



Kaiser Permanente Orange County – Specific
Infection Control
STUDENT MODULE

Objectives

At the end of this presentation, the STUDENT will be able to:



- Discuss the importance of hand hygiene in the prevention of disease transmission
- Explain the importance of transmission based isolation to prevent the spread of infection.
- Identify the transmission and prevention of tuberculosis.
- Identify clean versus soiled equipment and the process for disinfecting equipment and furniture.

Infection Prevention and Control Department

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Infection Prevention and Control Resources

1. IC Policy and Procedure Manual online
2. Alphabetical List of Diseases
3. Phone Infection Control
4. Immediate Supervisor



Know Your Infection Control Team

**Q: How do I find Kaiser
Permanente Orange County
Infection Control Policies?**

**A: Kaiser Permanente Orange
County Infection Control
Policies are located on OC Web
XP**





WebShare™ > Policies > Infection Control

Policies

This is the central location of all policies and procedures for Orange County effective January 1, 2012.

Actions ▾

Type	Name
	Archived
	Attachments
	Attestation Sheets
	Short URL - Infection Control
	Aerosol Transmissible Diseases Includes Tuberculosis Exposure Control Plan
	Alphabetical List of Infectious Diseases
	Animal Assist for Disabled
	Approved Cleaning and Disinfecting Agents
	Aseptic Technique
	Asepti-Wipes II
	Attachment CDC NHSN Definition of HAI
	Bacteriological and Endotoxin Testing



Libraries

- Policies
- Compliance
- Public Library
- Administrative Services & Programs
- Ambulatory Services
- Consulting Services
- Continuing Care
- HealthConnect
- Inpatient Nursing
- Patient Care Support Services
- Service & Access
- Surgical Services
- Photo Library

Discussions

Why do we need Infection Control?

- Prevention of Healthcare-acquired Infections
- Patient Safety and Satisfaction
- Staff Safety
- Regulatory Agency Requirements
- Cost to Hospital



Prevention of Healthcare Acquired Infections (HAIs)

Strategies to prevent HAIs:

- Hand Hygiene compliance
- Reduction of patient device use
- Patient notification, education and documentation
- Appropriate isolation for patients
- Infection Preventions Bundles
- Environmental cleaning/disinfection
- HCW and member vaccination programs



What is your role in Infection Control?

- Perform hand hygiene
- Stay healthy
- TB screening and current vaccinations
- Screen visitors for signs/symptoms of contagious diseases



Colonization versus Infection

Colonization

Culture positive with no signs or symptoms of infection

Infection

Culture positive with sign/symptoms of infection, such as

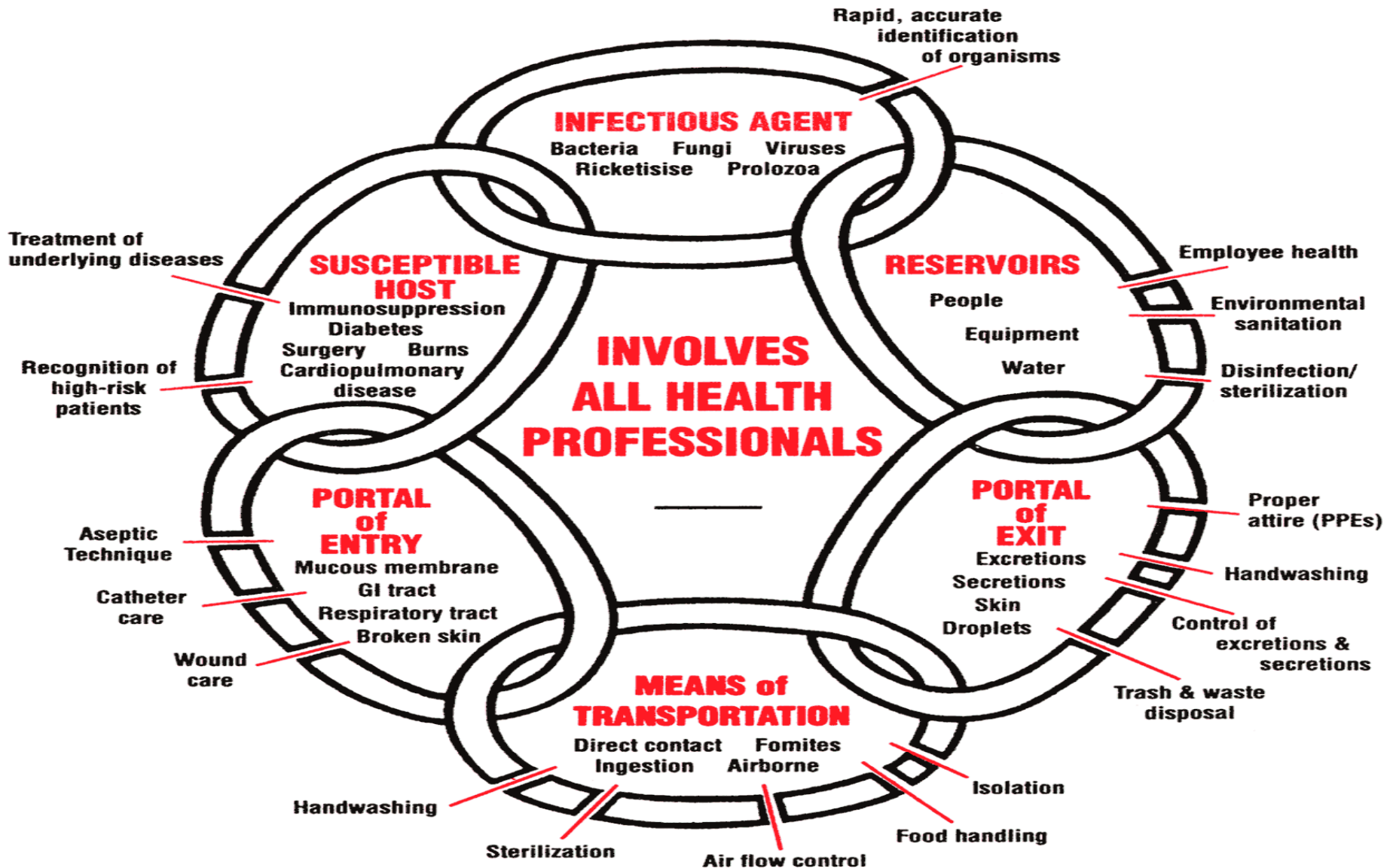
Redness, Pain, Fever and/or Purulence



Colonized and infected individuals can spread infection.

Infection control procedures are aimed at interfering with any one of the steps in the chain of infection.

HERE IS ONE CHAIN YOU WANT TO BREAK!



Hand Hygiene Principles

START →



1. Wet hands

HAND WASHING STEPS

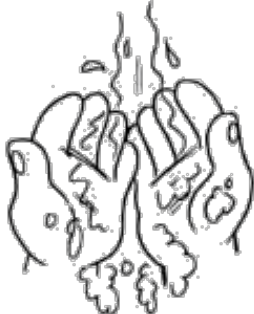


2. Soap

“Red Rule”



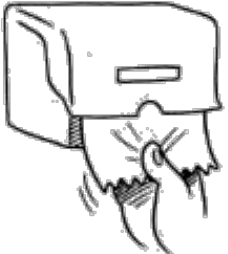
3. Scrub backs of hands, wrists, between fingers, under fingernails.



4. Rinse

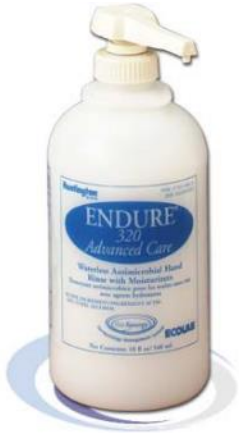


6. Turn off taps with towel



5. Towel dry

Alcohol Gel
(dime-size)




Alcohol Foam
(egg-size)

Red Rule

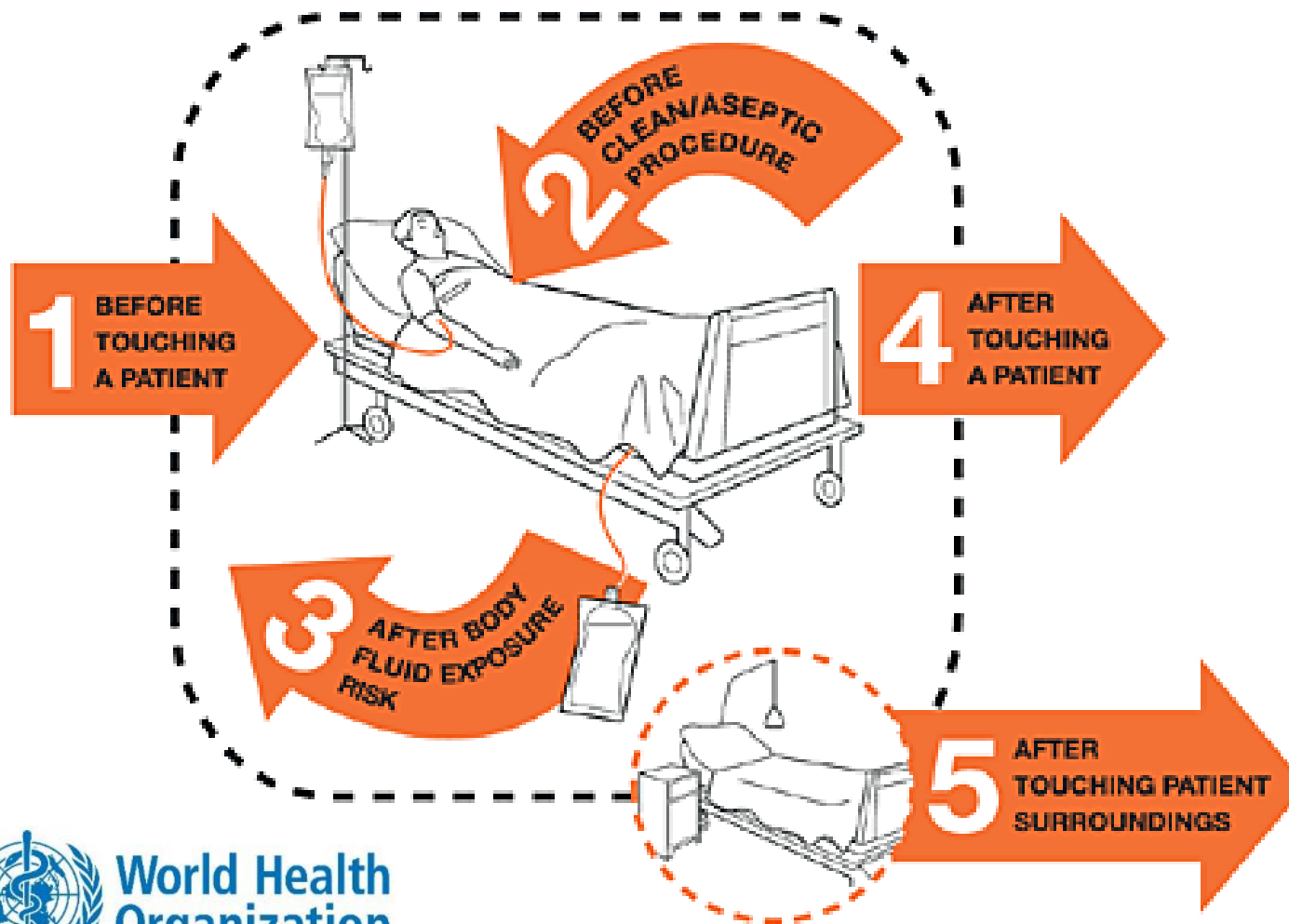
- In Orange County, we use the code term “Red Rule” to discreetly notify and remind any hospital employee, student or contracted employee that has:
 - a) forgotten to wash his/her hands,
 - b) or is out of compliance with safe hand hygiene practice

Hand Hygiene



-  Areas most frequently missed during hand washing
-  Less frequently missed
-  Not missed

5 Moments of Hand Hygiene



Hand Hygiene Considerations



- Natural nails should be short.
- Artificial nails, nail tips, gel, and silk wraps are prohibited for all HCW who provide direct patient care or touch the patient environment.
- Nail polish is permitted if it is intact and without chips.

Efficacy of Hand Hygiene Preparations in Killing Bacteria



Respiratory Hygiene Plus Cough Etiquette

Recommended for all individuals with symptoms of respiratory infection

- Cover the nose/mouth when coughing or sneezing with a tissue or mask
- Dispose of tissue in a receptacle
- Perform Hand Hygiene
- Encourage coughing persons to sit or stand at least 3 feet away from others in common waiting areas



Respiratory Etiquette Stations

Available in waiting areas, they include:

- Tissues and no-touch receptacles for disposal
- Alcohol-based gels and foams
- Surgical masks



Visitors with upper respiratory symptoms should be discouraged from visiting

Standard Precautions

Infection prevention practices that are used for ALL patients

- **Gloves:** Whenever touching blood, body fluids, mucous membranes.
- **Mask:** When splashes to mouth or nose is anticipated and/or performing aseptic procedures such as Lumbar Puncture, central line insertion
- **Goggles or Eye Shield:** When splashes to eyes are anticipated.
- **Gown:** When soiling of clothing or skin is anticipated.



CDC's Transmission-Based Isolation Precautions: Door Signs

AIRBORNE PRECAUTIONS

N95 OR PAPR REQUIRED
Door to Remain Closed

VISITORS
Report to Nurse
Before Entering



VISITANTES
por favor informe ala enfermera antes de entrar

HAND HYGIENE



Soap & Water
OR
Alcohol Hand Sanitizer
when entering & leaving room

PERSONAL PROTECTIVE EQUIPMENT (PPE)



- Staff to wear N95 or PAPR.
- Visitors to wear a surgical mask.
- Gloves (all) when entering room.
- Upon exiting, remove PPE inside room and perform hand hygiene.

CLEANING



- Dedicated equipment to the room if possible; otherwise clean/disinfect all medical equipment after each patient use.
- Discard disposable equipment when patient is discharged.

TRANSPORT



- NOTIFY receiving area before transport.
- Patient wears a surgical mask when out of the room, if tolerated.

DROPLET PRECAUTIONS

VISITORS
Report to Nurse
Before Entering



VISITANTES
por favor informe ala enfermera antes de entrar

HAND HYGIENE



Soap & Water
OR
Alcohol Hand Sanitizer
when entering & leaving room

PERSONAL PROTECTIVE EQUIPMENT (PPE)



- Gloves and mask required when entering room.
- Upon exiting, remove PPE inside room and perform hand hygiene.

CLEANING



- Dedicated equipment to the room if possible; otherwise clean/disinfect all medical equipment after each patient use.
- Discard disposable equipment when patient is discharged.

TRANSPORT



- NOTIFY receiving area before transport.
- Patient wears a surgical mask when out of the room, if tolerated.

CONTACT PRECAUTIONS

VISITORS
Report to Nurse
Before Entering



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HAND HYGIENE



Soap & Water
OR
Alcohol Hand Sanitizer
when entering & leaving

PERSONAL PROTECTIVE EQUIPMENT (PPE)



- Gown and gloves required when entering room.
- Upon exiting, remove PPEs inside room and perform hand

CLEANING



- Dedicated equipment to the room if possible; otherwise clean/disinfect all medical equipment after each patient use.
- Discard disposable equipment when patient is discharged.

TRANSPORT



- NOTIFY receiving area before transport.
- Transport patient on gurney or wheelchair.
- Cover patient with a clean sheet.
- Cover patient with a clean sheet.

CONTACT PLUS PRECAUTIONS

HAND WASHING WITH SOAP & WATER REQUIRED

VISITORS
Report to Nurse
Before Entering



VISITANTES
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HAND HYGIENE



Soap & Water
ONLY

PERSONAL PROTECTIVE EQUIPMENT



- Gown and gloves required when entering room.
- Upon exiting, remove PPEs inside room and perform soap and water hand washing.

CLEANING



- Dedicated equipment to the room if possible; otherwise clean/disinfect all medical equipment with bleach after each patient use.
- Discard disposable equipment when patient is discharged.

TRANSPORT



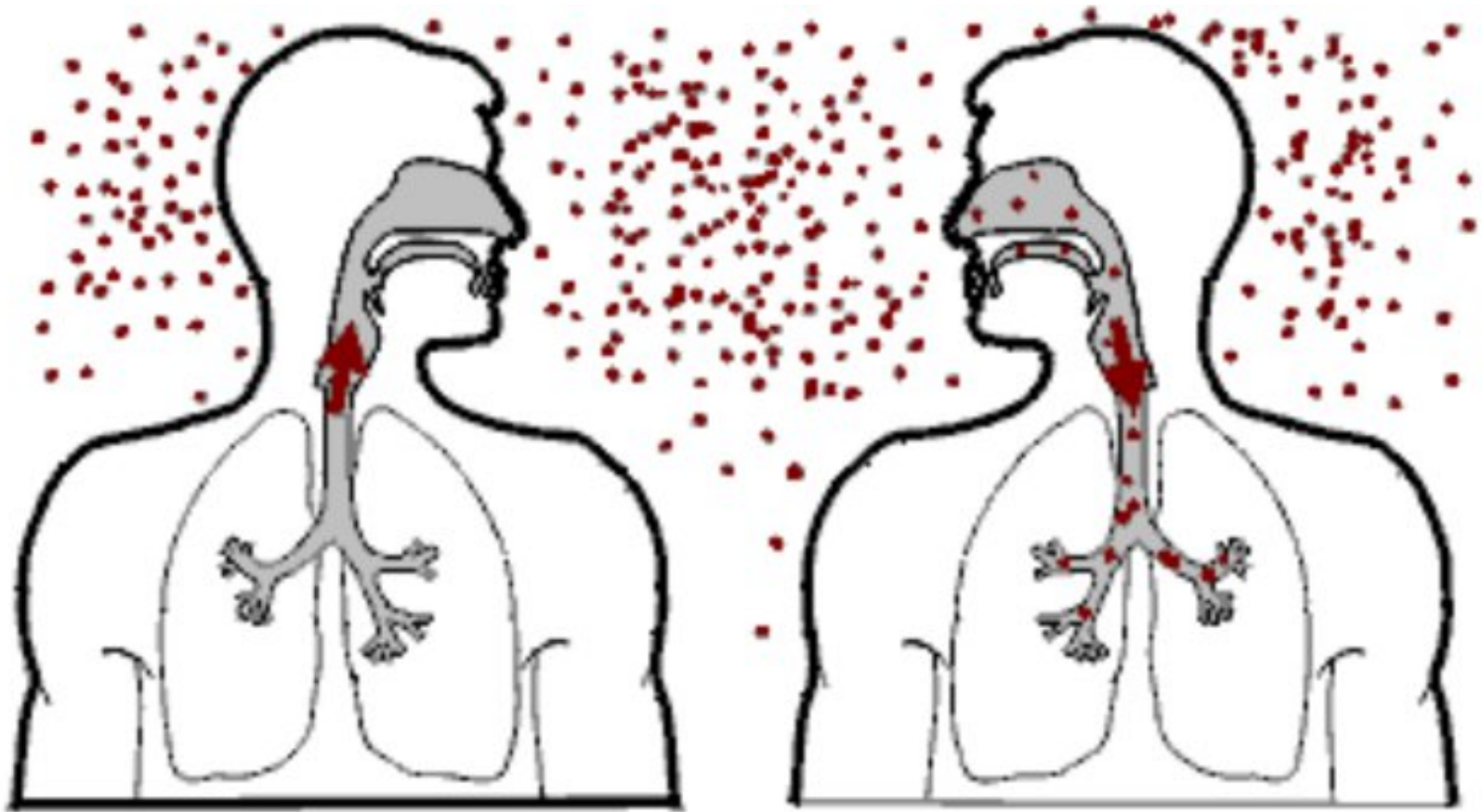
- NOTIFY receiving area before transport.
- Transport patient on gurney or wheelchair.
- Cover patient with a clean sheet.
- Dedicated medical equipment for use on this patient.

Isolation Precautions: Airborne



- Use in addition to Standard Precautions
- Negative Pressure Room
- N-95 respirator or PAPR
- Airborne Transmissible Diseases (ATD) Examples:
 - **Tuberculosis**
 - **Measles**
 - **Chicken pox**
 - **Novel influenza with aerosolizing procedures**

Airborne Transmission



AIRBORNE PRECAUTIONS

N95 OR PAPR REQUIRED

Door to Remain Closed

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Report to Nurse
Before
Entering



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enfermera antes de
entrar

HAND HYGIENE



OR



OR



Soap & Water
OR
Alcohol Hand Sanitizer
when entering & leaving
room

PERSONAL PROTECTIVE EQUIPMENT (PPE)



- Staff to wear N95 or PAPR.
- Visitors to wear a surgical mask.
- Gloves (all) when entering room.
- Upon exiting, remove PPE inside room and perform hand hygiene.

CLEANING



- Dedicated equipment to the room if possible; otherwise clean/disinfect all medical equipment after each patient use.
- Discard disposable equipment when patient is discharged.

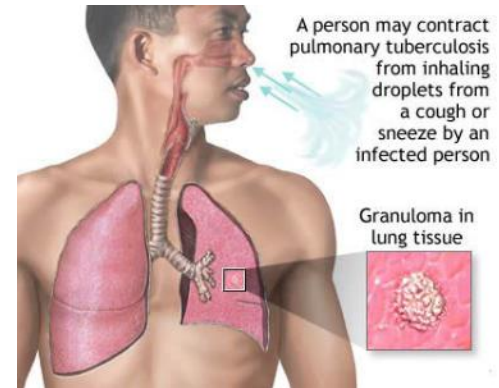
TRANSPORT



- **NOTIFY** receiving area before transport.
- Patient wears a surgical mask when out of the room, if tolerated.

Tuberculosis (TB)

- Risk factors:
 - Recent immigrant
 - Immunosuppressed or HIV
 - Resident of prison, shelter, LTC facility
 - Known exposure or previous positive skin test
 - History of TB, did not complete therapy



Tuberculosis (TB) (like vs)

Latent TB (non-pulmonary)

- Positive skin test
- Normal CXR
- No Clinical Signs or Symptoms
- CANNOT spread disease to others
- Treated with INH for prophylaxis
- Must be reported to Infection Control
- No isolation

Active TB (pulmonary)

- Positive skin test
- Abnormal CXR
- Clinical Signs and Symptoms
- CAN spread disease to others
- Must be reported to Infection Control
- Must be in isolation



Confirmed TB Patients

- On TB therapy who are hospitalized are kept in airborne precautions at least 2 weeks and until 3 sputum smears are negative for ATB (Acid-fast Bacilli)



Discharging TB Patients on TB Medications

Before the patient is discharged:

- Contact the patient's Discharge Planner to request Orange County Health Care Agency (OCHCA) approval for discharge.
- Patient cannot be discharged until OCHCA gives approval.
- Failure to obtain OCHCA approval may result hospital fines.

TB Patients leaving AMA: Notify OCHCA the next business day



Airborne Isolation Sign

When patient is discharged or leaves room, times must be noted on the sign:

- When patient left
- When it's safe to enter room without respirator a minimum of 35 minutes.



Isolation Precautions: Droplet

- Use in addition to Standard Precautions
- Follow **Blue** Isolation Sign pictures
- Examples
 - Meningitis
 - Influenza
 - Mumps
 - Pertussis



Droplet Transmission



DROPLET PRECAUTIONS

VISITORS

Report to Nurse
Before Entering



VISITANTES

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enfermera antes de
entrar

HAND HYGIENE



OR



OR



Soap & Water
OR
Alcohol Hand Sanitizer
when entering & leaving room

PERSONAL PROTECTIVE EQUIPMENT (PPE)



- Gloves and mask required when entering room.
- Upon exiting, remove PPE inside room and perform hand hygiene.

CLEANING



- Dedicated equipment to the room if possible; otherwise clean/disinfect all medical equipment after each patient use.
- Discard disposable equipment when patient is discharged.

TRANSPORT



- NOTIFY receiving area before transport.
- Patient wears a surgical mask when out of the room, if tolerated.

Isolation Precautions: **Contact Plus**

- Use in addition to Standard Precautions
- Follow **Green** Isolation Sign pictures
- Examples:
 - C-Diff
 - Infectious diarrhea
 - Campylobacter
 - Salmonella



Contact *Plus* Transmission



DIARRRHEA



- Test the first loose stool within the first 24 hours of hospitalization including ED.
- After 24 hours, test only patients with ≥ 3 loose stools in 24 hours in hospitalized patient.

Unless diarrhea is due to laxative or stimulant to include, but not limited to Lactulose, Kayexalate, Golytely, Milk of Magnesia, Magnesium Citrate, Miralax, Contrast Media (Oral Contrast, Radio Opaque), Tube Feedings and Enemas

If loose stool continues greater than 48 hours after laxative or stool inducing meds, escalate to CN/ADA before calling MD.

Initiate Contact Plus Isolation Protocol
HANDWASH
WITH SOAP & WATER

Education to pt/family/visitors on use of gown & gloves (PPE) and hand washing with soap and water until results known

Education & C.Diff Pamphlet to pt/family/visitors when **Positive**

C-Diff Algorithm

YES

C-Diff **Positive**

NO

DC isolation, even if other stool studies such as stool culture, ova / parasites, are pending

Clostridium difficile (C. diff)

"Traditional Handwashing"

- Clean equipment and environment with bleach wipes
- Disposable equipment only
 - Stethoscope
 - BP cuff
- Viking lift only
- Any equipment brought into room must be cleaned with bleach before it leaves the room (BP machine, glucometer, portable x-ray, etc)



ALCOHOL GEL OR ALCOHOL FOAM DOES NOT KILL THE SPORES!

CONTACT PLUS PRECAUTIONS

**HAND WASHING WITH SOAP & WATER
REQUIRED**

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Report to Nurse
Before Entering



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por favor informe ala
enfermera antes de
entrar

HAND HYGIENE



**Soap & Water
ONLY**

PERSONAL PROTECTIVE EQUIPMENT



- Gown and gloves required when entering room.
- Upon exiting, remove PPEs inside room and perform soap and water hand washing.

CLEANING



- Dedicated equipment to the room if possible; otherwise clean/disinfect all medical equipment with bleach after each patient use.
- Discard disposable equipment when patient is discharged.

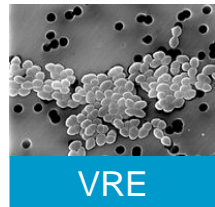
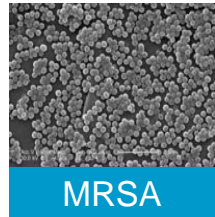
TRANSPORT



- NOTIFY receiving area before transport.
- Transport patient on gurney or wheelchair.
- Cover patient with a clean sheet.
- Dedicated medical equipment for use on this patient.

Isolation Precautions: **Contact**

- Use in addition to Standard Precautions
- Follow **Yellow** Isolation Sign Pictures
- Examples:
 - ESBL (*Extended Spectrum Beta Lactamase*)
 - Multi-drug Resistant Organisms
 - Draining Wounds that cannot be contained
- **Members with a history of MRSA or VRE and no active current infection are placed in Standard Precautions.**



Contact Transmission

Most frequent transmission:

- Direct-contact involves direct body surface to body surface
- Indirect-contact is with a contaminated intermediate object



CONTACT PRECAUTIONS

VISITORS

Report to Nurse
Before Entering



VISITANTES

por favor informe ala
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entrar

HAND HYGIENE



OR



OR



Soap & Water
OR
Alcohol Hand Sanitizer
when entering & leaving

PERSONAL PROTECTIVE EQUIPMENT (PPE)



- Gown and gloves required when entering room.
- Upon exiting, remove PPEs inside room and perform hand

CLEANING



- Dedicated equipment to the room if possible; otherwise clean/disinfect all medical equipment after each patient use.
- Discard disposable equipment when patient is discharged.

TRANSPORT



- NOTIFY receiving area before transport.
- Transport patient on gurney or wheelchair.
- Cover patient with a clean sheet.

Isolation Patient Transfers

ONLY for essential purposes (e.g. diagnostic) that cannot be performed in room

Communicate with receiving personnel.

Patient preparation:

- Wash patient hands
- Put on clean gown and protective undergarment, if necessary
- Cover open wounds with dressing
- Apply surgical mask for Droplet/Airborne Isolation



PPEs are not worn in the hallways

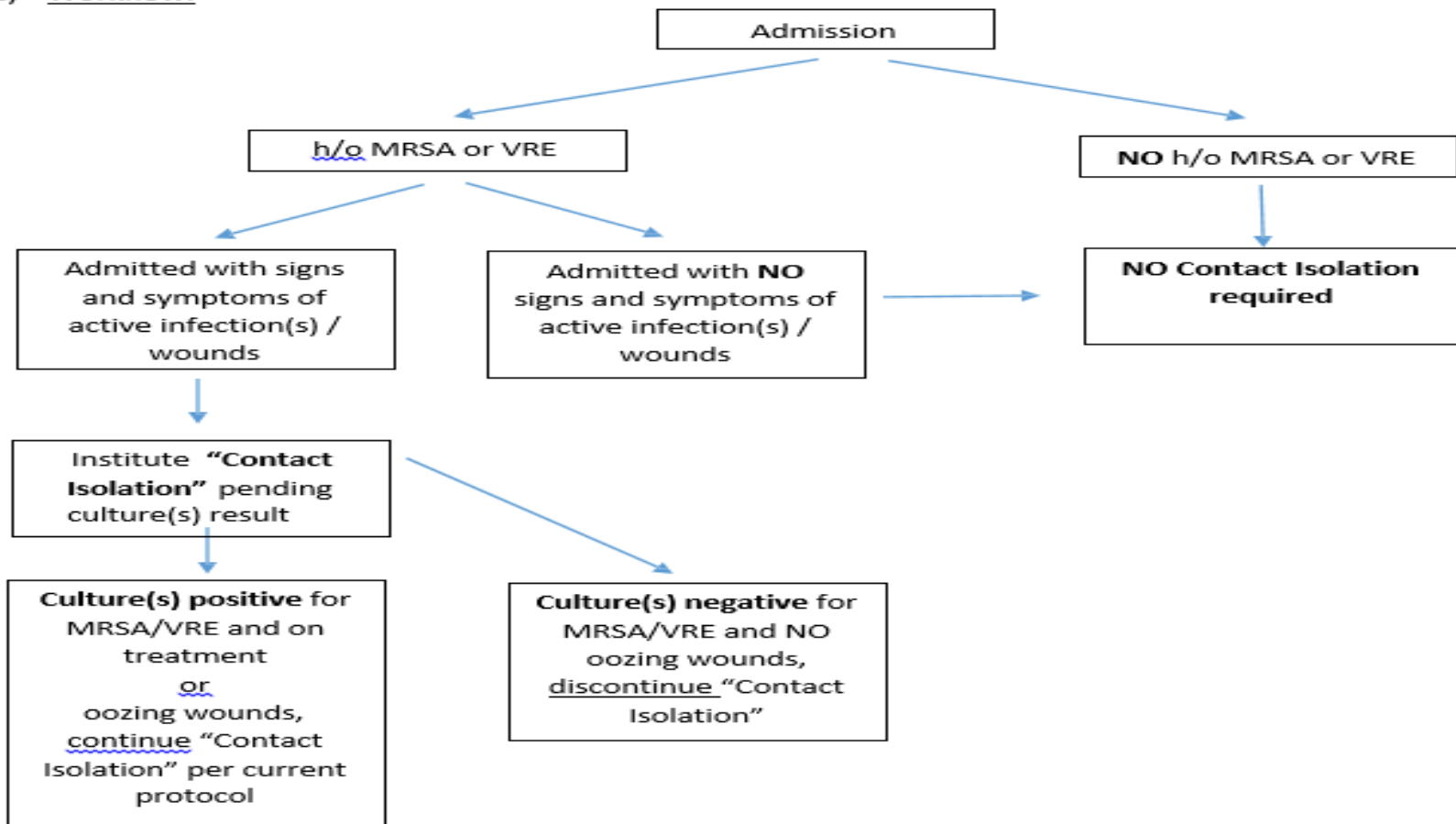
MRSA/VRE De-Isolation Protocol

- Patient with positive MRSA screen but no active infection, **do not** require isolation.
- Education to patient and family on MRSA/VRE will need to be completed and documented in patient's EMR
- **BE SURE TO FOLLOW STANDARD PRECAUTIONS AND PERFORM 5 MOMENTS OF HAND HYGIENE WITH EACH PATIENT**

MRSA/VRE De-Isolation Protocol

- 1) Definition of active infection:
 - Patient receiving treatment for MRSA / VRE
 - Patient with oozing wounds

- 2) Workflow:

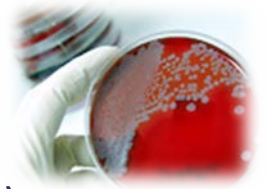


Screening for MRSA is still required by regulators (H&S Code 1255.8) in patients

Please note: Patients with previous history of MRSA will not require any nasal swab testing on admission.

MRSA Active Surveillance Screening

California legislation (SB 1058) mandates that selected patients have a MRSA Surveillance culture collected within 24 hours of admission. Patient who:



- is readmitted within 30 days
- is admitted to the Critical Care Units (ICU or NICU)
- will receive inpatient dialysis (either peritoneal or hemodialysis)
- has been transferred from another acute care or skilled nursing facility

As of January 1, 2011, chronic hemodialysis patients (no MRSA history) with an ICU stay must have another MRSA surveillance culture at the time of discharge.

Patient/family education and documentation of infection prevention strategies must be provided for any new infection.

Sequence for Donning PPEs



Perform Hand Hygiene



Gown



Mask or Respirator



Goggles or Face Shield

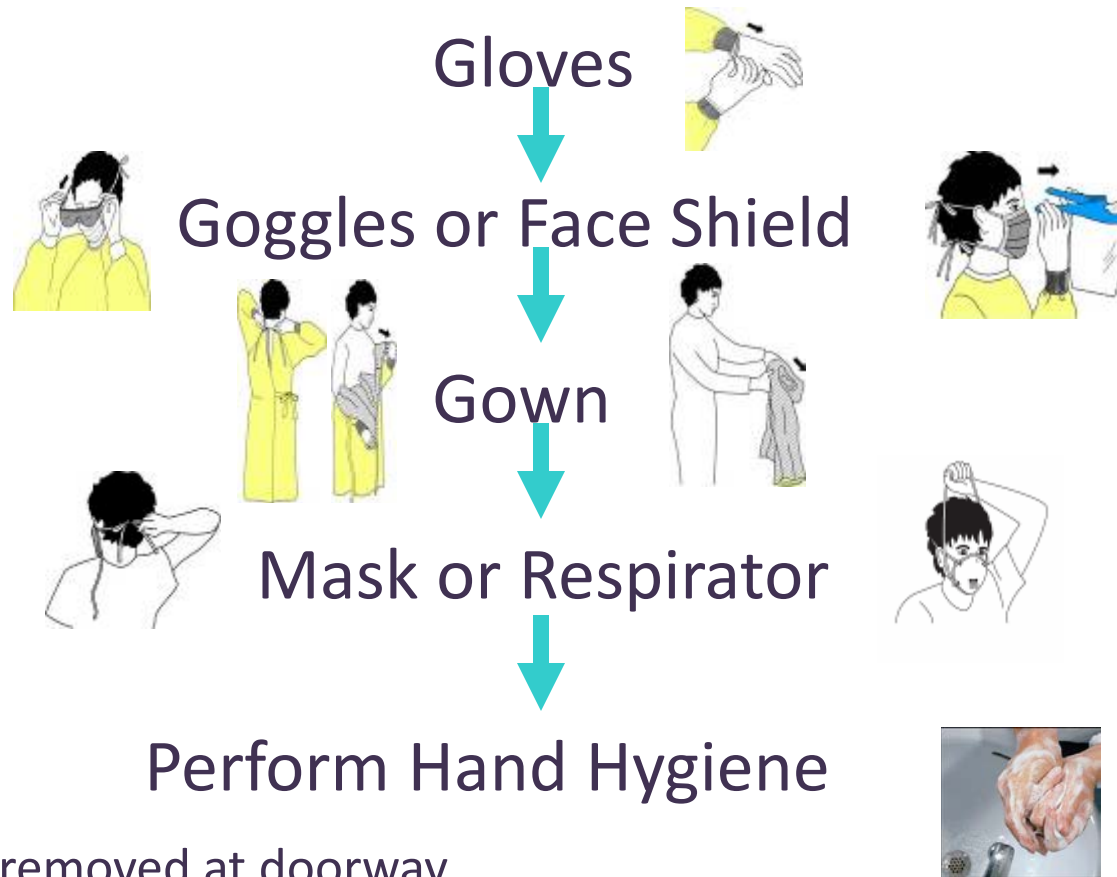


Gloves



- Keep hands away from face
- Change gloves when torn or heavily contaminated

Sequence for Removing PPEs



- All PPEs are removed at doorway.
- Exception: Respirator is removed in anteroom after closing patient door

Removal of Isolation Signs

- EVS will remove isolation signs after the room has been terminally cleaned.

**DO NOT
REMOVE
THIS SIGN**

National Patient Safety Goal #7

- Hand Hygiene
- MDRO
- CLABSI / Central Line Insertion Bundle
- CAUTI
- SSI



Multi-drug Resistant Organisms (MDRO) Strategies

- Education of the member and/or family.
- Identification and Contact Isolation for MDRO history.
- Terminal cleaning, plus enhanced practices for isolation.
- Active MRSA Surveillance cultures (ASC) for targeted populations.
- Interdepartmental communication of MDRO status.



Where can you find MDRO information?

Snap Shot

- Problem- Overview

Professional Exchange Report (PER)

- MDRO Green Banner

Infection: Clostridium difficile: Contact Plus Precaution

- Dear Doctor
- Team Communication

Lab Results

Every Handoff Communication (i.e. HCW change, interdepartmental transfer, etc.)



Central Line Associated Bloodstream Infection (CLABSI)

- Biopatch required.
- Dressing change every seven days (Mondays).
- 2 person dressing change.
- Use central line dressing change kit.
- Sterile procedure for changing central line dressings.
- Sorbaview must remain intact (if not intact, change prn).



Central Line Insertion Protocol (CLIP)

- Sterile procedure.
- Choice of insertion site (avoid femoral placement).
- Chlorhexidine (CHG) anti-sepsis.
- Biopatch required.
- Avoid suturing.
- Sorbaview placement.
- First dressing change to occur in 24 hours.
- Document on CLIP form (in HC).

CLIP Form

- Form must be filled out completely.
- It is sent directly to CDC.
- Publicly reported data.

Lines, Drains, Airways, Tubes, and Wounds Properties

Hemodialysis Catheter Temporary catheter NON-TUNNELED Groin, Right FEMORAL - RIGHT

Property	Value
Origin of Site (if not this admission)	
Placement Date	1/3/2015
Placement Time	1416
Person recording insertion practice	OBSERVER
Site Prep	Chlorhexidine
Skin prep agent dry at skin puncture	YES
Maximal sterile barrier protection used (INCLUDES Mask/Eye shield, Large sterile drape, Sterile gown, Sterile gloves, Cap)	SEE PHYSICIAN DOCUMENTATION
Catheter Type	Temporary catheter
TYPE (TUNNELED = Broviac, Hickman, Groshong, Permanent Dialysis) (NON-TUNNELED = Single, Double, Triple Lumen, Swan-Ganz, Temporary Dialysis)	NON-TUNNELED
Size	
Antimicrobial Line	YES
Catheter Location	Groin, Right
Site	FEMORAL - RIGHT
Line Depth	
Line used for Dialysis	YES
Hemodialysis Catheter	

Value: SEE PHYSICIAN DOCUMENTATION
Comment:
Time Recd: 01/03/15 1417
User Taken:
User Recd:
Show Audit:

Catheter-Associated UTI (CAUTI)

- Hand hygiene before handling urinary catheter*
- Daily review of indwelling catheter necessity with prompt removal if unnecessary
- Unobstructed flow
- Bag below level of bladder
- Tubing secured to patient
- Bag off the floor
- Tamper seal unbroken*



Surgical Site Infections (SSI)



- **Pre-op**
 - Patient education for SSI prevention
 - Showering night before and morning of surgery
 - Appropriate hair removal
- **Intra-op**
 - SCIP measures
- **Post-op**
 - Prophylactic antibiotics discontinued within 48 hours after surgery end time
 - Patient education for hand hygiene, wound care and follow up

Patient/Family Education

- Provide, review and document printed patient education materials from Clinical Library
 - Clean Hands are Everyone's Responsibility
 - Infection specific handouts (e.g. MRSA, C. difficile and others)



Ventilator Associated Pneumonia (VAP) Bundle

- Elevation of Head of bed to at least 30 degrees.
- Ventilator weaning (sedation vacation).
- Daily assessment of readiness to extubate.
- Peptic ulcer disease prophylaxis.
- DVT prophylaxis.
- Oral Care.
- Swallow evaluation.
- Early mobilization.
- CHG bathing.



Sharps Safety

- Handle sharps cautiously and safely
- Use sharps safety products when available
 - Activate sharps safety mechanism
- **DO NOT** recap needles
- Minimize manipulation of the sharp
- Establish “Sharp Safety Zone” as needed
- Dispose immediately in sharps container
 - DO NOT go over the fill-line
- **DO NOT** place linen or trash receptacles under a Sharps Container



Equipment/ Furniture Cleaning and Disinfection

Patient Care Equipment



- Clean and disinfect multi-patient use equipment between patients.
- Discard single use items (i.e. PPE).
- Clean and disinfect the patient “zone” (e.g. bedrails) once a day.
- Clean and disinfect with hospital approved disinfectant wipes:
 - **allow wet surface to air dry according to manufacturer’s guidelines (*see product label*)**

Linen Handling

To prevent possible contamination from an infected patient's linen (e.g. scabies)



Hold linen away from your body and uniform



Dispose of soiled linen in covered and labeled receptacle



Refrigerator Monitoring

- Use separate refrigerator for food and medication
- Awarepoint records refrigerator and freezer temperature readings daily.
- If area not open, enter “CLOSED” on log
- No STAFF/STUDENT FOOD allowed in patient and medication refrigerator
- It is the responsibility of the department to clean and defrost on a routine basis



High Level Disinfection



High level disinfection is used for reprocessing reusable instruments such as: flexible sigmoidoscopes, laryngoscopes, diaphragm fitting rings, vaginal probes.

- Vaginal probes are disinfected in a Trophon unit using hydrogen peroxide cassettes to disinfect both the probe and handle. Trophon unit may be stationed in an exam room, but may not run while a member is in the room.

Staff must receive appropriate education and competency validation prior to working with agents used for high level disinfection

Safety Procedures:

- ✓ Solution must be used in well ventilated rooms
 - NOT in patient care rooms
- ✓ Gloves and eye protection must be used when diluting or using the solution

Don't Forget: Clean Hands Save Lives!

