

# CDC CAMPAIGN TO PREVENT ANTIMICROBIAL RESISTANCE IN HEALTHCARE SETTINGS

## 12 Steps to Prevent Antimicrobial Resistance Among Surgical Patients

### Prevent Infection

#### Step 1. Prevent surgical site infections

- Monitor and maintain normal glycemia
- Maintain normothermia
- Perform proper skin preparation using appropriate antiseptic agent and, when necessary, hair removal techniques
- Think outside the wound to stop surgical site infections

#### Step 2. Prevent device-related infections: get the devices out

- Use catheters only when essential
- Use proper insertion and catheter-care protocols
- Use drains appropriately
- Remove catheters and drains when they are no longer essential

#### Step 3. Prevent hospital-acquired pneumonia

- Wean from the ventilator when appropriate
- Elevate head of bed to 30°
- Drain circuit/tubing condensate away from patient
- Prevent contamination of respiratory therapy equipment, ventilator circuits and respiratory medications



### Diagnose and Treat Infection Effectively

#### Step 4. Target the Pathogen

- Target empiric antimicrobial therapy to likely pathogens
- Obtain appropriate cultures
- Target definitive antimicrobial therapy to known pathogens
- Optimize timing, regimen, dose, route, and duration of antimicrobial therapy
- Practice safe source control (e.g. debridement, or open wound as indicated)

#### Step 5. Access the Experts

- Consult the appropriate expert for complicated infections: surgeons; infectious disease experts; clinical pharmacists



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## Use Antimicrobials Wisely

### Step 6. Start prophylactic antimicrobials promptly

- Give the initial dose within one hour preceding incision
- Use the appropriate antimicrobial and dosing
- Repeat the dose during surgery as needed to maintain blood levels



### Step 7. Stop prophylactic antimicrobials within 24 hours

- Discontinue use even with catheters or drains still in place

### Step 8. Use local data

- Know your antibiogram
- Know your formulary
- Know your patient population

### Step 9. Know when to say “no” to vanco

- Vanco should be used to treat known infections, not for routine prophylaxis
- Treat staphylococcal infection, not contaminants or colonization
- Consider other antimicrobials in treating MRSA

### Step 10. Treat infection, not contamination or colonization

- Use proper antisepsis for drawing blood cultures
- Get at least one peripheral vein blood culture, if possible
- Avoid culturing vascular catheter tips
- Treat bacteremia, not the catheter tip

## Prevent transmission

### Step 11. Contain your contaminant and contagion

- Follow infection control precautions
- Consult infection control teams

### Step 12. Practice Hand Hygiene

- Set an example
- Wash your hands or use an alcohol-based handrub
- Do not operate with open sores on hands
- Do not operate with artificial nails
- Promote good habits for the entire surgical team



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