CalvertHealth

New Provider Orientation

Pain Management and Infection Control Outline

- Pain Assessment and Management (Policy GA-068)
- Opioid Management (Policy GA-192)
- Anticoagulation Therapy (Policy AC-02)
- Infection Prevention and Control Program
- Hand Hygiene
- Personal Protective Equipment
- Infection Control Standard Precautions
- Transmission Based Isolation Precautions
- Emerging Infections
- Surgical Site Infection
- Biohazardous Waste
- Antibiotic Stewardship Program
- Multi-Drug Resistant Organism Management (Policy GA-141)
- CAUTI Prevention
- CLABSI Prevention
- Influenza Education for Patients (Policy GA-107)
- COVID-19

Pain Assessment and Management (Policy GA-068)

- All patients must be assessed for pain
  - On admission
  - On patient notification of pain
  - Within one hour of being administered pain meds
  - On discharge
- Assessments documented in patient chart
- Nurses may do initial assessment, but LPs must review and decide treatment options

- Assessment tools include:
  - Scale of 0 – 10 is used for responsive adults
  - Wong Baker Face pain scale is used for pediatric patients
  - FLACC (Face, Leg, Activity, Cry, Consolability) score is used for nonverbal adults and infants
  - Neonatal Infant Pain Scale (NIPS) for infants less than one year of age.
- Pain Intensity definition:
  - Mild Pain: 1-4
  - Moderate Pain: 5-7
  - Severe Pain: 8-10

Pain Assessment and Management (Policy GA-068)

- **PRN pain medication orders must be clear and accurate.** If two PRN pain medications are ordered for the same pain level, the order must include clarification or guidance as to which medication should be administered first or if the medications can/should be administered together.
- Educational brochures are available to all patients.
- See Policy PD-65: Pain Management Consults for more information on the procedures for clinical pharmacy staff to provide Pain Management Services in collaboration with the medical staff.

Opioid Management (Policy GA-192, The Heroin and Opioid Prevention Effort and Treatment Act of 2017 (HOPE Act))

- Opioid addiction is at crisis level in Maryland
- CHMC has implemented an Opioid Stewardship program in conjunction with Calvert County Dept. of Health and many other community partners
  - Our ED is 'dilaudid-free' zone
  - When prescribing pain meds, offer lowest dosage possible and use non-addictive whenever possible
- In addition:
  - Limit discharge prescriptions of opioids to 3-7 days
  - Utilize oral agents prior to IV agents
  - Avoid opiates and benzodiazepine combination
  - Avoid long-acting medication such as MSContin or Oxycontin
  - Educational palm cards available to all patients

Opioid Management (Policy GA-192, The Heroin and Opioid Prevention Effort and Treatment Act of 2017 (HOPE Act))

- In accordance with The Heroin and Opioid Prevention Effort and Treatment Act of 2017 (The HOPE Act), CHS will provide discharge instructions and resources for those identified as having a substance abuse disorder.
- Narcan kits are available for discharge when needed.
- Peer counselors are available in the Emergency Department and on the Inpatient floors to assist with substance use disorder.

Anticoagulation Therapy (Policy AC-02, Anticoagulation Clinic Guidelines for Clinicians)

- Anticoagulant medications (Coumadin, Heparin and Lovenox) are high-risk medications and require special tests, dosage adjustments, and patient education
- Newer anticoagulant medications (Factor Xa Inhibitor), (Xarelto, Eliquis and Pradaxa) are also monitored for adverse events by the Clinical Pharmacist.
- Patients are also educated on all anticoagulants by the clinical pharmacist.
- Outpatients have access to CHS AntiCoagulation Clinic for routine testing
  - Located in the Medical Office Building Suite 302A
  - Open 4 days a week from 8:00am to 4:30pm. There are exceptions when the office is closed due to scheduling conflicts or holidays.

Infection Prevention and Control Program

- Established to systematically minimize infections and infection potentials in patients and personnel
- Measures instituted for prevention, surveillance, investigation, reporting and control
- The 2022 program goals are:
  - Decrease risk of infection to patients and personnel
  - Monitor for occurrence of infection and implement control measures
  - Minimize unprotected exposure to pathogens
  - Minimize risk associated with procedures, medical devices and equipment
  - Improve compliance with hand hygiene and other National Patient Safety Goals identified by TJC
  - Sustain compliance with regulatory bodies related to infection prevention

Program Elements

- Standard precautions (GA-140)
- Hand hygiene (GA-133, GA-140)
- Safe injection practices (GA-147, GA-172)
- Sharps management (GA-147)
- Environmental cleaning (GA-130)
- Isolation (GA-45)
- Spill clean-up (GA-147)
- Special medical waste (GA-144)
- Employee health (Vaccinations, TB testing, flu shots, etc.)

Hand Hygiene (Policy GA-133)

- Health Care workers at CHS adhere to recommended hand hygiene practices to reduce/prevent the transmission of infection
- All personnel are responsible for compliance with this policy at time of hire.
- Compliance is expected based on the World Health Organization's (WHO's) 5 Moments for Hand Hygiene:
  - before touching a patient
  - before clean/aseptic procedures
  - after body fluid exposure or risk
  - after touching a patient
  - after touching patient surroundings

Hand Hygiene (Policy GA-133)

Hand Hygiene Technique:

1. Decontaminating hands with an alcohol-based hand rub: apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers, until hands are dry. Follow the manufacturer's recommendations regarding the volume of product to use.
2. Washing hands with soap and water: wet hands first with water; apply an amount of product recommended by the manufacturer to hands, and rub hands together vigorously for at least 20 seconds, covering all surfaces of the hands and fingers. Rinse hands with water and dry thoroughly with a disposable towel. Use towel to turn off the faucet. Avoid using hot water because repeated exposure to hot water may increase the risk of dermatitis.
3. Liquid, bar, leaflet, or powdered forms of plain soap are acceptable when washing hands with a non-antimicrobial soap & water. When bar soap is used, soap racks that facilitate drainage and small bars of soap will be used.
4. Multiple-use cloth towels of the hanging or roll type will not be used.

Personal Protective Equipment

- Standard Personal Protective Equipment (PPE) includes:
  - Gloves, gowns, goggles, face masks, face guards
    - Part of Standard Precautions procedures
    - Contact Precautions
    - Droplet Precautions
- Specialized PPE includes:
  - Impervious gowns, face mask/glasses, sterile gloves, N-95 Respirator Masks, Powered Air-Purifying Respirator (PAPR)
    - Used during invasive surgical procedures
    - Airborne Precautions, i.e. Suspected TB

Infection Control – Standard Precautions

- Hand Hygiene is the corner stone of infection prevention
- All LPs MUST perform hand hygiene:
  - Immediately before patient care
  - Immediately before beginning an invasive procedure
  - When moving from a contaminated to a clean location on
  - the same patient
  - After contact with blood or other body fluids (Must wash with soap and water)
  - Immediately after patient care, even if gloves are worn
  - After touching objects in the patient's environment even if the patient was not touched during the interaction

Transmission Based Isolation Precautions

- Initiated when signs/symptoms suggest presence of disease requiring isolation – BEFORE confirmatory results are received
  - Can be initiated without physician order, but physician order is required to discontinue
- CDC recognizes three categories of isolation precautions. We go one step further with two additional categories of isolation precautions:
  - Contact
  - Contact-enteric
  - Droplet
  - Airborne
  - Protective

- Some diseases (i.e., chicken pox) require multiple precautions (airborne & contact)

Types of Transmission Based Isolation Precautions

- Contact
  - Patient admitted to private room or sole occupant of semi-private room
  - Gown and gloves required
  - Donned before room entry and removal precautions followed
- Contact-enteric
  - For C. diff, Norovirus (enteric infections)
  - Wash hands with soap & water before leaving the patient's room
  - Wear gloves and gown in patient's room & remove in room
  - Use dedicated equipment (equipment does not leave the room and is not shared between patients i.e. stethoscopes, thermometers, pulse ox, etc.)
  - Shared equipment must be cleansed with 10% BLEACH (orange top PDI wipes), (wheelchairs, stretchers, BP machines, etc.)
- Droplet
  - Patient admitted to private room or sole occupant of semi-private room
  - Surgical masks (not N-95) required, donned before room entry

Types of Transmission Based Isolation Precautions cont.

- Airborne
  - Patient admitted to airborne isolation room with appropriate ventilation (negative pressure to hallway, air exchanges to outside or HEPA filtration)
  - Doors remain closed
  - N-95 masks are required for all healthcare personnel, including LPs, visitors, and family members entering the room.
  - PAPR for those who are unable to fit test on N-95
  - **Providers are required to complete annual Fit Testing (policy GA-167 Respiratory Protection Program) in order to comply with Airborne Isolation precautions.**
  - Discontinuation of airborne isolation orders require physician orders after consultation with Infection Control Practitioner
- Protective
  - Used to protect the patient and not the health care worker.
  - Patient's immune system is not strong, so we protect them from exposure to organisms
  - Perform hand hygiene before entering patient's room and leaving the room
  - Wear gown & mask

Wear the Right Mask for the Situation

Hazard	Job Task	Respiratory Protection
Diseases requiring airborne precautions: • TB Suspected or confirmed • MERS-CoV, Ebola, SARS • Novel pathogenic/pandemic influenza; Measles; herpes zoster	Routine patient care and support operations, including aerosol-generating procedures	N95 Mask (minimum requirement) PAPR Airborne Infection Isolation (AII) patient rooms
Diseases requiring droplet precautions: • Seasonal Influenza, meningitis, pertussis	Routine patient care and support Operations, including aerosol-generating procedures	Surgical Mask
Bronchoscopy, Deep Suctioning, Intubation and Extubation	Aerosol-generating procedures	Surgical Mask (minimum requirement) N95 Mask
Novel Pathogens/pandemic influenza	Routine patient care and support operations, including aerosol-generating procedures	Follow current public health guidance.

Emerging Infections

- There is the possibility that an emerging infection could cause an influx of potentially infectious patients.
- In these situations, policy GA-134 Surge Plan for Infectious Patients will be followed.
- The Infection Control Preventionist will collaborate with the Medical Director for the Infection Control Program and the local and state Health Departments for guidance.
- Any specific guidance will be communicated to all CH employees and Medical Staff via the CH email system, Intranet, or Department Leaders.

Surgical Site Infection

- Standard and transmission-based precautions are used during **all invasive procedures** to minimize risk of transmission of blood borne pathogens and exposure to potentially infectious materials.
- All employed and contracted CHS personnel with access to any Operating Room suites, including Labor and Delivery, are required to follow all policies and procedures regarding minimizing all risks for transmission of infection to the patient and practitioners during all surgical procedures.
- These policies include but are not limited to:
  - GA-140: Standard Precautions
  - OR-35: Surgical Hand Scrub
  - OR-37: Standard and Transmission Based Precautions in Surgical Services
  - OR-16: Gowning and Gloving
  - OR-08: Preparation of Patients
  - OR-65: Cleaning of Surgical Suites

What to Use to Prevent Infection

	Standard hand hygiene	Protective Barriers ,PPE	N-95 Respirator	Protective Eyewear	Impervious gowns	Sterile gloves	Hands free technique	Double glove	Isolation precautions	Special air handling	Surgical masks on pts
Invasive procedures	✓	✓		✓	✓						
Blood borne pathogen	✓	✓		✓							
Bronchoscopies	✓	✓	✓	✓	✓	✓					
Suspected TB	✓	✓	✓	✓					✓	✓	✓
Body fluid exposure	✓	✓		✓							
Normal sharps	✓	✓					✓				
Surgical sharps	✓	✓				✓	✓	✓			
Specimen handling	✓	✓									
Droplet Precautions	✓	✓							✓		✓
Airborne Pathogens	✓	✓	✓	✓					✓	✓	✓
Contact precautions	✓	✓							✓		

Biohazardous Waste

- Protective Equipment is to be worn by all personnel, including LPs, when in the presence of any biohazardous materials and waste
  - Regulated medical waste
  - Anatomical waste
  - Blood and other biomedical fluids
  - Infectious agents
  - Microbiological waste
  - Sharps
- Dispose Biohazardous waste into appropriate vehicles using appropriate handling procedures
- Waste will be disposed of by properly trained and qualified personnel

Antibiotic Stewardship Program and Plan

- **Purpose:** improve and measure the appropriate use of antimicrobial agents by promoting the selection of the optimal drug regimen including dosing, duration of therapy, and route of administration.
- **Mission:** improve patient outcomes, reduce adverse events, improve local susceptibilities to targeted antibiotics, and optimize resource utilization.
- Hospital-specific guidelines exist for
  - C. Diff: **GA-228:** Prevention and Management of Clostridium Difficile (C. diff) Infections
  - Hospital acquired pneumonia
  - Skin and soft tissue infections
  - Urinary Tract infections
- See **Policy GA-158**: Antimicrobial Stewardship Program and **Policy GA-187**: Antimicrobial Stewardship Plan

Antibiotic Stewardship Program and Plan

Leadership Commitment – The ASP develops and implements a hospital wide antibiotic stewardship program that is based on nationally recognized guidelines to monitor and improve the use of antibiotics.

Accountability -The antibiotic stewardship program demonstrates coordination among all components of the hospital responsible for antibiotic use and resistance, including, but not limited to, the infection prevention and control program, the quality assessment and performance improvement program, the medical staff, nursing services, and pharmacy services.

Action - The hospital takes action on improvement opportunities identified by the antibiotic stewardship program.

Tracking - Documenting antibiotic stewardship activities, including any new or sustained improvements.

Reporting – The ASP collects, analyzes, and reports data to hospital leadership and prescribers. The ASP communicates and collaborates with the medical staff, nursing leadership, and pharmacy leadership, as well as with the hospital's infection prevention and control and quality assessment and performance improvement programs on antibiotic use issues.

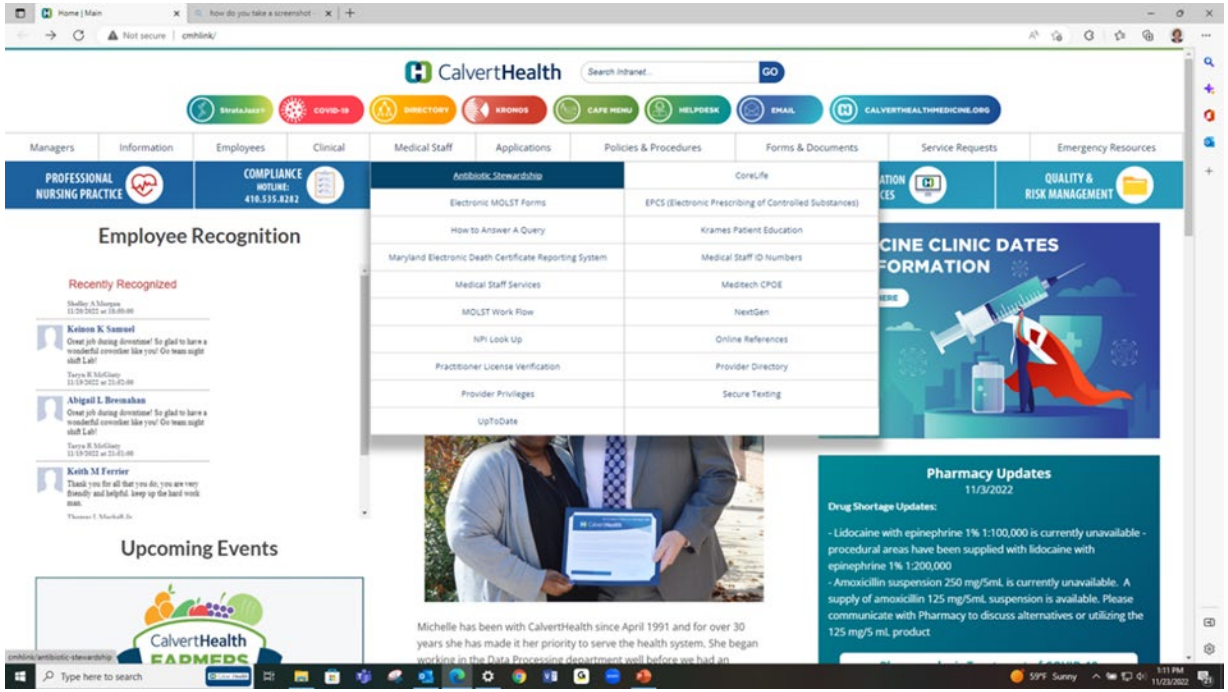
Education – The ASP provides competency-based training and education for staff, including medical staff, on the practical applications of antibiotic stewardship guidelines, policies, and procedures.

Antibiotic Stewardship Program Initiatives for 2023

- Evaluate adherence to guidelines
  - Evaluate antibiotic selection and duration of therapy to at least one of the evidence-based guidelines the hospital implements
- Evaluate acute kidney injury (AKI) rates for patients receiving Vancomycin
- Provide focused education to the hospitalist staff regarding evidence-based and local guideline-informed treatment
- Prospective review and feedback regarding antibiotic prescribing practices, including the treatment of positive blood cultures by a member of the antibiotic stewardship program
- The antibiotic stewardship program documents the evidence-based use of antibiotics in all departments and services of the hospital
  - Perioperative Antibiotic use – capture information and review data through chart reviews.
  - Total utilization by department/patient location for Zosyn and Vancomycin - data captured on L2, L3, ED, L&D, BH, ICU, and Nursery.

Antibiogram

- The antibiogram is a document that can provide antibiotic resistance data for our hospital and community.
- This data can and should be used by providers to identify the most appropriate empiric therapy based on local resistance patterns.



Protected Antibiotics 2022

Use of the meds listed must be limited to the following criteria unless ID is involved:

- **Fidaxomicin (Dificid):** Recurrent Clostridium difficile infection
- **Ceftaroline (Teflaro):** Severe skin and soft tissue (SSTI) infection, +/- suspected MRSA
- **Aztreonam (Azactam):** Patients with severe allergy to beta-lactams with severe gram-negative infection/suspected Pseudomonas infection
- **Carbapenems:** For patients with a history of extended-spectrum beta-lactamase producing organisms (ESBL), patients who have failed other broad-spectrum therapy, and severe sepsis
- **Ertapenem**: should not be used first line for the following indications: appendicitis, cholecystitis, and pancreatitis. Use of ertapenem should be restricted to patients with a history of extended-spectrum beta-lactamase producing organisms (ESBL) and patients who have failed other broad-spectrum therapy.
- **Linezolid (Zyvox):** Patients who have failed vancomycin therapy, vancomycin-resistant enterococcus (VRE), vancomycin allergy, preparation for discharge on linezolid therapy, acute renal failure

Multi-Drug Resistant Organism Management (Policy GA-141)

- Multi-Drug Resistant Organisms (MDROs) are defined as microorganisms, predominately bacteria, that are resistant to one or more classes of antimicrobial agents
  - Methicillin Resistant Staphylococcus Aureus (MRSA)
  - Vancomycin-Intermediate Staphylococcus Aureus (VISA)
  - Vancomycin Resistant Staphylococcus Aureus (VRSA)
  - Vancomycin Resistant Enterococcus (VRE)
  - Extended Spectrum Beta Lactamase organisms (ESBL)
  - Carbapenem-Resistant Enterobacteriaceae (CRE)
  - and other targeted organisms of concern.
- MDRO high risk populations include ICU patients, immunocompromised patients, residents of long-term care facilities, exposure to multiple antibiotics, exposure to a MDRO, and frequent healthcare facility visits.
- **Hand hygiene is the best method to reduce transmission of MDROs and other infectious organisms.**
- **All reusable equipment must be cleaned and disinfected with an appropriate product before use on another patient.**

Multi-Drug Resistant Organism Management (Policy GA-141)

Active Surveillance for MDRO:

- Active surveillance is performed for all MDROs through electronic surveillance systems, direct review of the records and other reports.
  - Active Surveillance Testing (AST) is performed for select MDROs in populations identified at risk. The surveillance is directed by the Infection Control Staff in collaboration with the Infection Control Committee, and whenever mandated by the Maryland Health Care Commission.
  - AST results and patient outcomes are evaluated by the Infection Control and Prevention Team to determine the efficacy of policies and interventions.

Multi-Drug Resistant Organism Management (Policy GA-141)

Outbreak Control and Investigation:

- In the event of an outbreak, the Infection Control Department, in collaboration with the Chairman/designee of the Infection Control Committee and the local health department, may authorize screening of select patients and/or employees of the unit identified in the outbreak and initiate Transmission-Based Precautions as appropriate to terminate the outbreak (**see GA-135, Outbreak/Contact Investigation Policy**).
- Screening consists of culturing for the organism identified in the outbreak at the site where shedding of the organism is most likely to occur.
- Findings of the outbreak will be reported to the Infection Control Committee.
- Compliance with Maryland State and Local Health Department recommendations will be following, including obtaining and sending samples for outbreak investigation to the Maryland State Laboratory for confirmation testing.

Catheter Associated Urinary Tract Infection (CAUTI) Prevention

- CAUTI prevention is a high priority for Calvert Health. This is a joint effort between the Medical and Nursing Staff.
- Alternatives to indwelling catheter insertion should be used whenever possible.
  - Daily discussion on the need for an indwelling catheter during rounds.
  - Use of Bladder Scan Protocol when indicated (NS-107).
  - Use of External Catheters when indicated (NS-027).
- If an indwelling catheter is necessary, a provider order is required. The order is valid for a period of 48 hours from the time of the initial order or last renewal. The use of an external catheter also requires a provider order prior to use.
- **See Policy NS-041: Insertion and Management of the Patient with an Indwelling Catheter and Closed Drainage System.**

Central Line Insertion Bundle

- The purpose of central line insertion bundling is to reduce the risk of infectious and noninfectious complications on patients with central venous access devices.
- The bundle includes but is not limited to:
  - Single lumen, multi-lumen catheters, tunneled & non-tunneled, cuffed and un-cuffed
  - Implantable ports
  - Peripherally inserted central catheter (PICC)
  - Arterial catheter
  - Dialysis catheter

Central Line Insertion – Medical Staff Responsibilities

- The LPs who perform central line insertions will adhere to standards and procedures in this protocol. They will select catheter and site guided by patient's medical condition, treatment, duration of therapies, types of infusions needed etc.
- Unless in life-threatening situations, medical staff must wear full barrier to include:
  - Cap (scalp, beard & mustache must be covered)
  - Mask
  - Sterile gown & gloves
  - Eye protection or don sterile personal protective equipment (PPE) if needed in the sterile field
  - Patient is covered from head to foot with large sterile drape.

Influenza Education for Patients (Policy GA-107)

- As part of the admission nursing assessment, nursing will obtain the patient's pneumonia, influenza, and other vaccine history and document findings in the Electronic Health Record (EHR).
- The vaccine assessment collects data regarding patient history of vaccines; desire to receive vaccine(s) during current admission and inclusionary/exclusionary criteria.
- If the patient meets initial screening criteria for receiving the vaccine(s), AND desires to receive vaccine(s), the order will be automatically generated via the hospital order management system and generated to the pharmacy.
- The Influenza vaccine is given seasonally according to Centers for Disease Control.

COVID-19

Transmission

- COVID-19 spreads when an infected person breathes out droplets and very small particles that contain the virus. These droplets and particles can be breathed in by other people or land on their eyes, noses, or mouth. In some circumstances, they may contaminate surfaces they touch.
- People who are closer than 6 feet from the infected person are most likely to get infected.
- Transmission may also occur during aerosol generating procedures (AGP) such as: open suctioning, sputum induction, CPR, non-invasive ventilation, bronchoscopy, intubation/extubation, Phase 2 of Labor, tracheostomy care, dysphasia treatment, high flow oxygen delivery, and nebulizer administration.
- Patients that are COVID-19 positive or a person under investigation (PUI) should be placed on Special Isolation Precautions (per policy GA-045).
- The guidelines for the length of isolation are determined by current CDC guidelines (https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html) and can be found in policy GA-232.

Relevant Policies

- **GA-045 Transmission-Based Precaution Policy: includes the PPE that is required when in contact with a COVID-19 positive patient or PUI.**
- **GA-232 Discontinuation of COVID Isolation Precautions: describes the required length of Special Isolation Precautions and the criteria used to remove these precautions for an inpatient.**