Yukon-Kuskokwim HEALTH CORPORATION

Clinical Guideline

Sepsis Antibiotics (Adult)

Empiric Antibiotic Recommendations by Source of Infection

If possible, first dose of antibiotics should be administered as a 30 minute infusion to reduce time to therapeutic concentration.

Unknown Source

Vancomycin[1] 25-30 mg/kg loading dose followed by 20 mg/kg Q8-12h. Max dose 2 grams. **OR** **Linezolid** 600 mg IV Q12h.	**AND**	**Piperacillin-tazobactam**[3] 4.5 grams IV Q8h. **OR** If in shock: **Cefepime** 2 grams IV Q8h.	**AND**	**Gentamicin**[2] 7 mg/kg IV Q24h. Consult pharmacy for max dosing. **OR** **Levofloxacin** 750 mg IV Q24h.

Community-Acquired Pneumonia

Ceftriaxone 1 gram IV Q24h. (2 grams if >80 kg.) **OR** **Ampicillin-sulbactam** 3 grams IV Q6h.	**AND**	**Levofloxacin** 750 mg IV Q24h. **OR** **Azithromycin** 500 mg PO/IV Q24h.	**If at risk for aspiration, consider adding:**	**Metronidazole** 500 mg IV Q8h.

Hospital-Acquired Pneumonia or High Risk for Multi-Drug Resistant (MDR) Organisms

Vancomycin[1] 25-30 mg/kg loading dose followed by 20 mg/kg Q8-12h. Max dose 2 grams. **OR** **Linezolid** 600 mg IV Q12h.	**AND**	**Piperacillin-tazobactam**[3] 4.5 grams IV Q6h. **OR** If in shock: **Cefepime** 2 grams IV Q8h.	**AND**	**Levofloxacin** 750 mg IV Q24h. **OR** **Gentamicin**[2] 7 mg/kg IV Q24h. Consult pharmacy for max dosing.

Meningitis

Dexamethasone 10 mg IV prior to antibiotics.	**AND**	**Vancomycin**[1] 25-30 mg/kg loading dose followed by 20 mg/kg Q8-12h. Max dose 2 grams.	**AND**	**Ceftriaxone** 2 grams IV Q12h.	**If >50 years, ADD**	**Ampicillin** 2 grams IV Q6h.

Urinary Tract Infection

Ceftriaxone 1 gram IV Q24h. (2 grams if >80 kg.)	**AND consider adding:**	**Gentamicin**[2] 7 mg/kg IV Q24h. Consult pharmacy for max dosing. **OR** **Levofloxacin** 750 mg IV Q24h.	**If urological interventions or MDR risk factors, consider adding:** **Piperacillin-tazobactam**[3] 3.375 grams IV Q6h. **OR** **Cefepime** 1 gram IV Q6h.	**If at risk of ESBL, ADD:** **Meropenem** 500 g IV Q8h.

Intra-abdominal or Pelvic Infection

Piperacillin-tazobactam[3] 3.375 grams IV Q6h.	**OR**	**Cefepime** 1 gram IV Q6h. **AND** **Metronidazole** 500 mg IV Q6h.	**OR**	**Ciprofloxacin** 400 mg IV Q12h. **AND** **Metronidazole** 500 mg IV Q8h.

Skin and Soft Tissue or Necrotizing Infections

IF PURULENT: **Vancomycin**[1] 25-30 mg/kg loading dose followed by 20 mg/kg Q8-12h. Max dose 2 grams.	**IF NON-PURULENT**: **Cefazolin** 2 grams IV Q8h. **OR** **Ceftriaxone** 1-2 grams IV Q24h. **OR** **Ampicillin-sulbactam** 3 grams IV Q6h.	**If necrotizing, ADD:**	**Piperacillin-tazobactam**[3] 3.375 grams IV Q6h. **AND** **Clindamycin** 900 mg IV Q8h. **OR** **Ceftriaxone** 2 grams IV Q12h. **AND** **Metronidazole** 500 mg IV Q6h.

Neutropenic Cancer Patients (ANC <500)

Piperacillin-tazobactam[3] 4.5 grams IV Q6-8h. **OR** **Cefepime** 1 gram IV Q6h.	**AND**	**Vancomycin**[1] 25-30 mg/kg loading dose followed by 20 mg/kg Q8-12h. Max dose 2 grams.	**If concerned for HSV or VZV, consider adding:**	**Acyclovir** 10 mg/kg Q8h. Consult pharmacy for max dosing.

This guideline is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.
Approved by MSEC 7/12/17.
If comments about this guideline, please contact Tara_Lathrop@ykhc.org.

[1] Linezolid may be substituted for vancomycin in patients with relative contraindication to vancomycin for high risk for acute kidney injury.
[2] Gentamicin dosing based on ideal body weight.
[3] May substitute ampicillin-sulbactam 3 gram IV Q6h for piperacillin-tazobactam if not concerned for pseudomonas.

Vasopressors

All vasoactive medications should be infused via central line with the exception of dopamine, which can be infused via a peripheral IV at rates less than 10 mcg/kg/minute.

Medication	Comment
• Norepinephrine 8-12 mcg/min IV initial infusion rate.	First-line vasopressor of choice in sepsis.
• Epinephrine 1-10 mcg/min initially, titrated to effect.	May be added or used in place of norepinephrine to maintain adequate BP.
• Dopamine 2-20 mcg/kg/min.	Second-line option in highly select patients as it causes more tachycardia.
• Phenylephrine 100-180 mcg/min IV initial infusion until stabilized. Titrate to goal of 60-200 mcg/min. (Max dose range 80-360 mcg/min.)	Can be used as salvage therapy for refractive hypotension associated with tachycardia.
• Vasopressin 0.03-0.04 units/min.	May be added to norepinephrine to increase MAP or decrease norepinephrine dose. DO NOT use as a single agent.
• Dobutamine 2-20 mcg/kg/min IV infusion.	May be used for inoptropic support in the presence of severe myocardial dysfunction or hypoperfusion with depressed cardiac output.

Corticosteroids

Corticosteroids should NOT be administered for the treatment of sepsis in the absence of shock. Steroids are beneficial in those experiencing adrenal insufficiency in the presence of septic shot; however ACTH testing is not routinely recommended in adult patients. If hemodynamic stability is not achieved after adequate fluid resuscitation and vasopressor therapy, the use of IV hydrocortisone alone at a dose of 200 mg/day can be considered regardless of adrenal insufficiency status. Hydrocortisone should be tapered when vasopressors are no longer required.

This guideline is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.
Approved by MSEC 7/12/17.
If comments about this guideline, please contact Tara_Lathrop@ykhc.org.