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P: In ED patients presenting with skin abscesses from the community in light of the increasing prevalence of CA-MRSA

I: Is the use of empiric antibiotics

C: Compared to incision and drainage alone

O: associated with improved time to resolution/complication rates

Pub med Ovid search "soft tissue infection" or "abscess" and "treatment" and "MRSA" with limits to English, and last 3 years

<p>Author: Rajendran et al Title: Randomized, Double-Blind, Placebo-Controlled Trial of Cephalexin for Treatment of Uncomplicated Skin abscesses in a Population at Risk for CA-MRSA Infection Year: Nov 2007, p.4044-4048 Journal: Antimicrobial Agents and Chemotherapy</p>	<p>Patients: 166 clinic patients with surgically drainable abscess >2cm</p>	<p>Study type: prospective randomized double blind trial</p>	<p>Outcomes: Endpoint clinical cure in 7d in placebo v. Cephalexin post I+D -No difference in clinical cure btw placebo (90.5%) and Cephalexin (84.1%)</p>	<p>Positive: -MRSA rate >87% -HIV, DM, hepatitis, homeless population similar to our pop.</p>	<p>Negatives: -high prevalence rate of MRSA → double placebo trial? - no long term recurrence rate -abscess dimensions included but no mention of overlying cellulitis size</p>
<p>Author: Cenizal et al Title: Prospective Randomized Trial of Empiric Therapy with TMP-SMX or Doxycycline for Outpatient Skin and Soft Tissue Infections in an Area of High Prevalence of MRSA Year: July 2007, p.2628-2630 Journal: Antimicrobial Agents and Chemotherapy</p>	<p>Patients: 40 ED pts 14 to TMP-SMX (8 MRSA) 20 to doxy (15 MRSA)</p>	<p>Study type: prospective randomized trial</p>	<p>Outcomes: Endpoint clinical failure → admission, IV abx, or abx change in 10-14d post I+D and packing No sig difference in failure rates. Bactrim failure rate 21%. All 3 failures in bactrim group +MRSA 2 susceptible</p>	<p>Positive: -single coverage twice daily dosing all low cost with good susceptibility pattern -7.4cm area of overlying erythema described</p>	<p>Negatives: -not blinded trial -excluded immunodeficient pt -low pt size -? Failure rate similar to no abx at all</p>
<p>Author: Hankin and Everett Title: Are Antibiotic necessary After Incision and Drainage of a Cutaneous Abscess? Year: 2007, p.49-51 Journal: Ann Emerg Med</p>	<p>Patients: 5 research articles and 1 abstract</p>	<p>Study type: review</p>	<p>Outcomes: Clinical outcomes of I+D alone v. adjunctive abx over past 30 years</p>	<p>Positive: -I+D alone shows >90% resolution of sx no rx needed</p>	<p>Negatives: -none address abscesses with overlying cellulitis</p>
<p>Author: Hyun DY Title: TMP-SMX or clindamycin for treatment of CA-MRSA skin and soft tissue infections Year: 2009 Jan, p 57-9 Journal: Pediatr Infect Dis J</p>	<p>Patients:</p>	<p>Study type: Rand double blind placebo</p>	<p>Outcomes: Inpatient tx of oral TMP-SMX or oral clinda with no difference in return to ED or incomplete resolution of site</p>	<p>Positive:</p>	<p>Negatives:</p>

Author: Title: Recurrence of skin and soft tissue infection caused by MRSA in HIV primary care clinic Year: 2008 Oct, p 231-3 Journal: J Acquir Immune Defic Synd	Patients: 62 HIV+ people in outpt clinic with first MRSA + soft tissue infection	Study type: Retrospect cohort study	Outcomes: Rate and time of recurrence of CA-MRSA SSTI in HIV infected population after initial infection -71.0% rate of reoccurrence at 4.5 mo.	Positive: -initial abx choice does not change subsequent reoccurrence	Negatives: -small study size and retrospective -Infection characteristics not quantified. -Use of I+D alone not quantified in study
Author: Madaras-Kelly et al. Title: Efficacy of oral beta-lactam v non-beta-lactam tx of uncomplicated cellulitis Year: 2008 May Journal: Am J Med	Patients: 871 pts Nondrainable cellulitis in outpt setting	Study type: Retrospect cohort study	Outcomes: Clinical Failure→abx change, hospitalization, I+D -No sig difference in clinical failure btw abx in uncomplicated cellulitis. -	-Positive: -no outcome difference in abx choices, including Keflex except for pt tolerance -Increased discontinue in non-beta-lactam group	Negatives: -excludes HIV and I+D -nonrandomized abx selection
Author: Ruhe JJ, Menon A. Title: Tetracyclines as an oral tx option for pt with community onset skin and soft tissue infections caused by MRSA Year: 2007 Sep. p3298-303 Journal: Antimicrob Agents Chemother.	Patients: 276 MRSA SSTI to ER or outpt clinic in 2 hospitals	Study type: Retrospect cohort study	Outcomes: Treatment failure→ 2 nd incision or admission, -beta lactam only clinical tx assoc with failure MRSA 95% susceptible to tetracycline	Positive: Abscess I and D 75% of cases, furuncles, cellulitis. Doxy or minocycline v. beta-lactams.	Negatives: No viewing of I+D alone or randomization of abx type

Clinical Bottom Line

- There still is no studies looking at abscess with overlying cellulitis and whether I+D alone verses concurrent use of abx is warranted
- Mainstay of abscess treatment, whether CA-MRSA or not is still I+D
- It appears that if abx are used for soft tissue or cellulitis coverage there does not seem to be a difference in beta-lactams v. non-beta-lactams including Keflex. It is unclear if this is secondary to I+D alone is treatment enough. Incision and Drainage appears to be an appropriate first line therapy for skin abscess treatment in immunocompetent patients.