Top CDC Recommendations to Prevent Healthcare-Associated Infections

To Prevent Catheter-Associated Urinary Tract Infections (CAUTIs)

- Insert catheters only for appropriate indications
- Leave catheters in place only as long as needed
- Ensure that only properly trained persons insert and maintain catheters
- Insert catheters using aseptic technique and sterile equipment (acute care setting)
- Following aseptic insertion, maintain a closed drainage system
- Maintain unobstructed urine flow
- Hand hygiene and Standard (or appropriate isolation) Precautions

Also consider:

- Alternatives to indwelling urinary catheterization
- Use of portable ultrasound devices for assessing urine volume to reduce unnecessary catheterizations
- Use of antimicrobial/antiseptic-impregnated catheters

To Prevent Surgical Site Infections (SSIs)

Before surgery

- Administer antimicrobial prophylaxis in accordance with evidence based standards and guidelines
  - Administer within 1 hour prior to incision
    - 2hr for vancomycin and fluoroquinolones
  - Select appropriate agents on basis of
    - Surgical procedure
    - Most common SSI pathogens for the procedure
    - Published recommendations
- Remote infections-whenever possible:
  - Identify and treat before elective operation
  - Postpone operation until infection has resolved
- Do not remove hair at the operative site unless it will interfere with the operation; do not use razors
  - If necessary, remove by clipping or by use of a depilatory agent
- Skin Prep
  - Use appropriate antiseptic agent and technique for skin preparation
- Maintain immediate postoperative normothermia
- Colorectal surgery patients
  - Mechanically prepare the colon (Enemas, cathartic agents)
  - Administer non-absorbable oral antimicrobial agents in divided doses on the day before the operation

During Surgery:

- Keep OR doors closed during surgery except as needed for passage of equipment, personnel, and the patient

After Surgery:

- Protect primary closure incisions with sterile dressing for 24-48 hrs post-op
- Control blood glucose level during the immediate post-operative period (cardiac)
  - Measure blood glucose level at 6AM on POD#1 and #2 with procedure day = POD#0
  - Maintain post-op blood glucose level at <200mg/dL
- Discontinue antibiotics within 24hrs after surgery end time (48hrs for cardiac)

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion (DHQP)

Also consider

Before surgery:

- Nasal screen and decolonize only Staphylococcus aureus carriers undergoing elective cardiac and other procedures (i.e., orthopaedic, neurosurgery procedures with implants) with preoperative mupirocin therapy
- Screen preoperative blood glucose levels and maintain tight glucose control POD#1 and POD#2 in patients undergoing select elective procedures (e.g., arthroplasties, spinal fusions)

During Surgery:

Redose antibiotic at the 3 hr interval in procedures with duration >3hrs (* See exceptions to this recommendation)

- Adjust antimicrobial prophylaxis dose for obese patients (body mass index >30)
- Use at least 50% fraction of inspired oxygen intraoperatively and immediately postoperatively in select procedure(s)

*Engelman R, et al. The Society of Thoracic Surgeons Practice Guideline Series:Antibiotic Prophylaxis in Cardica Surgery, Part II:Antibiotic Choice. Ann Thor Surg 2007;83:1569-76

To Prevent Central Line-Associated Bloodstream Infections (CLABSIs) Outside ICUs

- Remove unnecessary central lines
- Follow proper insertion practices
- Facilitate proper insertion practices
- Comply with hand hygiene recommendations
- Use adequate skin antisepsis
- Choose proper central line insertion sites
- Perform adequate hub/access port disinfection
- Provide education on central line maintenance and insertion

Also consider:

- Chlorhexidine bathing
- Antimicrobial-impregnated catheters
- Chlorhexidine-impregnated dressings

To Prevent *Clostridium difficile (C. difficile)* Infections

- Contact Precautions for duration of diarrhea
- Hand hygiene in compliance with CDC/WHO
- Cleaning and disinfection of equipment and environment
- Laboratory-based alert system for immediate notification of positive test results
- Educate about CDI: HCP, housekeeping, administration, patients, families

Also consider:

- Extend use of Contact Precautions beyond duration of diarrhea (e.g., 48 hours)
- Presumptive isolation for symptomatic patients pending confirmation of CDI
- Evaluate and optimize testing for CDI
- Implement soap and water for hand hygiene before exiting room of a patient with CDI
- Implement universal glove use on units with high CDI rates
- Use sodium hypochlorite (bleach) – containing agents for environmental cleaning
- Implement an antimicrobial stewardship program

To Prevent MRSA Infections

- Assess hand hygiene practices
- Implement Contact Precautions
- Recognize previously colonized patients
- Rapidly report MRSA lab results
- Provide MRSA education for healthcare providers

Also consider:

- Active surveillance testing – screening of patients to detect colonization even if no evidence of infection
  - Widely used and even recommended as a core prevention strategy by some, but precise role remains controversial
- Other novel strategies
  - Decolonization
  - Chlorhexidine bathing

For full prevention toolkits related to these and other HAIs including MRSA and *C. difficile*, visit HAI Prevention Tools website

Full CDC guidelines available at HICPAC website