

PRACTICE GUIDELINES: EMPIRIC ANTIBIOTIC THERAPY FOR SEPSIS

INTRODUCTION:

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 sites does alter outcome. Thus, suspected infection mandates an aggressive search for possible etiologies.

The most frequent causes of sepsis in acutely ill surgical patients are 1) pneumonia (risk increases exponentially with time of intubation) 2) surgical site infection, and 3) bacteremia, usually related to vascular access. Thus, these three etiologies will be the cause of active infection in the vast majority of cases. Other less frequent causes include: thrombophlebitis, “acalculous” cholecystitis, urosepsis (requires upper tract involvement or obstruction), perirectal abscess, sinusitis (usually requires complete obstruction of ostia of sinuses).

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

PURPOSE

To standardize the antibiotic management in patients receiving empiric antibiotic therapy.

INTERVENTION

- Empiric therapy for patients in hospital for less than five days should consist of zosyn 4.5 gms IV q 6hrs.
- Patients admitted for ≥ 5 days (particularly if previous AB) should be treated with Vancomycin, imipenim, and amikacin.
- In those patients that have just received a course of AB, consideration for a change in therapeutic class should be given and proceed to antifungal protocol.

*Clinical Management Guidelines (CMG) have been developed by the Section of Trauma, Burns and Surgical Critical Care in an attempt to standardize and optimize care. They are based on a combination of accepted surgical practice and recent contributions to the medical literature. CMGs are intended to provide guidelines for the management of the majority of patients, and are not proposed as rules, policies or as a substitute for clinical judgment. Deviations from the CMGs are necessary and expected; all exceptions should be documented in the medical record and discussed with the attending physician.

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