

NONPURULENT SKIN AND SOFT TISSUE INFECTIONS IN ADULTS

This is a review of the IDSA guideline

MILD

Criteria: Typical cellulitis/erysipelas with no focus of purulence

Use one of the following

- Penicillin VK 250-500 mg orally every 6 hours
- Cephalexin 500 mg orally four times daily
- Dicloxacillin 250 mg orally four times daily
- Clindamycin 300–450 mg orally four times daily

Duration: 5-7 days

MODERATE

Criteria: Typical cellulitis/erysipelas with systemic signs of infection (Temperature >38°C, tachycardia (heart rate > 90 beats per minute), tachypnea (respiratory rate >24 breaths per minute) or abnormal white blood cell count (<12,000 or <400 cells/ μ L))

Use one of the following

- Penicillin G 2-4 million units intravenous every 4-6 hours
- Ceftriaxone 1 g intravenous every 24 hours
- Cefazolin 1 g intravenous every 8 hours
- Clindamycin 600-900 mg intravenous every 8 hours

Duration: 7-14 days

SEVERE

Criteria: Patients who have failed oral antibiotic treatment or those with systemic signs of infection, or those who are immunocompromised, or those with clinical signs of deeper infection such as bullae, skin sloughing, hypotension, or evidence of organ dysfunction.

Defined Treatment (Necrotizing Infections)

- Emergent surgical Inspection/Debridement
- Rule out necrotizing process

Empiric treatment

- Vancomycin dosing as per hospital policy **PLUS** Piperacillin/Tazobactam 3.375 g intravenous every 6-8 hours

Monomicrobial

Streptococcus pyogenes and Clostridial species

- Penicillin G 2-4 million units intravenous every 4-6 hours **PLUS** Clindamycin 600-900 mg intravenous every 8 hours

Vibrio vulnificus

- Doxycycline 100 mg orally twice daily **PLUS** Ceftazidime 2g intravenous every 8 hours

Aeromonas hydrophilia

- Doxycycline 100 mg orally twice daily **PLUS** Ciprofloxacin 400 mg intravenous every 12 hours or 750 mg orally every 12 hours

Polymicrobial

- Vancomycin dosing as per hospital policy **PLUS** Piperacillin/Tazobactam 3.375 g intravenous every 6–8 hours

Duration: Orally 5-7 days and Intravenous 7-14 days

Note: Dosages are for patients with normal renal function

Note: Antibiotics should be reviewed based on results of culture and sensitivity

REFERENCE

Stevens DL, Bisno AL, Chambers HF, et al. Practice Guidelines for the Diagnosis and Management of Skin and Soft Tissue Infections: 2014 Update by the Infectious Diseases Society of America. *Clinical Infectious Diseases*. 2014;59(2):e10-e52. doi:10.1093/cid/ciu296 v.07.14.24

NONPURULENT SKIN AND SOFT TISSUE INFECTIONS IN CHILDREN

This is a review of the IDSA guideline

MILD

Criteria: Typical cellulitis/erysipelas with no focus of purulence

Use one of the following

- Cephalexin 25-50 mg/kg/day orally in 3-4 divided doses
- Clindamycin 25-40 mg/kg/day orally in three divided doses
- Dicloxacillin 25-50 mg/kg/day orally in four divided dose

If Impetigo, may use one of the following:

- Retapamulin Ointment apply to lesions twice daily
- Mupirocin Ointment apply to lesions twice daily

Duration: 5-7 days

MODERATE

Criteria: Typical cellulitis/erysipelas with systemic signs of infection (Temperature $>38^{\circ}\text{C}$, tachycardia (heart rate >90 beats per minute), tachypnea (respiratory rate >24 breaths per minute) or abnormal white blood cell count ($<12,000$ or <400 cells/ μL))

Use one of the following

- Penicillin G 60,000-100,000 units/kg/dose intravenous every 6 hours
- Cefazolin 50 mg/kg/day intravenous in 4 divided doses
- Clindamycin 25-40mg/kg/day intravenous in 3 divided doses

Duration: 5-7 days

SEVERE

Criteria: Patients who have failed oral antibiotic treatment or those with systemic signs of infection, or those who are immunocompromised, or those with clinical signs of deeper infection such as bullae, skin sloughing, hypotension, or evidence of organ dysfunction

Defined Treatment (Necrotizing Infections)

- Emergent surgical inspection/debridement
- Rule out necrotizing process

Empiric treatment

- Vancomycin dosage as per hospital policy **PLUS**
Piperacillin/Tazobactam 60-75 mg/kg/dose of the piperacillin component intravenous every 6 hours

Monomicrobial

Streptococcus pyogenes and Clostridial Species

- Penicillin G 60,000-100,000 units/kg/dose intravenous every 6 hours **PLUS**
Clindamycin 25-40mg/kg/day intravenous in 3 divided doses or 30–40 mg/kg/day orally in 3 divided doses

Polymicrobial

- Vancomycin dosage as per hospital policy **PLUS**
Piperacillin/Tazobactam 60-75 mg/kg/dose of the piperacillin component intravenous every 6 hours

Duration: 7-14 days

Note: Dosages are for patients with normal renal function
Antibiotics should be tailored based on results of culture and sensitivity

REFERENCES

Stevens DL, Bisno AL, Chambers HF, et al. Practice Guidelines for the Diagnosis and Management of Skin and Soft Tissue Infections: 2014 Update by the Infectious Diseases Society of America. *Clinical Infectious Diseases*. 2014;59(2):e10-e52. doi:10.1093/cid/ciu296 v.07.14.24

PURULENT SKIN AND SOFT TISSUE INFECTIONS IN ADULTS AND CHILDREN

This is a review of the IDSA guideline

MILD

Treatment: Incision and Drainage

MODERATE

Criteria: Patients with purulent infection with systemic signs of infection (temperature $>38^{\circ}\text{C}$, tachycardia (heart rate >90 beats per minute), tachypnea (respiratory rate >24 breaths per minute) or abnormal white blood cell count ($<12,000$ or <400 cells/ μL)

- Incision and Drainage
- Culture and sensitivity

Empiric Treatment (Use one of the following)

- TMP/SMX: Adult 160-800 mg orally two times daily, Child 5-10 mg/kg/day intravenous every 8 hours of TMP
- Doxycycline 100 mg intravenous every 12 hours

Defined Treatment

Methicillin-resistant *Staphylococcus Aureus* (See empiric treatment)

Methicillin Sensitive *Staphylococcus Aureus* (Use one of the following)

- Nafcillin: Adult 1-2 g intravenous every 4-6 hours, Child 100–150 mg/kg/day intravenous in 4 divided doses
- Cefazolin: Adult 1g intravenous every 8 hours, Child 50 mg/kg/day in 3 divided doses
- Clindamycin: Adult 600–900 mg intravenous every 8 hours, Child Clindamycin 25–40 mg/kg/day intravenous in 3 divided doses

Duration: orally 5-7 days and Intravenous 7-14 days

SEVERE

Criteria: Patients who have failed incision and drainage plus oral antibiotics or those with systemic signs of infection such as temperature $>38^{\circ}\text{C}$, tachycardia (heart rate >90 beats per minute), tachypnea (respiratory rate >24 breaths per minute) or abnormal white blood cell count ($<12,000$ or <400 cells/ μL), or immunocompromised patients

- Incision and Drainage
- Culture and Sensitivity

Empiric treatment (Use one of the following)

- Vancomycin dosing as per hospital policy
- Daptomycin 4 mg/kg intravenous every 24 hours
- Linezolid
Adult: 600 mg intravenous/oral twice daily
Child < 12 years old: 10 mg/kg intravenous or oral twice daily
- Ceftaroline 600 mg intravenous twice daily

Defined Treatment

Methicillin-Resistant *Staphylococcus Aureus* - See Empiric treatment

Methicillin Sensitive *Staphylococcus Aureus* (Use of the following)

- Nafcillin: Adult 1-2 g intravenous every 4-6 hours, Child 100 mg -150 mg/kg/day intravenous in 4 divided doses
- Cefazolin Adult 1 g intravenous every 8 hours, Child: 50 mg/kg/day in 3 divided doses
- Clindamycin: Adult 600-900 mg intravenous every 8 hours, child 25-40 mg/kg/day intravenous in 3 divided doses

Duration: orally 5-7 days and Intravenous 7-14 days

Note: Dosages are for patients with normal renal function

REFERENCE

Stevens DL, Bisno AL, Chambers HF, et al. Practice Guidelines for the Diagnosis and Management of Skin and Soft Tissue Infections: 2014 Update by the Infectious Diseases Society of America. *Clinical Infectious Diseases*. 2014;59(2):e10-e52. doi:10.1093/cid/ciu296 v.07.14.24