Emergency General Surgery
Skin and Soft Tissue Infections (SSTI)
Protocol

A. Diagnosis:

1. Clinical:
    a. Risk factors: Diabetes, Obesity, Renal Failure, Trauma
    b. Signs and symptoms: fever, chills, extremity pain on range of motion.
    c. Labs: in addition to routine labs, obtain type & cross, and monitor lytes especial Mg and Ca in necrotizing process
    d. Tetanus Status in all cases

2. Radiologic Evaluation:
    a. Plain films - looking for subcutaneous emphysema
    b. CT-scan fascial edema (+/-) subcutaneous emphysema
    c. MRI – high clinical suspension but work-up is in question

B. Treatment

1. Wound Management: OR and ICU
    a. Aggressive Surgical Debridement (Daily)
    b. Aggressive Wound Management: open to air refrain from a closed (anaerobic) dressing until infection is under control
    b. Hyperbaric Oxygen – not an option at VUMC

2. Antibiotic Protocol for SSTI: ABX selection based on community vs. nosocomial infection. Once an infection has been specie-sated and sensitivities have been delineated, the ABX spectrum should be narrowed (De-Escalation Therapy)

a. Community Acquired SSTI, NOS

Invanz 1 gm IV q 24 hours

If PCN Allergy;

Levaquin 500 mg IV q 24 hours
plus clindamycin 600 mg IV q 6 hrs

Complicated Disease (Constitutional Symptoms ie, fever, elevated WBC, significant contamination, abscess cavity)

1. Continue IV antibiotics until cellulitis and skin edema has resided, fever defervesce for 24 hours, and WBC normal range for 24 hours.
2. If patient continues with septic parameters consider inadequate source control. (CT –scan vs. re-exploration)
3. If pt has not normalized by 5 days consider re-evaluation for source control or un-drained collection (ie, CT-Scan vs abdominal US)

b. <u>Nosocomial SSTI, NOS</u>

Vancomycin 1 gm IV q12 hrs
Levaquin 500 mg IV q 24 hrs
Clindamycin 600 mg IV q6 hrs

Complicated Disease (Constitutional Symptoms ie, fever, elevated WBC, significant contamination, abscess cavity, erythema, and induration)

1. Continue IV antibiotics until cellulitis and edema has resided, fever defervesce for 24 hours, and WBC normal range for 24 hours.
2. If patient continues with septic parameters consider inadequate source control. (CT –scan vs. re-exploration)
3. If pt has not normalized by 5 days consider re-evaluation for source control or un-drained collection (ie, CT-Scan vs abdominal US)

c. **Necrotizing (Fascitis)Wound Infections**

The initial management of Necrotizing Fascitis Wound Infections is adequate surgical debridement at the first operation. All cases should be boarded as a LEVEL II OR case. The patient is returned to the OR on a daily bases until the extent of necrosis is complete.

1. Staphylococcus Infections
   i. MSSE – Nafcillin 2.0 gm IV q4hrs
   ii. MRSA – Vancomycin 1 gm IV q 12hr
   iii. VRSA – Zyvox 600 mg IV q12 hrs
2. Streptococcus Infections
   i. PCN G 4 MU IV q 4 hrs
   ii. Clindamycin 600 mg IV q6
3. Mixed Infection
   i. Primaxin 500 mg IV q6
4. Clostridial Infections
   i. Clindamycin 600 mg IV q 6 hrs
   ii. PEN G 4 MU IV/D q 4 hrs