### Severe Sepsis Protocol

**Physician Orders-Antibiotic Selection Pathway ICU/Hospital (Adults 18 year and older)**

#### Allergies:
- Check boxes for all applicable orders
- Antibiotic orders are STAT FOR SEPSIS
- Review culture results daily: de-escalate/narrow antibiotics to specific organisms within 72-120 hrs; duration of antibiotic therapy is typically limited to 7-10 days; consider longer course if response is slow or there are undiagnosed infectious foci or immunologic deficiencies.
- Switch for intravenous to oral therapy when the patient is hemodynamically stable and improving clinically, are able to ingest medications, and have a normally functioning gastrointestinal tract.

#### NOTES: *Patients must meet the severe sepsis criteria*  
- Avoid starting antibiotics similar to those used within the past 90 days
- Linezolid may be needed as substitute for vancomycin for VRE, allergy, or renal failure
- Consider adding an antifungal agent in patients with central lines or tunneled catheters for >5 days, on TPN
- Risk factors for healthcare-associated infection and multidrug resistant bacteria (MDR) include:
  - Family member with multidrug resistant bacteria (MDR)
  - Home wound care
  - Home infusion therapy
  - Chronic dialysis within past 30 days
  - Immunosuppressive disease or therapy
  - Immunosuppressive disease or therapy
  - Residence in a nursing home or extended care facility
  - MRSA
  - MRSA
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  - Home infusion therapy
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#### References:

### Suspected Source

#### Preferred Regimen

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| **Unknown Source** | □ Doripenem 500mg IVPB q 8hrs  
  AND  
  □ Vancomycin 15mg/kg IVPB, and further dosing per pharmacy (if MRSA is suspected or proven) | □ Aztreonam 2 gm IVPB q 6hrs  
  AND  
  □ Vancomycin 15mg/kg IVPB, and further dosing per pharmacy (if MRSA is suspected or proven) |
| **Bacterial Meningitis**  
(no neurosurgery/shunts/head trauma) | □ Ceftriaxone 2gm IVPB q 12 hrs  
  AND  
  □ Vancomycin 15mg/kg IVPB, and further dosing per pharmacy  
  AND  
  Dexamethasone 0.15mg/kg IVP q 6hrs x 4 days, prior to or with first antibiotic dose | □ Meropenem 2gm IVPB q 8hrs  
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  Vancomycin 15mg/kg IVPB, and further dosing per pharmacy  
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  Dexamethasone 0.15mg/kg IVP q 6hrs x 4 days  
  Prior to or with first antibiotic dose |
| **Community Acquired Pneumonia (CAP)**  
Pseudomonas IS NOT a concern: | □ Ceftriaxone 2 gm IVPB q day  
  AND  
  Azithromycin 500mg IV daily  
  **If MRSA is suspected or confirmed ADD:**  
  □ Vancomycin 15mg/kg IVPB, and further dosing per pharmacy | □ Aztreonam 2gm IVPB q 8hrs  
  AND  
  Levofloxacin 750mg IVPB daily  
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#### Risk factors for healthcare-associated infection and multidrug resistant bacteria (MDR) include:
- Antimicrobial therapy in the preceding 90 days
- Family member with multidrug resistant pathogens
- *Severe sepsis criteria*

#### Logistic (ICU/Hospital)
- Current hospitalization for 2days in the preceding 90days
- Chronic dialysis within past 30 days
- Home infusion therapy
- Home wound care
- Immunosuppressive disease or therapy
- Residence in a nursing home or extended care facility
- MRSA
- MRSA
- MRSA
- Home infusion therapy
- Home wound care
- Home infusion therapy
- Immunosuppressive disease or therapy
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### Physician Signature

Date and time
Severe Sepsis Protocol
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- Switch for intravenous to oral therapy when the patient is hemodynamically stable and improving clinically, are able to ingest medications, and have a normally functioning gastrointestinal tract.

NOTES: * Patients must meet the severe sepsis criteria * Avoid starting antibiotics similar to those used within the past 90 days * Linezolid may be needed as a substitute for vancomycin for VRE, allergy, or renal failure * Consider adding an antifungal agent in patients with central lines or tunneled catheters for >5 days, on TMP, recent abdominal surgery, cellular immunosuppression * The order set should not replace clinical judgment * These Physician Orders may need to be adjusted to meet the need of a specific patient

Risk factors for healthcare-associated infection and multidrug resistant bacteria (MDR) include:
- *Antimicrobial therapy in the preceding 90 days
- *Family member with multidrug resistant pathogens
- *Residence in a nursing home or extended care facility
- *Current hospitalization for >5 days
- *Immunosuppressive disease or therapy
- *Chronic dialysis within past 30 days


| Health Care Associated Pneumonia (HCAP) | 
| --- | --- |
| □ Doripenem 500mg IVPB q 8hrs AND Levofloxacin 750mg IVPB q day | □ Aztreonam 2gm IVPB q 8hrs AND Levofloxacin 750mg IVPB q day |

Consider adding for dual pseudomonas coverage:
- □ Tobramycin 7mg/kg/day IVPB, and further dosing per pharmacy

If MRSA is suspected or confirmed ADD:
- □ Vancomycin 15mg/kg IVPB, and further dosing per pharmacy

| Intra-Abdominal (biliary and non-biliary) | 
| --- | --- |
| □ Doripenem 500mg IVPB q 8hrs AND Metronidazole 500mg IVPB q 6hrs AND Fluconazole 400mg IVPB daily (candida albicans) OR □ Micafungin 100mg IVPB daily (non-albicans) | □ Levofloxacin 500mg IVPB daily AND Metronidazole 500mg IVPB q 6hrs AND Fluconazole 400mg IVPB daily (candida albicans) OR □ Micafungin 100mg IVPB daily (non-albicans) |

Community acquired

| Health-Care Associated Intra-Abdominal (biliary and non-biliary) | 
| --- | --- |
| □ Piperacillin/Tazobactam 4.5gm IVPB q 8hrs AND Metronidazole 500mg IVPB q 6hrs AND Vancomycin 15mg/kg IVPB, and further dosing per pharmacy (E.faecalis) AND Fluconazole 400mg IVPB daily (candida albicans) OR □ Micafungin 100mg IVPB daily (non-albicans) | □ Aztreonam 2gm IVPB q 6hrs AND Metronidazole 500mg IVPB q 6hrs AND Vancomycin 15mg/kg IVPB, and further dosing per pharmacy (E.faecalis) AND Fluconazole 400mg IVPB daily (candida albicans) OR □ Micafungin 100mg IVPB daily (non-albicans) |

| IV Line Sepsis | 
| --- | --- |
| □ Vancomycin 15mg/kg IVPB, and further dosing per pharmacy | □ Daptomycin 6mg/kg IVPB q 24hrs |

Necrotizing Skin/Soft Tissue Infection

Emergent aggressive surgical debridement recommended

| □ Doripenem 500 mg IVPB q 8hrs AND Clindamycin 900 mg IVPB q 8hrs | □ Levofloxacin 750 mg IVPB q day AND Clindamycin 900 mg IVPB q 8hrs |

If MRSA is a concern add:
- □ Vancomycin 15mg/kg IVPB, and further dosing per pharmacy

| Urinary Tract Infection (Complicated) | 
| --- | --- |
| □ Piperacillin/Tazobactam 4.5 gm IVPB q 8hrs OR □ Doripenem 500 mg IVPB q 8hrs | □ Levofloxacin 750mg IVPB q day AND Aztreonam 2gm IVPB q 8hrs |