from the source patient in any of the following circumstances:

- Superficial abrasion via needle stick, without fluid being injected into the employee.
- Minimal exposure of skin that is chapped, abraded or afflicted with dermatitis.

Category Three

The source patient has no risk factor for HIV, but the incident involved exposure to the blood and body fluids of the patient.

The following recommendations should be implemented after consultation with a physician having expertise in antiretroviral therapy and HIV transmission.

- Chemoprophylaxis should be recommended to exposure workers and occupational exposure associated with the highest risk for HIV transmission category.

  For exposures with a lower, but non-negligible risk, PEP should be offered, balancing the lower risk against the use of drug having uncertain efficacy and toxicity. For exposures with negligible risk, PEP is not justified. If PEP is to be initiated, it should be started with regimen listed in Appendix B.
- For HIV strains suspected to be resistant to both AZT and 4TC or resistant to a protease inhibitor, or if these drugs are contraindicated or poorly tolerated, the optimal PEP regimen is uncertain; expert consultation is advised.
- PEP should be initiated promptly, ideally within one hour and no later than 36 hours post exposure. PEP should be administered for four weeks. See Appendix B – PEP Regimens.
- If the source patient or the patient's HIV status is unknown, initiating PEP should be decided on a case-by-case basis, based on the exposure risk and likelihood of HIV infection is known or possible source patients. If additional information becomes available, decision about PEP can be made.
- Workers with occupational exposures to HIV should receive follow-up counseling and medical evaluation, including HIV antibody test at baseline and periodically for at least 6 months post-exposure (e.g. baseline, 6 weeks, 3 months, and 6 months even if PEP is declined) and should observe precautions to prevent possible secondary transmission. If PEP is used, drug-toxicity monitoring should include a complete blood count with differential and renal and hepatic chemical function tests at baseline and 2 weeks after starting PEP. If subjective or objective toxicity is noted, does reduction or drug substitution should be considered with expert consultation, and further diagnostic studies may be indicated.
- HCW should be monitored weekly while on PEP to assess treatment adherence, adverse effects, complaints, and emotional status.

Recommendations for chemoprophylaxis after occupational exposure to HIV

Type of Exposure	Source Material	Antiretroviral
Percutaneous	Blood	
Category 1	High Risk	Recommended
Category 1	Increased Risk	Recommended
Category 2	No increased risk	Offer
Category 2	Fluid containing visible blood, other potentially infectious fluid, or tissue	Offer
Category 3	Other body fluid (e.g. urine)	Not offer
Mucous Membrane		
Category 2	Blood	Offer
Category 2	Fluid containing visible blood, other potentially infectious fluid, or tissue	Offer
Category 3	Other body fluid (e.g. urine)	
Skin – Increased Risk		
Category 2	Blood	Offer
Category 2	Fluid containing visible blood, other potentially infectious fluid, or tissue	Offer
Category 3	Other body fluids (e.g. urine)	

The employee maintains the right to refuse HIV testing and still receive post exposure prophylaxis. Acceptance or rejection of testing option will also be documented.

If HIV testing is acceptable by the individual, appropriate NY State Department of Health (DOH) regulations are followed. The DOH approved consent form is signed by the individual and the physician or counselor. **SOURCE PATIENTS AND EMPLOYEE HIV TEST RESULTS AND RELATED INFORMATION ARE CONFIDENTIAL.**

If the exposed individual chooses to receive post exposure prophylaxis, information regarding the risks and benefits of such treatment will be given to the employee and the following baseline laboratory studies will be recommended:

- Complete blood count with differential count
- Baseline biochemical testing
- HIV testing (optional) pre-test counseling and separate written informed consent is required.

Exposed persons who are receiving prophylactic therapy should be evaluated by the Health Service physician or their private physician at one week intervals during treatment or more frequently if a possible adverse reaction occurs. A complete blood count with differential and blood chemistry should be obtained as part of these weekly visits.

Adverse effects or laboratory abnormalities occurring during treatment will be evaluated by the Health Service physician who may decide to continue the therapy, change therapy, reduce dosage, or to discontinue prophylactic treatment.

Questions concerning the management of any exposed individual can be directed to the Infectious Disease physician at 718-780-5246.

Source Patient Follow Up

The source patient's physician will be asked for permission to approach the patient for HIV counseling and testing by a Social Worker.

If the attending physician refuses to have the social worker speak with the patient, the social worker

will refer the case to the chair of Infection Control Committee and the department responsible for the care of the patient in question. The chairs will make the final determination to approach or not to approach the patient.

Follow-up of individuals involved in incidents occurring when Health Service is closed:

- All employees' HIV testing counseling including baseline testing will be coordinated through Health Service.
- The individual involved in the incident will contact his/her immediate supervisor. (Page the Associate Director for Nursing/Nursing Supervisor on duty through the page operator).
- The immediate supervisor or designee will initiate an Employee incident report and escort the employee involved to the Emergency Room.
- The Emergency Department physician who examines and treats the employee will determine and document the Category of Exposure in the E.D. chart.
- Based upon the Category of Exposure, the employee will be offered post exposure prophylaxis. A first time dose will be available in the Pharmacy so therapy can be started immediately and the employee will be given a prescription for medication for 7 days with a 1 week prescription. The employee should report to Employee Health Service as soon as it opens.

NOTE: The importance of Health Service follow-up will be stressed – Re: continuation of PEP, HIV testing, and Hepatitis B, Hepatitis C screening, VDRL, and possible need for tetanus immunization.

The Nursing supervisor will ensure that the complete incident form is signed and sent to Health Service. A copy of the incident form is given to the employee.

Employee Follow Up

- The individual is scheduled for a follow-up visit 1 week after initial visit following significant contact.
- Each individual is advised to report to Health Service as scheduled and for evaluation of any acute febrile illness that occurs within 12 weeks after exposure, especially if the illness is accompanied by rash or "swollen glands" (lymphadenopathy).
- If the source is HIV positive or source patient's HIV status is not determined, the individual is scheduled for visits at occurrence, 6 weeks, 3 months and 6 months.
- If the source is HIV negative and not a high risk patient, individual is not scheduled for return after the second (2 weeks post-contact) visit.
- If the individual test positive he/she will be given a list of resources for medical and psychiatric follow-up care.

References

Employee Health Services

Regulatory References

APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

Kudar Dt. et al. Updated US Public Health Service Guidelines for the Management of Occupational Exposures to Human Immunodeficiency Virus and Recommendations for post-exposure prophylaxis. Infection Control Hospital Epidemol 2013; 34:875-892.

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

1-13. Section Resources

Additional resources on this section's topics:

GENERAL RESOURCES

ANA CAUTI Information and Tool
http://www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/Improving-Your-Practice/ANA-CAUTI-Prevention-Tool

APIC Guide to Elimination of Ventilator-Associated Pneumonia
http://www.apic.org/Resource_/EliminationGuideForm/18e326ad-b484-471c-9c35-6822a53ee4a2/File/VAP_09.pdf

Injection Safety Checklist
http://www.oneandonlycampaign.org/sites/default/files/upload/pdf/Injection%20Safety%20Checklist-508.pdf

Surgical Safety Checklist
http://www.who.int/patientsafety/safesurgery/tools_resources/SSSL_Manual_finalJun08.pdf

Facility Guidance for control of CRE Toolkit November 2015 Update
https://www.cdc.gov/hai/pdfs/cre/cre-guidance-508.pdf

Strategies to Prevent Clostridium difficile Infections in Acute Care Hospitals: 2014 Update
https://www.ncbi.nlm.nih.gov/pubmed/24799639

Patient Care Checklist—Swine Flu
http://www.who.int/csr/resources/publications/swineflu/ah1n1_checklist.pdf

CLEANING, DISINFECTION, AND STERILIZATION

General Resources
https://www.cdc.gov/hicpac/pubs.html
https://www.cdc.gov/hicpac/pdf/guidelines/Disinfection_Nov_2008.pdf
https://www.cdc.gov/hicpac/Disinfection_Sterilization/17_00Recommendations.html#a8

OUTBREAK INVESTIGATIONS

Outbreak Investigation Toolkit
https://www.cdc.gov/hai/outbreaks/outbreaktoolkit.html

Outbreak Investigation Form Users Guide
https://www.cdc.gov/hai/pdfs/outbreaks/Response_Toolkit_Users_Guide-508.pdf

ACOEM Checklist – Controlling Infectious Diseases in the Workplace
http://www.acoem.org/uploadedFiles/Career_Development/Tools_for_Occ_Health_Professional/Health_and_Productivity/Infectious%20Diseases%20Checklist.pdf

ZIKA

Key Messages – Zika Virus Disease
https://www.cdc.gov/zika/pdfs/zika-key-messages.pdf

Print Resources on Zika
https://www.cdc.gov/zika/fs-posters/index.html

Zika Grand Rounds Facilitation Guide – Nursing
https://www.cdc.gov/zika/pdfs/grandrounds_nursing_scriptfaq.pdf

Zika Grand Rounds Facilitation Guide – Pregnancy
https://www.cdc.gov/zika/pdfs/facilitationguidefaqs_pregnancy.pdf

EBOLA

Interim Guidance for U.S. Hospital Preparedness for Patients Under Investigation (PUIs) or with Confirmed Ebola Virus Disease (EVD): A Framework for a Tiered Approach
https://www.cdc.gov/vhf/ebola/healthcare-us/preparing/hospitals.html

TUBERCULOSIS

TB Fact Sheet
https://www.cdc.gov/tb/topic/basics/

TB General Fact Sheet
https://www.cdc.gov/tb/publications/factsheets/general/tb.htm

TB Elimination Fact Sheets
https://www.cdc.gov/tb/publications/factsheets/general.htm

Testing for Tuberculosis Infection and Disease
https://www.cdc.gov/tb/education/corecurr/pdf/chapter3.pdf

Evaluation of Persons with Positive TB Test Results
https://www.cdc.gov/tb/publications/ltbiapp/diagnosis01.htm

False Positive and False Negative Reaction to the TST
https://www.cdc.gov/tb/webcourses/Course/chapter3/extras_pdf_false_negative_positive_table.html

Interpreting the TST Reaction
https://www.cdc.gov/tb/webcourses/course/chapter3/3_testing_for_tb_disease_and_ltbi_3_mantoux_tuberculin_skin_test_interpreting_tst_reactions_chart.html

Recommendations for the Use of IGRAs
https://www.cdc.gov/tb/webcourses/course/chapter3/3_testing_for_tb_disease_and_ltbi_3_igra_general_recommendations_for_the_use_of_igras_2_.html

Two-Step TST Testing
https://www.cdc.gov/tb/publications/ltbi/diagnosis.htm

TST vs. IGRA
https://www.cdc.gov/tb/webcourses/Course/chapter4/4_diagnosis_of_tb_disease_4_clinical_practices_3._perform_a_test_for_tb_infection.html

2

Department Policies

SECTION 2

2-1. Pharmacy Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jun 2015 SUPERSEDES: Jul 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-016
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 6/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

The Pharmacy staff must use Standard Precautions and appropriate Infection Control principles in all aspect of preparing, storing and dispensing all therapeutic drugs and materials.

The Pharmacy participates with Infection Control in managing employee exposure to contagious patients and selection of germicides.

Pharmacy is responsible for sterile medication preparation storage and dispensing.

It may be necessary for pharmacy personnel to participate in the identification of patients' route of administration, contraindications, adverse effects, drug interactions, and proper storage.

I. ASEPTIC TECHNIQUES

a. Personnel must clean hands and forearms with an antimicrobial soap before preparing sterile products.

b. Eating, drinking, and smoking are strictly prohibited in the preparation area.

Pharmacy personnel involved in sterile IV preparations shall follow gowning procedures, hand washing guidelines and all quality assurance procedures in place within the Pharmacy Department.

c. The containers of ingredients used for compounding the sterile product should be inspected for defects, expiration date, and product integrity before use. If the product is defective or has expired, it should not be used. Defecting products should be promptly reported to the Food and Drug Administration (FDA).

d. The rubber stopper of containers should be wiped with 70% alcohol before entry.

e. Automated devices used for compounding sterile products which are placed in the laminar flow hood should first be disinfected.

f. Personnel should avoid touch contamination of sterile supplies.

II. HANDLING OF MEDICATIONS

a. All work counters must be wiped with a hospital approved disinfectant at the start and finish of each day.

b. To prevent cross infection, single dose or single containers shall be dispensed whenever possible. The integrity of medication in multi-dose vials is governed by visual observance and the manufacturer's expiration date with exception of insulin vials (per policy) expiration date will be 28 days from opening.

c. Medication must be handled in a sanitary condition, avoiding touching with ungloved hands.

d. Counting equipment must be cleaned daily, or when changing from one medication operation to another.

e. Counting equipment must be utilized to count penicillin or any derivation of penicillin.

f. Pharmaceutical compounding must be done in designated work area of pharmacy.

g. Only seal packages of medication will be accepted for return from patient areas. All opened materials must be discarded.

h. Only sealed packages of medication will be accepted for return from patient areas. All opened materials must be discarded. All returned medication must be wiped down with 70% sterile alcohol.

i. The Pharmacy should monitor for appropriate storage of pharmaceuticals throughout the institution.

- Expired medications should be removed from patient care areas and disposed of properly.
- Temperature of refrigerators and freezers used to store pharmaceuticals should be monitored.

III. LAMINAR FLOW HOOD

a. All sterile products and parenteral nutrition solutions are prepared by a pharmacist utilizing aseptic technique. Including but not limited to the following:

- Laminar airflow hood should be operated continuously. Before processing products in the hood, it should be in operation for a minimum of 30 minutes.
- All work should be done at least 6 inches inside the hood.
- The work surfaces of the hood should be disinfected with an appropriate agent before work begins and periodically thereafter.
- Exterior surfaces of the hood should be cleaned periodically.
- The hoods should be certified for annually.

b. TPN/PPN solutions expire in twenty-four hours. If the TPN/PPN is expired, or the intravenous line is out, the solutions must be returned to the Pharmacy. They are not to be administered.

c. Once the TPN/PPN solutions are prepared and sealed, no other medications or substances are to be added on the unit.

d. All solutions requiring refrigeration must be so labeled and stored.

e. Pre-filters will be inspected by Pharmacy, and manufacturer contacted to change them whenever necessary.

f. All hoods shall follow manufacturer's recommendation for certification.

IV. PREPARATION OF ORAL SOLUTIONS

a. Oral solutions must bear an expiration date of the earliest expiring medications.

V. BACTERIOLOGICAL MONITORING OF LAMINAR FLOW

a. The Pharmacy department performs a generic screen for non-sterile TTP/PPN solution and submits it to the microbiology laboratory each week for culturing.

b. Infection Control is informed when positive results are obtained.

Antibiotic restricted to infectious disease will be released only to the Chief of Infectious Disease or designees. Other prescribing physicians must obtain approval from the Chief of Infectious Disease or designee when required.

Hospital References

Pharmacy Department Policies and Procedures and Formulary.

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 3rd Edition (2009)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-2. Pediatrics and Pediatric Intensive Care Unit (PICU) Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention		DATE ISSUED: Jan 2017 SUPERSEDES: Jun 2015
DEPARTMENT: Infection Prevention	POLICY NO: 5076-027	
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 1/17	

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

- These guidelines will help ensure prevention of nosocomial infection while providing optimal therapeutic care for all.
- Communicable disease affects a higher percentage of pediatric patients.
- Prevention and Control of childhood communicable disease.

1. Chickenpox
   - Use single room with negative-pressure ventilation.
   - Airborne and Contact Precautions until all lesions are crusted.
   - Isolate exposed susceptible individuals from day 8 post-exposure through day 21 post exposure; if varicella-zoster immune globulin (VZIG) given, isolate through day 28 post-exposure.
2. Measles
   - Immunize infants and children according to current recommendation.
   - Airborne precautions from day 5 post-exposure through day 15 post-exposure.
   - Use single room with negative-pressure ventilation.
   - Ensure immunity of health care workers.
3. Mumps – Droplet Precautions
   - Immunize children according to current recommendations.
   - Prompt isolation in single room, droplet precautions, for those in communicable period until 5 days post-exposure.
   - Ensure immunity of health care workers.
4. Rubella – Contact Precautions
   - Immunize children according to current recommendations.
   - Contact precautions during the period of communicability until 7 days after rash.
   - Ensure immunity of health care workers.
5. Pertussis – Droplet Precautions
   - Immunize infants and children according to current recommendations.
   - Droplet precautions for patients until 5 days of erythromycin therapy completed.
   - Isolate for 3 weeks if not treated with antibiotics.
   - Health care workers must wear mask when in close contact with patient.

6. Respiratory Syncytial Virus (RSV) – Contact Isolation
   - Contact precaution; mask and eye protection for the duration of the illness.
   - Rapid respiratory screening and assignments to a cohort may reduce transmission.
   - Monitoring staff for compliance with precautions may results in decreased transmission.
   - Cohorting of patients and staff and screening visitors for evidence of respiratory illness during outbreaks may be necessary.
   - Pay strict attention to disinfection of environmental surfaces, toys, and equipment used with patients.
7. Viral Gastroenteritis – Contact Precautions
   - Eye protection, gowns, and gloves are indicated for duration of the illness
   - Consider continuation of precautions for duration of hospitalization since some agents causing viral gastroenteritis can be shed for long periods.
   - Pay strict attention to disinfection of environmental surfaces and equipment used with patients.
8. Tuberculosis – Airborne Precautions
   - Implement and enforce most current national recommendations for prevention and control.

IX. PATIENTS

a. Shall be screened as thoroughly as possible for symptoms and objective signs such as rash, fever, sore throat, stiffness of neck, and history of communicable disease prior to placement on the unit.

b. Those with possible communicable disease or exposure to them (with symptoms such as rash, fever, sore throat, vomiting, diarrhea, URI, acute febrile illness) shall be placed on appropriate isolation/precautions until diagnosis is ruled out, or the patient is no longer considered contagious.

c. Those with diarrhea shall be placed on contact precautions until a final diagnosis is made.

d. When an isolated patient must be transported to another part of the hospital, proper transportation procedures shall be used and an isolation sticker should be visible on the front of the chart.

e. Prepackaged sterile formulas are routinely used on the unit. Special order formulas are prepared through private formula service which is ordered through the store room.

X. PERSONNEL

a. Shall be free of skin, eye, respiratory, or gastrointestinal tract infections.

b. Hand hygiene should be performed before and after each patient care contact and after removing gloves.

c. All employees shall be given rubella antibody test. For those with negative or inadequate titers, MMR immunization in mandatory, as well as post-immunization titers to assure immunization efficacy. Female employees shall be warned of associated fetal risk and are advised to avoid pregnancy for at least three months after immunization.

XI. VISITORS

a. Shall be kept to minimum consistent with adequate emotional support for the patient.

b. Shall be prohibited if they have signs of skin, eye, respiratory, or gastrointestinal infections.

c. Shall use appropriate PPE for patients in isolation/precautions.

XII. TOYS, GAMES, AND BOOKS

a. Patients in isolation are not given books, games or toys that can be reused. (Magazine and

weekly readers are given by teachers and/or volunteers and then discarded.) Parents should be encouraged to bring child's favorite toys, books or games from home.

b. Avoid having high risks toys (i.e. water retaining toys, stuffed toys, and other that are difficult to clean). There are 2 bins located in the playroom that are labeled "CLEAN" and "USED". After a toy is used, it should be placed in the "USED" bin by the RN or Nursing Assistant. Environmental services will clean the toys in the used bin at the end of each day with hospital approved disinfectant.

EXPECTATIONS—Isolation is set up and explained to patient according to his/her developmental level. Parents or guardians are also provided with information related to isolation procedures.

XIII. SCHOOL ROOMS

a. Patients with temperatures above 101˚F and those suspected of having a communicable disease are not allowed in the school room.

b. Special attention is paid to cleaning all toys in the school room area.

c. Toys that have been contaminated and cannot be cleaned shall be discarded.

XIV. MATERIALS AND EQUIPMENT

a. Hand washing facilities shall be easily accessible and proper equipment available.

b. There shall be "DIRTY" and "CLEAN" utility areas for separation of materials and equipment.

c. Sterile equipment shall be stored in closed cabinet.

d. Parenteral medications shall be prepared by strict aseptic technique in a sterile area.

e. Disposable diapers shall be used.

f. Respiratory therapy equipment shall be maintained following the standards of the Respiratory Therapy Department.

Intravenous Therapy

- Intravascular devices and umbilical catheters may be left in place as long as there are no signs or symptoms of infection. The site must be checked at least once every shift and observations documented.
- Dressings should be changed as soon as they become soiled or dislodged.
- Tubing should be changed every 96 hours.
- Arm boards should be replaced routinely of it they are damp.

Pediatric Intensive Care Unit (PICU)

The Pediatric Intensive Care Unit (PICU) is multi-bed unit and the risk of transmitting infection is thereby increased. Standard precautions are used to reduce this risk.

Procedure:

1. The Pediatric Intensive Care Unit (PICU) shall be located in the same general area as the general pediatric unit but shall be separated with respect to both personnel and facilities.
2. Each incubator, bassinet, crib, or bed within the PICU shall have its own equipment for baths and all necessary daily care.
3. The incubator, bassinet, crib or bed shall be arranged around the sides of the room, with a separate work area for charting.
4. Patient care shall not be done in the center of the room.

5. Hand hygiene musts be performed before and after touch each patient or handling their individual equipment.
6. Patients who may be harboring a potentially infectious agent shall not be admitted to the PICU. These patients shall be placed on isolation in the isolation room connected to the PICU.
7. Environmental services shall be trained in proper sanitizing procedures.
8. All incubators, cribs, bassinets, and beds shall be washed and decontaminated between occupancy with approved hospital disinfectant.
9. All equipment shall be properly cleaned and disinfected. All disposable equipment shall be properly discarded.
10. All infections in the PICU shall be reported to Infection Control personnel.
11. Visitors shall be kept to a minimum. One parent may stay overnight and siblings may visit only when approved by Physicians or Nurse Manager.

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-3. Radiology Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jun 2015 SUPERSEDES: Mar 2010
DEPARTMENT: Infection Prevention	POLICY NO: 5076-038
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 6/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

Imaging services (Radiology) use radioactive substances or high-frequency sound waves to visualize internal body areas for diagnostic and therapeutic purposes.

The Radiology Department use Universal Precautions to protect staff and patients from blood borne pathogens. Universal Precautions include the use of barrier precautions and other personal protective equipment (PPE) to prevent parenteral mucous membrane and non-intact skin exposure to all the blood and bodily fluids.

Procedures Performed

- Computerized tomography (CT)
- Fluoroscopy (e.g., barium enema (BE), cystogram, intravenous pyelogram (IVP).
- Diagnostic radiography (e.g. chest radiography, mammogram)
- Magnetic resonance imaging (MRI)
- Nuclear medicine (e.g., renogram, bone gallium, or white blood count (using indium), scans)
- Ultrasound (e.g., transvaginal, pelvic, rectal)
- Interventional/invasive (e.g., angiography, percutaneous drainage of abscess, gastrostomy tube placement, and needle biopsy)

Procedures and patient-related practices

A. Skin preparation

1. Patient: clean the skin site with an appropriate antiseptic including 71% alcohol and 2% chlorhexidine chloraprep one-step before device insertion.
2. Personnel: wash hands before palpating, inserting, changing, or dressing any intravascular device.
3. Environmental aspect: rooms used for invasive procedures (e.g., angiography) should have relative humidity of 45% to 60%.
4. Technique and attire: use sterile technique during insertion of catheterization for invasive procedures. Personal protective equipment should be used to prevent occupational exposure to blood or other potentially infectious materials.
5. Catheter-site dressing regimens: use sterile gauze dressing to cover the catheter site.

Patients

1. Procedures shall be scheduled so there is minimum patient waiting time in the department. Imaging of isolation patients shall be deferred, if possible until they are out of isolation.
2. If a patient in precaution/isolation must have diagnostic imaging, he shall be scheduled late in the morning or afternoon to minimize contact with others while he is being transported to the unit.
3. The use of portable x-ray equipment for strict isolation patients is not advised because of the great difficulty in equipment decontamination after each use. If the examination must be performed, the technician shall adhere to Infection Control Policies.
4. Personnel from the floor, upon scheduling the procedure, shall also notify the department of the category of isolation involved. Requisitions shall be marked with the type of isolation employed.
5. Any procedure requiring anesthesia shall follow the policies and procedures established for infection control in the anesthesiology department.
6. Any sterile procedures, lumbar punctures, arteriogram, etc. shall be performed using sterile technique and universal precautions.

Equipment and environmental cleaning/disinfection

1. Reusable equipment and surfaces should be cleaned, disinfected when soiled with bloody/ body fluids. Reusable items being prepared for sterilization must be thoroughly cleaned before reprocessing.
2. Check expiration date and any signs of degradation (e.g. cloudiness or particulates) of injectable solutions before use.
3. Radiology Policy for Disinfection of Probes #6220-004
4. All portable radiographs required cassettes to be covered with protective barrier, cassette covers.

Intravenous Guidelines

See intravenous therapy guidelines Infection Control Manual.

Isolation – Radiology Department Policy

All equipment or supplies used by the isolation patient shall be kept from contact with others, and when an isolation patient is brought to the Radiology Department, protection of other patients and of Radiology personnel shall be considered. The technologist should not be reluctant in handling the patient. The patient shall never be sent to Radiology until the technologist is ready. When the patient arrives, his examination shall proceed immediately. If he must wait a few minutes, he shall within an area away from the other patients.

Portable X-ray unit in surgery

1. Bring clean portable x-ray unit to surgery.
2. Wash hands, don mask, gown and disposable boots before entering the surgical area with the machine.
3. Terminal cleaning of portable equipment shall be done before leaving the area.
4. Remove gown, mask and boots.
5. Wash hands.
6. All portable cassettes must be covered with cassette covers.

Barium Enema

1. Disposable enema bags are used.
2. Barium suspension shall be freshly prepared.
3. Personnel shall wear gloves, gowns, masks, and goggles as necessary.
4. Any spills shall be wiped up immediately with a disposable cloth and hospital approved germicide.

Infection Control in special procedure suite

Infection Control practices

1. See operating room guidelines
2. Patients will be afforded the opportunity to change their clothes in a sanitary environment
3. A clean area with lockers for storage will be provided for patients clothing and personal items.
4. All pre-op instructions to the patient will be given during pre-admission procedures, which include pre-op showering.

Hospital References

Intravenous Therapy Infection Control Manual pgs. 77-83

Regulatory Reference

APIC: Infection Control and Applied Epidemiology 3rd Edition 2009.

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-4. Operating Room Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention		DATE ISSUED: Jun 2015 SUPERSEDES: Jul 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-043	
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 6/15	

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

The Operating Room functions to provide a controlled environment for the performance of surgical procedures. Operating Room procedures are designed to provide the maximum reduction of exogenous microorganisms which can contaminate the surgical wound.

1. A conscious effort will be made to keep the doors to the OR closed. Doors are not to be propped open during a procedure or when the OR is occupied.
2. Kick buckets lines with plastic bags will be conveniently positioned for the disposal of bloody sponges and other debris to minimize environmental contamination during a surgical procedure.
3. Disposable gloves must be used to collect soiled sponges and other debris to minimize personnel exposure to contaminated material.
4. Drapes must be carefully removed from the patient by the scrub nurse before removing gown and gloves. Drapes must be removed so that the moist, soiled portions are rolled in the center and deposited in the trash container for disposal.
5. OR personnel must deposit gowns and gloves in their appropriate receptacles prior to leaving the room. Gloves must be cuffed and then removed without contaminating the skin.
6. All personnel will avoid loading laundry bags to the point that they cannot be closed adequately.
7. Plastic waste bags and laundry bags must be closed and secured after each procedure when all appropriate articles are placed in them.
8. Horizontal surfaces and OR lights shall be damp dusted with hospital approved disinfectant prior to each procedure. Wipe the OR beds and mattress with disinfectant before placing sheets on.
9. Floors shall be thoroughly mopped between each procedure using a freshly laundered mop head and a fresh dilution of detergent germicide.
10. Instruments, metal ware and glassware should be wheeled on the covered case cart to the decontaminant area following each procedure where they will be soaked, placed in the washer/sterilizer and returned to the clean area of the Central Processing.
11. At the end of the day, each OR must be terminally cleaned (all walls washed and the floors flooded with a germicide and vacuumed).

Asepsis In The Surgical Environment

1. The basic principles of aseptic technique prevent contamination of the open wound, isolate the operative site from the surrounding unsterile physical environment, and create and maintain sterile field in which surgery can be performed safely.

2. A significant factor in creating and maintaining a sterile field and aseptic environment is the health-care worker's surgical conscience. Surgical conscience is an individual's internal value system that motivates correct performances regardless of whether the person is observed or alone.
3. The concept of sterility in absolute, meaning "complete absence of any microorganisms".
4. Principles and maintenance of aseptic practice are vital in the operating room.
    a. Scrubbed persons must wear sterile gowns and gloves.
    b. Sterile drapes must be used to establish a sterile field.
    c. Items used within a sterile field must be sterile.
    d. All items introduced onto a sterile field must be opened, dispensed, and transferred by methods that maintain sterility and integrity.
    e. A sterile field must be constantly monitored and maintained.
    f. All personnel moving within or around a sterile field must do so in a manner to maintain the integrity of the sterile field.
5. Aseptic technique procedures
    a. Surgical hand scrub must be performed an approved germicide soap.
    b. When gowning, the gown is considered and around the sleeves, and up to 2 inches above the elbows.
    c. Two methods of gloving are used:
        i. Closed gloving is defined as the method of donning sterile gloves whereby the scrubbed hands remain inside the cuffs and sleeves of the gowns until the cuffs of the gloves are secured over the cuffs of the gown. Closed gloving must be used by nursing staff setting up the sterile field.
        ii. Open gloving is defined as the method of donning sterile gloves whereby the scrubbed hands are advanced though the sleeves and cuffs of the gown before placing into the gloves.

To minimize the microbial count on the skin to the lowest possible level, and provide an antimicrobial residue in the event of the glove failure.

Procedure

1. Remove all nail enhancements.
2. Remove all jewelry from arms and hands.
3. Roll up sleeves to three inches above the elbow.
4. Wash hands and arms with antimicrobial soap and rinse thoroughly.
5. Remove brush from dispenser.
6. Clean nails under running water, using the disposable nail stick. Dispose of stick in waste receptacle.
7. Wet and squeeze sponge to release soap. The scrub should be completed within five minutes.
8. Scrub one hand using small circular motions on the palm and short straight strokes across the nails and all four sides of the fingers; continue with circular motions over the back of hand to wrist.
9. Transfer brush to the other hand and repeat step eight, keeping hands higher than elbows at all times.
10. Using circular motions, scrub each arm up to two inches above the elbow. Discard the brush in the waste receptacle.

11. Rinse hands and arms in the direction of fingertips to elbow and let excess water drain before leaving scrub sink.
12. Continue to hold hands higher than elbow and enter the Operating Room by backing through the door.

Attire

- A fresh clean scrub suit must be worn in the OR suite.
- Mask shall be changed whenever they become damp or moist.
- Hair shall be completely covered at all times in the restricted areas.
- Jewelry may be worn in the OR must be limited to a wrist watch.

Guidelines

1. The surgical gowns and drapes should be made of material that establishes a barrier to minimize the passage to microorganisms between sterile and non-sterile areas.
    a. Materials should be resistant to blood and other liquids.
    b. Reusable fabrics should maintain barrier qualities through multiple laundering, (the number of times an item should be laundered should be determined).
    c. Reusable fabrics should withstand multiple sterilizations.
    d. Heat sealed patches should be used for patching reusable fabrics.
    e. Unused disposable gowns and drapes should not be re-sterilized.
    f. Materials should be resistant to tears, puncture, strain and abrasion.
2. Gowns and drapes should be made of materials that are safe for use in the Operating Room environment.
    a. Materials should meet or exceed the requirement of the National Fire Protection Agency regulations.
    b. Materials should be lint free as possible to reduce dissemination of particles into the wound and environment.
    c. Materials should maintain an aseptic barrier when used according to the manufacturer's directions.

Miscellaneous

1. Good flow patterns for traffic and supply contrast must be established. Roller covers must be washed after each use.
2. Stretchers shall be washed after each use and thoroughly cleaned on a weekly basis.
3. All sterile shelf supplies must be rotated on a daily basis both in the rooms and in the supply room.
4. Protective covers must remain on disposable drapes until the operating room is ready to be prepared.

Sterilization And Disinfection

1. Semi-critical items (stylets, tubes, forceps, and laryngoscope blades) are cleaned and dried thoroughly before undergoing high-level disinfection or sterilization.
2. Non-critical items (e.g. anesthesia machines, blood pressure cuffs, arts, monitors) that are in contact with mucous membranes, sterile areas of the body, or non-intact skin are cleaned/ decontaminated when contaminated or at the conclusion of the day.

Immediate Sterilization

1. Flash sterilization is a quick steam sterilization cycle (that does not use the full sterilization cycle of exposure and dry times). Exposure may be abbreviated in gravity steam sterilizers by eliminating wrapping materials or using container systems which ensure that steam has unrestricted access to the instruments.
2. Flash sterilization should only be used when there is an urgent need for the items.
3. When using flash sterilization, proper procedures must be followed before the sterilization process. These procedures include cleaning, decontamination inspection, and proper arrangement of instruments in appropriate containers or trays.
4. The physical layout should ensure direct delivery of sterilized items to the point of use. Sterilization containers which allow direct transfer to point of use are utilized. Help pressure and the integrity of sterilized items.
    a. Implantable must never be flash sterilized.
    b. Flash sterilization is restricted to unplanned or emergency situations.

Operating Room Sanitation is divided into 5 categories: preparatory, operative period, interim cleaning, daily terminal cleaning and cycle cleaning.

In each of these categories, it is specific what cleaning is to be done, when, and by which personnel.

I. PREPARATORY

Before the start of the first cases in each room, all flat surfaces of all equipment in the room must be damped dusted to remove any particles of dust which may have settled in the room during the night. A clean cloth dampened with a hospital approved disinfectant is to be used to dust flat surfaces and must be done at least one hour before scheduled incision time.

II. OPERATIVE PERIOD

- Areas contaminated by organic debris, such as blood and sputum during the operation must receive immediate attention. A dilution of hospital approved disinfectant shall be applied to be the area by nursing personnel assigned to the room.
- All sponges must be discarded in plastic lines receptacles. Personnel must use gloves and/or instruments when counting and/or discarding soiled sponges and laps.
- Once the operation has started, supplies and equipment shall not leave the room.
- Traffic in and out of the room is to be kept at a minimum to control turbulence created by activity.
- The circulating nurse is responsible for traffic, equipment and supply control in the room.

III. INTERIM CLEANING (ROOM TURN AROUND)

After the patient is taken from the room following completion of surgery, clean up activity is initiated.

- Gowns and gloves shall be discarded in appropriate receptacles prior to leaving the room. (All linen in the room soiled or not, shall be discarded in linen bags). Wet linen shall be placed at center of laundry bundle to prevent soaking to the outside of the bag. (Environmental Services).
- Instruments shall be placed in trays they came in. All hinged instruments shall be in the open position, all needles and blades shall be discarded in the proper receptacles. Instruments and tables shall be covered with clean drapes before taken from the room. All soiled instruments shall be taken out of the OR peripheral corridor.

  All disposable suction tubing and canisters are to be secured and discarded in garbage. (Environmental Services).

- Furniture – all horizontal surfaces tables and equipment shall be cleaned with an appropriate detergent germicide. (Environmental Services).
- Floors – all debris shall be discarded be discarded in lined receptacles. Floors shall be wet mopped with hospital approved germicide, using a clean mop head and water for each case. (Environmental Services).
- Linen and garbage – properly wrapped linen and garbage shall be discarded in covered wheeled receptacle outside the room and removed from Operating Room suite (Environmental Services).

IV. DAILY TERMINAL CLEANING

Rooms – at completion of the day's schedule for each room, a more rigorous cleaning shall be done (Environmental Services).

The following furniture and equipment shall be thoroughly cleaned with a hospital approved disinfectant (Environmental Services).

- Mayo stands
- Basin stands
- Roller covers
- Laundry stands
- Arm boards
- Suction stands
- Operating beds and bases
- Sitting stools
- Prep tables
- Anesthesia screens
- I.V. poles
- Overhead lights
- Foot stools

Walls shall be spot cleaned and floor should have a thorough wet mopping.

V. SUPPORT SERVICES

- Scrub area – all sinks and surrounding walls must be thoroughly cleaned with hospital approved germicide.
- Clean core – all furniture and floors must be cleaned with a hospital approved germicide.
- All the following areas must be cleaned daily:
    i. Peripheral corridor
    ii. Ambulatory waiting rooms and bathrooms
    iii. Holding area
    iv. OR reception area
    v. Male and female dressing rooms and lounges (Environmental Services)

VI. CYCLE CLEANING (WEEKLY AND BI-WEEKLY)

- Air conditioning grills – must be vacuumed weekly. (Environmental Services)
- Overhead light tracks – vacuum weekly. (Environmental Services)
- All instrument cabinets in the clean core must be cleaned weekly. Interior by OR personnel, exterior by Environmental Services.
- Supply closet – floor must be thoroughly washed weekly. (Environmental Services)

The following portable equipment must be cleaned on a weekly basis by Environmental Services.

- Stretchers
- ESU
- Floor microscope
- Code Carts
- Crash Carts
- Refrigerators
- IV Poles
- Barr Huggers

Hospital Reference

Environmental Services/Infection Control

Regulatory References

APIC Text of Infection Control and Epidemiology, 3rd Edition (2009)

AVRN Standards and Recommended Practices Standards, Recommended Practices and Guidelines and official AORN Statement 2012

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-5. Classification of Surgical Site Infections

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jan 2017 SUPERSEDES: Mar 2015
DEPARTMENT: Infection Prevention	POLICY NO: 5076-017
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 1/17

NewYork-Presbyterian
Brooklyn Methodist Hospital

Purpose

Clearly, purulent drainage from a wound associated with systemic signs of infection such as fever or chills signifies infection. However, in some instances infections are not quite so obvious. Also, there can be significant difference in morbidity and mortality associated with SSIs depending on the depth of infection. In an attempt to help those performing SSI surveillance deal with these issues, the CDC has published guidelines to aid in the determination of whether an infection exists and the severity/depth of infection.

Surgical site infections are generally divided into two categories, depending on the depth of the wound involvement: incisional and organ/space. Incisional SSIs are further divided into superficial incisional SSIs, which involve only the skin for subcutaneous tissue of the incision and at least one marker of infection, and deep incisional SSIs in which infection involves the deep soft tissues of the incision. Organ/space SSIs involve any part of the anatomy other than the incision that was opened or manipulated during an operation.

While many SSIs are clear, such as when there is purulent drainage and fever or other sign of infection, occasionally there may be only subtle indication of infection. The CDC criteria for defining a SSI taken this into consideration by accepting a diagnosis of infection as determined by the Attending Physician or Surgeon as definitive for SSI.

Class I

or clean wounds are those in which no inflammation was encountered. No contamination spaces (gastrointestinal, respiratory, genitourinary, and genital) were encountered, and the wound was primarily closed and drained if necessary with closed drains.

Examples:

- Abdominal Aortic
- Aneurysmectomy
- Adrenalectomy
- Aorto-Bifemoral Bypass
- Amputations (unless infected)
- AV Fistula
- Arthroplasty
- Cataract Surgery
- Carotid Endarterectomy
- Embolectomy
- Thyroidectomy, Parathyrodiectomy
- Exploratory Laparaotomy
- Eye Surgery (elective)
- Femoral-Popliteal Bypass
- Heart Valve Repair/Replacement
- Hip Nailing (plus other reconstructive surgeries/ Joint Prosthesis)
- Hydrocelectomy
- Mastectomy (including radical Neurosurgery – Craniotomy, spinal fusion, laminectomy, ventricular shunts)
- Orchiectomy
- Orchiopexy
- Ovarian Cystectomy
- Pacemaker Placement
- Portacaval Shunt
- Radical neck (outside incision)
- Salpingo-Oophorectomy
- Skin graft
- Splenectomy
- Sympathectomy
- Total Joint Replacement
- Tubal Ligation
- Vein Stripping

Class II

or clean-contaminated wounds are those in which the respiratory, urinary, gastrointestinal, or genital tracts were involved under controlled conditions and without unusual contamination.

Examples:

- Abdominal Perineal Resection (prepped)
- Appendectomy
- Bowel resection (prepped)
- Cesarean Section
- Cholecystectomy (negative cultures)
- Bilary Tree Procedures
- Colostomy Closure
- Cytoscopy (negative culture)
- Esophagectomy
- Gastrectomy (Vagotomy; Antrectomy)
- Intranasal Surgery (no inflammation)
- Laceration <8 hours old
- Oscopies – Cysto, Sigmoid, Procto, Broncho, Laryngo, Esophago, etc.
- Oral/Dental Surgery
  - Open Fractures <10 hours old
- Paranasal Sinus Surgery
- Pilonidal Cyst/Sinus Surgery
- Pneumonectomy/ Lobectomy
- Polypectomy
- Radical Neck (if mouth/ trachea involved)
- Rectal/Vaginal Surgery (Cone biopsy uterine Cervix, D&C, Vaginal Hysterectomy, Hemorrhoidectomy)
- Small Bowel Surgery

Class III

or contaminated wounds are open, fresh wounds. There may be gross spillage from the gastrointestinal tract. Entry into the genitourinary or biliary tracts in the presence of infected urine or bile or a major break in surgical technique may have occurred. Incisions in which acute, nonpurulent inflammation is present are also included in this class.

Examples:

- Appendectomy (with perforation/peritonitis)
- Bowel Resection (with peritonitis/perforation)
- Burns (debridement)
- Cholecystectomy (positive culture)
- Diverticulectomy
- Fistulectomy
- Intranasal Surgery
- Lacerations >8 hours
- Myringotomy
- Nephrectomy (bacteriuria)
- Open fractures >10 hours
- Tonsillectomy & Adenoidectomy
- Traumatic wounds >1
- TURP

The Centers for Disease Control and Prevention (CDC) – sponsored National Nosocomial Infection Surveillance (NNIS) System index was developed. The methodology used in this NNIS index includes the traditional classification system described above, along with several important additional variables. This simplified risk index has a range from 0 to 3 points. A point is added to the patient's risk index for each of the following variables:

1. Surgical site wound classification of contaminated or dirty (class III or IV)
2. American Society of Anesthesiology (ASA) score as rated by an Anesthesiology prior to operation of <3.
3. Procedure time.

It is recently been suggested that laparoscopic surgery may change the risk of SSI so significantly in certain cases (such as cholecystectomy and colon surgery) that this may need to be considered as another variable in the calculation of SSI risks.

The genitourinary and biliary tracts may be entered in the absence of infection. A minor break in surgical sterile technique in an otherwise Class I procedure would also fit into this class.

Class IV

or dirty and infected wounds are those with retained devitalized tissue, foreign bodies, fecal contamination, or delayed treatment, or from a dirty source. A perforated viscous may be encountered. A wound with acute bacterial inflammation with pus is encountered during the operation is also included in this class.

Hospital References

Guidelines for Prevention of Surgical Site Infection: 1999; see also CDC National Healthcare Safety Network (NHSN)

CDC Guidelines for Surveillance and Prevention and Control Nosocomial Infections. SHEA

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-6. Food and Nutrition Services Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Sep 2016 SUPERSEDES: Jun 2015
DEPARTMENT: Infection Prevention	POLICY NO: 5076-056
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 9/16

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

Food and Nutrition Services is responsible for:

- The distribution of nutrition meals which have been purchased, stored, prepared and served in a safe, sanitary manner.
- For developing purchasing specifications that meet accepted standards of safety and sanitation for food, equipment, and cleaning supplies.
- Maintaining and cleaning work areas, storage areas, and equipment for the handling of supplies in accordance with state and local health department standards.

Procedure

Purchasing and receiving food

- Purchase food that has been inspected and approved
- Select product in commercially filled, unopened packages when possible.
- Inspect food on delivery and reject containers that may have allowed contamination to occur. Check and record the food temperature upon delivery to ensure it is within the acceptable range.
- Schedule shipments to facilitate availability of freezer/refrigerator space for immediate cold storage.
- Thaw meat products at refrigerator temperature to reduce microbial growth.
- Avoid thawing and refreezing meat products.

Storage Of Food

- Store food only in designated areas.
- All goods should be stored in clean wrappers or containers with covers and properly marked (e.g. date item received and contents).
- Keep storage areas (and vehicles used to transport food) clean.
- Store food at least 6 inches above floor level and away from walls to facilitate cleaning and reduce places for pests to find refuge.
- Rotate stock. Use goods in the order in which they are received (FIFO).
- Check all goods on a periodic basis for expiration dates.
- Foods should be stored at appropriate temperatures, utilizing thermometers and maintaining temperature records.

Food Preparation

Personnel shall adhere to Employee Health guidelines for annual assessments, illnesses and communicable disease. Routine culturing of food service personnel for enteric pathogens has not shown to be cost effective.

A. Wash hands and clean nails after:

a. Using the toilet. Adequate hand washing and hand drying facilities should be conveniently located throughout the department.

b. Contact with unclean equipment and work surfaces, soiled clothing, etc.

B. Handling raw food:

- Wear hairnet or cap.
- Avoid touching food directly. Use appropriate utensils or gloves to minimize touch contamination.
- Meet state and local regulations for food handlers (e.g. appropriate personnel having food handlers permit.)
  - o Use commercially filled unopened packages (e.g. pasteurized milk and milk products, powdered pasteurized milk, or homogenized powdered eggs) whenever possible. Pasteurized eggs are to be used for all patients' meals (i.e. scrambled eggs, mixed in chop meat, etc.). Raw eggs for cooking may be used in the cafeteria.
  - o All pre-cooked processed meats will be restricted from patients unless reheated to 165˚F to reduce the risk of listeriosis.
  - o Select appropriate equipment
    - » Equipment should be easy to disassemble and to clean, eliminating cracks or crevices for microbial growth.
    - » All surfaces should be smooth and free of pits and crevices.
    - » Coating materials, especially those on food-contact surfaces, should resist cracking and chipping.
    - » Preferred materials for cutting boards include:
      - Plastic blocks
      - Hard rubber
      - Nonabsorbent wood
- Separate cutting boards are used for meat, poultry, fish, raw fruits and vegetables, and cooked foods.
- All working surfaces, utensils, and equipment should be cleansed thoroughly and sanitized after each period of use.
- Train workers to operate and maintain equipment properly.
- Ensure that water temperature in dishwasher is sufficient to clean and sanitize.
  - o Dishwasher: 180˚F
  - o Manual load: 120˚F first wash
    140˚F first rinse
    170˚F for 30 seconds for second and final rinse.
- Cook food thoroughly and handle with care at every stage of preparation. Cooking may not destroy all microorganisms or denature all toxins.

- Use correct cooking temperature for meat and poultry products to kill or reduce the number of microorganisms. Poultry, poultry stuffing, stuffed meats, and stuffing containing meats should be cooked to heat all parts of the food to at least 165˚F without interruption of the cooking process.
- Traffic of unauthorized individuals through food preparation and service areas should be controlled.
- Reheating hazardous foods that are cooked and refrigerated should be reheated rapidly to 165˚F or higher before being served.

Holding And Serving Prepared Foods

1. Reduce opportunity for microorganism's replication.
   a. Avoid thawing and refreezing food products.
   b. Avoid precooking and holding meats for final cooking.
   c. Chill cooked perished leftover to an internal temperature of 40˚F or below within 2 hours of preparation.
   d. Hold "hot" foods for serving at 140˚F (or higher).

   Note: Temperature danger zone is (40˚F to 140˚F), which is the temperature range for rapid multiplication of virtually all bacteria associated with food borne disease.
   e. Transport food to patient units in temperature-controlled carts to keep hot or cold.
2. Reduce opportunity for introduction of microorganisms:
   a. Protect food from airborne contamination (e.g. use "sneeze guard" at salad bars and serving lines).
   b. Distribute food to patients with a minimum of handling by personnel. Nurse techs distribute trays to patients on the unit.
3. Establish safe times for food to be stored in patient care areas.

Correct temperature for refrigerated or heated food:

- 40˚F (or below) for "cold" food
- 140˚F (or above) for "hot" food
  - o Exceptions: maximum 30 minutes recovery period after loading or servicing.
  - o 120 minutes to heat foods through the (40˚F) temperature zone
- Once food is heated, appropriate temperatures must be maintained until food is served or discarded.
- Thermometers shall be accurate to within +3˚F.

Management Of Waste

1. Use leak-proof, easily cleaned, pest-proof garbage containers with tight-fitting lids.
2. Place all garbage into containers promptly.
3. Store containers (cans, compactors, dumpsters) either outdoors or on or above a smooth surface of nonabsorbent material (e.g. concrete, asphalt).
4. Wash containers in an area provided with a floor drain connected to a sanitary sewer system.
5. Use appropriate control measures to prevent access and to exterminate pests.

Food cited frequently as vehicles in foodborne illness

- Meat products
  - Beef
  - Pork
  - Poultry, including eggs
  - Seafood
- Dairy products
- Vegetables, canned or raw
- Chopped, minced, or mixed food items that are served raw (e.g. salad, marinated meats).

Agents that produce foodborne infection after ingestion of contaminated food product and replication in susceptible host

- Bacteria will replicate in food or host
  - Salmonella SPP
  - Clostridium botulinum (infant botulism)
  - Escherichia coli
  - Shigella SPP
  - Vibro parahaemolyticus
  - Streptococcus group A
  - Campylobactor SPP
- Viruses do not replicate in food
  - Hepatitis A
  - Norwalk agent
  - Hepatitis E
- Helminths do not replicate in food
  - Tapeworms
  - Trichinella spiralis
- Protozoa do not replicate in food
  - Toxoplaxma Gandhi
  - Entamoeba histolytica
  - Giardia lamblia

Agents that replicate in food products and produce food borne intoxication when ingested by host

- Staphylococcus aureus
- Bacillus cereus
- Clostridium botulinum
- Clostridium perfringens
- Vibrio choleae
- Shigella SPP
- Escherichia coli

Investigation Of A Food Borne Disease Outbreak

1. Establish that an outbreak exists as opposed to pseudoepidemic or endemic cases.
2. Develop case definition.
3. Verify the diagnosis by appropriate clinical and laboratory tests.
4. Notify appropriate public health authorities.
5. Search for new or additional cases.
6. Characterize the cases in terms of time and place.
    a. Interview cases
        i. Date of onset
        ii. Meals/food eaten (minimally 3 days before onset)
        iii. Other activities related to onset
    b. Calculate food-specific attach rates.
7. Culture implicated food if available (usually not applicable to a standard health-care facility laboratory).
8. Formulate hypothesis.
9. Initiate control measures.
10. Prepare and distribute final report to appropriate personnel, documenting the epidemiologic features of the outbreak, mode of transmission of the infectious agent, and control measures implemented.
11. Establish follow-up studies and a permanent control program.

Occurrence Monitoring

1. Provide prompt diagnosis of illness in dietary personnel.
2. Maintain a high suspicion of foodborne illness if clusters of illness are reported in patients or visitors.
3. Use appropriate microbiologic monitoring:
    a. Routine microbiological sampling of food is not recommended, with the exception of hospital-prepared infant formulas.
    b. Microbiologic sampling procedures may be carried out when food is implicated as a possible source in the investigation of a specific epidemiologic problem (e.g. foodborne outbreaks)
        i. Culture food items if available. Comparison samples are not desirable; it should be the actual food, same batch, and same lot.
    c. Patient specimens may be the only source of data available.
4. Routine culturing of dietary personnel is not recommended but may be required by some local guidelines.

Responsibilities of the dietary department during a foodborne outbreak

1. Save suspected foods for culturing by an appropriate laboratory.
2. Document departmental conditions at the time of preparation of suspect food, if possible.
3. Notify infection control/employee health of any reports of gastrointestinal complaints.
4. Provide a list of foods served during the suspected interval.
5. Implement and supervise control measures to prevent further occurrence of the illness.

Environmental concerns for Infection Control in the dietary department

1. Plumbing
    a. Discourage floor drains that permit contamination by sewage backflow.
    b. Avoid placement of pipes above areas used for storage, preparation, or serving of food.
    c. Protect the water supply from concentration.
        i. Avoid cross-contamination; any physical link through which contaminants from drains, sewers, or waste pipes can enter a potable water supply.
        ii. Avoid backflow: the flow of contaminants from unapproved sources into potable water distributing systems.
        iii. Provide an air gap, an unobstructed vertical distance through the air that separates an outlet of the portable water supply from any potentially contaminated source, or a backflow prevention device.
2. Poisonous and toxic materials (e.g. insecticides, detergents, disinfectants, polishes) should be properly labeled and stored separately from food storage or preparation areas.
3. Control lighting, ventilation, and humidity to prevent the condensation of moisture and growth of molds.

Insect and Rodent Control

1. Routine exterminating program is in effect.
2. All windows are to have fly screens.
3. Space under all equipment is to be maintained free of organic residue.
4. All openings are to be sealed to prevent access of rodents.
5. All kitchen waste is contained in disposable plastic bags. When filled, these bags are sealed and removed to the compact.

Vending Machines

1. Machines should be located in an area that provides space around and under equipment to facilitate cleaning and maintenance.
2. Food in the machines should be:
    a. Stored and packaged in clean, protective containers.
    b. Handled, transported, and vended in a sanitary manner.
    c. Packaged in single-service containers with expiration dates.

Hospital Reference

Food and Nutrition Services Manual

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-7. Environmental Services Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jun 2015 SUPERSEDES: Jul 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-069
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 6/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

Accumulation of dust, soil, and microbial contaminants on environmental surfaces is both aesthetically displeasing and a potential source of nosocomial infections. Effective and efficient cleaning methods and schedules are, therefore, necessary to maintain a clean and healthy environment in healthcare settings.

Procedure

1. Cleaning schedules and procedures shall progress from the least soiled areas to the most soiled ones and from high surfaces to low ones. Routine cleaning is necessary to maintain a standard of cleanliness. Procedures must be effective and consistent.
2. The key to cleaning and disinfection of environmental surfaces is the use of friction (elbow grease) to remove microorganisms and debris.
3. Cleaning products shall be selected on the basis of their use, efficacy, acceptability, safety and cost.
4. Cleaning activities shall minimize turbulence to prevent the dispersion of dust that may contain microorganisms. Airborne fungal spores, such as Aspergillums are especially important because they can cause fatal infections on immunosuppressed patients.

Cleaning Products

1. Any disinfectant or disinfectant-detergent registered by the Environmental Protection Agency (EPA) may be used for routine decontamination of the environment.
    a. Disinfectants shall be used in the dilution and manner recommended by the manufacturer.
    b. Organic material (e.g. blood and protein) must be removed from surfaces before using a disinfectant. The organic material may inactive disinfectant.
2. Special considerations must be taken when selecting a disinfectant for use in the following situations or areas:
    a. The Centers for Disease Control and Prevention (CDC) recommends that household bleach be used at a 1:100 dilution.
    b. There is an association between the excessive use of phenolic disinfectant and hyperbiliru-binemia in newborns. A phenolic must not be used in the nursery on surfaces (e.g. bassinets, scales) that may come in contact with infants.
    c. When selecting disinfectant or other cleaning products, factors to consider include its use, efficacy, acceptability, safety, and cost.

Personal Protective Equipment (PPE)

1. Gloves shall be worn when performing any cleaning activities. Heavy-duty work gloves are recommended and when the gloves are removed the employee must wash their hands.
2. When there is a potential for splashing or splattering, a fluid-resistant gown or apron, protective eyewear, and a mask shall also be worn.
3. Disposable apparel shall be discarded into the appropriate waste containers after use.
4. When cleaning a patient's room that has suspected or confirmed tuberculosis, the appropriate respirator shall be worn.

Cleaning Methods

1. Cleaning should begin with the least soiled area and move to the most soiled are. Cleaning should also progress from high to low surfaces.
    a. High dusting
        i. All surfaces and fixtures above shoulder height shall be dusted with a specially designed and chemically treated mop. The treated mop will prevent dust from dispersed. Mops must never be shaken.
        ii. To prevent missing spots, work should proceed either clockwise or counterclockwise from the starting point.
    b. Walls, windows, and doors, including door handles, shall be spot-cleaned as needed and cleaned completely on regular schedules.
    c. Horizontal surfaces including tables, beds, chairs, ledges, lights, and wall fixtures shall be wiped with a clean cloth dampened with an EPA-registered disinfectant-detergent.
    d. Curtains shall be changed and cleaned on a routine schedule and whenever soilage is apparent.
    e. Bathrooms shall be cleaned daily. Special attention must be given to the toilet and fixtures. Ceramic tile grout around the commode and tub or shower and cracks in hard surfaces should be free of mold.
    f. Environmental Services is responsible for supplying the appropriate hand washing agents at sinks.
        i. Disposable containers should be discarded when empty.
        ii. An antimicrobial antiseptic hand washing agent must be available for hand washing in nurseries, high-risk units such as intensive care units and isolation rooms.
    g. Waste shall be collected from all areas at least daily. In many areas, it may be necessary to schedule more frequent collections.
        i. If waste containers have lids, the covers should be cleaned daily.
    h. Floors shall be cleaned with an EPA-registered disinfectant-detergent solution. The solution should be changed after every room and whenever used to clean gross spills of blood and other potentially infectious materials. If used, mops should be changed with the same frequency as the disinfectant solution and laundered.
    i. Cleaning equipment shall be clean, well-maintained, and in good repair or to be replaced. The cleaning items, such as disinfectant, water, bucket, cleaning cloths, and mop heads, should be changed routinely (e.g. after cleaning three rooms) and after they are used to clean blood spills or contaminated areas such as isolation room or the operating room.

Cleaning Schedule

1. INPATIENT ROOMS
    a. High dusting; spot-cleaning of walls, windows, and doors; cleaning of light fixtures, ledges, tables, chairs, beds and floors; and/or vacuuming of carpets shall be performed daily and when the patient is discharged.
    b. The same daily cleaning procedures should be used for rooms of patients. Cleaning equipment (water and bucket, cleaning cloths, mop heads) used on rooms of patients whose infection requires a private room should be disinfected before being used in other patient rooms. When the infected patient is taken of isolation precaution or discharged, clean equipment should be used to provide a thorough terminal cleaning. Close attention should also be paid to cleaning of equipment used in isolation rooms.
2. PROCEDURE ROOMS AND OPERATING ROOM
    a. Cleaning of horizontal surfaces, equipment, and furniture used for the procedure is necessary after each patient.
    b. Procedure room floors should be cleaned with a disinfectant-detergent solution as needed after each patient and at least daily.
    c. The floors in the operating rooms must be cleaned with disinfectant-detergent solution after each use. A clean mop head and disinfectant-detergent solution should be used for each case. For end-of-case cleaning, it is only necessary to clean a 3 to 4 feet perimeter around the operative site; the cleaning area should be extended if greater contamination has occurred. For terminal daily cleaning, all of the equipment of the floor should be moved to allow cleaning of the entire floor should be moved to allow cleaning of the entire area. At the conclusion of the of the operating schedule, the operating rooms, scrub and utility areas, corridors, furnishings, and equipment should be terminally cleaned.
3. EXAMINATION ROOMS
    a. After each patient, all horizontal surfaces such as bed, tables, and chairs should be cleaned with disinfectant, and wall and floors should be spot-cleaned as needed.
    b. At least on a daily basis: floor should be mopped with a disinfect-detergent (or carpet vacuumed); suction containers, if present, should be changed; and waste containers should be emptied.

Other Areas

1. In entrances, lobbies, waiting areas and halls, clean floors and upward facing surfaces with a hospital-approved germicidal solution daily. Spot clean soiled walls as needed.
2. Elevators shall be mopped daily with a hospital-approved germicidal solution. Wet clean all walls and the doors daily. Spot clean if necessary.
3. Stairwells are cleaned weekly or more frequently as required. Start at the top and work down. Sweep all steps to pick up sand and dust. Damp dust ledges and railings.

Trash Pick-Up And Disposal

1. All infections waste will be red bagged with the biohazard label in impervious containers. They shall be autoclaved or packaged in accordance with applicable regulation for off-site shipment and disposal.
2. Other waste will be promptly delivered to an approved trash disposal compactor.
3. Trash will be collected at least daily and as needed.

Controls On The System

There must be a formula for every mixture prepared in the department for use in the cleaning procedures and each solution must have proven effective spectrum of germicidal action. The effectiveness of the solution depends on the proper mixtures.

See OSHA Data Sheet (M.S.D.S.) Environmental Services are located in the Department and online.

Environmental Service Procedure For Isolation Rooms (Airborne, Droplet & Contact)

General Procedures

1. Keep complete cleaning set, except mop for duration of isolation.
2. Before entering room, put on appropriate PPE.
3. All horizontal surfaces of furnishings, mattress and bed frame should be damp wiped using a hospital-approved germicidal solution.
4. The lavatory and/or bedside commode should be thoroughly cleaned using a hospital-approved germicidal solution. Discard cleaning cloth and disposable materials in the patient's waste basket. Place used trash liner by the door.
5. Using a hospital-approved germicidal solution, the floor of the patient's room is damp mopped, and then the lavatory floor is damp mopped.
6. Remove gloves and discard. Wash hands and use paper towel to turn off water.
7. Remove mask, discard in trash can liner, remove gown and place in linen hamper.
8. With paper towel, open door. Leave room taking with you the trash can liner. Place the trash can liner in to a waste container for infectious waste.
9. Take used mop to the janitor's closet, remove handle, rinse mop and bucket and refill with fresh cleaning solution. Place clean mop on handle. Place soiled mop in a plastic for soiled mops.
10. Wash hands thoroughly.

Terminal Cleaning

1. Use same procedure with gown, mask and gloves as in general cleaning.
2. Discard all remaining toilet tissue, soap and other waste items in trash can liner. Place liner by the door.
3. Wash furniture and all horizontal surfaces in the room including the door handles and telephone.
4. Thoroughly wash spotting on walls. Clean lavatory and wipe down walls in lavatory.
5. Remove gloves, gown and mask in same way as when doing general cleaning; clean and change mop.
6. Bag all materials.
7. Wet mop floor.
8. Wash hands.

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 3rd Edition (2009)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-8. Emergency Department Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jun 2015 SUPERSEDES: Jul 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-074
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 6/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

It is the practice of EMTs and Paramedics to assess their patients in the pre-hospital settings. It is imperative that all healthcare workers (HCWs) observe Standard Precautions for all patient care activities. Implicit in these precautions is that all patients' blood and other body fluids should be considered to be harboring potentially infectious agents.

A. Pre-Hospital Care

1. Communication should be promoted among Infection Control, Emergency, and pre-hospital care personnel to facilitate the exchange of information (e.g., procedure development, information about exposures, update on regulatory requirements, and patient care information that promotes Infection Control and Prevention) and most importantly, to help protect patients and personnel from infection. Pre-hospital care personnel should communicate findings of unsafe or unsanitary environments to receiving personnel, so interventions to reduce infectious complications are included in the treatment plan.
2. Pre-hospital care personnel should be educated on what observations should be reported to the receiving ED. Ed personnel should be directed to report:
    i. Pre-hospital care providers should wash their hands as soon as possible after arriving at the ED.
    ii. Any type of contamination of a traumatic wound. The type of contamination involved may affect the physician's decisions about wound care, closure, and antimicrobial therapy.
    iii. Containers of prescription drugs, such as antimicrobial or antitubercular drugs. An infectious process may be present in the patient.
    iv. Any exposure to blood, body fluids, secretions, excretions, or other potentially infectious materials (OPIMs): to the patient from another; or from the patient to others.
    v. Any known allergies the patient may have, (i.e., food, medication, etc.).
3. Protection of patient confidentiality must be considered, but not to the exclusion of information necessary to provide adequate care and protect the health of the pre-hospital care provider.

B. Triage

1. Emphasis should be placed on methods for the early identification of patients with possible tuberculosis and other airborne (e.g., measles and varicella) or droplet (e.g., influenza, meningococcal meningitis, pertussis) transmitted infectious diseases.
2. Careful screening criteria for triage of patients with tuberculosis and other infectious airborne or droplet-transmitted diseases should be established. Examples of clinical presentations that may involve some of the diseases that required airborne or droplet isolation precautions listed include:
    i. Any patient with an active cough (possible droplet-airborne-transmitted disease). Such patients should be questioned for history or exposure to TB, hemoptysis, night sweats, weight loss, HIV risk behavior, or homelessness and placed in isolation room with HEPA filter.
    ii. Patient with elevated temperature, stiff neck, altered sensorum, petechial and/or ecchymotic rash, or other signs and symptoms of meningitis (considered *Neisseria meningitidis*).
    iii. Cough/fever in a patient with known or suspected HIV infection (consider *Mycobacterium tuberculosis*).
    iv. Coughing patient with history or recent unexplained weight loss, loss of appetite, night sweats, hemoptysis (consider M. Tuberculosis).
    v. Patient taking two or more anti-TB medications plus evident active cough.
    vi. Vesicular rash (consider varicella-zoster virus).
    vii. Masculopapular rash with coryza and fever (consider measles).
    viii. Any person with fever or Rash illness.

C. Emergency Department Interventions

1. PPE should be included in all portable emergency supplies and equipment containers.
2. In adults remove peripheral venous catheters inserted under emergency conditions as soon as possible. Insert a new catheter at a different site within 24 hours.
3. Dressings applied in the field should be removed and involved wounds irrigated, cleaned, and redressed using sterile technique after stabilization of patient's condition.
4. Emergency department personnel should be notified of environmental contamination of wounds in patients they receive.

D. Any patient area of ED that does not have hand washing facilities (sink, running water, soap) should have available waterless "hand washing" antiseptic products.

E. Equipment cleaning and disinfectant

1. Routine for physical cleaning:
    i. Regular cleaning schedules are essential. Cleaning, disinfection, handling, and disposing of equipment and supplies should be included.
    ii. Written cleaning and disinfection guidelines should include or address the following:
        1. Change all stretchers linen between patients.
        2. Clean and disinfectant reusable equipment.
        3. When performing cleaning products wear gloves and other PPE appropriate to prevent accidental contamination of clothing skin, or mucous membranes of eyes, nose, and mouth.

4. Contain and discard contaminated disposable items in accordance with written procedure.
5. Contaminated non-disposable, noninvasive items (e.g. anti-shock trousers, blood pressures cuffs) should be thoroughly cleaned and disinfected. Proper attire (gloves, goggles, aprons) must be worn during cleaning procedures.
6. All reusable equipment should be cleaned immediately after patient use.

F. Stock

1. After thoroughly cleaning, the unit should be restocked. Supplies, including medication vials, should be stored to maintain the integrity of the items and to reduce the risk of contamination.
2. Sterile supplies are considered sterile as long as the integrity of the package remains intact.

G. Sharps

1. All sharps (any item capable of producing a puncture wound) should be disposed of in a rigid, puncture-resistant, leak proof container. The container should be available for sharps disposal at point of use.
2. All items should be placed in the sharps container by the person performing the procedure.

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 3rd Edition (2009)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-9. Central Sterile Processing Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Mar 2015 SUPERSEDES: Jan 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-071
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 3/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

Central Sterile Processing was established to centralize the preparation, distribution, and control of sterile items, some non-sterile items and equipment used in the areas of the hospital. By centralizing these activities, it is possible to provide faster and more efficient service.

Procedure

See below

Infection Control Practices

Personnel – See Employee Health Service

Dress Code

Gloves, jumpsuits, shoe covers, masks, caps, goggles, and aprons should be worn to the decontamination area.

Scrubs will be supplied by the hospital.

Traffic And Supply Control

A flow pattern will be drawn for the Central Sterile Processing and will be observed.

Visitors will be controlled and/or prohibited. Those on official business will be permitted in office area. In the Central Sterile Processing core area visitors or other employees must don protective clothing.

Central Sterile Processing will maintain a system of clean and dirty trucks.

Equipment And Packaging

The specific method of sterilization shall be used for the type of materials used (see sterilization Gas, Steam, H_2O_2).

Wrapping shall be appropriate to the sterilant used.

Receipt Of New Stock

There shall be a flow pattern observed for the above.

Reusable Equipment And Material

Will be processed according to work flow pattern, into physically separated areas with staff assigned accordingly. If staff must interchange duties careful and strict hand washing techniques will be performed in addition to a removal of protective clothing before proceeding from Adirty to clean@ area.

Written procedures are established and carried out for washing and wrapping of equipment.

Consideration will be given to the purchase of equipment and supplies with respect to methods of sterilization required for example whether item is to be gas or steam sterilized.

Central Sterile Processing is separated into clean and dirty areas. A strict dress code must be observed in each of these areas in order to avoid cross-contamination.

All items must be cleaned before they are disinfected and sterilized. Instruments should be cleaned as soon as possible and not be held overnight. Equipment used in a procedure area in a patient unit or an offsite that needs to be reprocessed, should be rinsed, placed in a rigid container, pre-soaked in an enzymatic cleaner, covered and brought to Central Services.

The clean areas are:

- Assembly/Processing
- Equipment Storage Room
- Distribution/Sterile Storage

The purpose of the dress codes in these areas is to maintain as clean an environment as possible. The current attire is:

- clean head covers
- clean scrubs

The decontamination room is considered to be a Adirty@ area. Here the outer clothing is worn to protect the individual employee. It consists of:

- disposable jumpsuit/full body plastic apron
- shoe covers
- disposable hats
- disposable gloves
- goggles
- face mask

The regular building service uniform is to be worn when cleaning the halls, office and locker rooms.

The following is the order in which cleaning should be done inside CS.

Assembly/Processing

Distribution/Sterile Storage

Equipment Storage Room

Decontamination

Administrative

Central Sterile Processing will provide autoclave indicating tape, indicating labels or printed legends. These will be attached or printed on all hospital assembled packages, trays, etc., intended for sterilization. Said tapes or legends will be examined post sterilization to determine exposure to the appropriate sterilizing process.

Sterility maintenance is event related depending on package integrity, storage and handling.

Lot control numbers shall be placed on each package. If necessary items can be pulled by use of said lot control. Lot control shall indicate sterilizer used, date and cycle.

Commercial products with medication shall be inspected for expiration date.

Preventive and repair records for all equipment shall be kept by Facilities Management.

Process Control

Recording charts, gauges and print outs shall be examined by the operator at the completion of each sterilizer cycle and initialed.

Operator shall record date and sterilizer # on recording chart or print out.

Operators shall inspect printouts before any items are removed from the sterilizer. Operator shall check that correct temperatures and time parameters have been met. Printouts will be kept on file for a period of one year.

Stream And Gas:

Central Sterile Processing personnel will place a temperature-accurate chemical indicator in the center of package processed by our department.

A bowie-dick mechanical function test will be performed daily.

Biological

Biological spore testing of steam autoclave shall be conducted on a daily basis as a minimum standard.

Biological testing of H_5O_5 shall be the first load of the day. An autoclave with a positive culture shall be retested and not used. If positive a second time it shall be repaired. If the printout does not meet sterilization parameters the autoclave will be repaired whether or not the biological test is positive. Items processed in these cases shall be retrieved and reprocessed.

Items to be sterilized must be loaded in a manner to permit proper dispersal of sterilant to all surfaces.

Operation

Prior to autoclave operations of the day, the printout should;

Insure jacket pressure to autoclave is at thirty (30) pounds, per square inch, prior to any further operations.

Routine sterilization time for Hi-Vac autoclave is set at (4) four minutes, temperature 270^N for (30) minutes drying time.

Autoclaves are operated by automatic control.

a. Do not change timing once cycle starts.
b. After load is removed from autoclave, it must be permitted to cool for a minimum of 15 minutes, prior to off loading.

Items must be placed on proper shelf in Central Sterile Processing sterile storage area.

Environment

a. All autoclaves shall be on a routine prevention maintenance program.
b. Safety Practices (Personnel)

1. Personnel shall be instructed never to look over the top of the door immediately after opening because of high heat and steam escaping.
2. Personnel shall be instructed to wear heat sensitive gloves when removing items from steam sterilizer.

Expiration Of Sterile Supplies

All items wrapped in non-woven material must be sequentially double-wrapped unless an approved single step wrapper is used.

Items in peel pouches are single wrapped.

Packages should be stored in controlled areas.

Shelf life of a packaged sterile item is event-related. Sterility maintenance is event related depending on package integrity, storage and handling.

Considerations in event-related sterility maintenance include the following:

a. Environmental sources of contamination (e.g., moisture, vermin, air movement associated with traffic).
b. Barrier properties of packing material (e.g., moisture, integrity of the seals, and resistance to tearing).
c. Storage and distribution practices (e.g., open vs. closed shelving and transport).
d. Inventory control (e.g., realistic standards and stock rotation).
e. Frequency of handling between the distributor and the user.

Sterilization Controls

Automatic time temperature control—after the initial setting by operating personnel, there shall be a completely automatic autoclave cycle.

A chemical indicator strip is placed in the center of every pack that is to be sterilized.

Bowie Dick Test

There shall be a Bowie Dick Test performed every day, and it shall be done in the first run in the morning.

Disposables

Single use disposable items are not reused or resterilized. If an item is opened but not used it is not resterilized.

The expiration date of commercially sterilized items shall be honored as long as the integrity of the pack has been damaged.

Storing

Once sterilized, all items are stored in their designated area.

Care of Portable Equipment

Clean equipment shall have a plastic cover when transported through hospital.

Sterile Linen Processing

Inspection—all linen used for sterile supplies shall be inspected for tears, pinholes and other defects.

Preparation of Sterile Linen—Linen shall be folded, sorted and stacked on shelves.

Assembly

a. Linen packs shall be arranged on shelves to follow format of last in and last out.
b. There shall be alternating of linen to allow free circulation of stream during sterilization.
c. Basins and trays shall not be included in packs.

d. The largest pack shall not exceed 12 x 12 x 20 or weigh more than 12 pounds.
e. Wrappers shall be a protector against contamination.
f. Wrappers shall not be too tight. They shall be tight enough to just hold material together.

Wrapping

All muslin wrappers will be freshly laundered and the thread count will be 140.

Collecting and Receiving Reusable Supplies

Collection

Each nursing unit returns their soiled items to Central Sterile Processing.

Receiving Stock Supplies

All items dispensed shall be by Central Sterile Processing personnel at Dispensing window. This will control traffic into core area.

Reprocessing Opened But Unused Single-Use Medical Devices

Devices that are labeled Asingle use@ (e.g., cardiac catheters) whether they have been used, or have been opened and remained unused are not intended by the manufacturer to be used more than once or reprocessed.

Policy for Sequential Step for Handling of Contaminated Reusable Items:

Contaminated items and supplies will be returned to Central Sterile Processing in plastic covering or covered cart.

Contaminated items will be partially decontaminated prior to being returned to Central Sterile Processing.

Before sterilization all supplies and/or equipment will be decontaminated and washed appropriately.

All items will be packaged and identified according to established policy.

General Considerations

New equipment is generally accompanied by directions for operation and maintenance. These directions shall be protected with a plastic covering kept in an equipment file or notebook, available to all.

Cleaning

In decontaminating area, remove all instruments, wash them in suitable detergent. All case carts shall be washed with a germicide. Using a damp cloth, begin at the top and work downwards. Casters shall be cleaned last.

Inspect equipment for cleanliness. Test all electrical and mechanical equipment for working condition. Check all plugs and connections.

Processing Accessories For Equipment

Glass

Wash bottles in the same method recommended for all glassware. Special care must be given to glass connectors. Use a fine brush or pipe cleaner to remove gross soil. Sterilize as directed for glassware.

Instruments

Wash in detergent solution, rinse, dry, wrap and sterilize.

Sterile Linen Processing

All linen used for sterile supplies shall be inspected for tears, pinholes, and other defects. The holes are encircled with pencil and the articles sent to the sewing room where they shall be repaired and rewashed before using.

Linen shall be folded so as to save time for both user and folder. Inspected and folded linen is sorted and stacked on shelves according to use in the assembling of linen packs.

Wrapping

All wrappers shall be disposable one step wrap. The choice of wrapper size is important.

It shall be large enough to completely enclose the items.

There are two basics types of folds. The square fold, used for large packs; and the envelope fold, used for smaller items. Packs may be secured with sterilizer tape.

Hospital References

Central Services policy #C46, C33ABC

Regulatory References

AORN: Recommended practices for sterilization in the practice setting on Standards and Recommended Practices. 1995, Denver, 1995 AORN, p273.

HANYS: Reprocessing Opened but Unused Single - Use medical Devices. October 3, 2002.

APIC Text of Infection Control and Epidemiology. Volume II Scientific & Practice Elements (2009).

ANSI/AMMI-ST79: Comprehensive guide to steam sterilization and sterility assurance in health care facilities. Sept 2014.

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-10. Dental Clinic Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Nov 2015 SUPERSEDES: Jul 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-507
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 11/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

Policy

All personnel must follow and adhere to infection control guidelines to must minimize the potential for the occupational exposure to blood, body fluids and communicable disease.

Dental healthcare workers and patients are exposed to a wide variety of microorganisms via blood and oral/respiratory secretions. The following principles must utilize:

- All blood, saliva, and other patient fluids are to be considered potentially infections for blood-borne pathogens.
- Standard Precautions are used for the treatment of all patients regardless of their blood-borne infection status, to protect healthcare workers (HCWs) from occupational infections.
- Patients are protected from accidental exposures via injury of HCW during treatment.
- Proper hand washing must occur before treatment, between patients, after glove removal, before handling contaminated items, and before leaving treatment areas.
- HCWs who have exudative lesion or weeping dermatitis should refrain from direct patient contact until the condition is resolved.
- Standard Precautions as defined by the Centers for Disease Control and Prevention (CDC) must be used in providing patient care in dentistry.

Vaccine Recommendations

1. Effectiveness of Hepatitis B virus (HBV) vaccination is well known, but several other diseases may also pose a threat to the health of HCWs and patients.
    a. Polio
    b. Tetanus
    c. Rubella
    d. Rubeola
    e. Influenza
2. Immunization against measles, mumps, rubella, and polio is recommended by the CDC for adults who are already immune, receipt of an annual influenza vaccine is also recommended. Staff who refuse the annual flu vaccination are required to wear surgical mask when in patient care areas when the Commissioner of Health had declared that the flue is prevalent.
3. All HCWs who render direct patient care or during the course of their job duties have contact with patient's blood or saliva are to be offered Hepatitis B vaccine.

Barrier Techniques That Reduce Cross-Contamination And Cross-Infection Between HCW And Patients

1. HCWs must wear protective attire such as eyewear, face mask, or a chin-length shield; disposable gloves; and protective clothing when performing procedure capable of causing splash, spatter, contact with body fluids, mucous membranes, or touching items or surfaces that may be contaminated with these fluids.
2. These uses of probes and mouth mirrors during patient screening appointments, a high-speed hand piece during restoration procedures, manipulation with sharp, cutting instruments during periodontal and prophylaxis treatments, spraying air and water into patient's mouth during treatment, and intraoral surgical procedures require the appropriate use of PPE and barrier techniques.
3. Properly fitting gloves protect HCWs from exposure to blood and bodily fluids.
    a. Gloves used in patient care are single-use items and must not be used on another patient or washed with a detergent.
    b. Latex, medical vinyl, or other disposable gloves may be used for patient examination and procedures.
    c. Less expensive plastic or food-handler's gloves may be worn over contaminated treatment gloves (overgloving) to prevent contamination of clean items used during treatment.
    d. Puncture-resistant, utility gloves are worn when handling and cleaning contaminated instruments, when performing cleanup, and for surface cleaning and disinfection.
    e. Consideration of latex hypersensitivity, and increasingly serious problems for both HCWs and patients.
        i. Many health-care and personal items contain latex.
        ii. Allergic reactions to items such as latex gloves, rubber dams, and elastic bands on masks occur as one of two types, type I (immediate immunoglobulin [IgE] and type IV [delayed] hypersensitivity)
        iii. Vinyl or other non-latex examinations gloves may be worn for patient treatment by sensitive HCW.
        iv. HCW should be aware of other developing technologies concerning manufacturer of non-latex gloves and also be able to devise special precautions for patients with latex allergies (i.e. schedule as first patient of work day to minimize exposure to aerosolized later particles, set up treatment area with minimal presence of items containing latex).
    f. CDC and American Dental Association (ADA) recommend HCW should routinely wear face masks during dental treatment, and to change them when they become wet (i.e. typically between patient appointments), HCW are routinely exposed to high concentrations of aerosols and splatter during various dental procedures.

Instruments

All dental instruments are sent to the Central Sterile Processing department for reprocessing and sterilization. The instruments are sprayed with an enzymatic product and transported in a covered rigid container containing a Biohazard label to CSPD.

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 3rd Edition (2009)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

2-11. Environmental Cleaning in Patient Areas Policy

Infection Control Policy for Environmental Cleaning in Patient Care Areas

Purpose

Evidence supports that environmental transmission of healthcare acquired pathogens from the patient care surroundings to the patient is related to contamination of near-patient surfaces and equipment. Hospitals are to develop programs to optimize the thoroughness of high touch surface cleaning according to the 2010 "Options for Evaluating Environmental Cleaning Tool Kit" from the CDC. This policy describes the requirements that should be utilized by those responsible for cleaning patient care related areas in the hospital setting.

Training/Competency Requirements

Individuals that have responsibility for cleaning patient rooms and related patient care areas should receive training on the infection control aspects of environmental cleaning/disinfection principles and demonstrate competency prior to being assigned. This should include but not limited to:

- Fundamentals of cleaning and disinfection principles (based on AHE Practice Guidance Manual)
- microfiber technology benefits
- basics of microbiology including bacteria, spores, and viruses
- Chain of Infection Control
- Hand Hygiene
- Basics of Isolation Precaution practices
- Safe use of cleaning solutions and disinfectants
- Quality assurance auditing program for environmental cleaning in use at _____
- Role of environment in disease and organism transmission in the healthcare

Infection Control department staff are available to provide this basic infection control training and competency validation service. Also available are educational material for department level review purposes. It is the responsibility of the department manager to assure that individual employee performance is monitored for compliance with environmental cleaning policies and cleaning effectiveness and taking appropriate action when indicated.

Expectations

Occupied patient rooms: Daily cleaning with standard hospital disinfectant of frequently touched surfaces in room including but not limited to:

- Bedrails
- Tray table
- Light switches
- Telephone
- Doorknobs
- Patient call light/remote
- Sinks
- Bedside commode seat/arms
- Toilet

Part of the daily occupied patient room cleaning process should include removal of trash as well as soiled linen. Note that it is an acceptable practice with the infection control department to divide the daily room cleaning practices into separate visits if needed. Example: several rounds daily to check trash cans made by staff, separate visit made by individual(s) to clean patient zone surfaces, separate visit made by individual to clean sinks/bathroom.

Environmental Service staff are to clean Contact Isolation patient rooms (high touch surface areas) at least 2 times/day to reduce the bioburden.

Terminal (Discharged) Room Clean

The terminal room cleaning process should be performed by one individual who has uninterrupted time to complete the task. National published studies have shown that patients have an increased risk of acquiring pathogens when a patient who had occupied the bed prior to their occupancy of the room has had pathogens such as MRSA, VRE or C. difficile. Due to this risk, it is the policy for Environmental Service staff to clean Contact Isolation patient rooms at least 2 times/day to reduce the bioburden. Rooms will be cleaned in a systematic manner as described in the basic IC training programs and the approved standard hospital disinfectant(s) are to be utilized. Microfiber technology for cleaning cloths and mops are to be used in patient care areas due to the highly improved ability to remove organisms compared to other types of standard cloths and string mops.

In addition, special attention should be given to monitoring the effectiveness of the terminal room cleaning process of rooms that were previously occupied by patients in Contact Isolation rooms and used as one of the indicators of overall hospital terminal room cleaning effectiveness.

Isolation Room Clean

Special PPE precautions are required by the environmental cleaning staff when entering rooms that have been occupied by patients in supplemental isolation precautions. Patient care staff should make sure that the door signage for isolation remains up after patient discharge and should be removed by the cleaning staff upon completion of the terminal room cleaning.

Documentation

Documentation of daily room cleaning will be performed by the assigned environmental service staff on a form that is approved by the Infection Control Committee. The completed forms will be reviewed by the environmental supervisor daily. Unit/Area managers along with the Infection Control Dept. should also be notified by Environmental Service supervisors when the minimal cleaning policy has not been met in their patient care area during the preceding 24 hours.

Summary

Environmental cleaning of patient care rooms should be performed by staff with special training and demonstrated competency. All patient rooms will have a minimum level of daily cleaning and disinfecting required. Contact Isolation rooms will have 2 cleanings per day of frequently touched surfaces. All terminally cleaned rooms will be completed by one individual dedicated to completing the process without interruption when possible. Rooms that are not able to be cleaned to the standard described should not be occupied by patients until this standard is able to be achieved due to patient safety risks related to infections. Daily written reports are documented by those assigned to the cleaning tasks in patient care areas and a supervisory summary is submitted daily to the IC dept. for review of trends or variances that might represent an increased risk of infection and require further Infection Control review/intervention.

Reference

Debbie Hurst, RN, BSN, CIC

2-12. Intensified Terminal Room Cleaning EVS Policy

ABM Healthcare Support Services Standard Operating Procedures	ISSUED: 11/13
	REVIEWED: 3/14
REVIEWED BY: Debra Hurst RN, BSN, CIC, CHESP	REVISED: 12/13, 3/14
	DATE REVIEWED: Jan 2017

Purpose

The Centers for Disease Control and Prevention (CDC) recommendations are followed when performing environmental cleaning in patient care areas. A "two tier" approach is recommended by CDC. In the CDC's "Management of Multidrug-Resistant Organisms in Healthcare 2006" recommendations, Standard Precautions and Transmission Based Precaution policies (i.e. Tier One) are recommended to be followed using an EPA registered hospital cleaning/disinfecting product during environmental cleaning of patient care areas including patient rooms.

Preparation

In the event that a specific infection control concern related to environmental transmission risks in a facility has been identified by the Infection Control Department, there may be times when additional interventions of cleaning/disinfecting (i.e. Tier Two) are requested by the facility multidisciplinary team. The CDC recommends that when, despite basic infection control measures of Tier One, incidence is NOT decreasing, an intensified prevention intervention may be utilized until the situation is under control.

> Examples of Tier Two approaches may include: increased requirement of PPE such as glove usage and gowning for all patients, changes in hand hygiene practices to soap and water only, use of sporicidal cleaning/disinfectant product in Contact Isolation rooms upon terminal cleaning on frequently touched surfaces, or performing "intensive" cleaning effort with sporicidal mopping solution (such as a bleach solution) during a one time unit "intensive" cleaning effort.

These special circumstances (Tier Two) may be implemented upon request of the facility Infection Control Department in collaboration with the ABM Healthcare Management Team in consultation with the ABM Infection Preventionist (IP).

The goals of this Tier Two process are:

1. To identify the pathogen being targeted
2. To assure that the EPA approved germicide solution and cleaning processes are the best choices for the pathogen being targeted
3. To assure that the germicide product is applied in a manner that is safe for patients, visitors and staff
4. To assess current practices are being performed according to SOPs to assure compliance with the use of microfiber technology, use of germicide solutions, frequency of cleaning, and review of cleaning efficacy reports from ATP, EC Solutions
5. To assure that we are implementing the most effective process(es) for the duration of time required to obtain necessary results.

The current CDC Guidelines along with published evidence based research will be utilized by the ABM Management team and IP to guide the EVS related Tier Two approaches. Note that Tier Two interventions are typically used for a period of time that is limited by the specific circumstance being targeted as per CDC recommendations.

References

1. Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008 William A. Rutala, Ph.D., M.P.H. et al, Healthcare Infection Control Practices Advisory Committee (HICPAC).

2. G2007 CDC Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings; Jane Siegel, MD, et. Al. Healthcare Infection Control Practices Advisory Committee (HICPAC).

3. APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

4. Management of Multidrug-Resistant Organisms in Healthcare Settings, 2006. Centers for Disease Control and Prevention (CDC).

Reference

ABM Healthcare

2-13. Bed Bugs Management

ABM Healthcare Support Services Standard Operating Procedures	ISSUED: 3/13
	REVIEWED: 3/14, 2/16
REVIEWED BY: Debra Hurst RN, BSN, CIC, CHESP	REVISED: 3/14, 2/16
	DATE REVIEWED: Feb 2016

Purpose

To provide general guidelines for identifying and controlling bed bug infestations.

Equipment

- Clean 5-quart pail containing germicidal cleaning solution per manufacturer recommendations
- Clean microfiber cloths
- Microfiber wet mop tool with clean microfiber mop head
- Gloves– select appropriate size for hands
- Vacuum (HEPA), replacement bag
- Large clear plastic trash bags
- Furniture steam cleaner – if applicable

Definition – Characteristics of Bedbugs



Bed bugs are small, reddish-brown, oval-shaped bugs that are about 3/16 to 1/5 of an inch long. They are fast moving nocturnal blood-feeders who leave their hiding places at night when their host is asleep. Bed bugs use their sharp beak to pierce the skin of a host in order to obtain blood. After feeding, they crawl away to a hiding place to digest the meal. When hungry, bed bugs again search for a host. Bed bugs hide during the day in dark, protected sites. They seem to prefer fabric, wood, and paper surfaces. They do not stay on their host, nor do they lay eggs on their host. Their hosts may include humans as well as dogs, cats, birds and bats.

Procedure: Responding to a Bed Bug Incident

1. Confirming a bed bug infestation is the first step toward controlling them. If you suspect bed bugs, report your observations to your supervisor immediately.
2. Usually placing the patient in Contact Isolation is not warranted unless it is the specific policy of the Facility. Individuals including the EVS staff should wear gowns and gloves when in the affected room until the bed bugs are contained.

3. When possible, the bed bug should be captured and secured in a specimen container and submitted to the pest management professionals for identification. Environmental service and laundry staff should be trained in recognizing and reporting bed bugs and their signs.
4. When bed bugs are discovered in a patient room, nursing staff should assist the patient with bathing or showering and changing into fresh clothing then transfer the patient to another room prior to environmental service staff entering the room to assist in removing the linen and any cleaned medical equipment (wheel chairs, IV stands, etc.) that has been inspected and verified free from bed bug infestation.
5. The patient's belongings such as clothing should be sealed in a clear plastic bag. The bag can be sent home with family to wash the clothing and dry on the hottest temperature for 20 minutes. Backpacks, purses, and luggage should be placed in a plastic bag and sealed.
6. Equipment and furnishings including beds should not leave the room until thorough inspection finds them bed bug free and equipment and furnishings are cleaned by the EVS staff.
7. Bed linen should be carefully removed, and sealed in plastic bag until put directly in to a washer or dryer and dried on the hot setting for at least 20 minutes.
8. The professional pest control consultant should treat the area per facility policy for Bed Bug infestation. Due to the potential health impacts of insecticide sprays on patients who are ill, only facility approved control measures should be used by the pest control professionals in unoccupied rooms. Often methods such as steam, heat, aggressive cleaning, laundering and targeted vacuuming are used when practical in place of chemicals.
9. Upon completion of treatment of the patient room by the pest control professional, the room should be terminally cleaned by the EVS staff per policy and textiles such as cubicle curtains replaced. Upholstered furniture should be thoroughly vacuumed or steam cleaned. Dispose of all vacuumed refuse from an infested room in a plastic bag (including the vacuum cleaner bag) which has been sealed tightly.
10. Rooms that have been serviced for bed bugs should be rescheduled for follow-up inspection, re-serviced as needed and kept off-line until the bed bugs have been successfully controlled.
11. Complete the room with a final inspection. If there are no signs of bed bugs then open the room for patients. If any bugs are found alive, then repeat the process of treatment and cleaning.
12. Affected rooms and adjacent rooms should be inspected for 2-3 months to ensure that no isolated pockets of bed bugs remain. Waiting rooms, visitor lounges, common areas, laundry rooms and equipment such as wheelchairs and food carts should be regularly inspected for bed bugs along with patient rooms.

References

1. Centers for Disease Control and Prevention and U.S. Environmental Protection Agency. Joint statement on bed bug control in the United States from the U.S. Centers for Disease Control and Prevention (CDC) and the U.S. Environmental Protection Agency (EPA). Atlanta: U.S. Department of Health and Human Services; 2010.

2. APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

3. U.S. Environmental Protection Agency: http://epa.gov/pesticides/controlling/bedbugs.html (accessed 2/15/16)

4. Centers for Disease Control and Prevention: http://www.cdc.gov/nceh/ehs/Topics/bedbugs.htm (accessed 2/15/16)

Reference

ABM Healthcare

2-14. Environmental Management of Maggots

ABM Healthcare Support Services Standard Operating Procedures	ISSUED: 9/14
	REVIEWED:
REVIEWED BY: Debra Hurst RN, BSN, CIC	REVISED:
	DATE REVIEWED: Sep 2014

Purpose

To provide general guidelines for Environmental Management of maggots in patient care areas.

Procedure

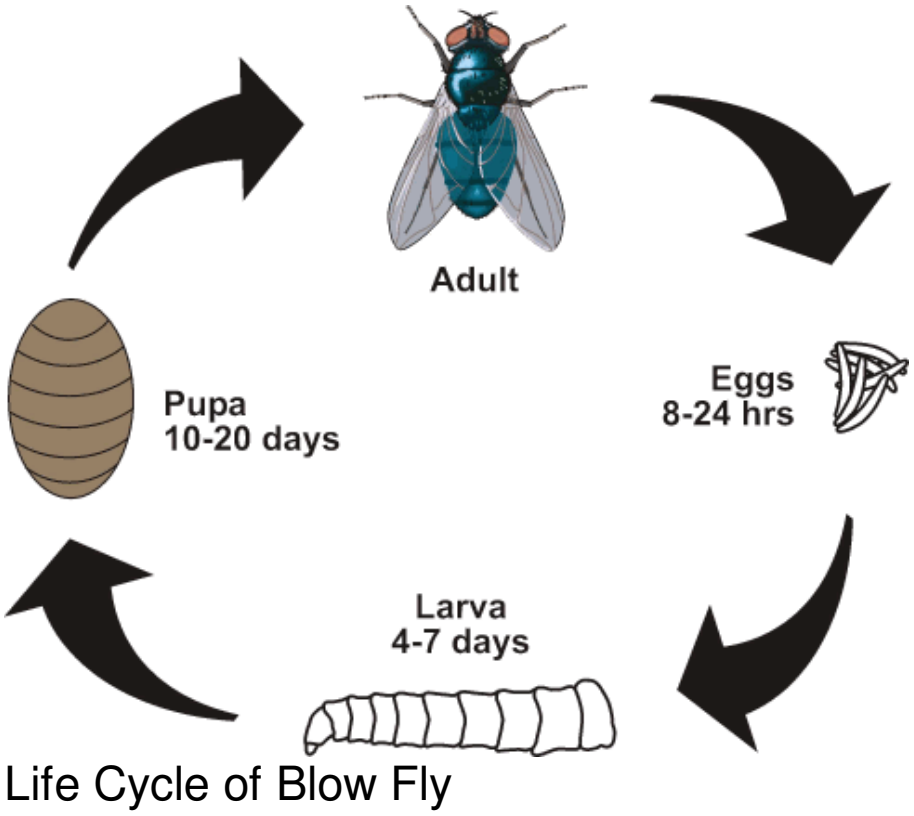
During the delivery of healthcare, encounters with maggots (also referred to as larvae) may occur occasionally. This may occur through planned encounters such as during medical maggot therapy for wound debridement with disinfected maggots purchased through an FDA approved medical maggot supplier or through non-planned encounters such as when patients with existing wounds are brought into the hospital with maggot eggs or larvae in their wound bed after being deposited by flies. Regardless of the source, these maggot larvae can easily be managed in the healthcare environment by nursing and the environmental service staff (EVS) utilizing the following processes.

Removal of the maggots from the patient's wound(s) or from the occupied patient bed should be performed by the trained healthcare worker such as the nurse or nursing assistant, according to institutional policy. Often this is completed during the patient's wound care by the nursing staff using irrigation fluid or moistened gauze. Upon removal of the maggots by the Nursing staff, the maggots are deposited into the plastic trash bag along with the wound dressings and tied securely closed.

Personal Protection Equipment (PPE): EVS should follow "Standard Precautions" which includes performing hand hygiene before glove application and after glove removal, and wearing of disposable medical exam gloves during the process of bagging the trash for removal.

Cleaning/Disinfecting patient care surfaces: Cleaning and disinfection of surfaces that have been in contact with maggots should be performed the same as for all patient care surfaces and areas. An EPA registered hospital antimicrobial cleaning/disinfectant product should be used. No additional cleaning solutions or additional processes are required.

Environmental service staff may encounter the maggot larva on bedding in an unoccupied bed or on the floor or surroundings near the patient. In these situations, the EVS staff should perform hand hygiene, apply disposable gloves and collect the maggots using gloved fingers or scoop with a piece of cardboard, etc. and place into the waste bag. Once the larvae are all gathered, the bag should be tied tightly with a knot and then placed inside a second bag and sealed securely with a knot. This technique is called "double-bagging". Be sure that the knots are tied completely, securely, and "Air-Tight". This will prevent the maggots from escaping. Place the double-bagged maggots and dressings into the regulated waste container for disposal.



Life Cycle of Blow Fly

Reference

ABM Healthcare

2-15. Managing Lice Infestation

ABM Healthcare Support Services Standard Operating Procedures	ISSUED: 3/13
	REVIEWED: 3/14
REVIEWED BY: Debra Hurst RN, BSN, CIC	REVISED: 3/14
	DATE REVIEWED: Mar 2013

Purpose

Proper procedure for managing lice infestations.

Occasionally, patients may be admitted to healthcare facilities for treatment that have a secondary diagnosis of lice infestation. Lice are considered a parasitic insect and can be found on people's heads, and bodies, including the pubic area. Human lice survive by feeding on human blood. Only the "body louse" is known to spread disease.

Lice found on each area of the body are different from each other. The three types of lice that live on humans are:

1. Head Lice (Pediculus humanus capitis),
2. Body Lice, Clothes Lice (Pediculus humanus corporis)
3. Pubic Lice, "Crab Lice" (Pthirus pubic)

Equipment

N/A

Procedure

Special Environmental Service Related Considerations for Lice:

1. Individual healthcare facility policies may differ, but recommendations from the CDC currently include Contact Precautions for patients with infestations of lice until 24 hours after effective treatment (as determined by the physician).
2. Healthcare workers do not require prophylactic or preemptive treatment unless they demonstrate evidence of infestation.
3. Except for vacuuming and standard cleaning protocols, special cleaning of rooms inhabited by infested patients is not recommended.
4. Bedding and clothing used by the patient within the 2 day period of the infestation should be machine washed and dried using hot water and hot air cycles (lice and eggs are killed by exposure for 5 minutes to temperatures greater than 128 degrees F). If items cannot be laundered, they may be dry-cleaned or sealed in a plastic bag for two weeks.

5. Vacuuming furniture and floors can remove an infested person's hairs that might have viable nits (i.e. eggs) attached, although the risk of getting infested by a louse that has fallen onto a carpet or furniture is very small. Spending much time and money on housecleaning activities is not necessary to avoid re-infestation according to CDC. (http://www.cdc.gov/parasites/lice/index.html).
6. Do not use fumigant sprays or fogs; they are not necessary to control lice and can be toxic if inhaled or absorbed through the skin.

Notes

Type of Lice	Size	How Lice are Spread	Environmental Services Considerations
Head Lice 	Adult head lice are 2.1-3.3 mm in length. Head lice infest the head and neck and attach their eggs to the base of the hair shaft.	Lice move by crawling; they cannot hop or fly. Head-to-head contact with an already infested person is the most common way to get head lice.	Follow Standard Precautions and Contact Precautions Vacuum furniture, carpeting during terminal cleaning.
Body Lice 	Adult body lice are 2.3-3.6 mm in length. Body lice live and lay eggs on clothing and only move to the skin to feed.	Body lice are spread through direct physical contact with a person who has body lice or through contact with articles such as clothing, beds, bed linens, or towels that have been in contact with an infested person.	Follow Standard Precautions and Contact Precautions Vacuum furniture, carpeting during terminal cleaning.
Pubic Lice 	Adult pubic lice are 1.1-1.8 mm in length. Pubic lice typically are found attached to hair in the pubic area but sometimes are found on coarse hair elsewhere on the body (i.e. eyebrows, eyelashes, beard, mustache, armpits).	Pubic Lice, i.e. "Crabs" are spread through sexual contact usually; very rarely may be spread by clothing, bedding, or a toilet seat.	Follow Standard Precautions and Contact Precautions

References

1. CDC Website: "Parasites-Lice" http://www.cdc.gov/parasites/lice/index.html

2. APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

3. Centers for Disease Control and Prevention (CDC) 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.

Reference

ABM Healthcare

2-16. Section Resources

Additional resources on this section's topics:

GENERAL RESOURCES

Infection Prevention for Outpatient Settings
https://www.cdc.gov/hai/settings/outpatient/outpatient-care-guidelines.html

Ambulatory Surgery Center Infection Control Surveyor Worksheet
https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107_exhibit_351.pdf

National Opportunity to Improve Infection Control in ESRD (checklists starting on Page 47)
https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/patient-safety-resources/resources/esrd/finalreportphase2.pdf

Laundry Resources
http://www.hlacnet.org/

ENVIRONMENTAL SERVICES

Environmental Checklist for Monitoring Terminal Cleaning
https://www.cdc.gov/hai/pdfs/toolkits/environmental-cleaning-checklist-10-6-2010.pdf

Environmental cleaning worksheet
http://www.cdc.gov/HAI/toolkits/Evaluating-Environmental-Cleaning.html

DENTAL OFFICES

Dental Practices
https://www.cdc.gov/oralhealth/infectioncontrol/guidelines/index.htm

Dental Offices Infection Control Inspection Checklist – OSHA, CDC, State Board
http://www.nddaa.org/Forms/OSHA/OSHA%20CDC%20Inspection%20Checklist%202013.pdf

DIALYSIS

Infection Prevention and Control Assessment Tool for Hemodialysis Facilities
https://www.cdc.gov/infectioncontrol/pdf/icar/dialysis.pdf

Hemodialysis Central Venous Catheter Scrub-the-Hub Protocol
https://www.cdc.gov/dialysis/pdfs/collaborative/hemodialysis-central-venous-catheter-sth-protocol.pdf

Checklist: Hemodialysis catheter connection
https://www.cdc.gov/dialysis/PDFs/collaborative/CL_Hemodialysis-Catheter-Connection-508.pdf

Checklist: Hemodialysis Catheter Disconnection
https://www.cdc.gov/dialysis/PDFs/collaborative/CL-Hemodialysis-Catheter-Disconnection-508.pdf

Checklist: Hemodialysis Catheter Exit Site Care
https://www.cdc.gov/dialysis/PDFs/collaborative/CL-Hemodialysis-Catheter-Exit-Site-Care-508.pdf

Catheter Exit Site Observations Audit Tool
https://www.cdc.gov/dialysis/PDFs/collaborative/Catheter-Exit-Site-Care-Observations.pdf

Catheter Connection-Disconnection Observations
https://www.cdc.gov/dialysis/PDFs/collaborative/Catheter-Connection-Disconnection-Observations.pdf

Arteriovenous Fistula/Graft Cannulation Checklist
https://www.cdc.gov/dialysis/pdfs/collaborative/add-your-organizations-logo---arteriovenous-fistula--graft-cannulation-checklist.pdf

Arteriovenous Fistula/Graft Decannulation Checklist
https://www.cdc.gov/dialysis/PDFs/collaborative/AV-Fistula-Graft-Decannulation-Observations.pdf

Arteriovenous Fistula/Graft Cannulation-Decannulation Observations
https://www.cdc.gov/dialysis/PDFs/collaborative/AV-Fistula-Graft-Can-Decannulation-Observations-AT.pdf

3

Occupational Health

SECTION 3

3-1. Respiratory Protection Program

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Mar 2015 SUPERSEDES: Jan 2012
DEPARTMENT: Infection Prevention	POLICY NO: 5076-502
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 3/15

NewYork-Presbyterian
Brooklyn Methodist Hospital

New York Methodist Hospital has a Respiratory Protection Program for all workers who must use a personal respiratory protection device to prevent exposure to airborne contaminants.

I. General Guidelines

A. The guidelines in this program are designed to aid health care workers establish a respiratory protection program.

B. The primary objective is to prevent the transmission of tuberculosis as recommended by the Centers for Disease Control (CDC).

C. Where feasible, exposure to airborne contaminants will be diluted and removed by engineering controls (i.e. general and local ventilation, HEPA filtration and isolation).

D. Use of personal respiratory protection devices will be required to supplement engineering controls.

II. Responsibilities

A. Management

New York Methodist Hospital will determine what specific applications require use of respiratory devices. Facilities Management will provide proper respiratory devices to meet the needs of each specific application. Employees will be provided with adequate training and instruction on all devices.

B. Management/Supervisory

Supervisors are responsible for insuring that all personnel are completely knowledgeable of the respiratory protection requirements for the areas in which they work. They are also responsible for insuring that these employees comply with all facets of this respiratory program.

C. Employees

It is the responsibility of the employee to have an awareness of the respiratory protection requirements for their work areas (as explained by management). Employees are also responsible for wearing the appropriate respiratory equipment according to proper instructions.

III. CDC Recommendations for the Prevention of Nosocomial Transmission of Tuberculosis.

Particulate Respirators must be worn:

A. When a patient is suspected or confirmed of active pulmonary or laryngeal tuberculosis.

B. When the patient is potentially infectious and is undergoing a procedure that is likely to produce burst of aerosolized infectious particles or to result in copious coughing or sputum production, regardless of whether appropriate ventilation is in place.

IV. Employees Medical Assessment

A. Pre-employment physical examinations are conducted on all employees to assure that they are healthy.

B. A limited medical assessment will be required when issuing the Particulate Respirator. It will include a limited health questionnaire and assessment of the risk factors.

C. The medical assessment will be conducted during the employee respiratory training. Employees identified with potential risk factors will be referred to Employees Health Service for evaluation.

D. The medical status of employees using a respirator should be reviewed annually by filling out their annual health assessment from EHS.

V. Identification Of Groups Of Employees At Risk

A. Risk Areas

Employees who routinely work in the following areas are considered to be at risk of contact with TB and therefore must receive comprehensive training on the TB Respirator Program and be fit tested with the hospital's currently approved Particulate Respirator.

- All Medical Surgical Units
- All Intensive Care Units
- Anesthesiology
- Endoscopy Suite
- ER
- Bronchoscopy Room
- Bacteriology lab
- Pathology Lab/Morgue
- Radiology
- Respiratory Therapy

B. High Risk Procedures

Employees who routinely perform the following procedures are considered to be at risk of contact with and therefore must receive comprehensive training on the TB Respirator Program and be fit tested with the hospital's currently approved Particulate Respirator.

- Autopsies
- Bronchoscopy

VI. Employees Fit Testing Checking

A. In any effective personal respiratory protection program, fit testing must be performed by an employer and fit checking must be performed by employees after each donning of their particulate respirator (PR). A proper fit is vital to protect against inhaling droplet nuclei.

B. Employees required to wear a respirator must be fitted and tested for a proper face seal.

1. This will be done upon hiring before the employee uses the mask, if there is a weight loss or gain of 20 pounds or more.

C. Each employee will be individually evaluated regarding their inability to use the approve respirator and the performance of their job duties.

1. The employees who have excessive facial hair or whose facial features that do not allow adequate seal will not be fit tested for the hospital's currently acceptable Particulate Respirator.

VII. Respirator Issue and Maintenance

A. All employees who enter an Airborne Precautions on room must wear an N95 Particulate Respirator.

B. The masks will be kept outside patient's room.

C. The employee will inspect the (PR) prior to each use for defects and any contamination with blood or body fluid. The PR must be changed if it becomes contaminated with blood, body fluid, becomes wet from excess humidification, or has any defects.

VIII. Employees Non-Compliance on Respirator Use

A. Employees who are trained and fit tested to use the Particulate Respirators and become non-compliant on the use of the Particulate Respirators will be counseled by their immediate supervisor. The counseling session will include a discussion of the following:

1. Transmission and risk of exposure to TB
2. Exploring staff concerns and rationale for becoming non-compliant.

B. After counseling session, the employee's compliance with the use of the Particulate Respirators will be monitored by the employee's manager/supervisor.

C. If the employee remains non-compliant with the use of the Particulate Respirator, the employee will be disciplined further according to present policy and procedure.

Employee Health will report a monthly list of PPD converters at Infection Prevention Committee.

References

1. State of New York Department of Health. New York State Department of Health Infection Control Advisory Number 1. Recommended Procedures for Communicable Diseases Reporting by Hospitals. Albany, New York, 1994.

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 3rd Edition (2009)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

3-2. Recommended Vaccines for Healthcare Workers

VACCINES AND RECOMMENDATIONS IN BRIEF

Hepatitis B – If previously unvaccinated, give 3-dose series (dose #1 now, #2 in 1 month, #3 approximately 5 months after #2). Give intramuscularly (IM). For HCP who perform tasks that may involve exposure to blood or body fluids, obtain anti-HBs serologic testing 1–2 months after dose #3.

Influenza – Give 1 dose of influenza vaccine annually. Inactivated injectable vaccine is given IM, except when using the intradermal influenza vaccine. Live attenuated influenza vaccine (LAIV) is given intranasally.

MMR – For healthcare personnel (HCP) born in 1957 or later without serologic evidence of immunity or prior vaccination, give 2 doses of MMR, 4 weeks apart. For HCP born prior to 1957, see below. Give subcutaneously (Subcut).

Varicella (chickenpox) – For HCP who have no serologic proof of immunity, prior vaccination, or diagnosis or verification of a history of varicella or herpes zoster (shingles) by a healthcare provider, give 2 doses of varicella vaccine, 4 weeks apart. Give Subcut.

Tetanus, diphtheria, pertussis – Give 1 dose of Tdap as soon as feasible to all HCP who have not received Tdap previously and to pregnant HCP with each pregnancy (see below). Give Td boosters every 10 years thereafter. Give IM.

Meningococcal – Give both MenACWY and MenB to microbiologists who are routinely exposed to isolates of *Neisseria meningitidis.* Every 5 years boost with MenACWY if risk continues. Give MenACWY and MenB IM; if necessary to use MPSV4, give Subcut.

Hepatitis A, typhoid, and polio vaccines are not routinely recommended for HCP who may have on-the-job exposure to fecal material.

Hepatitis B

Unvaccinated healthcare personnel (HCP) and/or those who cannot document previous vaccination should receive a 3-dose series of hepatitis B vaccine at 0, 1, and 6 months. HCP who perform tasks that may involve exposure to blood or body fluids should be tested for hepatitis B surface antibody (anti-HBs) 1–2 months after dose #3 to document immunity.

- If anti-HBs is at least 10 mIU/mL (positive), the vaccinee is immune. No further serologic testing or vaccination is recommended.
- If anti-HBs is less than 10 mIU/mL (negative), the vaccinee is not protected from hepatitis B virus (HBV) infection, and should receive 3 additional doses of HepB vaccine on the routine schedule, followed by anti-HBs testing 1–2 months later. A vaccinee whose anti-HBs remains less than 10 mIU/mL after 6 doses is considered a "non-responder."

For non-responders: HCP who are non-responders should be considered susceptible to HBV and should be counseled regarding precautions to prevent HBV infection and the need to obtain HBIG prophylaxis for any known or probable parenteral exposure to hepatitis B surface antigen (HBsAg)-positive blood or blood with unknown HBsAg status. It is also possible that non-responders are people who are HBsAg positive. HBsAg testing is recommended. HCP found to be HBsAg positive should be counseled and medically evaluated.

For HCP with documentation of a complete 3-dose HepB vaccine series but no documentation of anti-HBs of at least 10 mIU/mL (e.g., those vaccinated in childhood): HCP who are at risk for occupational blood or body fluid exposure might undergo anti-HBs testing upon hire or matriculation. See references 2 and 3 for details.

Influenza

All HCP, including physicians, nurses, paramedics, emergency medical technicians, employees of nursing homes and chronic care facilities, students in these professions, and volunteers, should receive annual vaccination against influenza. Live attenuated influenza vaccine (LAIV) may be given only to non-pregnant healthy HCP age 49 years and younger. Inactivated injectable influenza vaccine (IIV) is preferred over LAIV for HCP who are in close contact with severely immunosuppressed patients (e.g., stem cell transplant recipients) when they require protective isolation.

Measles, Mumps, Rubella (MMR)

HCP who work in medical facilities should be immune to measles, mumps, and rubella.

- HCP born in 1957 or later can be considered immune to measles, mumps, or rubella only if they have documentation of (a) laboratory confirmation of disease or immunity or (b) appropriate vaccination against measles, mumps, and rubella (i.e., 2 doses of live measles and mumps vaccines given on or after the first birthday and separated by 28 days or more, and at least 1 dose of live rubella vaccine). HCP with 2 documented doses of MMR are not recommended to be serologically tested for immunity; but if they are tested and results are negative or equivocal for measles, mumps, and/or rubella, these HCP should be considered to have presumptive evidence of immunity to measles, mumps, and/or rubella and are not in need of additional MMR doses.
- Although birth before 1957 generally is considered acceptable evidence of measles, mumps, and rubella immunity, 2 doses of MMR vaccine should be considered for unvaccinated HCP born before 1957 who do not have laboratory evidence of disease or immunity to measles and/or mumps. One dose of MMR vaccine should be considered for HCP with no laboratory evidence of disease or immunity to rubella. For these same HCP who do not have evidence of immunity, 2 doses of MMR vaccine are recommended during an outbreak of measles or mumps and 1 dose during an outbreak of rubella.

Varicella

It is recommended that all HCP be immune to varicella. Evidence of immunity in HCP includes documentation of 2 doses of varicella vaccine given at least 28 days apart, laboratory evidence of immunity, laboratory confirmation of disease, or diagnosis or verification of a history of varicella or herpes zoster (shingles) by a healthcare provider.

Tetanus/Diphtheria/Pertussis (Td/Tdap)

All HCPs who have not or are unsure if they have previously received a dose of Tdap should receive a dose of Tdap as soon as feasible, without regard to the interval since the previous dose of Td. Pregnant HCP should be revaccinated during each pregnancy. All HCPs should then receive Td boosters every 10 years thereafter.

Meningococcal

Vaccination with MenACWY and MenB is recommended for microbiologists who are routinely exposed to isolates of *N. meningitidis*. The two vaccines may be given concomitantly but at different anatomic sites, if feasible.

REFERENCES

1 CDC. Immunization of Health-Care Personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR*, 2011; 60(RR-7).

2 CDC. CDC Guidance for Evaluating Health-Care Personnel for Hepatitis B Virus Protection and for Administering Postexposure Management, *MMWR*, 2013; 62(10):1–19.

3 IAC. Pre-exposure Management for Healthcare Personnel with a Documented Hepatitis B Vaccine Series Who Have Not Had Post-vaccination Serologic Testing. Accessed at www.immunize.org/catg.d/p2108.pdf.

For additional specific ACIP recommendations, visit CDC's website at www.cdc.gov/vaccines/hcp/acip-recs/index.html or visit IAC's website at www.immunize.org/acip.

Technical content reviewed by the Centers for Disease Control and Prevention

3-3. Sample Job Hazard Analysis Form

Job Title:	Job Location:	Analyst:	Date:
Task #:	Task Description:		
Hazard Type:	Hazard Description:		
Consequence:	Hazard Controls:		
Rational or Comment:			

Reference

Debbie Hurst, RN, BSN, CIC

3-4. Disposable Glove Use for PPE

Disposable Glove Use for Personal Protective Equipment (PPE):

- Disposable exam gloves are provided to healthcare workers to prevent exposure to bloodborne pathogens or other potentially infectious materials (OPIM).
- Gloves should be removed immediately before leaving the area where the potential exposure to blood/OPIM was anticipated (i.e. the patient's room, soiled utility room, etc.).
- Hand hygiene is to be performed immediately upon removal of the gloves as they should be considered potentially contaminated.
- Healthcare workers should not routinely be seen wearing disposable exam gloves in areas of the hospital when an anticipated exposure to blood/OPIM is not expected. The gloves are considered potentially contaminated and represent a risk of transmitting infectious organisms when touching surfaces. By removing the gloves and performing hand hygiene, the healthcare worker reduces this risk.

Match your task to your gloves...

- Cleanable/reusable Rubbermaid gloves may be used for handling hazardous wastes or while performing tasks in the decontamination room of Sterile Processing.
- "Work Gloves" may be appropriate for use when handling tools or heavy equipment.
- Vinyl "food grade" gloves may be used by food service workers when serving food.
- Disposable exam gloves (nitrile or latex) may be used by healthcare workers to prevent exposure to bloodborne pathogens/OPIM.

Infection Control Suggestion: Clean the handles on utility carts frequently so that they are not a potential source of contamination to your hands. They can be easily cleaned with the standard hospital disinfectant (either _____ or the _____ [Purple Top] disposable cloths).

Questions?

Contact the RVMC Infection Prevention & Control Dept. at _____

Endorsed by the _____ Hospital Infection Prevention & Control

Committee ____/_____/_____

Reference

Asante Health

3-5. Checklist for Bloodborne Pathogens Training Content

Date:	Reviewer:
Note "Yes" or "No" as to if required content is included in training	Subject matter to include:
	Epidemiology, symptoms, and transmission of bloodborne pathogen diseases
	A copy and explanation of the OSHA bloodborne pathogen standard
	An explanation of our ECP and how to obtain a copy
	An explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
	An explanation of the use and limitations of engineering controls, work practices, and PPE
	An explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
	An explanation of the basis for PPE selection
	Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
	Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
	An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
	Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
	An explanation of the signs and labels and/or color coding required by the standard and used at this facility
	An opportunity for interactive questions and answers with the person conducting the training session.
Comments:	

Reference

Debbie Hurst, RN, BSN, CIC

3-6. Sharps Needle Disposal Policy

POLICY & PROCEDURE DESCRIPTION: Infection Prevention	DATE ISSUED: Jan 2017 SUPERSEDES: Mar 2015
DEPARTMENT: Infection Prevention	POLICY NO: 5076-022
REVIEWED BY: Infection Control Committee	DATE REVIEWED: 1/17

NewYork-Presbyterian
Brooklyn Methodist Hospital

Purpose

It is the policy of the New York Presbyterian Brooklyn Methodist Hospital (NYP/BMH) that the following regulations for the proper disposal of sharps are adhered to by the involved personnel, physicians, nurses, technicians, and others.

The definitions of sharps are: hypodermic needles, intravenous (IV) needles, syringes, razors and other blades, scalpels, broken glass, scissors, and other sharp objects.

Sharps, used or unused, are classified as **Regulated Medical Waste** and must be placed in special puncture-resistant containers for disposal. All syringes (with or without the attached needles), needles, and other sharp items such as scalpels, disposable scissors, and razor blades, must be discarded in the puncture-resistant containers designated for this purpose. These containers are located in the medication room, utility room, on medication carts, on any cart used to transport prepared syringes, and in all patient rooms.

Procedure

- Needles should not be cut or recapped.
- Syringes with needles should be discarded intact into the container.
- The sharps containers are emptied and replaced on a scheduled basis agreed upon by NYP/BMH and the outside vendor. If a container is filled before scheduled change, Environmental Services must be notified and they will change the container.

****Under no circumstances are sharps or syringes to be discarded in trash bags or any receptacle other than a puncture-resistant container.**

Community Disposal

All health care facilities allow private residents to drop their sharps for appropriate disposal. The needles and other sharp devices must be enclosed in a rigid, puncture-resistant container secured with a screw top, such as a strong bleach bottle or plastic detergent container. The container must be clearly labeled with the words “Contains Household Needles” or “Biohazardous”.

For additional information, call Environmental Services at 718-780-3309.

- NYP/BMH has arranged this service for the community to drop off sharps in the appropriate containers to Environmental Services at any time, seven days a week.
- The security desk will direct community residents to Environmental Services.

Regulatory Reference

APIC Text of Infection Control and Epidemiology, 4th Edition (2014)

Reference

NewYork-Presbyterian Brooklyn Methodist Hospital

3-7. Sharps Injury Log

Year: _____

Incident Date	Incident ID #	Device Type	Device Brand	Incident Location	Brief Description of Incident

29 CFR 1910.1030, OSHA's Bloodborne Pathogens Standard, in paragraph (h)(5), requires an employer to establish and maintain a Sharps Injury Log for recording all percutaneous injuries in a facility occurring from contaminated sharps. The purpose of the Log is to aid in the evaluation of devices being used in healthcare and other facilities and to identify problem devices or procedures requiring additional attention or review. This log must be kept in addition to the injury and illness log required by 29 CFR 1904. The Sharps Injury Log should include all sharps injuries occurring in a calendar year. The log must be retained for five years following the end of the year to which it relates. The Log must be kept in a manner that preserves the confidentiality of the affected employee.

Reference

George Allen, RN, PhD, FAPIC, CIC, CNOR

3-8. Employee Training Record

Name of employee: _____

Employee number: _____

Department: _____

Job title: _____

Training Subject	Date		Comments
	Trained	Retrained	

I have received and understood the safety and health training listed above and acknowledge that it has been given to me.

Employee's Signature	Date	Supervisor's Signature	Date

Reference

OSHA, https://www.osha.gov/SLTC/etools/safetyhealth/employeetrainingrec.pdf

3-9. Safety Meeting Record

Person Conducting: _____

Department/Area: _____

Date/Time: _____ **Number Attending:** _____

Attendees:

_____ _____ _____

_____ _____ _____

_____ _____ _____

_____ _____ _____

_____ _____ _____

_____ _____ _____

Content:

What was the main topic? _____

What were the subtopics? _____

What questions or concerns were expressed? _____

_____

_____

_____

_____

Safety rules reviewed: _____

_____

_____

Reference

OSHA, https://www.osha.gov/SLTC/etools/safetyhealth/safetymtgrec.pdf

3-10. Section Resources

Additional resources on this section's topics:

GENERAL RESOURCES

OSHA Respirator Medical Evaluation Form
https://www.osha.gov/Publications/OSHA3789info.pdf

Influenza Vaccine Information Sheet
https://www.cdc.gov/vaccines/hcp/vis/vis-statements/flu.pdf

Epidemiology and Prevention of Vaccine-Preventable Diseases (Pink Book)
https://www.cdc.gov/vaccines/pubs/pinkbook/index.html

Flu Shot Consent Form
https://www.freeprintablemedicalforms.com/preview/Flu_Shot_Consent_Form

Declination of Flu Shot Form
http://www.immunize.org/catg.d/p4068.pdf

Bloodborne Pathogen Plan
https://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPD.pdf

Laundry and Linen Resources
http://media.wix.com/ugd/0feb29_2d6caed88abd4c2b8d9e71ec537e77f1.pdf
http://media.wix.com/ugd/076879_24e999ab2b484cac8c3c30ee9af77cc0.pdf

TUBERCULOSIS

FAQs About Tuberculosis
https://www.cdc.gov/tb/publications/faqs/

Guidelines for TB Exposure Investigations
https://www.cdc.gov/hai/pdfs/rr5415.pdf

Hepatitis B Information Sheet
https://www.cdc.gov/vaccines/hcp/vis/vis-statements/hep-b.pdf

OSHA TB Questionnaire
https://www.osha.gov/SLTC/etools/hospital/hazards/tb/tbhistory.html

OSHA Workplace Injury Forms
https://www.osha.gov/recordkeeping/RKforms.html

TB Elimination Flyer
https://www.cdc.gov/tb/publications/factsheets/general/tb.pdf

4

Construction and Renovation

SECTION 4

4-1. Infection Control Risk Assessment

Document Title:	**Document Number**:	**Document Type**: ☐Policy ☐Procedure
Date of Origin:	**Department/Category**:	
Effective Date:	**Owner Position/Subject Matter Expert (SME)**:	
Review Due Date:	**Regulations**:	
Key Words:		
Approved: Signature: Title: Date:	**Approved**: Signature: Title: Date:	

PURPOSE

The infection control risk assessment (ICRA) is intended to proactively identify and mitigate risk for healthcare-associated infections that may result when fungi or bacteria are dispersed into the air via dust or water aerosolization during construction, renovation, or repair activities.

INDEX

SCOPE

This policy applies to any Asante construction, renovation, or building repair project that has the potential to impact air or water quality in or near hospital-licensed facilities or departments. The ICRA process will be overseen by the facility infection control officer or designee.

POLICY & PROCEDURE

1. There will be a multidisciplinary, collaborative process for ICRA development. Facilities, Asante Construction Services and Infection Prevention will have continuous involvement in the assessment, revision, monitoring, and compliance with the ICRA.
2. Infection Prevention is included by the Project Manager in all early plans and ongoing meetings and is notified of project changes that affect the risk of exposure to staff or infection in patients.
3. The Infection Control Risk Assessment (ICRA) utilizes a matrix to identify:
    a. the patient population at risk

   b. the nature and scope of the project and potential for transmission of air- and waterborne contaminants
   c. the impact of utility disruption and traffic flow changes
   d. project solutions to minimize such risks
4. Infection Prevention approval and issuance of an Infection Control Risk Assessment Permit (page 3 of the ICRA form which is Addendum A to this policy) is required prior to beginning work when the construction activity and risk level indicate that Class II, Class III, or Class IV control procedures are necessary.
   a. The project manager initiates the ICRA Permit process by submitting a request to the respective Infection Prevention and Control Office.
   b. The ICRA Permit specifies the class safety measures to be provided for each project based on the risk assessment. It will be updated by Infection Prevention as conditions change.
   c. The Permit is posted at the project work site and includes a contact name and number to be notified if problems are identified.
   d. For work that has a risk level on the ICRA matrix as indicated of a Class I, the written ICRA Permit is not required to be posted. The Facilities supervisory staff will issue an orange Class I Verification card (Addendum C) that will be displayed at the site of work by the worker instead. This indicates that the supervisor has taken responsibility for reviewing the ICRA matrix and has identified the work as a Class I Category. Examples of Class I work include: removing no more than one ceiling tile for inspection, painting without sanding, or minor plumbing or electrical work that doesn't require any ceiling access for inspection. Infection Control should be consulted for any questions.
   e. For work that has a risk level on the ICRA matrix as indicated of a Class III or IV in a patient occupied area, a "Pink Sheet" (Addendum D) is also issued. Once the project is completed and EVS has performed a terminal clean, the area manager, project manager, EVS manager and Infection Prevention will survey the area and make sure that it is safe for patient and staff use.
5. Daily worksite monitoring for Class III and Class IV category projects is the responsibility of the project manager, Facilities engineer, and/or their designee with oversight by the respective Infection Prevention and Control department. Facilities and the project manager will notify Infection Prevention of any variances..
6. ICRA permits are logged and copies maintained by the Infection Prevention and Control Department.
7. To support the use of safe designs, finishes and surfaces in construction projects, Infection Control shall approve any design elements that impact infection risk to the population to be served by the project. These include, but are not limited to:
   a. negative pressure isolation rooms
   b. hand-washing sinks and hand sanitizer dispensers
   c. air handling
   d. water systems to limit *Legionella* sp. and other waterborne pathogens
   e. surfaces and furnishings
8. Contracted workers will receive training and/or information on infection prevention practices and risks in any Asante facility. The project manager will ensure contracted worker education prior to the start of the assigned project.

REFERENCE DOCUMENTS
Infection Control Risk Assessment (Form #400-INF-0002)

FGI Guidelines for Design and Construction of Hospital and Healthcare Facilities, 2010.

APIC State of the Art Report: The Role of Infection Control during Construction in Health Care Facilities. *Am J Infect Control* 2000;28:156-69.

APIC Text of Infection Control & Epidemiology. Construction and Renovation 2014.

APIC Infection Prevention Manual for Construction & Renovation, 2015

Centers for Disease Control and Prevention (CDC). Guidelines for Environmental Infection Control in Health-Care Facilities: Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). *MMWR* 2003;52 (No. RR-10).

SUBMITTED BY

Name / Position	Date
Required: Subject Matter Expert (SME)	
Required: Subject Matter Expert (SME)	
Required: Subject Matter Expert (SME)	

REVIEWED BY

Name / Position	Date

REVISIONS

Revision date:	Revision Description:

Addendum A
Infection Control Risk Assessment

Step One: Using the following table, **identify the Type of Construction Project Activity** (Type A-D).

TYPE A	**Inspection and Non-Invasive Activities** ▪ removal of ceiling tiles for visual inspection only (limited to 1 tile per 50 square feet) ▪ painting (but not sanding) ▪ wallcovering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
TYPE B	**Small scale, short duration (i.e. < 8 hours) activities which create minimal dust** ▪ installation of telephone, computer, or other cabling ▪ access to mechanical chase or shaft spaces ▪ cutting of walls or ceiling where dust migration can be controlled. ▪ wet sanding of walls
TYPE C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies** ▪ dry sanding of walls for painting or wall covering ▪ removal of floorcoverings, ceiling tiles and casework ▪ wall demolition or new wall construction ▪ minor duct work, plumbing work, or electrical work above ceilings ▪ major cabling activities, multiple rooms/lines where multiple access points are needed ▪ any activity which cannot be completed within a single work shift.
TYPE D	**Major demolition and construction projects** ▪ activities which require consecutive work shifts ▪ demolition, removal, or installation of complete cabling, HVAC, plumbing, medical gas, or electrical system ▪ demolition of major building components or structural elements ▪ new construction.

Step Two: Using the following table, **identify the Patient Risk Groups** that will be affected.

Low Risk	Medium Risk	High Risk	Highest Risk
Office areas	Respiratory Therapy Dept.	Dialysis areas	Cardiovascular Lab
Unoccupied units or clinics	All other outpatient care units not listed in High Risk or Highest Risk categories (example: ambulatory care clinics)	Emergency Department	Critical Care Units
		Endoscopy	Oncology
		Imaging	Operating rooms including C-section rooms
		Labor & Delivery	Pharmacy
		Laboratory (specimen)	Sterile Processing
		Medical Units	NICU
		Outpatient Surgery	Special Care Nursery
		Pediatrics	Infusion Clinic
		PACU	
		Surgical Units	

Step Three: Match the **Patient Risk Group** (*Low, Medium, High, Highest*) with the **Construction Project Type** (*A, B, C, D*) on the following matrix, to find the **Class of Precautions** (*I, II, III or IV*) or level of infection control activities required. The precautions are outlined on the **ICRA Permit**.

Construction Project Type

Patient Risk Group	TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group	I	II	II	III/IV
MEDIUM Risk Group	I	II	III	IV
HIGH Risk Group	I	II	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Note: Infection Control approval will be required when the construction activity and risk level indicate that Class II, Class III, or Class IV control procedures are necessary.

Addendum A

Step 4: Identify the areas surrounding the project area, assessing potential impact.

Unit Above	Unit Below	Lateral	Lateral	Front	Behind
Risk Group	Risk Group	Risk Group	Risk Group	Risk Group	Risk Group

Step 5: Identify specific site of activity (e.g., patient rooms, corridor, medication room).

_____

Step 6: Identify possible ventilation, plumbing, electrical issues or outages that will impact patient care.

_____

Step 7: Consider potential risk of water damage. Is there a risk due to compromising structural integrity (e.g., wall, ceiling, roof)?

_____

Step 8: HVAC isolation. Describe local or system isolation of work site.

_____

Step 9: Identify containment measures, using prior assessment. What types of barriers (e.g., polyethylene, anteroom)? Will HEPA filtration be required?

_____

(Note: Renovation/construction area shall be isolated from the occupied areas during construction and shall be negative with respect to surrounding areas)

Step 10: Identify any traffic flow, environmental services, or debris removal issues.

_____

Step 11: Work hours: Can or will the work be done during non-patient care hours?

_____

Step 12: Identify and communicate the responsibility for project worksite monitoring that includes infection prevention & control concerns and risks.

_____

Step 13: Design aspects

(Verify against OARs and FGI Design and Construction Guidelines for types and area)

- Do plans allow for adequate number of isolation/negative airflow rooms? ☐ Yes ☐ N/A
- Do the plans allow for the required number & type of handwashing sinks? ☐ Yes ☐ N/A
- Does the infection prevention & control staff agree with the plans relative to clean and soiled utility rooms? ☐ Yes ☐ N/A

Step 14: Infection Control Risk Assessment Permit. Information generated from the above risk assessment is used to complete the ICRA Permit authorized by the facility Infection Control Officer. The ICRA may be modified throughout the project.

Addendum A

ASANTE INFECTION CONTROL RISK ASSESSMENT PERMIT

Project Description:	Permit Number:
Project Location:	Project Start Date:
Project Manager:	Estimated Duration:
Contractor:	Permit Expires:
Supervisor:	Telephone:

CONSTRUCTION ACTIVITY

- ☐ TYPE A: Inspection and non-invasive activities, non-dust producing
- ☐ TYPE B: Small scale, short duration activities which create minimal dust
- ☐ TYPE C: Moderate to high levels of dust, requires more than one work shift
- ☐ TYPE D: Major demolition and construction requiring consecutive work shifts

RISK GROUP

- ☐ Low Risk
- ☐ Medium Risk
- ☐ High Risk
- ☐ Highest Risk

Identify any high risk areas surrounding the project area:

Above:	Below:	Lateral:	Lateral:	Front:	Behind:
Risk Group:	Risk Group:	Risk Group:	Risk Group:	Risk Group:	Risk Group:

PROJECT CLASS

☐ I ☐ II ☐ III ☐ IV

Patient Risk Group:	Construction Activity: Type A	Type B	Type C	Type D
Low Risk	I	II	II	III/IV
Medium Risk	I	II	III	IV
High Risk	I	II	III/IV	IV
Highest Risk	II	III/IV	III/IV	IV

Class I

- ☐ Notify area manager before work begins.
- ☐ Execute work by methods to minimize raising dust.
- ☐ Immediately replace any ceiling tile displaced for visual inspection.

Class II

- ☐ Provide active means to prevent airborne dust from dispersing into atmosphere: _____
- ☐ Water mist work surfaces to control dust while cutting.
- ☐ Seal unused doors with tape.
- ☐ Block off and seal air vents.
- ☐ Remove or isolate HVAC system in work area.
- ☐ Place dust mat at entrance and exit of work area.
- ☐ Contain construction waste before transport in tightly covered containers.
- ☐ Cover transport receptacles or carts. Tape covering unless solid lid.

Class III

- ☐ Complete all critical barriers or implement control cube method before construction begins.
- ☐ Barrier type: _____
- ☐ Seal all penetrations (holes, pipes, conduits, punctures).
- ☐ Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.
- ☐ Install visual or recording pressure differential device to demonstrate negative air pressure. Document daily inspection results.
- ☐ Immediately clean any dust tracked outside construction barrier.
- ☐ Vacuum area thoroughly using HEPA filtered vacuum at least daily
- ☐ ICRA-Life Safety Precautions monitoring checklist completed daily

Class IV

- ☐ Construct anteroom and vacuum all personnel with HEPA vacuum before leaving the work site or workers can wear scrubs or paper coveralls that are removed each time they exit the work site
- ☐ All personnel entering the work site are required to wear shoe covers. Shoe covers must be removed when exiting the work site.

Upon completion of the project:

- ☐ Clean immediate work area
- ☐ Vacuum work area with HEPA filtered vacuums
- ☐ Wet mop with cleaner/disinfectant.
- ☐ Restore HVAC system where work was performed.
- ☐ After EVS has completed terminal cleaning of the project area, remove barrier materials carefully to minimize spreading of construction dirt and debris.
- ☐ Before re-opening area after a Class III or IV project in a Highest Risk location, complete pink sign-off sheet

Additional Requirements:

Permit Requested By:	Infection Control Officer:
Date:	Date:

Addendum B

Daily Monitoring: ICRA-Life Safety Precautions

Project Name:	Project Manager:	Phone#:
ICRA Permit Number and Class:	Contractor:	Phone#:
Project Location:	Contractor Superintendent:	Phone#:

Inspection Element:	Instructions: Initial and write C=Compliant or NC= Non-Compliant in each daily inspection field.							Week of:
I. ICRA Elements:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Notes/Corrective Actions:
1. Dust barriers sealed and intact?								
2. Negative Air Machine operating? Class III/IV								
3. Pressure differential device demonstrates negative air pressure?								
4. Anteroom maintained? Class IV								
5. HVAC system isolated?								
6. Walk off mats maintained?								
7. Debris removed in covered containers?								
8. Correct attire worn? Class IV								
9. No sign of water leakage or pests?								
10. Ceiling tiles replaced ?								
11. ICRA permit posted and current?								
12. Construction entry and adjacent areas free of dust and debris.								
13.								
II. Life Safety Elements:								
1. Exits free and unobstructed?								
2. Alternative exits clearly identified?								
3. Fire detection system operational?								
4. Fire suppression system operational?								
5. Is fire extinguisher current and accessible?								
6. Area free of combustible waste/debris?								
7. Hot work permit posted? (If applicable)								
8. Construction area secure (access limited to construction personnel, signs posted clearly)?								
9.								
Initial each day after completing inspection:								

Additional Notes:

Addendum C

PRINT ON ORANGE PAPER TO POST

Infection Control Risk Assessment (ICRA) Permit

CLASS I Verification

Authorized by:_____
(Supervisor Name)
Supervisor Phone #:_____

The project being performed by this worker was identified as a Class I Category using the ICRA Policy and does not require a written permit to be posted at this time.

Addendum D

Print on Pink Paper

Per Infection Control:
Do Not Use This Room/Unit

This area:_____is not to be used for patient care related activities until official written approval from all of the individuals noted below has been obtained.

Effective Date: _____
Signed:_____
Infection Prevention Phone #:_____

Prior to opening for patient care, the following must be completed:

1. By signing below, I validate that terminal cleaning per Asante policy has been completed on _____ at _____.

   Environmental Services Supervisor: _____

2. This area has been inspected and has been approved to open for patient and staff occupancy on _____ at _____.

   Area/Unit Manager:_____
   Date/Time:_____

   Project Manager:_____
   Date/Time:_____

   Infection Preventionist:_____
   Date/Time:_____

Questions? Please contact the Project Manager listed on the ICRA Permit or Infection Control Department listed at the number above.

Reference

Asante Healthcare

4-2. Construction & Renovation Policy

Purpose

To provide parameters for safe design, construction, maintenance, and sustainability in the healthcare environment.

Policy

I. Infection risks, interventions, and control strategies must be considered in planning for new construction and/or renovation of healthcare facilities.

II. An Infection Control Risk Assessment (ICRA) is developed for all projects that may impact the health of patients.

III. The ICRA is multidisciplinary, documented assessment process intended to proactively identify and mitigate risks from infection that could occur during construction activities.

IV. The ICRA process must take into account the patient population at risk, the nature and scope of the project, and the functional program of the healthcare facility.

V. The ICRA determines the potential risk of transmission of various air- and waterborne biological contaminants in the facility.

VI. The ICRA shall be a part of integrated facility planning, design, construction, and commissioning activities.

Definitions

Infection Control Risk Assessment—tool used to stratify infection control risks associated with construction or renovation

Project Manager—assigned person(s) responsible to the project, may be corporate or entity assigned

Design phase—Components include conceptual phase, schematic and structural considerations, programming needs, financial aspects

Project Team—a multidisciplinary planning group that at a minimum should include representation from infection prevention, administration, facility operations, architect, engineer, project manager, and the contractor

Procedure

see also: Lakes : Northland : Ridges : Southdale : University of Minnesota Medical Center, Fairview

I. Fairview Infection Prevention Process Elements:

A. The infection prevention department will be notified prior to onset of construction/renovation projects that meet project notification criteria.

B. The owner will ensure that architects and project planners follow the Facility Guidelines Institute (FGI) when designing and planning for construction activities.

C. The infection prevention department reserves the right to seek outside consultant services as appropriate to the project.

D. Contracted workers will receive training and/or information on infection prevention and control practices and risks in any Fairview facility. The project manager will ensure contracted worker education prior to the start of any project.

E. Breaches in infection control practices will be reported to the assigned project manager(s)/infection prevention services.

F. The project manager arranges for final construction cleaning, followed by a terminal/deep clean by environmental services prior to occupancy.

G. The infection prevention department may request to conduct a walk-through upon completion of the project and prior to occupancy.

H. Facility services/plant operations will develop a system that communicates all respective projects.

I. The infection prevention department in collaboration with facilities will determine which projects require the completion and documentation of an Infection Control Risk Assessment (ICRA).

J. The infection prevention department will communicate the findings and recommendations of the ICRA to the project manager(s) for review and distribution.

II. The ICRA Based on FGI Guidelines

K. ICRA Timing: Will be conducted during the early planning phase of the project, before construction begins, and continue throughout project construction.

L. ICRA Team: Will be conducted by a person or team with expertise in infection prevention, direct patient care, facility design, construction, and HVAC and plumbing systems when these systems are involved. The scope of the project will dictate others who may be involved.

M. ICRA Recommendations: Based on preconstruction ICRA, the owner shall provide the following recommendations to incorporate into the program:

1. Design recommendations generated by the ICRA.
2. Infection control risk mitigation recommendations (ICRMRs).

N. ICRA Design Elements:

1. Number, location, and type of airborne isolation and protective environment rooms.
2. Number, location, and type of plumbed hand-washing stations, hand sanitation dispensers, and emergency first-aid equipment (eyewash stations and deluge showers).
   - » The number and location of hand-washing stations and hand-sanitation dispensers shall be determined by the functional program and the ICRA.
   - » Hand-washing stations will be convenient and accessible for healthcare personnel and all other users.
3. Special HVAC needs to meet the functional program and accommodate the services included in or affected by the project (e.g., surgical services, airborne isolation rooms, laboratories, pharmacies, and other special areas).
4. Water systems to limit Legionella and other waterborne opportunistic pathogens.

O. Surfaces and Furnishings:

1. Existing code requirements are to be met.
2. Easy to maintain, repair, and clean.
3. Does not support microbial growth.
4. Nonporous and smooth.
5. See “FGI Design p. 18 A1.2–3.2.1.5 Surface selection characteristics and criteria” for additional detail.

P. Construction Elements: When conducting the ICRA and developing the mitigation requirements for building and site areas anticipated to be affected by construction, the following shall be addressed:

1. The impact of disrupting essential services to patients and employees.
2. Determination of the specific hazards and protection levels for each designated area.
3. Location of patients according to their susceptibility to infection and the definition of risks to each.
4. Impact of movement of debris, traffic flow, spill cleanup, and testing and certification of installed systems.
5. Assessment of external as well as internal construction activities.
6. Location of known hazards.

Q. Compliance Elements:

1. ICRA Documentation: The written record shall remain an active part of the project documents for the duration of the construction project and through commissioning. The ICRA is filed into the master file for the specific project.
2. ICRMRs (infection control risk mitigation recommendations). Written plans that describe the specific methods by which transmission of air- and waterborne biological contaminants will be avoided during construction as well as during commissioning, when HVAC and plumbing systems and equipment are started/restarted.

R. Risk Mitigation (ICRMR) is prepared by the team to address the following (please review FGI guidelines in addition to the following summarized list):

1. Standards for patient placement and barriers.
2. Temporary provisions or phasing.
3. Protection from demolition.
4. Measures taken to train (see FV section A)
5. Impact of utility outages, planned and unplanned.
6. Movement of debris, traffic flow, cleanup, egress plans for construction debris and supplies, and worker routes.
7. Provision for use of bathroom and food facilities by construction workers.
8. Storage and installation of materials (clean, dry, no water damage).

S. Monitoring Plan and Procedures

1. The owner shall provide monitoring plans for effective application of ICRMRs during the course of the project.
2. Provisions for monitoring shall include written procedures for emergency suspension of work and protective measures indicating the responsibilities and limitations of each party (owner, designer, contractor, and monitor).

T. Communication

1. Updates on ICRA compliance will be provided by the ICRA team.
2. Changes to the original design plans shall be documented, updated, and continually shared between the ICRA team and the designers/architects/planners, owner, and contractor.

Policy Owner

FHS IP Operations Workgroup

Approved By

FHS Infection Prevention Committee

Date(s)

Date Effective: 1/97

Date Revised: 10/97, 7/00, 9/00, 10/01, 3/05, 1/08, 2/08, 3/11

Related Information

Fairview Northland Construction Worker Education, Interim Life Safety Daily Inspection Checklist

Source: Fairview Hospital, University of Minnesota Medical Center, Minneapolis, MN

Reference

Infection Prevention Manual for Construction & Renovation (APIC, 2015)

4-3. Matrix of Precautions for Construction & Renovation

Matrix of Precautions for Construction & Renovation

Using the following table, identify the Type of Construction Project Activity (Type A-D)

TYPE A	**Inspection and noninvasive activities** Includes, but is not limited to: • removal of ceiling tiles for visual inspection only (e.g., limited to one tile per 50 square feet); • painting (but not sanding); and • wallcovering, electrical trim work, minor plumbing, and activities that do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
TYPE B	**Small-scale, short-duration activities that create minimal dust** Includes, but is not limited to: • installation of telephone and computer cabling; • access to chase spaces; and • cutting of walls or ceiling where dust migration can be controlled.
TYPE C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies** Includes, but is not limited to: • sanding of walls for painting or wall covering; • removal of floor coverings, ceiling tiles, and casework; • new wall construction; • minor duct work or electrical work above ceilings; • major cabling activities; and • any activity that cannot be completed within a single work shift.
TYPE D	**Major demolition and construction projects** Includes, but is not limited to: • activities that require consecutive work shifts; • requires heavy demolition or removal of a complete cabling system; and • new construction.

Source: Adapted with permission. V Kennedy, B Barnard, St Luke Episcopal Hospital, Houston TX; C Fine CA; Fairview University Medical Center, Minneapolis MN; Forms modified / updated; provided courtesy of Judene Bartley, ECSI Inc., Beverly Hills MI 2002. Updated 2009.

IC Matrix — Class of Precautions: Construction Project by Patient Risk

***Match* the:**

Patient Risk Group *(Low, Medium, High, Highest)* with the planned …

Construction Project Type *(A, B, C, D)* on the following matrix, to find the …

Class of Precautions *(I, II, III or IV)* or level of infection control activities required.

Class I–IV or Color-Coded Precautions are delineated in the next table.

	Construction Project Type			
Patient Risk Group	**TYPE A**	**TYPE B**	**TYPE C**	**TYPE D**
LOW Risk Group	I	II	II	III/IV
MEDIUM Risk Group	I	II	III	IV
HIGH Risk Group	I	II	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Source: Adapted with permission. V Kennedy, B Barnard, St Luke Episcopal Hospital, Houston TX; C Fine CA; Fairview University Medical Center, Minneapolis MN; Forms modified / updated; provided courtesy of Judene Bartley, ECSI Inc., Beverly Hills MI 2002. Updated 2009.

IC Matrix — Class of Precautions: Construction Project by Patient Risk

	Construction Project Type			
Patient Risk Group	**TYPE A**	**TYPE B**	**TYPE C**	**TYPE D**
LOW Risk Group	I	II	II	III/IV
MEDIUM Risk Group	I	II	III	IV
HIGH Risk Group	I	II	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Source: Adapted with permission. V Kennedy, B Barnard, St Luke Episcopal Hospital, Houston TX; C Fine CA; Fairview University Medical Center, Minneapolis MN; Forms modified / updated; provided courtesy of Judene Bartley, ECSI Inc., Beverly Hills MI 2002. Updated 2009.

Description of Required Infection Control Precautions by Class

	During Construction Project	Upon Completion of Project
CLASS I	• Execute work by methods to minimize raising dust from construction operations. • Immediately replace a ceiling tile displaced for visual inspection.	• Clean work area upon completion of task.
CLASS II	• Provide active means to prevent airborne dust from dispersing into atmosphere. • Water mist work surfaces to control dust while cutting. • Seal unused doors with duct tape. • Block off and seal air vents. • Place dust mat at entrance and exit of work area. • Remove or isolate HVAC system in areas where work is being performed.	• Wipe work surfaces with cleaner/disinfectant. • Contain construction waste before transport in tightly covered containers. • Wet mop and/or vacuum with high-efficiency particulate air (HEPA) filtered vacuum before leaving work area. • Upon completion, restore HVAC system where work was performed.

	During Construction Project	Upon Completion of Project
CLASS III	• Remove or isolate HVAC system in area where work is being done to prevent contamination of duct system. • Complete all critical barriers, , sheetrock, plywood, plastic to seal area from nonwork area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. • Maintain negative air pressure within work site utilizing HEPA-equipped air filtration units. • Contain construction waste before transport in tightly covered containers. • Cover transport receptacles or carts. Tape covering unless lid is solid.	• Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention & Control Department and thoroughly cleaned by the owner's Environmental Services Department. • Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. • Vacuum work area with HEPA-filtered vacuums. • Wet mop area with cleaner/disinfectant. • Upon completion, restore HVAC system where work was performed.
CLASS IV	• Isolate HVAC system in area where work is being done to prevent contamination of duct system. • Complete all critical barriers, e.g., sheetrock, plywood, plastic, to seal area from nonwork area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. • Maintain negative air pressure within work site utilizing HEPA-equipped air filtration units. • Seal holes, pipes, conduits, and punctures. • Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or have them wear cloth or paper coveralls that are removed each time they leave work site. • All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area.	• Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention & Control Department and thoroughly cleaned by the owner's Environmental Services Department. • Remove barrier material carefully to minimize spreading of dirt and debris associated with construction. • Contain construction waste before transport in tightly covered containers. • Cover transport receptacles or carts. Tape covering unless solid lid. • Vacuum work area with HEPA-filtered vacuums. • Wet mop area with cleaner/disinfectant. • Upon completion, restore HVAC system where work was performed.

Source: Adapted with permission. V Kennedy, B Barnard, St Luke Episcopal Hospital, Houston TX; C Fine CA; Fairview University Medical Center, Minneapolis MN; Forms modified / updated; provided courtesy of Judene Bartley, ECSI Inc., Beverly Hills MI 2002. Updated 2009.

Reference

Infection Prevention Manual for Construction & Renovation (APIC, 2015)

4-4. Pre-Project Safety Punch List

RUSH UNIVERSITY MEDICAL CENTER
CONSTRUCTION / RENOVATION PRE-PROJECT (DESIGN PHASE) SAFETY PUNCH LIST

Purpose: To design an environment that establishes and maintains a safe, functional environment for patients, families, staff and others in the organization. The features of the environment of care include, but are not limited to the following: Quality of natural and artificial light, Privacy, Size and configuration of space, Security for patients and their belongings, Clear access to internal and external doors, Level of noise, and Space that allows staff to work efficiently.

Note: This document is to be initiated by the Project Manager during the design phase of the construction/ renovation project. All responsible parties noted in the matrix below must review their items and place their initials in the "Party Initials" column. Once the project is completed, the End of project Safety Punch List will need to be completed prior to occupancy.

PROJECT NAME _____ IDPH Project ☐ Y / N ☐
PROJECT LOCATION _____ IDPH Project # _____

REVIEWERS

PROJECT MANAGER _____ ARCHITECT _____
PROPERTY MANAGER_____ OTHER _____

		Responsible Party (Mark N/A if it does not apply)				**Party Initials**
#	**ITEM**	PM	A/E	Property Manager	N/A	
1.	Include the following departments in the design phase & the review of the Pre-Project Punch List: MCE, IPC, OSD, Capital Projects, Clinical Engineering, Radiation Safety, Nursing, etc (as necessary).	X				
2.	Architectural & Life Safety drawings shared with MCE, IPC, OSD, Capital Projects, etc.	X				
3.	Mechanical systems plans have been shared with MCE.	X				
4.	When appropriate, notify Occupational Safety to have the Psych Risk Assessment Group review the area.	X				
5.	Incorporate deficiencies on the Master PFI (SOC's) within the construction area into the scope.	X				
6.	Will the project involve modification or penetration of fire rated partition walls or floors? If so, the fire caulking must be included in the contactors scope of work. Fire caulking UL systems utilized must be document and labeled on the wall.	X				
7.	Will the project disturb ACM, Lead-based Paint or require the disposal of hazardous materials (chemicals, mercury, PCBs, etc.)? (If yes, provide specifics in comment section)	X				
8.	Coordinate with Rush Pharmacy if you are dealing with pharmaceutical waste.	X				
9.	Coordinate with Rush Radiation Safety if you are relocating/adding/removing equipment with radiation (lasers, MRI machines, etc).	X				
10.	Will the project generate emissions near fresh air intake vents? (If yes, provide specifics in comment section)	X				
11.	Coordinate a walkthrough with Rush to review the space prior to occupancy. Departments to invite include, but are not limited to MCE, OSD, IPC, Clinical Engineering, EVS, etc.	X				
12.	Share completed (signed) copy of this document with all the Project Managers involved, Architect/Engineer, Property Manager, and Occupational Safety.	X				
13.	When planning for new, altered, or renovated space, the hospital uses: "State Rules and Regulations" and "Guidelines for Design and Construction of Healthcare Facilities, 2010 Edition". Project to take into consideration of any of the TJC occupancy (i.e. Business, Healthcare, and Ambulatory) requirements outlined in NFPA 101?		X			
14.	Incorporate sharp contain placement & ABHR dispensers into design prints.		X			
15.	Incorporate Infection Control Reprocessing design standard for Clinics into the project?		X			
16.	Interior space is designed to meet the needs of patient populations and is safe and suitable to the care, treatment, and services provided.		X			
17.	Lighting is designed to be suitable for care, treatment, and services provided.		X			
18.	Area is designed to maintain ventilation, temperature, and humidity levels suitable for the care, treatment, and services provided.		X			

MCE = Medical Center Engineering OSD = Occupational Safety Department IPC = Infection Prevention and Control EVS = Environmental Services
CES = Clinical Engineering Services PM = Project Manager A/E = Architect and Engineer GC = General Contractor

19.	Emergency access is provided to all locked and occupied areas.		X			
20.	Will this project involve the installation of an emergency generator? (If yes, provide specifics in comment section)		X			
21.	Identify adequate number of outlets to prevent the use of power strips/extension cords.		X			
22.	Provide GCFIs near sinks, water sources & wet environments.		X			
23.	Incorporate Infant/Child safe tamper resistant outlets into design (when appropriate)		X			
24.	Will the project involve installation of wall partitions or the reduction of available exits? (If yes, provide specifics in comment section)		X			
25.	Will the project involve the addition, removal, or alteration of existing fire protection systems? (Emergency lighting, exit signs, emergency power, sprinkler system, alarms or strobes) (If yes, provide specifics in comment section)		X			
26.	Do the HVAC system/capabilities satisfy the use of the area? (i.e. operating rooms, high level disinfection, isolation rooms) (If yes, provide specifics in comment section)		X			
27.	Will fume hoods and/or associated ductwork be removed, installed or disturbed? (If yes, provide specifics in comment section)		X			
28.	Will biological safety cabinets or laminar flow hoods, biological safety cabinets/fume hoods be removed, installed or disturbed? (If yes, provide specifics in comment section)		X			
29.	Will soil be disturbed? Will soil disturbance be greater than 1 acre? (If yes, provide specifics in comment section)		X			
30.	Will Above or Underground Storage Tanks be removed or installed? (If yes, provide specifics in comment section)		X			
31.	Biological safety cabinets and fume hoods located away from doorways and windows.		X			
32.	Door locks in place to secure RMW, Pharmaceuticals, linen/trash chutes, utilities/electrical rooms, etc.		X			
33.	Water sources such as Safety showers/eyewashes are located away from electrical outlets.		X			
34.	Required eyewash/safety showers & signs incorporated into the design.		X			
35.	Corridors free of chemical storage (e.g. flammable cabinets, refrigerators, freezers, etc.)		X			
36.	If necessary, appropriate storage area is designed for chemicals, cylinders, etc. Compressed gas cylinders require the appropriate brackets, braces, anchors, chains & the required regulatory distances from combustibles. Designed away from electrical connections, gas flames, or other sources of ignition.		X			
37.	Will new accessibility ramps need to be constructed for the duration of the project? (If yes, provide specifics in comment section)		X			
38.	Are fixtures compliant with ADA requirements? (If yes, provide specifics in comment section)		X			
39.	Fire extinguishers incorporated into the design as required.		X			
40.	Design closets/shelving/etc so no storage is within 18" of sprinkler head plane		X			
41.	Provide Clinics with the Rush Emergency Operation Plan (EOP).			X		
42.	Provide Clinics with building specific fire plan and/or high-rise plan.			X		
43.	Coordinate, at minimum, the following with building owners/contractors: Yearly fire extinguisher inspections, EVS Service agreements, Stericycle agreements, building maintenance, collection of Fire Alarm System inspections, etc.			X		

Comments (add additional page if necessary):

_____
_____
_____
_____
_____
_____
_____

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CES = Clinical Engineering Services PM = Project Manager A/E = Architect and Engineer GC = General Contractor

Source: Adapted with permission. V Kennedy, B Barnard, St Luke Episcopal Hospital, Houston, TX. Form modified/updated and provided courtesy of Judene Bartley, ECSI Inc Beverly Hills, MI 2002. Updated, 2009.

Reference

Infection Prevention Manual for Construction & Renovation (APIC, 2015)

4-5. End of Project Safety Punch List

RUSH UNIVERSITY MEDICAL CENTER
CONSTRUCTION / RENOVATION END OF PROJECT SAFETY PUNCH LIST

Purpose: To review the newly constructed/renovated area to confirm that the environment establishes and maintains a safe, functional environment for patients, families, staff and others in the organization.

Note: This document is to be initiated by the Project Manager at the completion of the construction/renovation project, but prior to occupancy. All responsible parties noted in the matrix below must review their items and place their initials in the "Party Initials" column.

PROJECT NAME _____ IDPH Project ☐ Y / N ☐
PROJECT LOCATION _____ IDPH Project # _____

INSPECTORS

PROJECT MANAGER _____ Contractor _____
ARCHITECT/ENGINEER_____ IPC/Safety _____

		Responsible Party (Mark N/A if it does not apply)					Party Initials
#	ITEM	PM	A/E	GC	IPC/ Safety	N/A	
1.	Items identified in the project risk assessment and/or SOC deficiencies within the construction area, have been appropriately addressed/corrected.	X					
2.	Evacuation Maps & Chime code sheets are installed/updated where required.	X					
3.	Project Closet-out CD (including LS drawings) are submitted to Medical Center Engineering.	X					
4.	Radiation Safety informed to inspect all sources of radiation (lasers, MRI machines).	X					
5.	All electrical equipment is appropriately tagged (MCE/CES). (Contact MCE/CES to inspect equipment)	X					
6.	No storage within 18" of sprinkler head plane.	X					
7.	Radiation Safety notified to inspection all sources of radiation (lasers, MRI machines).	X					
8.	Area is clean and free of offensive odors.	X					
9.	Furnishings and equipment are safe and in good repair.	X					
10.	Chemical or biological safety cabinets have been tested and certified (lab setting).	X					
11.	Share completed (signed) copy of this document with all the Project Managers involved, Architect/Engineer, General Contractor, and Occupational Safety.	X					
12.	Smoke detection provides appropriate coverage and is fully operational.		X				
13.	Compressed gas cylinders require the appropriate brackets, braces, anchors, chains & the required regulatory distances from combustibles.		X				
14.	Exit lights are installed at appropriate locations, visible from required distances (not blocked by any other signs, etc.), and illuminated.		X				
15.	The appropriate number of electrical outlets has been installed to prevent use of extension cords and power strips.		X				
16.	Furnishing & finishes meet the requirements and documentation is kept in the project file (flame & smoke spread, etc).		X				
17.	Outlets within 6ft of water sources are GFCI.		X				
18.	If necessary, eyewash and/or emergency shower are installed and are fully functional. (Laboratory, environmental services closet, etc). Provide Occupational Safety master list of all eyewash and/or emergency showers.		X				
19.	Ceiling barrier is intact.		X				
20.	Hazardous or storage areas are appropriately rated and doors self-closing.		X				
21.	Ceiling height is compliant for type of occupancy and projections (signs, etc.) do not extend less than 6'8" nominal height above the finished floor.		X				
22.	No non-compliant dead end corridors are present.		X				
23.	All rated smoke/fire walls/barriers have been restored to required rating. Penetrations are properly sealed using an appropriately rated UL system.		X				
24.	Furnishings, decorations, etc., do not obstruct access, egress, or visibility of exits.		X				
25.	All applicable federal, state and local regulations, hospital policies, and best practices are considered and incorporated into the design as required.		X				

MCE = Medical Center Engineering OSD = Occupational Safety Department IPC = Infection Prevention and Control EVS = Environmental Services
CES = Clinical Engineering Services PM = Project Manager A/E = Architect and Engineer GC = General Contractor

#	ITEM	Responsible Party (Mark N/A if it does not apply)					Party Initials
		PM	A/E	GC	IPC/ Safety	N/A	
26.	Sprinkler armovers checked and are supported in accordance with NFPA 13. *(Contractor to submit certification letter)*			X			
27.	Fire alarm and sprinkler systems are fully operational. *(Contractor to submit certification letter)*			X			
28.	Certified fire extinguishers (if required) are mounted and, if necessary, identified by sign. *(Provide Occupational Safety a master list of fire extinguisher locations & type)*			X			
29.	All electrical panels, pull boxes, and junction boxes are provided with covers approved for the purpose. *(Contractor to submit certification letter)*			X			
30.	HVAC has undergone test/balance and is appropriate to the location (ex. lab = negative). (Contractor to submit certification letter)			X			
31.	Dampers (if required) have been installed where required and tested. (MCE has been provided information for master list.) *(Contractor to submit certification letter)*			X			
32.	Doors close and latch appropriately and are arranged to restrict the movement of smoke. (i.e. ≤1/8" gap between meeting edge of door pairs, undercut is not greater than the required distance: ≤1" corridor doors, ≤3/4" for doors comprising a fire rated assembly). *(Contractor to submit certification letter)*			X			
33.	Has all construction related debris been removed? (Area is clean for occupancy)			X			
34.	Confirm all the fire alarm devices & sprinkler protective caps have been removed.			X			
35.	All the smoke detectors have back-up batteries installed. (When required)			X			
36.	Items such as wood, temp wiring, debris above ceiling have been removed.			X			
37.	Alcohol based hand rub dispensers are located 48" apart, not installed over or directly adjacent (within 1 inches) of an ignition source, and not installed over carpet unless smoke compartment is fully sprinklered.				X		
38.	Sharps containers are mounted at appropriate heights. (52"- 56" for standing workstations stations, 38"- 42" for seated workstations)				X		
39.	Infectious waste disposal containers available and labeled.				X		
40.	Refrigerators are appropriately labeled.				X		
41.	Train off-site clinics on how to conduct monthly fire extinguisher inspections.				X		
42.	Update 3E with new location				X		

Comments (add additional page if necessary):

MCE = Medical Center Engineering OSD = Occupational Safety Department IPC = Infection Prevention and Control EVS = Environmental Services
CES = Clinical Engineering Services PM = Project Manager A/E = Architect and Engineer GC = General Contractor

Reference

Infection Prevention Manual for Construction & Renovation (APIC, 2015)

4-6. Caution During Renovation Sign

CAUTION!

Only approved staff performing renovation duties and oversight are allowed beyond this point.

Do not remove supplies including linens or boxes of gloves, etc. until unit renovation has been completed and Infection Control has signed off that all items remaining are considered clean, safe, and patient ready.

Posted by: _____

Date: _____

Reference

Asante Healthcare

4-7. Section Resources

Additional resources on this section's topics:

American Society for Healthcare Engineering (ASHE) Resources
http://www.ashe.org/resources/library.dhtml?topic=infection-prevention

Safety and Risk Assessment Toolkit
https://www.fgiguidelines.org/wp-content/uploads/2015/08/CHD-SRA_v1.2PDF.pdf

FGI Hospital/Outpatient Guidelines
https://www.fgiguidelines.org/guidelines/2014-hospital-outpatient/

Environment of Care and Health Care-Associated Infections
https://www.fgiguidelines.org/resource/the-environment-of-care-and-health-care-associated-infections/

Infection Prevention Manual for Construction & Renovation
http://www.apic.org/APICStore/Products/Product?id=SLS9808

5

Long-Term Care

SECTION 5

5-1. Long-Term Care Facility Hand Hygiene Observation Tool

OREGON PATIENT SAFETY COMMISSION
Improvement Initiatives

Long-term Care Facility Hand Hygiene Observation Tool

Facility Name: _____ **Observer:** _____

The Long-term Care Facility Hand Hygiene Observation Tool is intended to promote recommended hand hygiene practices in long-term care facilities. The tool can be used by individuals, including residents or family members, when assessing facility staff hand hygiene practices. Please complete each question as appropriate at this point in time.

Under 'opportunity successful', use a ✓if successful and leave blank if not.

					Product Used		
	Day	Shift	Discipline of Staff Observed	Hand Hygiene Opportunity Successful?	Soap and Water	Alcohol-based Sanitizer	Describe any missed attempts** (this can include location)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Day: M Tu W Th F Sa Su **Shift:** 1st 2nd 3rd Other

Discipline: P=physician, **N**=nurse, **A**= Aide (e.g., CNA, MA, etc.) **S**=student, **D**=dietitian, **W**=social worker, **O**=other

** See hand hygiene opportunities list on the back of this form

Total Number of Successful Observations: _____

Guide to Hand Hygiene Opportunities in Long-term Care Facilities

Hand hygiene opportunity category	Examples
1. Prior to touching a resident	• Prior to entering room to provide care to resident • Prior to contact with resident care devices (urinary devices, intravenous lines, dressings) • Prior to assisting a resident with meals* • Prior to assisting a resident with personal care (e.g., oral care, bathing)
2. Prior to aseptic procedures	• Prior to performing urinary catheter insertion • Prior to suctioning resident • Prior to fingerstick blood sampling • Prior to administering IV medications or infusions
3. After body fluid exposure risk	• When hands are visibly soiled* • After contact with a resident's mucous membranes and body fluids or excretions • After drawing blood or collec ing stool or urine sample • After performing wound care or dressing changes • After assis ing a resident with toile ing* • After removing gloves
4. After touching a resident	• When leaving room after performing resident care • After performing aseptic procedures • After assisting a resident with meals* • After contact with a resident with infectious diarrhea*
5. After touching a resident's surroundings	• After leaving isolation precaution settings • After touching items of a resident with infectious diarrhea* • After handling soiled or used linens, dressings, bedpans, catheters and urinals • After removing gloves

*Hand washing with soap and water required

Please make note of the following during this session

	Y	N	Comments:
There is a sufficient supply of alcohol-based hand sanitizer			
There is a sufficient supply of soap at hand washing stations			
There is a sufficient supply of paper towels at hand washing stations			
There is visible and easy access to hand washing sinks or hand sanitizer			

Reference

Oregon Patient Safety Commission

5-2. Core Elements of Antibiotic Stewardship in Nursing Homes Checklist

Checklist for Core Elements of Antibiotic Stewardship in Nursing Homes

The following checklist is a companion to the Core Elements of Antibiotic Stewardship in Nursing Homes. The CDC recommends that all nursing homes take steps to implement antibiotic stewardship activities. Before getting started, use this checklist as a baseline assessment of policies and practices which are in place. Then use the checklist to review progress in expanding stewardship activities on a regular basis (e.g., annually). Over time, implement activities for each element in a step-wise fashion.

LEADERSHIP SUPPORT	ESTABLISHED AT FACILITY

1. Can your facility demonstrate leadership support for antibiotic stewardship through one or more of the following actions? ☐ Yes ☐ No

   If yes, indicate which of the following are in place (select all that apply)
   - ☐ Written statement of leadership support to improve antibiotic use
   - ☐ Antibiotic stewardship duties included in medical director position description
   - ☐ Antibiotic stewardship duties included in director of nursing position description
   - ☐ Leadership monitors whether antibiotic stewardship policies are followed
   - ☐ Antibiotic use and resistance data is reviewed in quality assurance meetings

ACCOUNTABILITY

2. Has your facility identified a lead(s) for antibiotic stewardship activities? ☐ Yes ☐ No

   If yes, indicate who is accountable for stewardship activities (select all that apply)
   - ☐ Medical director
   - ☐ Director or assistant director of nursing services
   - ☐ Consultant pharmacist
   - ☐ Other:_____

DRUG EXPERTISE

3. Does your facility have access to individual(s) with antibiotic stewardship expertise? ☐ Yes ☐ No

   If yes, indicate who is accountable for stewardship activities (select all that apply)
   - ☐ Consultant pharmacy has staff trained/is experienced in antibiotic stewardship
   - ☐ Partnering with stewardship team at referral hospital
   - ☐ External infectious disease/stewardship consultant
   - ☐ Other:_____

ACTIONS TO IMPROVE USE

4. Does your facility have policies to improve antibiotic prescribing/use? ☐ Yes ☐ No

   If yes, indicate which policies are in place (select all that apply)
   - ☐ Requires prescribers to document a dose, duration, and indication for all antibiotic prescriptions
   - ☐ Developed facility-specific algorithm for assessing residents
   - ☐ Developed facility-specific algorithms for appropriate diagnostic testing (e.g., obtaining cultures) for specific infections
   - ☐ Developed facility-specific treatment recommendations for infections
   - ☐ Reviews antibiotic agents listed on the medication formulary
   - ☐ Other:_____

5. Has your facility implemented practices to improve antibiotic use? ☐ Yes ☐ No

   If yes, indicate which practices are in place (select all that apply)

   - ❏ Utilizes a standard assessment and communication tool for residents suspected of having an infection
   - ❏ Implemented process for communicating or receiving antibiotic use information when residents are transferred to/from other healthcare facilities
   - ❏ Developed reports summarizing the antibiotic susceptibility patterns (e.g., facility antibiogram)
   - ❏ Implemented an antibiotic review process/"antibiotic time out"
   - ❏ Implemented an infection specific intervention to improve antibiotic use
     Indicate for which condition(s):_____

6. Does your consultant pharmacist support antibiotic stewardship activities? ☐ Yes ☐ No

   If yes, indicate activities performed by the consultant pharmacist (select all that apply)

   - ❏ Reviews antibiotic courses for appropriateness of administration and/or indication
   - ❏ Establishes standards for clinical/laboratory monitoring for adverse drug events from antibiotic use
   - ❏ Reviews microbiology culture data to assess and guide antibiotic selection

TRACKING: MONITORING ANTIBIOTIC PRESCRIBING, USE, AND RESISTANCE

7. Does your facility monitor one or more measures of antibiotic use? ☐ Yes ☐ No

   If yes, indicate which of the following are being tracked (select all that apply)

   - ❏ Adherence to clinical assessment documentation (signs/symptoms, vital signs, physical exam findings)
   - ❏ Adherence to prescribing documentation (dose, duration, indication)
   - ❏ Adherence to facility-specific treatment recommendations
   - ❏ Performs point prevalence surveys of antibiotic use
   - ❏ Monitors rates of new antibiotic starts/1,000 resident-days
   - ❏ Monitors antibiotic days of therapy/1,000 resident-days
   - ❏ Other:_____

8. Does your facility monitor one or more outcomes of antibiotic use? ☐ Yes ☐ No

   If yes, indicate which of the following are being tracked (select all that apply)

   - ❏ Monitors rates of *C. difficile* infection
   - ❏ Monitors rates of antibiotic-resistant organisms
   - ❏ Monitors rates of adverse drug events due to antibiotics
   - ❏ Other:_____

REPORTING INFORMATION TO STAFF ON IMPROVING ANTIBIOTIC USE AND RESISTANCE

9. Does your facility provide facility-specific reports on antibiotic use and outcomes with clinical providers and nursing staff? ☐ Yes ☐ No

   If yes, indicate which of the following are being tracked (select all that apply)

   - ❏ Measures of antibiotic use at the facility
   - ❏ Measures of outcomes related to antibiotic use (i.e., *C. difficile* rates)
   - ❏ Report of facility antibiotic susceptibility patterns (within last 18 months)
   - ❏ Personalized feedback on antibiotic prescribing practices (to clinical providers)
   - ❏ Other:_____

EDUCATION

10. Does your facility provide educational resources and materials about antibiotic resistance and opportunity for improving antibiotic use? ☐ Yes ☐ No

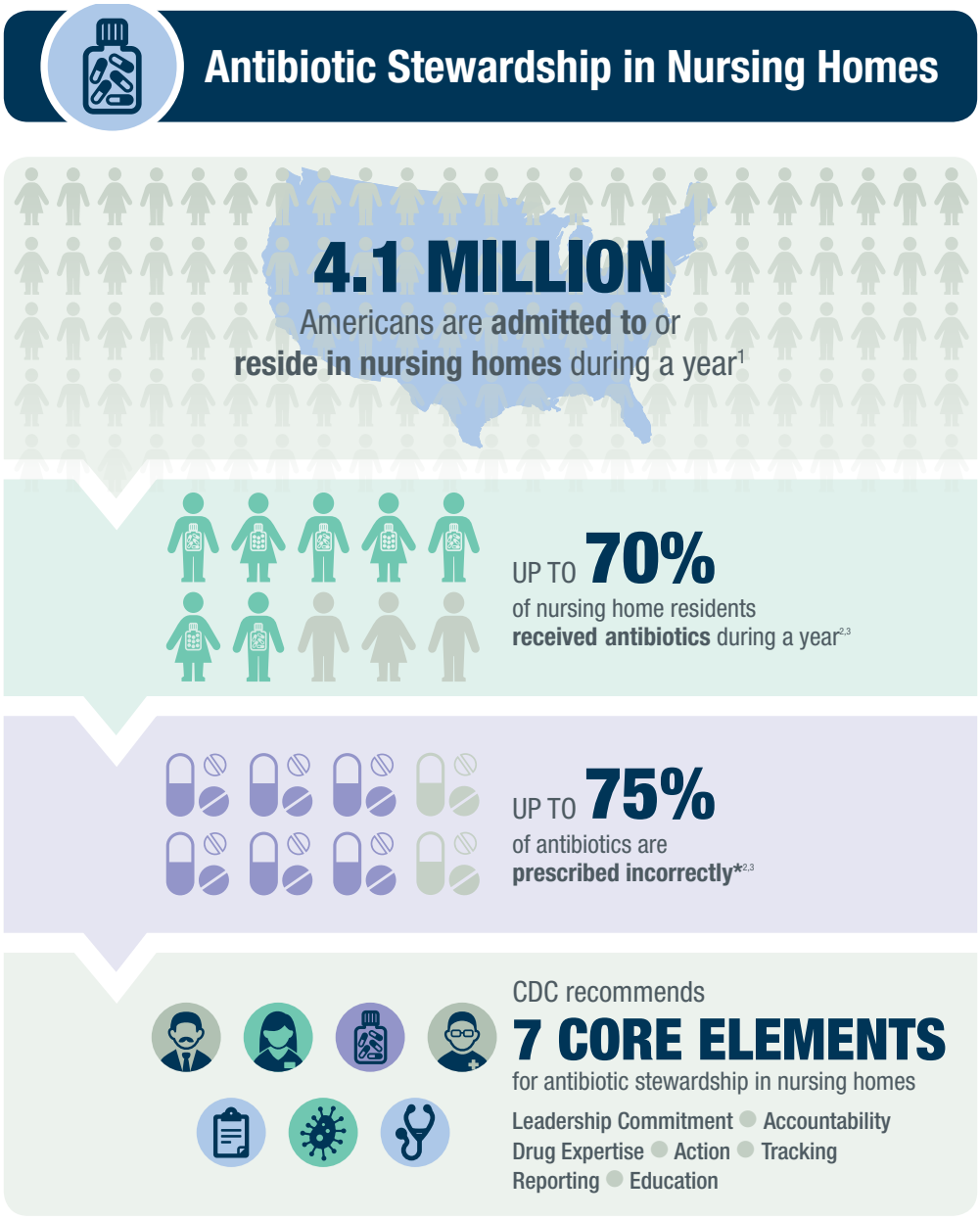
    If yes, indicate which of the following are being tracked (select all that apply)

    - ❏ Clinical providers (e.g., MDs, NPs, PAs, PharmDs)
    - ❏ Nursing staff (e.g., RNs, LPNs, CNAs)
    - ❏ Residents and families
    - ❏ Other:_____

Reference

CDC

5-3. Infographic on Antibiotic Stewardship in Nursing Homes



*incorrectly = prescribing the wrong drug, dose, duration or reason

[1] AHCA Quality Report 2013.
[2] Lim CJ, Kong DCM, Stuart RL. Reducing inappropriate antibiotic prescribing in the residential care setting: current perspectives. Clin Interven Aging. 2014; 9: 165-177.
[3] Nicolle LE, Bentley D, Garibaldi R, et al. Antimicrobial use in long-term care facilities. Infect Control Hosp Epidemiol 2000; 21:537–45.

CS256006-C

Reference

CDC

5-4. LTC Facility Environmental Cleaning Checklist

OREGON PATIENT SAFETY COMMISSION

LTCF GENERAL ROOM ENVIRONMENTAL CLEANING CHECKLIST

Date:

Unit or Ward:

Room Number:

Initials of environmental services staff (optional):[1]

Evaluate the following priority sites for each redident room:			
High-touch Room Surfaces[2]	**Cleaned**	**Not Cleaned**	**Not Present in Room**
Bed rails			
Tray table			
Call button			
Remote Controls			
Bedside table			
Bedside Chair			
Telephone			
Room light switch			
Room inner door knob/door pull			
Closet door knob/door pull			
Bathroom inner door knob/pull			
Bathroom light switch			
Bathroom handrails by toilet			
Bathroom sink/faucet handles			
Toilet seat			
Toilet flush handle			
Toilet bedpan cleaner			
Shower hand holds			
Evaluate the following additional sites if these equipment are present in the room:			
High-touch Room Surfaces[2]	**Cleaned**	**Not Cleaned**	**Not Present in Room**
IV /tube feeding pump control panel			
Wound Vacuum Control panel			
Wheelchair-especially handles			
Walker /Cane handles			

1 Facilities may choose to include identifiers of individual environmental services staff for feedback purposes
2 Sites most frequently contaminated and touched by residents and/or healthcare workers

REFERENCE

Guh, A., Carling, P., and the Environmental Evaluation Workgroup. (2010). Options for Evaluating Environmental Cleaning. Centers for Disease Control and Prevention.

5-5. Inter-facility Infection Control Transfer Form 1

INTER-FACILITY INFECTION CONTROL TRANSFER FORM
FOR STATES ESTABLISHING HAI PREVENTION COLLABORATIVES

This example Inter-facility Infection Control patient transfer form can assist in fostering communication during transitions of care. This concept and draft was developed by the Utah Healthcare–associated Infection (HAI) working group and shared with Centers for Disease Control and Prevention (CDC) and state partners courtesy of the Utah State Department of Health.

This tool can be modified and adapted by facilities and other quality improvement groups engaged in patient safety activities.

Inter-facility Infection Control Transfer Form

This form must be filled out for transfer to accepting facility with information communicated prior to or with transfer

Please attach copies of latest culture reports with susceptibilities if available

Sending Healthcare Facility:

Patient/Resident Last Name	First Name	Date of Birth	Medical Record Number
		___/___/_____	

Name/Address of Sending Facility	Sending Unit	Sending Facility phone

Sending Facility Contacts	NAME	PHONE	E-mail
Case Manager/Admin/SW			
Infection Prevention			

Is the patient currently in isolation? ☐ **NO** ☐ **YES**

Type of Isolation (check all that apply) ☐ **Contact** ☐ **Droplet** ☐ **Airborne** ☐ **Other:** _____

Does patient currently have an infection, colonization OR a history of positive culture of a multidrug-resistant organism (MDRO) or other organism of epidemiological significance?	**Colonization or history** *Check if YES*	**Active infection on Treatment** *Check if YES*
Methicillin-resistant Staphylococcus aureus (MRSA)	☐	☐
Vancomycin-resistant Enterococcus (VRE)	☐	☐
Clostridium difficile	☐	☐
Acinetobacter, multidrug-resistant*	☐	☐
E coli, Klebsiella, Proteus etc. w/Extended Spectrum B-Lactamase (ESBL)*	☐	☐
Carbapenemase resistant Enterobacteriaceae (CRE)*	☐	☐
Other:	☐	☐

Does the patient/resident currently have any of the following?

☐ Cough or requires suctioning
☐ Diarrhea
☐ Vomiting
☐ Incontinent of urine or stool
☐ Open wounds or wounds requiring dressing change
☐ Drainage (source)_____
☐ Central line/PICC (Approx. date inserted ___/___/_____)
☐ Hemodialysis catheter
☐ Urinary catheter (Approx. date inserted ___/___/_____)
☐ Suprapubic catheter
☐ Percutaneous gastrostomy tube
☐ Tracheostomy

Is the patient/resident currently on antibiotics? ☐ **NO** ☐ **YES:**

Antibiotic and dose	**Treatment for:**	**Start date**	**Anticipated stop date**

Vaccine	**Date administered (If known)**	**Lot and Brand (If known)**	**Year administered (If exact date not known)**	**Does Patient self report receiving vaccine?**	
Influenza (seasonal)				☐ yes	☐ no
Pneumococcal				☐ yes	☐ no
Other:_____				☐ yes	☐ no

Printed Name of Person completing form	**Signature**	**Date**	**If information communicated prior to transfer: Name and phone of individual at receiving facility**

Reference

CDC

5-6. Inter-facility Infection Control Transfer Form 2

INTER-FACILITY INFECTION CONTROL TRANSFER FORM
FOR STATES ESTABLISHING HAI PREVENTION COLLABORATIVES

This example Inter-facility Infection Control patient transfer form can assist in fostering communication during transitions of care. This concept and draft was developed by the Utah Healthcare–associated Infection (HAI) working group and shared with Centers for Disease Control and Prevention (CDC) and state partners courtesy of the Utah State Department of Health.

This tool can be modified and adapted by facilities and other quality improvement groups engaged in patient safety activities.

INFECTION CONTROL TRANSFER FORM

(Discharging Facility to complete form and communicate information to Receiving Facility)

Demographics

Patient/Resident *Last Name:*		Date of Birth:		Discharge Date:
Sending Facility Name:		**Contact Name:**		**Contact Phone:**
Receiving Facility Name:				

Precautions

Currently in Isolation Precautions? ☐ **Yes**

If Yes check: ☐ Contact ☐ Droplet ☐ Airborne ☐ Other:_____

→ ☐ **No** Isolation Precautions

Organisms

Did or does have *(send documentation):*	**Current Infection, History, or Ruling Out***
Multiple Drug Resistant Organism (MDRO):	☐ **Yes**
MRSA	☐
VRE	☐
Acinetobacter not susceptible to carbapenems	☐
E. coli or Klebsiella not susceptible to carbapenems	☐
Significant communicable disease:	☐ **Yes**
C. diff	☐
Other±: _____ *±e.g.; lice, scabies, disseminated shingles, norovirus, flu, TB, etc.*	☐ **(current or ruling out)**
***Additional info if known:**	

→ ☐ **No** Known MDRO or Communicable Diseases

Symptoms

Check yes to any that <u>currently</u> apply*):

- ☐ Cough/uncontrolled respiratory secretions
- ☐ Incontinent of urine
- ☐ Vomiting
- ☐ Acute diarrhea or incontinent of stool
- ☐ Draining wounds
- ☐ Other uncontained body fluid/drainage
- ☐ Concerning rash (e.g.; vesicular)

***NOTE: Appropriate PPE required ONLY if incontinent/drainage/rash NOT contained**

→ ☐ **No** Symptoms or PPE **not required** as "contained"

Required PPE

ISOLATION PRECAUTIONS

☐ ☐ ☐

CHECK IF INDICATED

Answers to sections above

ANY YES: Check Required PPE

ALL NO: Just sign form

Person completing form: _____

Role: _____ Date_____/_____/_____

Version 1.6 4/23/2014 – e.version

Reference

CDC

5-7. Medical Care Referral Form

MEDICAL CARE REFERRAL FORM

USE IN ALL SITUATIONS WHEN A RESIDENT HAS A NEW PROBLEM AND INFECTION MAY BE SUSPECTED, AND IS BEING REFERRED TO A MEDICAL CARE PROVIDER, INCLUDING TRANSFER TO AN EMERGENCY DEPARTMENT OR HOSPITAL.

To: _____ Phone: _____ Fax: _____

Resident Name: _____ DOB: __ __/__ __/__ __ Room #: _____

From:_____Phone _____Date:_____Time_____

Family Contacted: Yes☐No☐ If YES, Name and relationship:_____Contact Date_____Time_____

DESCRIPTION OF CURRENT PROBLEM including recent fever pattern and change in recent/current health status:

CURRENT VITAL SIGNS

Blood pressure: _____
Pulse: _____
Respiratory rate: _____
Highest temperature in last 24 hours: _____
How taken: _____
3 most recent routine temperatures and how taken:

Temp	How taken:
_____	_____
_____	_____
_____	_____

Shaking chills in last 24 hours: ☐ Yes ☐ No

USUAL COGNITIVE FUNCTION

☐Good ☐Questionable ☐Impaired

RECENT/CURRENT HEALTH STATUS

New or worsening confusion	☐Yes	☐No	?
New or worsening agitation	☐Yes	☐No	?
Decrease in eating or drinking	☐Yes	☐No	?
Sleepiness/decreased alertness	☐Yes	☐No	?
Decline in function	☐Yes	☐No	?
Fall	☐Yes	☐No	?
If Yes:			
Witnessed	☐Yes	☐No	?
Hit head	☐Yes	☐No	?
Lost consciousness	☐Yes	☐No	?
Suspected minor injury	☐Yes	☐No	?
Suspected serious injury	☐Yes	☐No	?

MEDICAL HISTORY

Diabetes:	☐Yes	☐No	?
If Yes, most recent blood sugar:_____			
COPD:	☐Yes	☐No	?
Indwelling catheter:	☐Yes	☐No	?
On hospice care:	☐Yes	☐No	?
Advanced directive/			
MOST Form:	☐Yes	☐No	?
DNR	☐Yes	☐No	?
No Antibiotics	☐Yes	☐No	?
MEDICATION ALLERGIES:	☐Yes	☐No	?

List:_____
_____
_____
_____

Put an "X" in the box to indicate the suspected infection and circle related signs/symptoms Y (present), or No (not present), or ? (not known).

☐ Suspected Urinary Tract Infection	
Y N ?	New or increased urgency of urination
Y N ?	New or increased frequency of urination
Y N ?	New or increased suprapubic tenderness
Y N ?	Costovertebral angle (CVA) tenderness If yes, new onset: Y N ? If yes, increasing: Y N ?
Y N ?	Painful or difficult urination
Y N ?	Obvious blood in urine
Y N ?	Change in urine appearance or odor
Y N ?	New or worse urinary incontinence
Y N ?	Positive culture If yes, positive for:_____

☐ Suspected Skin or Soft Tissue Infection	
Location:	
Y N ?	New or increasing pus draining from wound
Y N ?	New breakdown
Y N ?	New or expanding redness around wound
Y N ?	Pain / tenderness
Y N ?	Warmth
Y N ?	New or increased swelling at the site
Y N ?	Increased odor
Y N ?	Ulcer for 3 or more weeks

☐ Suspected Respiratory Infection	
Y N ?	New cough
Y N ?	Increasing cough
Y N ?	Productive cough If yes, with purulent sputum: Y N ?
Y N ?	Sore throat
Y N ?	Chest X-ray If yes, pneumonia infiltrate: Y N ?
Y N ?	Body aches
Y N ?	Headache
Y N ?	Runny nose and/or sneezing
Y N ?	Shortness of breath
Y N ?	Pleuritic chest pain (painful to take deep breath)
	O2 saturation, baseline: _____%
	O2 saturation, current: _____%

☐ Suspected Gastrointestinal Infection	
Y N ?	Vomiting: Number of times in past 24 hours: _____
Y N ?	Diarrhea: Number of times in past 24 hours: _____
Y N ?	Other vomiting or diarrhea in the community
Y N ?	Positive culture If yes, positive for:_____

AHRQ Agency for Healthcare Research and Quality
Advancing Excellence in Health Care ● www.ahrq.gov

PREVENT HAIs Healthcare-Associated Infections

www.ahrq.gov/NH-ASPGuide
May 2014

AHRQ Pub. No. 14-0011-2-EF

Reference

AHRQ

5-8. Section Resources

Additional resources on this section's topics:

Centers for Medicare & Medicaid Services (CMMS) Infection Control Pilot: 2017 Update
https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Policy-and-Memos-to-States-and-Regions-Items/Survey-and-Cert-Letter-17-09.html

Infection Prevention and Control Tool for Long-Term Care Facilities
https://www.cdc.gov/infectioncontrol/pdf/icar/ltcf.pdf

Hand Hygiene Assessment for Nursing Homes
https://www.nhqualitycampaign.org/files/HandHygiene_Assessment.pdf

Antibiotic Stewardship Assessment for Nursing Homes
https://www.nhqualitycampaign.org/files/AntibioticStewardship_Assessment.pdf

Early Identification and Containment of CDI
https://www.nhqualitycampaign.org/files/EarlyID_Assessment.pdf

Environmental Cleaning Assessment
https://www.nhqualitycampaign.org/files/EnvironmentalCleaning_Assessment.pdf

Appendix

APPENDIX

APPENDIX
Resources

Government and Regulatory Agencies and Organizations

Agency for Healthcare Research and Quality (AHRQ)
www.ahrq.gov

AHRQ Health Care Innovations Exchange
www.innovations.ahrq.gov

Centers for Disease Control and Prevention (CDC)
www.cdc.gov

Centers for Medicare and Medicaid Services (CMS)
www.cms.hhs.gov

Department of Health and Human Services (HHS)
https://www.hhs.gov

Emerging Infectious Diseases (EID)
www.cdc.gov/ncidod/eid

Environmental Protection Agency (EPA)
https://www.epa.gov/

Food and Drug Administration (FDA)
http://www.fda.gov/

Healthcare Infection Control Practices Advisory Committee (HICPAC)
https://www.cdc.gov/hicpac/

Infection Control Guidelines for Protecting Patients and Healthcare Workers
www.cdc.gov/ncidod/dhqp/guidelines.html

Infection Control in Healthcare Settings
www.cdc.gov/ncidod/dhqp/index.html

Infection Control Guidelines in Healthcare Settings
https://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html

The Joint Commission (TJC)
https://www.jointcommission.org/

Joint Commission National Patient Safety Goals
https://www.jointcommission.org/standards_information/npsgs.aspx

Morbidity and Mortality Weekly Report
https://www.cdc.gov/mmwr/about.html

National Center for Health Statistics
https://www.cdc.gov/nchs/index.htm

National Foundation for Infectious Diseases (NFID)
http://www.nfid.org/

National Healthcare Safety Network (NHSN)
https://www.cdc.gov/nhsn/

National Institute of Allergy and Infectious Diseases (NIAID)
https://www.niaid.nih.gov/

National Institutes of Health (NIH)
https://www.nih.gov/

National Library of Medicine (NLM)
https://www.nlm.nih.gov/

North Carolina Statewide Program for Infection Control and Epidemiology (SPICE)
http://spice.unc.edu/

Occupational Safety and Health Administration (OSHA)
https://www.osha.gov/

OSHA Bloodborne Pathogens Standard
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051

PubMed
https://www.ncbi.nlm.nih.gov/pubmed/

Vaccines and Immunizations
https://www.cdc.gov/vaccines/index.html

APIC Web Sites

APIC
http://www.apic.org/

APIC Chapter Site Links
http://www.apic.org/Member-Services/Chapters

APIC Infographics
http://professionals.site.apic.org/infographic/

APIC Resources
http://www.apic.org/Resources/Topic-specific-infection-prevention

The Certification Board of Infection Control and Epidemiology, Inc. (CBIC)
http://www.cbic.org/

Associations and Organizations

American Association for Respiratory Care (AARC)
http://www.aarc.org/

American Dental Association (ADA)
http://www.ada.org/en

American Medical Association (AMA)
https://www.ama-assn.org/

American Society for Clinical Pathology (ASCP)
https://www.ascp.org/content

American Society for Microbiology (ASM)
http://www.asm.org/

Association for the Advancement of Medical Instrumentation (AAMI)
http://www.aami.org/

Association of periOperative Registered Nurses (AORN)
http://www.aorn.org/

Community and Hospital Infection Control Association - Canada (CHICA - Canada)
http://ipac-canada.org/

Hepatitis Foundation International
http://hepatitisfoundation.org/

Hospital Infection Society (HIS-United Kingdom)
https://www.his.org.uk/

Infection Prevention Society (Incorporating the ICNA)
http://www.ips.uk.net/

Infectious Diseases Society of America (IDSA)
http://www.idsociety.org/Index.aspx

International Federation of Infection Control (IFIC)
http://theific.org/

Medical Laboratory Observer (MLO)
https://www.mlo-online.com/

National Association for Home Care and Hospice (NAHC)
http://www.nahc.org/

Organization for Safety & Asepsis Procedures: A Global Dental Safety Organization
http://www.osap.org/

Society for Healthcare Epidemiology of America (SHEA)
http://www.shea-online.org/

Surgical Infection Society
www.sisna.org

World Health Organization (WHO)
http://www.who.int/en/

Epidemiology

National HIV/AIDS Clinicians' Consultation Center
http://nccc.ucsf.edu/

The World-Wide Web Virtual Library: Medicine and Health: Epidemiology
http://www.epibiostat.ucsf.edu/epidem/epidem.html

Tuberculosis

CDC Tuberculosis Website
https://www.cdc.gov/tb/

CDC TB Guidelines
https://www.cdc.gov/tb/publications/guidelines/default.htm

Disinfection, Sterilization and Endoscopy

Sterilization and High-Level Disinfection Toolkit
http://www.ascquality.org/sterilizationhighleveldisinfectiontoolkit.cfm#assessment

American Society for Gastrointestinal Endoscopy (ASGE)
https://www.asge.org/

Disinfection and Sterilization: Dr. William Rutala's Homepage
http://disinfectionandsterilization.org/

Society of Gastroenterology Nurses and Associates (SGNA)
https://www.sgna.org/

Construction and Facilities Management

American Institute of Architects
https://www.aia.org/

Facility Guidelines Institute (FGI)
http://fgiguidelines.org/index.php

Water Quality Association
https://www.wqa.org/

Food Safety; Hand Hygiene; Healthy Home Environment; Health

CDC - An Ounce of Prevention: Keeps the Germs Away
https://www.cdc.gov/ounceofprevention/

FDA: Consumers Food Safety and Nutrition Information and Campaigns (CFSAN)
http://www.fda.gov/Food/ResourcesForYou/Consumers/default.htm

Gateway to Government Food Safety Information
https://www.foodsafety.gov/

Medscape
http://www.medscape.com/px/urlinfo

APPENDIX
Acronyms

Organizations

AAAASF
American Association for Accreditation of Ambulatory Surgery Facilities

AAAHC
Accreditation Association for Ambulatory Health Care

AAMI
Association for the Advancement of Medical Instrumentation

ADA
American Dental Association

AHA
American Hospital Association

AHCA
Agency for Healthcare Administration

AHE
Association for the Healthcare Environment

AORN
Association of periOperative Registered Nurses

APIC
Association for Professionals in Infection Control

ASHCSP
American Society for Healthcare Central Service Professionals

ASHE
American Society for Healthcare Engineering

ASM
American Society for Microbiology

AVA
Association for Vascular Access

CAP
College of American Pathologists

CBIC
Certification Board of Infection Control and Epidemiology

CDC
Centers for Disease Control and Prevention

CHICA
Community and Hospital Infection Control Association

CMS
Centers for Medicare & Medicaid Services

COLA
Commission on Laboratory Accreditation

CRNA
Certified Registered Nurse Anesthetists

DNV
Det Norske Veritas

DPH
Department of Public Health

EES
Employee Education System

EPA
U.S. Environmental Protection Agency

FDA
U.S. Food and Drug Administration

HHS
U.S. Department of Health & Human Services

HICPAC
Healthcare Infection Control Practices Advisory Committee

HLAC
Healthcare Laundry Accreditation Council

IAHCSMM
International Association of Healthcare Central Service Materiel Management

IFH
International Scientific Forum on Home Hygiene

IFIC
International Federation of Infection Control

IHI
Institute for Healthcare Improvement

INS
Infusion Nurses Society

IPS
Infection Prevention Society

NHSN
National Healthcare Safety Network

NIH
National Institutes of Health

NPSF
National Patient Safety Foundation

NRIC
National Resource for Infection Control

OSAP
Organization for Safety, Asepsis and Prevention

OSHA
Occupational Safety and Health Administration

SHEA
Society for Healthcare Epidemiology of America

SHM
Society of Hospital Medicine

TJC (JCAHO)
The Joint Commission

WHO
World Health Organization

Industry-specific terms

A. baumannii
Acinetobacter baumannii

ACH
Air changer per hour

AIIR
Airborne infectious isolation room

ASC
Ambulatory surgical center

CRE
Carbapenem-resistant Enterobacteriaceae

CA
Community acquired

CAUTI
Catheter-associated urinary tract infection

CfCs
Conditions for Coverage

CLABSI
Central line-associated bloodstream infection

C. difficile/C. diff
Clostridium difficile

CNA
Certified Nursing Assistant

CRNA
Certified Registered Nurse Anesthetist

CRST
Certified Registered Service Technician

EOC
Environment of care

HAI
Healthcare-associated Infection (hospital-associated infection)

HVAC
Heating, ventilation, and air conditioning

ICC
Infection control committee

ICP (IP)
Infection prevention and control

ICRA
Infection control risk assessment

ICU
Intensive care unit

IP
Infection preventionist

IRF
Inpatient rehabilitation facility

LTAC
Long-term acute care

LTCF
Long-term care facility

MDRO
Multidrug-resistant organism

MEC
Medical executive committee

MRSA
Methicillin-resistant *Staphylococcus aureus*

OPIS
Outpatient infusion services

OR
Operating room

QAPI
Quality Assurance and Performance Improvement

SSI
Surgical site infection

VRE
Vancomycin-resistant *Enterococcus*

TB
Tuberculosis

VAE
Ventilator-associated event

VAP
Ventilator-associated pneumonia