#### Infection Prevention

What everyone needs to know





#### INFECTION PREVENTION AND CONTROL

- Is everyone's responsibility.
- The IC Program is a comprehensive plan to prevent and reduce infections.
- The CDC estimates that nearly 2 million patients (5-10% of hospitalized patients) experience a Healthcare Associated Infections (HAIs)each year.





#### INFECTION PREVENTION AND CONTROL

 These infections lead to almost 100,000 deaths and \$4.5-6.5 billion in extra costs.

 The CDC has guidelines on infection control and the prevention of infections.





## Standard Precautions

<u>Isolation Precautions policy</u> in DMS





#### **Prevention of HAIs**

- Prevention is utilizing all infection control policies and procedures and good hand hygiene with soap and water or with alcohol-based hand cleansers.
- Hand Hygiene is the most effective tool that can be used to prevent health care associated infections.





#### **Handwashing or Alcohol**

**Hand Hygiene Policy** in DMS

### Handwashing with Soap and Water

- When visibly soiled
- Before eating
- After using bathroom
- When coming into contact with a patient that has a spore like Clostridium difficile or Bacillus anthracis.
- Good practice to use soap and water with any diarrheal illness because it could be Clostridium difficile.

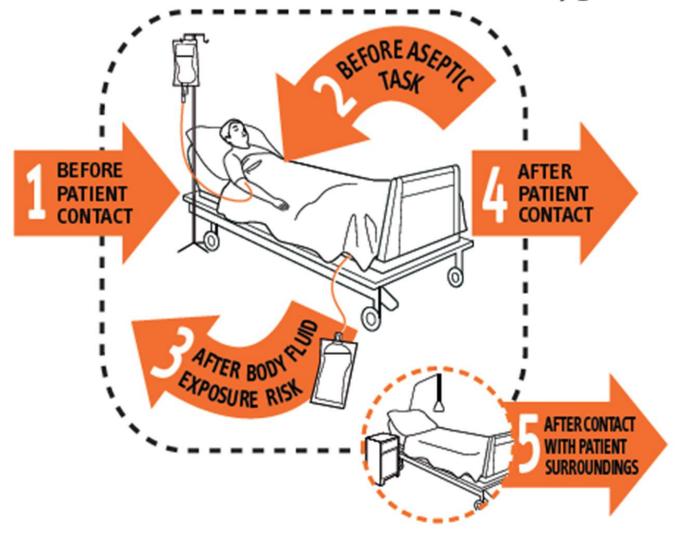
#### **Alcohol-based products**

- Before beginning work
- Before & after patient contact
- Before & after giving medications or treatments
- Before & after handling used equipment
- After eating
- After using gloves
- After coughing, sneezing or touching eyes or nose





#### WHEN? Your 5 moments for hand hygiene







#### **Standard Precautions**



- 1. Assume all patients/body fluids are potentially infectious.
- 2. Perform Hand Hygiene with appropriate product according to the five moments for hand hygiene discussed earlier
- 3. Use Personal Protective Equipment (PPE) as needed for patient care based on risk/procedure.
- 4. Know the location of PPE on your unit.
- 5. Includes "Cover Your Cough", our respiratory hygiene protocol.
  - a. Respiratory Hygiene policy in DMS





## PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE are stocked in all patient care areas.

Always anticipate possible exposures.

- GLOVES
- GOWNS
- FACE MASKS
- EYE SHIELDS / GOGGLES
- SHOE COVERS







<sup>\*</sup> Your patients are watching you.

# Transmission Based Precautions

<u>Isolation Precautions policy</u> in DMS





### Transmission Based Precautions in addition to Standard Precautions

- Used in addition to Standard Precautions for <u>suspicion and confirmation</u>.
- Are based on interrupting methods of transmission to prevent spread of infection
- Past MDRO's (Multi-drug Resistant Organisms) are assessed on admission and require precautions
- Are CDC recommended, and to be combined as needed
- Assessing the need for precautions begin at all points of entry, starting with registration





#### Setting up a Transmission Based Precaution Room

When a patient is suspected or diagnosed with a drug resistant organism or communicable disease the following steps must be taken:

- Notification of the physician.
- Placing the patient into a private room or cohort the patient with another patient with the same organism and no other. Airborne Infection Isolation room as needed.
- Proper supplies at the patient's door.
- Place a sign by the patient's door and on the chart to indicate the type of isolation.
- Dedicate vital sign and appropriate equipment to the room.
- Educate the patient and family members of the appropriate transmission precautions.





## OSHA *and* the Bloodborne Pathogen Exposure Control Plan

<u>Blooodborne Pathogen Plan</u> in DMS





#### Bloodborne Pathogen Exposure Control Plan

- Contains all policies & procedures to prevent exposure.
- Outlines guidelines from OSHA to ensure the safety of employees from bloodborne pathogens.
- The Bloodborne Pathogen Exposure Control Plan is available 24/7 on DMS.





#### OSHA Pathogen Exposure Control Plan

- Needle / Sharps Safety Act
- Hepatitis B vaccinations
  - Provided free to all employees
- Handling of specimens
- Handling of infectious wastes
- Thorough cleaning-Hepatitis B can live up to 14 days in a dried state.

- Spills of contaminated fluids
- Post-exposure protocols
- General policies regarding eating, drinking and applying makeup in patient care areas







## PATHOGENS TRANSMITTED THROUGH PERCUTANEOUS INJURIES

## Any disease spread by contact with blood and/or body fluids

#### To name a few:

- Malaria
- Syphilis
- HIV
- Hepatitis B
- Hepatitis C

#### Most concerned with:

- Hepatitis B
- Hepatitis C
- HIV

\*\*Hepatitis C being the most prevalent risk.





#### **FIVE RULES OF SHARP'S SAFETY**

- Receive your Hepatitis B vaccine <u>BEFORE</u> an injury occurs
- A used sharp is a dangerous sharp! It doesn't matter what type of patient it was used on.
- Handle needles and sharps as though your life depends on it
   IT COULD!
- Dispose of used sharps as though your co-workers lives depend on it - <u>THEY COULD!</u>
- Watch out for the other guy who might not be as careful as you...





#### WHEN BLOOD EXPOSURES OCCUR

- Wash exposed area immediately, make puncture bleed
- Notify Employee Health immediately

## Splash of blood/body fluid on uniform/clothes

- Wash up and Change immediately
- Notify Employee Health
- Uniform/clothes washed by hospital per OSHA





#### Hepatitis

- Hepatitis A and Hepatitis E are transmitted through food and fecal material
- Improper handling of food and the lack of appropriate hand hygiene increases the risk of Hepatitis A and Hepatitis E
- Hepatitis B and C are transmitted through contact with blood and body fluids
- Standard precautions and following the Bloodborne pathogen control plan will decrease the risk of exposure as an employee.





### HIV/AIDS

- Is transmitted by blood and body fluids
- Standard precautions and following the bloodborne pathogen control plan will decrease your exposure risk as an employee.
- Patients do not need to be placed in a special isolation room.





#### HANDLING REGULATED WASTE: BIOHAZARD WASTE

- Place all biohazard waste into a red biohazard bag <u>AT THE POINT OF</u> <u>ORIGIN</u> and place red bag into a red biohazard receptacle.
- Syringes and sharps must be placed into a sharps container. When sharps container 75% full, snap closed, and place into a red biohazard receptacle.
- Please do NOT dispose of ordinary items in biohazard waste!!!!!!!!!





## OSHA and Tuberculosis Control Plan

TB Control Plan in DMS





#### CAMC TUBERCULOSIS CONTROL PLAN

#### Found in DMS:

- Place patient in Airborne Infection Isolation room
- Identification, evaluation and treatment of patients with TB
- Encompasses the use of handwashing, PPE, and STANDARD precautions
- Assess for SUSPECTED TB patients at all points of entry
- Annual Risk Assessment per CDC

## Healthcare worker protective guidelines includes:

- TB screening of new employees, screening annually, and/or post exposure
- Medical history and evaluation for those possibly using N95 masks
- Fit Testing annually
- Education annually
- Reporting of all positive PPD tests to the Local Health Department





#### Management of Suspected TB

- If indicated on assessment with a productive cough greater than 3 weeks and 3 other positive indicators, mask & educate patient, place in Airborne Infection Isolation room.
- Notify physician of positive assessment
- Document Airborne Precautions
- Follow test results
- Discontinue Precautions when TB excluded
- Active cases can be discharged home with Follow-up by Health Department





## Antibiotic Stewardship Program

Antibiotic Stewardship Program in DMS





#### **Definitions**

- Antimicrobial Stewardship (AS) refers to coordinated interventions designed to improve and measure the appropriate use of antimicrobial agents by promoting the selection of the optimal antimicrobial regimen including dosing, duration of therapy, and route of administration. When used in conjunction with infection prevention and control, antimicrobial stewardship also prevents the development of antimicrobial-resistant pathogens.
- Antimicrobial Stewardship Program (ASP) is a coordinated program that promotes antimicrobial stewardship practices.
- Antimicrobial Stewardship Team (AST) is a multi-disciplinary workgroup that reports through the Pharmacy and Therapeutics (or a similar hospital committee) on a monthly, bi-monthly or quarterly recurring schedule and is charged with promoting optimal antimicrobial use and monitoring outcomes and antimicrobial utilization.





#### **Antimicrobial Stewardship Goals**

- Demonstrate coordination of antibiotic use and factors that lead to antimicrobial resistance, including, but not limited to, the Infection Prevention and Control Program, the Quality Assurance and Performance Improvement (QAPI) program, the medical staff, nursing services, and pharmacy services.
- Document evidence-based use of antibiotics in inpatient and outpatient settings.
- Demonstrate improvements, and sustained improvements, in proper antibiotic use, through reductions in antimicrobial consumption as well as clinical goals, such as reductions in Clostridioides difficile infections (CDI).





#### **Core Elements**

The Antimicrobial Stewardship Program (ASP) includes the following core elements:

- Leadership commitment: Dedicated human, financial, and information technology resources
- Accountability: A single leader responsible for program oversight
- Drug expertise: A single pharmacist leader working to improve antibiotic use
- Action: Implementation of recommended actions (e.g., systemic evaluation of ongoing treatment needs)
- Tracking: Monitoring the ASP outcomes (e.g., antibiotic prescribing and resistance patterns)
- Reporting: Regularly reporting information on the ASP to licensed independent practitioners, nursing, and relevant staff
- Education: Educating practitioners, staff, and patients on the ASP





#### **Policies**

 All policies for Infection Prevention can be found in DMS and should be reviewed initially and annually for changes as part of on-going education.





#### Questions?

- Contact the infection Prevention office at 8-8888
- Contact Infection Preventionist on call during off hours, weekends, and holidays.





#### Links

- WHO: 5 Moments for Hand Hygiene
- CDC: Isolation Guidelines
- CDC: TB Programs
- OSHA: Bloodborne Pathogen Standard
- OSHA: TB Standards



## Charleston Area Medical Center

