Allergy history must be obtained. Pt. already on IV antibiotics. Because of increased bacterial resistance, documentation is necessary. If procedures are performed, quinolones should be given. For LTCF MRSA risk factors, consider IV antibiotics. If procedures are performed, quinolones should be given. Must document within 60 minutes of first incision (≥30 minutes is ideal, except for orthopedic or spine cases). For MRSA colonization/infestation, multiple prior hospitalizations, or CRBSI, vancomycin should be used. Hemodialysis patients should be given vancomycin. Compliance is assessed by documentation in the EMR.

### Indications for IV Vancomycin
1. Severe penicillin, cephalosporin allergy
2. MRSA colonization/infestation
3. Multiple prior hospitalizations
4. Urosepsis
5. Vancomycin as risk factor for MRSA
6. Surgery in an infected stay >3 days (at MMC or transfer facility)
7. Other antibiotics for active infection (asymptomatic bacteruria for urological procedures)

### Antibiotics for Active Infection
- Culture/susceptibility
- Antimicrobial stewardship
- Extension of prophylaxis beyond peri-op period (i.e. CABG/cardiac surgery >48 hrs.)
- Suspected/known surgical or other infection
- Antibiotics for non-surgical indication

<table>
<thead>
<tr>
<th>Type of Surgery</th>
<th>Antibiotic and Dose</th>
<th>Severe Penicillin Allergy</th>
<th>Re-Dosing Schedule (based on normal renal function; reduce for any case with EBL &gt;1.5L)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiac/Non-cardiac thoracic</strong> Prosthetic valve insertion, CABG, other open heart surgery, or pacemaker insertion</td>
<td><strong>Adult:</strong> Cefazolin 2 g IV (≥460kg, CRI &lt; 30 or HD, OR age ≥80)</td>
<td><strong>Adult:</strong> Vancomycin 1 g IV</td>
<td>Cefazolin 4 hours</td>
</tr>
<tr>
<td><strong>Vascular</strong> Artery surgery involving the abdominal aorta, a prosthesis, or a groin incision; leg amputation for ischemia</td>
<td><strong>Pediatric:</strong> Cefazolin 30 mg/kg IV</td>
<td><strong>Pediatric:</strong> Vancomycin 15 mg/kg IV</td>
<td>Vancomycin: only 1 peri-operative dose (long half-life)</td>
</tr>
<tr>
<td><strong>Orthopedic</strong> Hip and knee surgery (i.e. fracture repair), total joint replacement, implantation of internal fixation devices (i.e. nails, screws, plates, wires) and tendon/bone repair</td>
<td><strong>Adult:</strong> Cefazolin 2 g IV (≥460kg, CRI &lt; 30 or HD, OR age ≥80)</td>
<td><strong>Adult:</strong> Vancomycin 1 g IV</td>
<td>Cefazolin or Cefoxitin: 4 hours</td>
</tr>
<tr>
<td><strong>Neurologic</strong> Craniotomy, spinal surgery, or others (i.e., VP shunt)</td>
<td><strong>Pediatric:</strong> Cefazolin 50 mg/kg IV</td>
<td><strong>Pediatric:</strong> Vancomycin 15 mg/kg IV</td>
<td>Oxacillin or Cefoxitin: only 1 peri-operative dose (long half-life)</td>
</tr>
<tr>
<td><strong>Urologic</strong> Transurethral surgery (e.g. TURP), transrectal biopsy (&lt;1hr before), urologic procedure with history prostatic joint</td>
<td><strong>Adult:</strong> Cefazolin 2 g IV (≥460kg, CRI &lt; 30 or HD, OR age ≥80)</td>
<td><strong>Gentamicin 1.5 mg/kg IV a</strong></td>
<td>Cefazolin: 4 hours</td>
</tr>
<tr>
<td><strong>Penile implant</strong></td>
<td><strong>Pediatric:</strong> Cefazolin 30 mg/kg IV</td>
<td><strong>Gentamicin 1.5 mg/kg IV a</strong></td>
<td>Gentamicin: only 1 peri-operative dose (long half-life)</td>
</tr>
<tr>
<td><strong>Plastic</strong> Implantation of permanent prosthetic material, or entering the oral cavity of pharynx</td>
<td><strong>Adult:</strong> Cefazolin 2 g IV (≥460kg, CRI &lt; 30 or HD, OR age ≥80)</td>
<td><strong>Adult:</strong> Cefazolin 1 g IV (≥600 kg, age ≥60)</td>
<td>Gentamicin 1.5 mg/kg IV + Clindamycin 10 mg/kg IV</td>
</tr>
<tr>
<td><strong>Head and Neck or ENT</strong> Involving oral cavity or pharynx</td>
<td><strong>Adult:</strong> Cefazolin 2 g IV (≥460kg, CRI &lt; 30 or HD, OR age ≥80)</td>
<td><strong>Adult:</strong> Clindamycin 600 mg IV</td>
<td>Clindamycin: only 1 peri-operative dose (long half-life)</td>
</tr>
<tr>
<td><strong>Abdominal and Gynecologic</strong> (see GYN specific guidelines): High-risk gynecologic, high-risk bladder tract, colorectal, appendectomy, hysterectomy, bariatric surgery, etc.</td>
<td><strong>Adult:</strong> Cefazolin 2 g IV (≥460kg, CRI &lt; 30 or HD, OR age ≥80)</td>
<td><strong>Adult:</strong> Gentamicin 1.5 mg/kg IV + Clindamycin 10 mg/kg IV</td>
<td>Clindamycin: only 1 peri-operative dose (long half-life)</td>
</tr>
</tbody>
</table>

Notes:
1. The Joint Commission and other regulatory agencies state that medication compounding must be performed by pharmacists, not in the OR
2. Because vancomycin, quinolones and aminoglycosides have long half-lives, no re-dosing is needed.
3. If infection [or asymptomatic bacteruria for urological procedure] use culture/susceptibility for antibiotic selection.
4. Gentamicin vials come in 15 mg max dose 240 mg.

### Antibiotic Wash*
- Because of increased bacterial resistance, Montefiore does not endorse washes, irrigations and soaks in the OR and procedure suites since there are no efficacy data to support their use. (CDC SSI guidelines, ANA 2017)
- Antibiotic washes, irrigations, soaks are prohibited for wound cleaning and sterile device insertion (e.g., perineal implant).

### Antibiotic re-dosing for non-clean procedures (exp. contaminated or dirty)
- Subsequent prophylactic doses of cefazolin or cellbiose should be the same as initial dose. Frequency determined by patient age, renal function, EBL in OR (see below)
- Per 2017 CDC SSI guidelines, subsequent antibiotic doses may not be required after OR wound closure for clean and clean contaminated procedures

*Please note: this does not apply to cement impregnated with antibiotic for infected joints, ophthalmology procedures, or prophylactic desinfection for CT surgery where data exists.

*References available upon request from stewardship.