

Infection Control and Prevention

Annual Education - Clinical Staff



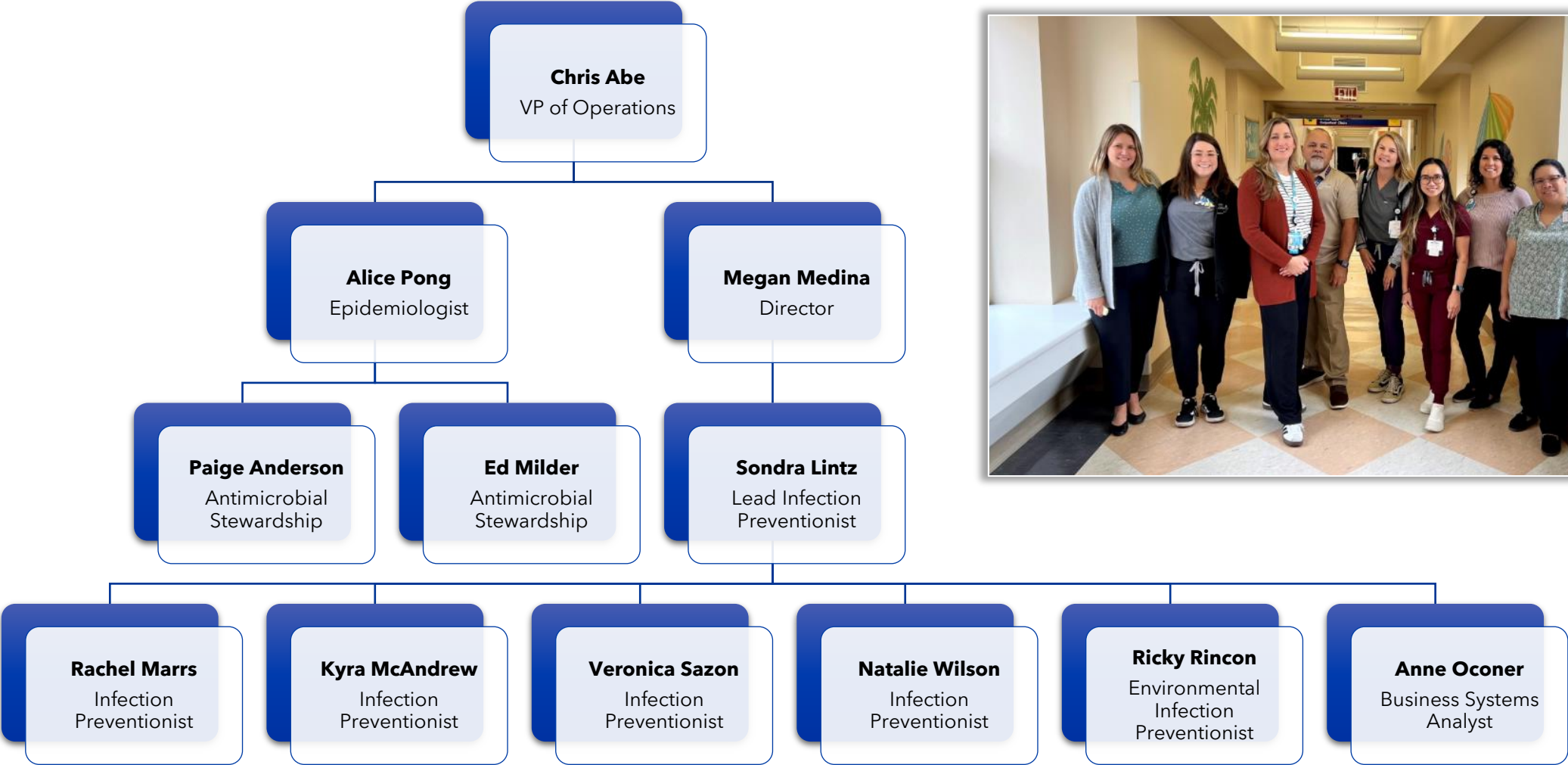
Learning Objectives

Upon completion of this module, the learner should be able to:

- Employ Infection Control methods to minimize HAIs.
- Use proper hand hygiene technique.
- Practice proper donning and doffing of Personal Protective Equipment (PPE).
- Access infection control information and up-to-date documents.
- Practice ways to reduce bloodborne pathogen exposures.
- Comply with standard and transmission-based precautions.
- Describe organizational protocols related to COVID-19.



Infection Prevention Team



Tips for Paging Infection Control



Use Available Resources Before Paging

- Policies & Procedures Manual
- Isolation Sign Cheat Sheet
- Charge RN



No PHI

- Webpaging system is not secure, no MRN or patient names in the page



Include Contact Info

- Provide your name & call back information



Page the Correct Infection Preventionist

- On the Intranet, click on the “Web Paging & On-call button” on the right
- Click “OnCall” tab and search for Infection Control (*not Infectious Diseases*).

Mon-Fri (7 a.m. - 5 p.m.)

- Page Infection Control, Group

After Hours (Nights, Weekends, Holidays)

- Page Infection Control, On Call



After Hours

- Infection Preventionists are not on campus after hours and may not have computer access at the time of your page. Be prepared to provide information about your patient.

NHSN CDPH Red Book

SharePoint Search this site

Rady Children's Intranet Home About Us HR & Benefits Rady Children's Health Departments Clinical Resources Education Policies/Forms Frequently Accessed Links RCHSD.org

Infection Control Documents Edit Internal Not following

+ New Promote Page details Immersive reader Analytics Published 1/13/2025

Infection Control

The Infection Control Team is here to help prevent our patients and staff from getting infections while in the hospital

FRIENDLY REMINDER: If you test positive for COVID-19, please contact your supervisor to be removed from work. Please do not come to work if you are feeling sick & help keep our patients, families and coworkers healthy! Thank you!

Leadership: click here for latest return to work guidance [COVID-19 RTW Guidelines](#)

The Bug Buster

January 2025

A newsletter that helps you fight off germs and infections with tips, tricks, and best practices

AVIAN INFLUENZA

Bird flu, also known as avian influenza A (H5N1) or highly pathogenic avian influenza (HPAI), is caused by a virus that can cause serious illness and death in birds and mammals. Most bird flu infections in California farm animals have been found in poultry, such as chickens,

Frequently Accessed Links

- [Infection Control Data](#)
- [San Diego Respiratory Virus Report](#)
- [COVID-19 Local Situation](#)
- [Bug of the Month](#)
- [COVID-19 Manual](#)
- [Isolation/Transmission-Based Precautions Policy](#)
- [Isolation Cheat Sheet](#)
- [Safety Card Rounding Forms](#)

Construction Documents

PICRA/ICRA

Visit the Infection Control page on SharePoint to access IC related policies and other important information.

Hand Hygiene

- **Gloves are not a substitute for hand hygiene**
- Hand gel only works the way it should if hands are rubbed together until dry
- If gel is used multiple times in a row, wash with soap and water to remove gel residue
- Watches & rings impede thorough hand hygiene



Appearance Policy - Infection Prevention Guidelines

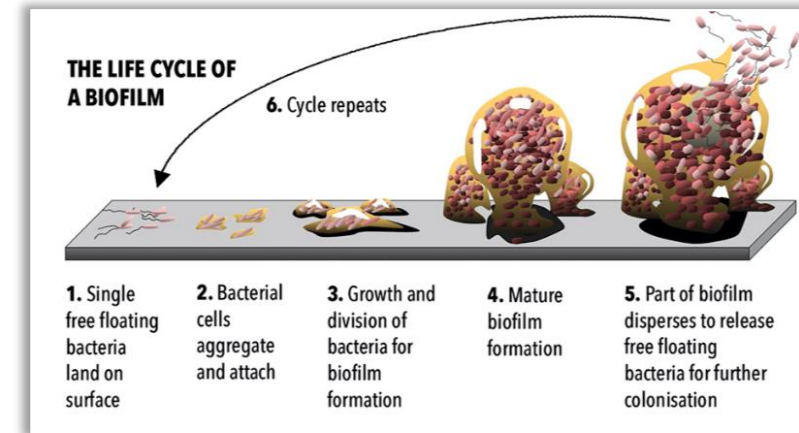
- Wear neat, clean, clothes made from tightly woven & non-absorbable fabrics (scrubs)
 - Change clothes if they become soiled or contaminated
 - T-shirts and sweatshirts should not be worn during patient care
- Bare below elbows
 - If a ring is worn, it must be a flat band with no grooves or stones
 - Silicone rings are a good option
 - If a watch is worn, it must have a smooth, cleanable band
 - Clean it frequently during your shift
 - Must not impede hand hygiene
- Tie long hair back
- Nails must be kept short (1/4 inch) and clean
 - No artificial nail enhancements or chipped nail polish



Environmental Cleanliness

- Surfaces that are not cleaned and disinfected regularly can develop biofilm that contains drug-resistant bacteria, fungi, and other organisms
- Dust can harbor fungal spores and other microbes, creating an infection risk
 - Increased risk with advanced airways or compromised immunity
 - Notify EVS for cleaning needs
 - Excess patient belongings/clutter impede EVS ability to clean

Infections from environmental contaminates can be serious or fatal.



Equipment Cleaning







- Follow the Instructions For Use (IFU) for the cleaning product & the item being cleaned
- Know the contact time or “wet time” for the product you are using

Example:

- Giraffe isolettes must be cleaned with CaviWipes, a product that meets their IFU to prevent etching of the acrylic
- Keep the surface wet for 3 minutes per the CaviWipes IFU

Low-Level Disinfection

Contact time: Amount of time to kill organisms for a specific product, also called **wet** time or **kill** time. The product needs to stay wet on the surface of the item for the entire contact time to be effective.

Product	Product Name	Uses	Contact Time
	Super Sani-Cloth	Used for most surfaces and equipment	2 minutes
	Sani-Cloth Bleach	Used for C. difficile, Norovirus, Hepatitis A, & Adenovirus	4 minutes
	Oxivir 1	Used by EVS to clean rooms and surfaces	1 minute
	CaviWipes	Used for daily cleaning of giraffe isolettes	3 minutes

High Touch Surfaces - Wipe Once Per Shift



Patient Rooms

- Respiratory Equipment
- IV & Feeding Pumps
- Clinical Equipment
- Monitors
- Bed Rails
- Bedside Table



Work Areas

- Phone
- Keyboard
- Mouse
- Desk
- Other high touch items

Shared Equipment Cleaning

- Shared equipment must be cleaned with a hospital disinfectant before and after use
- Only clean equipment may be placed in hallways and clean storage rooms
- Clean up drips and spills when they are fresh and easier to clean
- Dirty equipment can harbor organisms even when not visibly soiled
- Contaminated equipment is a serious infection risk!



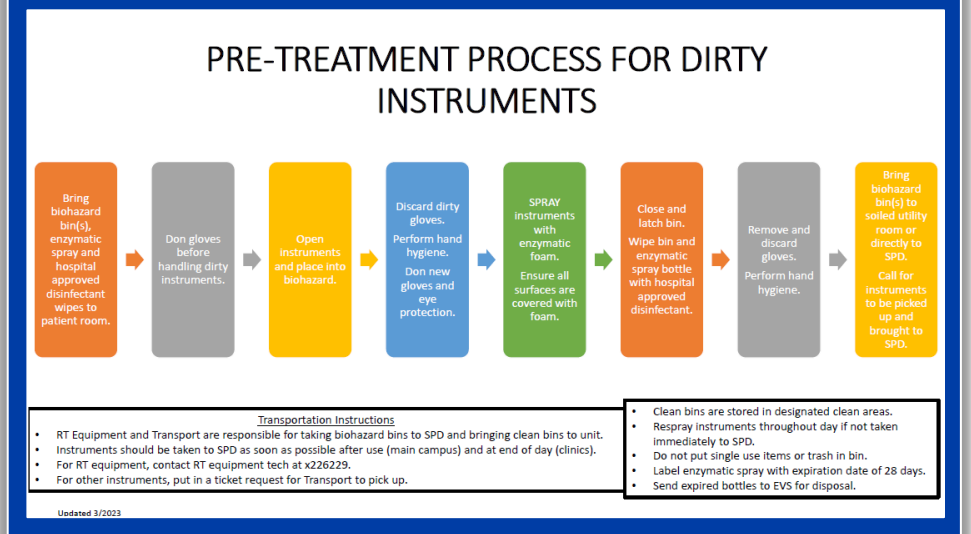
All photos from RCHSD clean spaces

High-Level Disinfection

Employees working in areas that use scopes or equipment processed by Sterile Processing (SPD) must understand and be able to speak to this process.

- Clean bottles of enzyme spray & clean bins are stored in clean utility room
- Processing of equipment (*surgical instruments, laryngoscope blades*) begins at the point of use (*exam room, patient room*)
- Place items in biohazard bin and apply enzymatic spray
- Keep instruments open so spray can contact all surfaces
- Bin with dirty item(s) is placed in dirty utility room until picked up

Know where to find this poster in your area and familiarize yourself with the steps.



Linens Handling

Soiled Linen

- Wear gloves
- Remove all tape, adhesive leads, and trash
 - Adhesive gets melted into the fabric during laundering, rendering the items unusable
- Roll-up linen, do not shake
- Do not carry against the body or clothing
- Place in hamper, not on the floor

Reject Linen (stains/damage)

- Place in reject linen bag, NOT in hamper
- The side of linen carts have a black reject linen bag. Reject linen hampers are in dirty utility rooms.
- Reject linens need to be removed from service. Placing them in the regular hamper will just get them rewash and redistributed.
- Reject linens are tracked. We do not pay for linens that are rejected.



Prevent Bloodborne Pathogen Exposures

- Securely position patients during immunizations, lab draws, and IV access to avoid needlestick injuries.
- Use additional staff to assist as needed.



Prevent Bloodborne Pathogen Exposures

- Properly dispose of sharps immediately after use
 - Do not place down on gurney/bed
 - Lost sharps can pose a risk to staff when handling linens and trash
 - Do not place on top of sharps bins
- Immediately clean any drips or spills



Infection Prevention Bundles

What are bundles?

- Small set of evidence-based interventions that, **when implemented together**, will result in improved outcomes
- Every component must be done every time to be compliant with the bundle

Which bundles do we use at RCHSD?

- *Central Line Associated Blood Stream Infection (CLABSI) Prevention* - Insertion & Maintenance of Central Lines
- *Catheter Associated Urinary Tract Infection (CAUTI) Prevention* - Insertion & Maintenance of Urinary Catheters
- *Ventilator Associated Pneumonia (VAP) Prevention*
- *Surgical Site Infection (SSI) Prevention*

Bundle compliance

- Safety Cards are used in discussion with bedside nurses and respiratory therapists
- Not an audit, used for learning & communication
- Opportunity to discuss issues and barriers with leaders

Transmission-based Precautions



Physician order not required. Anyone can place a patient on precautions, but only infection control can clear precautions.



Precautions that are posted must be followed every time
(a person may choose to wear more PPE than required)



Bedside nurse is responsible for ensuring the correct sign is up (based on patient condition) and that it matches the EMR



Patients are put on precautions for symptoms & positive/pending tests for infectious diseases
(what if it is positive?)



Symptomatic patients may need isolation, even with negative tests



Accurately chart symptoms to guide isolation needs
Respiratory symptoms, vomiting, diarrhea, etc.



If removal of precautions is needed, please page infection control to review the patient



Guidance based on CDC & AAP recommendations (see [SM 9-11 Standard and Transmission-based Precautions](#))



Isolation Precautions Education for Families

- On admission, families require education on the precautions being used
- If isolation changes during their stay, educate on the new precautions
- Information sheets can be printed directly from the Education section in EPIC. They are also available on the [Infection Control Department Site](#).

The screenshot displays the EPIC Education interface. At the top, a navigation bar includes tabs for Summary, Chart Review, Flowsheets, Notes, Isolations and Infections, Health Maintenance, FYI, Episodes of Care, Document List, Patient Station, and Education. The Education tab is active. Below the navigation bar, the 'Education' section is visible. On the left, a list of assessment items is shown, with 'Contact and Droplet Precautions' selected. The main content area displays 'Isolation Precautions' and 'Contact and Droplet Precautions' defined. A blue callout bubble with the text 'Print from here' points to a 'Print' icon in the top right corner of the main content area. A red circle highlights the 'Patient Handouts' section on the right, which includes links for 'Contact and Droplet Precautions'.






COVID Precautions

- N95 mask, eye protection, gown, & gloves
- See the [COVID Manual](#) on the Intranet for most up-to-date guidance on COVID
- Guidelines may change, and the most current information is in the COVID manual on the SharePoint site - not previously-printed versions of documents

IN ADDITION TO STANDARD PRECAUTIONS:

STOP ALTO **CONTACT AND DROPLET PRECAUTIONS** **STOP ALTO**
(w/ Eye Protection)


Negative pressure with ante room (preferred) or use High Efficiency Particulate Air (HEPA) filter. Door to remain closed at all times.

				
WASH HANDS	GOWN	N95 MASK	FACE SHIELD	GLOVES
LAVARSE LAS MANOS	BATA	MASCARILLA N95	PROTECTOR FACIAL	GUANTES

VISITORS: Limited to one parent.
VISITAS: Limitadas a un padre.

TRANSPORT INSTRUCTIONS:

- Limit transport of patients to medically-necessary purposes
- During transport, place surgical mask on the patient
- Remove and dispose of contaminated PPE and perform hand hygiene prior to transporting patients on Contact Precautions



Rady Children's Hospital-San Diego

When Measles or Varicella is Suspected

1. **Identify** - On the differential? Testing for it?
2. **Isolate** - Place patient in a negative pressure room
Have family and patient wear a surgical mask. If already admitted to a regular room, work with charge nurse to move patient
3. **Inform**- Notify Infection Control
 - Keep door closed to maintain negative pressure
 - No additional visitors allowed
 - Health care workers must be immunized or immune to Measles & Varicella and wear a fit-tested N95 mask per OSHA requirement
 - Decreased childhood immunizations due to the pandemic may cause an increase in vaccine-preventable disease

IN ADDITION TO STANDARD PRECAUTIONS:

STOP ALTO **CONTACT AND AIRBORNE PRECAUTIONS** **STOP ALTO**

Negative pressure with ante room (preferred) or use High Efficiency Particulate Air (HEPA) filter. Door to remain closed at all times.
For vaccine preventable diseases, all staff/physicians entering must have immunity.

			
WASH HANDS LAVARSE LAS MANOS	N-95 MASK MÁSCARA	GOWN BATA	GLOVES GUANTES

VISITORS: Immediate family only. Speak with the nurse before entering the room

VISITANTES: Familia inmediata solamente. Hablar con la enfermera antes de entrar a la habitación

TRANSPORT INSTRUCTIONS:

- Limit transport of patients to medically-necessary purposes
- During transport, place surgical mask on the patient
- Ensure that infected or colonized areas of the patient's body are contained and covered
- Remove and dispose of contaminated PPE and perform hand hygiene prior to transporting patients on Contact Precautions

 **Rady Children's Hospital - San Diego**

Measles

Consider measles in people with:



Compatible illness

PRODROME

- Fever, often high
- Cough, coryza, conjunctivitis
- Koplik spots

RASH ONSET (usually 14 days after exposure)

- Begins a few days after onset prodrome
- Maculopapular rash begins on face and head
- Spreads to trunk then extremities (down and out)
- Fades in order of appearance



Potential source of exposure in 3 weeks prior

- International travel
- Travel to outbreak-affected area
- Contact with people with similar symptoms



No history of vaccination or evidence of immunity



Note: Not all people with measles will meet all of these criteria.

US cases of measles are often brought home by unvaccinated travelers



Varicella (Chickenpox)

- Few days of fever, malaise, headache
- Then, **itchy** rash starting on **face & torso**
- Spreads to scalp, arms and legs
- On mucous membranes, genitals
- Blisters at different stages
- 200-500 blisters in unvaccinated
- <50 blisters in vaccinated (breakthrough)



When TB is Suspected


1. **Identify** – TB on the differential? Testing for it?
2. **Isolate** – Place patient in negative pressure room
 - Have family and patient wear a surgical mask
 - If already admitted to a regular room, work with charge nurse to move patient
3. **Inform**- Notify Infection Control
 - Negative Pressure room required
 - Door must remain closed to maintain negative pressure
 - No additional visitors allowed
 - Staff must wear a fit tested N95 mask
 - Patients with active TB cannot be discharged without approval from SD Public Health TB Control
 - Infection Control is the liaison between the medical team and TB Control



Aerosol Generating Procedures (AGPs)

- AGPs are procedures that cause aerosolization of particulates
- Regulations are followed to protect health care workers from the aerosolized particles
- Please review the Respiratory Protection Program ([SM 2-20](#))

RESPIRATORY PROTECTION PROGRAM



As we transition to our new normal with COVID, we are updating our guidance on N95 usage for Aerosol Generating Procedures (AGPs). These guidelines are based on recommendations by CDC, CDPH & OSHA standards. The following will be our guidelines moving forward:

AIRBORNE TRANSMISSIBLE DISEASES	AEROSOL GENERATING PROCEDURES
<ul style="list-style-type: none">• Anthrax/Bacillus anthracis• Avian influenza/Avian influenza A viruses (strains capable of causing serious disease in humans)• Varicella disease (chickenpox, shingles)/Varicella zoster and Herpes zoster viruses, disseminated disease in any patient.• Measles (rubeola)/Measles virus• Monkeypox/Monkeypox virus• Novel or unknown pathogens• Severe acute respiratory syndrome (SARS)• Smallpox (variola)/Variola virus• Tuberculosis (TB)/Mycobacterium tuberculosis - suspected (Pulmonary or laryngeal disease) Confirmed (Pulmonary or laryngeal disease extrapulmonary draining lesion)• Any other disease for which public health guidelines recommend airborne infection isolation: COVID-19	<ul style="list-style-type: none">• CPR• Intubation/Extubation procedure• Bronchoscopy (BAL) procedure• Manual ventilation• Noninvasive ventilation (BIPAP/CPAP/NCPAP)• Postmortem/Autopsy• Open Suction/ Deep suction (only ETT/Trach), procedure/manipulation• Sputum Induction• Certain ENT and Dental procedures (dental procedures involving: Ultrasonic scalers; high-speed dental handpieces; air/water syringes; air polishing; and air abrasion.

• N95 masks are required for all contact with patients confirmed or suspected to have an airborne transmissible disease
• N95 masks will still be required for patients diagnosed with COVID-19.
• N95 masks are also required for emergency intubations when symptom assessment has not been done or cannot be done.
• Surgical masks are required when performing AGPs on all other patients, regardless of diagnosis.
• All patients should be screened for symptoms suggestive of an airborne transmissible disease.

MARCH 9, 2023

PPE Reminders

- PPE is considered contaminated once you enter a room
 - If you need to leave, remove PPE and clean hands. Wear new PPE when you return
- If wearing a mask all day, change it frequently
 - Surgical masks should be discarded when exiting a patient room and replaced with a new mask
- Hands get contaminated when putting on a mask
 - Perform hand hygiene before moving to the next task
- PPE at RCHSD is disposable. Please do not save items for later use after they have been worn
 - Exception: N95 mask (reuse only for one shift, and for a single patient or diagnosis (e.g., 1 TB patient, or 2 COVID patients). Store in a dated paper bag

[CDC - Donning and Doffing Sequence - Review](#)



Gloves

- Wash/sanitize hands before and after glove use
- Change gloves:
 - Between patients
 - After contact with bodily fluids or contaminated surfaces
 - When moving from a soiled body site to a clean body site on the same patient
 - If gloves become damaged

GLOVES ARE NOT ENOUGH

Wearing gloves is **NOT** a substitute for cleaning your hands.

- ▶ Your hands can get contaminated while wearing or removing gloves.
- ▶ Cleaning your hands after removing your gloves will help prevent the spread of potentially deadly germs.

CONTAMINATION DURING GLOVE REMOVAL IS COMMON

Protect Yourself.
Protect Your Patients.

CLEAN HANDS COUNT

Who do your **#CLEANHANDSCOUNT** for?

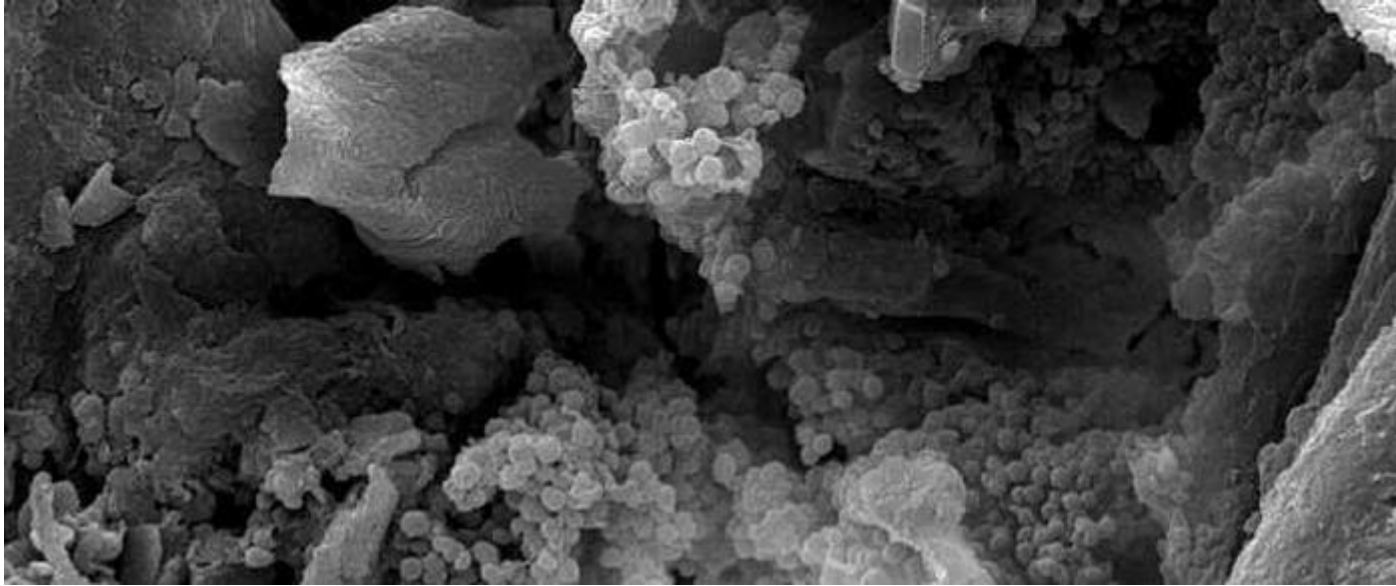
 **www.cdc.gov/HandHygiene**

Patient Transport

When transporting patients:

- **Gloves should not be worn to push equipment during transport.**
 - Chair & bed handles, IV poles, & other items should be wiped off and then pushed with bare hands
 - Gloved hands can transfer germs to doors & elevator buttons
 - Bare hands allow for hand sanitizer use along the way
- Gowns and gloves worn only when providing direct patient care (examples: CPR or bagging)
- If a patient may need care during transport, PPE should be brought along and donned only if needed
- Masks & eye protection should not be removed for transport
- Once at the destination, PPE may be donned before contact with the patient as needed





MDROs & Antimicrobial Stewardship

Multi-Drug-Resistant Organisms (MDROs)

MDROs - Microorganisms resistant to one of more classes of antimicrobial agents.

- Methicillin resistant Staphylococcus aureus (MRSA)
- Vancomycin resistant enterococci (VRE)
- Extended spectrum beta lactamase (ESBL) producing bacteria
- Carbapenem-resistant Enterobacterales (CRE)
- Drug resistant Gram-negative organisms
- Clostridioides difficile (C. diff)
- Burkholderia cepacia
- Candida auris

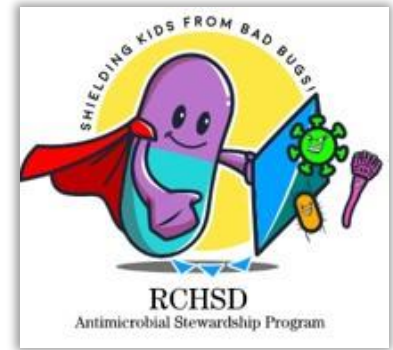
At Risk Patients

- Higher severity of illness
- Chronic conditions - hemodialysis
- Extended hospital or ICU stay
- Prior antibiotic use
- Transfers from acute/chronic care facilities
- Poor compliance with Infection Prevention practices
- Hospitalization outside the US

Prevention Strategies

- Accurate and prompt diagnosis and treatment of infection
- Appropriate isolation of patient
- Continued adherence to transmission-based precautions
- Judicious use of antimicrobial agents (antimicrobial stewardship)

RCHSD Antimicrobial Stewardship Goals



Using antibiotics wisely to treat infections effectively while avoiding unnecessary use to prevent antibiotic resistance.

Reduce antimicrobial resistance

- Antimicrobial-resistant infections cause more than 2 million illnesses and 23,000 deaths each year, costing the U.S. healthcare system over \$20 billion each year
- Antibiotic resistance in children is of particular concern because they have the highest rates of antibiotic use and often have fewer antibiotic choices since some antibiotics cannot be safely given to children

Reduce antimicrobial related adverse drug events (ADEs)

- Antibiotics cause 1 out of 5 emergency department visits for ADEs
- Antibiotics are the most frequent cause of ADEs in children
- Seven of the top 15 drugs involved in ADEs are antibiotics

Reduce *C. difficile* rates

- 250,000 infections per year requiring hospitalization or affecting already hospitalized patients
- 14,000 deaths per year
- At least \$1 billion in excess medical costs per year

RCHSD Antimicrobial Stewardship



Specify dose, duration and indication of all antibiotics. Use stop dates for antibiotic orders



Follow Appropriate Antibiotic Use Guidelines (pharmacy website)



Antibiotic “time outs” - reassess the need for antibiotics at 48 hours from initiation



Switch from IV to oral antibiotics as soon as possible



Be aware of local hospital and community bacteria resistance patterns (antibiogram available on the Intranet and in EPIC)



Target antibiotic dosing to the site of infection