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AMB Order Panel: Cellulitis

Order Panel:	Cellulitis AMB Order Panel		
Date approved:		Last Review:	6/1/22
Reviewers:	T Laidley 4/25/22, Hoang 6/1/22	Next Review:	
References:	UpToDate; Johns Hopkins ABX Guide; CDC; Sanford guide; IDSA		
OSQ codes:	522790 522791 522797 522800 522803 522804 522814 522815 522972		

Content:

AMB Cellulitis - 522790
- Uncomplicated - 522791
  - MRSA +/- abscess - 522797
  - Non-MRSA - 522800
- Erysipelas - 522803
- DM - 522804
- Bites – 522814
- Periorbital – 522815
- Perirectal/Perioral/Pressure -522972

Considerations:

- Uncomplicated treatment listed
- Complicated and Severe Cellulitis requires **ED/Inpatient care**: Systemic toxicity; Infection over indwelling medical device; Orbital cellulitis and Facial erysipelas.
- Erysipelas = raised, clear margins pcn or amox preferred because only beta-hemolytic streptococcus needs to be covered.
- Purulent? Drain abscess, do culture if fever, cellulitis, history recurrent or multiple abscesses, extreme age, immunocompromised. Abx if >2cm – TMP/SMZ; doxy plus amox; minocycl plus amox; clindamycin
- MRSA risk factors? (recent hospitalization/surgery, long term care, HIV, hemodialysis)
- If cellulitis connected with perirectal abscess, perioral abscess, pressure ulcer, then in addition to I&D, culture, would empirically cover for gram negative & anaerobic organisms: TMP/SX + amox/clav OR Doxy + amox/clav OR if PCN allergic: Doxy + Levofloxacin + Flagyl.

Uncomplicated - usually monomicrobial and present with localized clinical findings.

Labs generally not needed for uncomplicated cellulitis in uncomplicated host. Can use **CBC** to guide treatment if unsure of severity of infection, or **BMP** if unsure about renal function that would affect antibiotic dosing.

Wound cultures are not necessary in healthy patients who do not receive antibiotics. For patients receiving antibiotics for a purulent skin infection, submit a culture when any of the following are present:
- Severe local infection (eg, extensive cellulitis).
- Systemic signs of infection (eg, fever).
- History of recurrent or multiple abscesses.
- Failure of initial antibiotic therapy.
- Extremes of age (young infants or older adults).
- Immunocompromising condition.
- Indications for prophylaxis against infective endocarditis.

Add mupirocin to oral antibiotics for **impetigo**.

For **erysipelas**, penicillin and amoxicillin are preferred for beta-hemolytic streptococcus coverage; cephalexin/cefuroxime, clindamycin and trimethoprim-sulfamethoxazole are options if penicillin allergy.

Periorbital cellulitis

With no skin trauma – treat with amoxicillin-clavulanate (in PCN allergies: cefpodoxime or cefdinir)
With skin trauma – add MRSA coverage with TMP/SX or Clindamycin

For non-MRSA cellulitis, cephalexin and dicloxacillin are preferred with cefadroxil, TMP-SX, and clindamycin as alternatives.

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For **MRSA**, antibiotic options include trimethoprim-sulfamethoxazole, doxycycline, clindamycin PLUS amoxicillin or cephalosporin. 5 days generally sufficient, however should aim to treat 48 hours past rash resolution. May extend up to 14 days for slow responders to therapy.

*risk factors for MRSA include recent (within 1-2 months) hospitalization/surgery, residence in long-term care facility, HIV+, hemodialysis, purulent drainage/abscess or previous MRSA infection.

Orders for MRSA (listed in order of preference):

- TMP/SMZ DS 1-2 BID x5d
- Doxycycline 100 BID x5d
- Clindamycin 450 TID x5d (increasing resistance in MRSA ~30%)
- Minocycline 200mg x1 dose then 100 BID x5d

Orders for non-MRSA (listed in order of preference)

- Cephalexin 500 QID x5d
- Dicloxacillin 500 mg PO QID X 5 days
- Cefadroxil 500 mg PO BID X 5 days
- Clindamycin 450 TID x5d
- TMP/SMZ 1 BID x5d
- Amox/clav 875/125 BID x5d (use only in cat bite cellulitis, periorbital cellulitis)
- Amoxicillin 875 BID x5d (would use if there is only concern for streptococcus; no MSSA coverage)
- Penicillin 500mg QID x5d (would use penicillin only if there is concern for erysipelas and not cellulitis)
- Wound culture

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Abscess - All abscesses require I&D for treatment.

Patients with a drainable abscess should undergo I&D, with antibiotics ONLY indicated if there are signs of systemic infection, abscess ≥ 2 cm, multiple abscesses, surrounding cellulitis, major co-morbidities or immunocompromising condition, presence of an indwelling medical device, or high risk of community transmission (athletes or military personnel). ABX as above

Recurrent Erysipelas in setting of Lymphedema

**Compression and Elevation
PPX only indicated for frequent episodes of erysipelas (2 episodes over the last 3 yrs)
Pen VK 250mg po BID preferred.
If PNC intolerant Cephalexin 250 mg po BID

??Diabetic???

For diabetic patients with cellulitis associated with superficial chronic wounds of feet – treat empirically like non-diabetic patients.

If associated with deep, chronic, malodorous foot ulcers, would obtain culture of wound and consider adding gram negative and anaerobic coverage in addition to gram positive coverage. Possible regimens include amoxicillin-clavulanic acid, TMP-SX with flagyl, cephalexin with flagyl. Add MRSA coverage if patient has risk factors for MRSA.

BITES - do culture, amox/clav preferred

- Cat – 80% get infected, always culture and treat empirically – Augmentin 875/125 mg po BID pref; For PCN allergy: Doxycycline 100 bid and Flagyl 500 mg PO TID OR moxifloxacin
- Human – high infection rate; PPX same as above; if signs of infection needs admission of IV ABX and close monitoring.
- Dog – low infection rate, only treat empirically if bite is severe or significant comorbidities (DM, asplenia)