Advanced Practice Protocols and Practice Guidelines for Empiric Antibiotic Therapy for Sepsis

In accordance with the Division of Trauma Practice Guidelines Manual and the Practice Guidelines for Acute Care Nurse Practitioners

I. Definition:
   A. Fever is very common in acutely traumatized patients and is most frequently not related to infection. Data suggests that delay in therapy for patients whose only signs or symptoms of infection are fever and leukocytosis is not deleterious. However, delay of appropriate therapy for patients with specific signs and symptoms for focal infection site does alter outcomes. Thus, suspected infection mandates an aggressive search for possible etiologies.

   1. The most frequent cause of sepsis in acutely ill surgical patients are:
      a. pneumonia - risk increased exponentially with time of intubation.
      b. surgical sites
      c. bacteremia, usually r/t vascular access.

   2. Less frequent causes
      a. thrombophlebitis
      b. acalculus cholecystitis
      c. urosepsis ( requires upper tract involvement or obstruction)
      d. perirectal abscess
      e. sinusitis ( usually requires complete obstruction of ostea of sinuses)

II. Pathogens:
   A. Likely pathogens vary depending on the site of the infection and significantly on the length of time that patient has been in the hospital. Additionally, previous AB use selects for colonization for resistant pathogens to these particular AB. Infections that occur within 5 days of hospitalization are less likely to be caused by nosocomial pathogens, particularly if no previous AB therapy has been used. Thus, AB selection should vary depending on the site and timing of infections.

III. Purpose:
   A. To standardize the AB management in patients receiving empiric AB therapy.

IV. Plan:
   A. The Nurse Practitioner will discuss the need for empiric AB therapy with attending for patients who are in the hospital < 5 days.
      1. Zoysn 4.5mg IV q 6h
   B. Patients admitted for >5 days (particularly if previous AB use) should be treated.
      1. Vancomycin 1 gm IV q 12 h-check level after third dose.
      2. Imipenim 500mg IV q 6h
      3. Amikacin 1 gm IV QD
C. Adjust AB after levels are taken for ARF and/or response to treatment.
D. In those patients that who have just received a course of AB, consideration for a change in therapeutic class should be given and proceed to antifungal protocol.