Infection Control for Surgical Residents
What you Need to Know for VAPA HCS

by
Infection Prevention & Control Team
Ext. 65814
Important

We are NOT Stanford or Valley Medical. We have requirements set by Congress that other facilities do not such as:

- MRSA Screening
- *C. diff* precautions
- *Legionella* testing
- Carbapenem-resistant *Enterobacteriaceae*
Hand Hygiene

- **Methods:**
  - When hands are visibly dirty, contaminated, or soiled, wash with regular or antimicrobial soap and water. OR when your patient has diarrhea.
  - If hands are not visibly soiled, use an alcohol-based hand sanitizer for routinely decontaminating hands.

- **When to wash:**
  - Before and After each patient interaction
  - Before and After eating
  - After using the restroom
  - And whenever hands are visibly soiled
Standard / Isolation Precautions

Standard Precautions
- Procedure for any patient, in any setting, whether or not an infection status is known.
- Assumes all moist body sites and fluids may contain pathogenic organisms.
- Hand Hygiene before and after all contact with patients
- No artificial nails or enhancements

Personal Protective Equipment (PPE)
- Gloves, Gown, Face mask/shield

Types of Isolation
- Contact
  - Gloves on entry to room, gown for contact with patient or immediate environment.
  - For MRSA, VRE, GNR MDRO (i.e. ESBL infection), C. difficile, Norovirus, Chicken pox, Shingles, MERScoV (novel coronavirus)
  - Per Infection Control assessment

- Droplet
  - Mask if within 3 feet of patient
  - For influenza, meningococcal infection

- Airborne
  - Negative-air isolation room, N95 respirator
  - For TB, Chickenpox, Measles, MERScoV (novel coronavirus)
Multi-drug Resistant Organisms

Multi-drug resistant organisms or MDRO are organisms that are resistant to multiple classes of antibiotics.

Commonly seen at our facility:
- Methicillin-Resistant *Staphylococcus aureus* (MRSA)
- Vancomycin-resistant *enterococcus* (VRE)
- Gram Negative Rods, i.e. *E. coli*, *Klebsiella*, *Acinetobactor* and some *Pseudomonas* strains
- *Clostridium difficile* (C. diff)

Ways to prevent development/ transmission:
- Strict adherence to Contact Precautions and hand hygiene
- Judicious use of antibiotics
Nares screening is required upon admission, transfer and discharge. It is part of the order set.

Any positive screen requires the patient receive education and be placed on Contact Precautions.

Any questions, call us, x65814
Clostridium difficile

- We use PCR testing.
- Send only 1 specimen
- Contact precautions is required for any positive and a private room for any who is Nap_1 positive (considered the most toxic strain)
- There is no test for cure
- Patients are discontinued from precautions when they have not had any loose stools for 7 days and this is documented
- Infection Prevention and Control follows closely and will remove patients from precautions as soon as it is appropriate.
- Questions – call us, x65814
Bloodborne Pathogen Control

**Federal BBP Regulation Requires:**
- Use of safer sharps whenever possible
- Training **before** use of unfamiliar sharp device

**Procedure for Needlestick Follow up:**
- **ONE** – Wash area (but don’t squeeze)
- **TWO** – Tell supervisor immediately
- **THREE** – Go to Employee Health within 1-2 hours
  - HIV prophylaxis works best if in your system within a few hours after exposure
  - If after business hours or weekend, PAD ER
- **FOUR** – Call Stanford Occupational Health at 650/723-5922 and report you had a needlestick/sharps injury if you are a Resident or Student

- VAPAHCS Bloodborne Pathogen (BBP) Exposure Control Plan is online:
  - VAPAWEB Home > Memoranda / Policies > Office of Quality, Safety and Value
- Federal BBP reg. 29cfr1910.1030 online:
  - VAPAWEB Home > Services / Sections > Infection Prevention and Control > Policies, Directives > Bloodborne Pathogens
Tuberculosis

- Early recognition is key! Cough, wt loss, hemoptysis, night sweats, upper lobe disease on CXR
- Rapid placement in air negative isolation room
- Inpatient: Airborne Precautions, staff wear fit-tested N-95 respirator to enter
- Outpatient: surgical mask on patient, move to private room, away from others
- Sputum AFB specimens may ONLY be collected in negative air pressure room / hood REGARDLESS of what type of Mycobacterium you are looking for
- Any inpatient with an order for sputum for AFB (other than as part of a bronchoscopy), MUST be placed on Airborne Precautions. Only Infectious Disease or Infection Prevention and Control can approve a deviation from this.
- IF you are OPERATING on someone suspected of having TB, notify the OR Charge Nurse and Infection Prevention and Control as soon as you are thinking about operating. Do this especially if the surgery is to obtain a specimen to rule out TB.

Notify Infection Control (x65814) to report

Tuberculosis Reporting-Law Title 17, CA Health & Safety Code

- Report is required within one working day of diagnosis – Infection Control will do the report
- Healthcare facilities must have written approval from the County Tuberculosis Controller before discharge or transfer (Including between divisions of PAVA) of TB cases or suspects (from Gotch Bill). This takes at least 48 hrs! Do not wait until morning you want to discharge patient. This also includes patients already being followed by the County TB Controller.
VAPHACS has a history of Hospital-Acquired *Legionella* Disease that resulted in a patient death.

As a result *any* patient suspected of having pneumonia, either CAP or HAP must be tested for *Legionella*, either via urinary antigen or sputum culture (can be done with a BAL), preferably both.

Note: *Legionella* is a separate C&S sputum order. Just ordering a C&S sputum will not result in the specimen being tested for *Legionella* as it requires special plating.

Compliance with this is monitored by Central Office.
Central Line Infection Prevention

- Excellent hand hygiene – before and after
- Maximal barrier precautions
- Wear mask, sterile gown and sterile gloves for insertion
- Full body sterile fenestrated drape for patient
- Chlorhexidine skin antisepsis
- Optimal catheter site selection— avoid femoral
- **Daily review of line necessity**, with prompt removal of unnecessary lines (no routine replacement)
**Surgical Site Infections**

Number 1 way to prevent is to practice strict Hand Hygiene!

**Risk factors to consider:**

- **Patient Risk Factors:** i.e., age, obesity, diabetes, pre-operative colonization with an MDRO, nicotine use, steroid use

- **Operative Risk Factors** (these are “modifiable” risk factors)
  - Pre-operative: i.e., antibiotic choice, timing, site prep, pre-op scrub
  - Intra-operative: i.e., scrub attire, instrument sterilization
  - Post-operative: i.e., incisional care,
Carbapenem-Resistant
*Enterobacteriaceae*

- Highly resistant – carries a 40 – 50 % mortality rate in patients infected with it.

- We are required to verbally screen patients to identify those at risk for it. Nursing completes on admission.

- Those at risk will require either a stool specimen or rectal swab.
Any patient with a positive culture for CRE or a positive screening sample needs to be placed on contact precautions for the duration of the hospital stay.

Given the high mortality rate these precautions must be strictly adhered to.

In certain cases, it may be prudent to test to remove contact precautions. You need to contact Infection Prevention and Control to ask about this process. It will take a minimum of two weeks of testing.
When in doubt – Call us

- Main Number is 6-5814
- Intranet: type ‘VAPAWEB’, Services/Sections > Infection Prevention and Control > Sharepoint for a variety of disease information

- Laura Markman RN, MS, pager 11543
- Jackie Dugyon-Escalante RN, CIC, x69145
- Teela Swanson RN, MPH, x64849
- Maricar Telmo RN, CIC, x53-32260

MDRO Coordinators:
- Rowena Aseo RN, CIC, x63788
- Sharon Rose Crowley RN, x67533