SEPSIS
IDENTIFICATION & MANAGEMENT

Surviving Sepsis Campaign
www.survivingsepsis.org
SEPSIS IDENTIFICATION

• With Sepsis there is systemic inflammatory response to an infection

• Systemic Inflammatory Response Syndrome (SIRS) is identified by the following:
  • Temperature >38 C or <36 C
  • Heart Rate >90
  • Respiratory Rate > 20, or PCO2<32
  • WBC >12000 or <4000 or 10% bands

• When 2 or more of the above are found with a source of infection, sepsis is likely
DEFINITIONS

• Systemic Inflammatory Response Syndrome (SIRS)
  • The systemic inflammatory response to various clinical insults, including but not limited to infection

• Sepsis
  • The systemic response to infection

• Severe Sepsis
  • Sepsis associated with organ dysfunction, perfusion abnormalities, or hypotension

• Septic Shock
  • Sepsis with hypotension despite adequate fluid resuscitation
SEPSIS V. SIRS

Infection

Sepsis

Severe Sepsis

Septic Shock

SIRS

Burns

Pancreatitis

Trauma
SEPSIS MANAGEMENT

- How are we going to manage these patients?
  - Surviving sepsis campaign as put out guidelines for early management
    - Within 3 hours of recognition:
      - Measure lactate levels (normal lactate is <4mmol/L) – This may be done at the sending facility if the patient is being transferred
      - Obtain blood cultures prior to antibiotics – May also be done prior to transfer. Ensure to notify the receiving facility they have been drawn.
      - Administer broad spectrum antibiotics
      - Fluid administration: 30ml/kg of crystalloid for hypotension or lactate level of >4mmol/L
SEPSIS MANAGEMENT

• Surviving Sepsis Campaign Guidelines continued:
  • Within 6 hours of presentation:
    • If hypotension (MAP<65mmHg) persists despite 30ml/kg fluid resuscitation a vasopressor should be administered
      • First line vasopressor recommendation is Norepinephrine to maintain MAP>65mmHg
      • Dopamine as an alternative vasopressor agent to norepinephrine only in highly selected patients (eg - patients with low risk of tachyarrhythmias and absolute or relative bradycardia)
      • Vasopressin can be added to Norepi to assist in raising MAP or decreasing Norepi dosage
    • Additional fluid administration may be needed in some patients
      • May consider administration of albumin with additional IVF