Surviving Sepsis Campaign Bundle – 2018 Update

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SSC – What is it??

- Sepsis is a leading cause of critical illness and hospital mortality
- Early recognition and intervention are essential for the survival of patients with his syndrome
- In 2002 the society of critical care medicine (SCCM) and European Society of intensive care Medicine (ESICM) launched the surviving sepsis campaign to reduce overall patient morbidity and mortality from sepsis and septic shock by driving practice initiative based on current best evidence
- A major goal of the campaign has been to encourage clinicians to recognize symptoms along the continuum from SIRS to sepsis and septic shock

Surviving Sepsis Campaign – Time Line

- First Edition in 2004
- SSC guidelines has been updated every 4 years with the most recent update completed in 2016
- In 2014 the SCCM & EsICM convened a task force of specialist to re examine the definition of terms used to identify patients along the sepsis continuum
- In 2016 this task force published the third international consensus definition

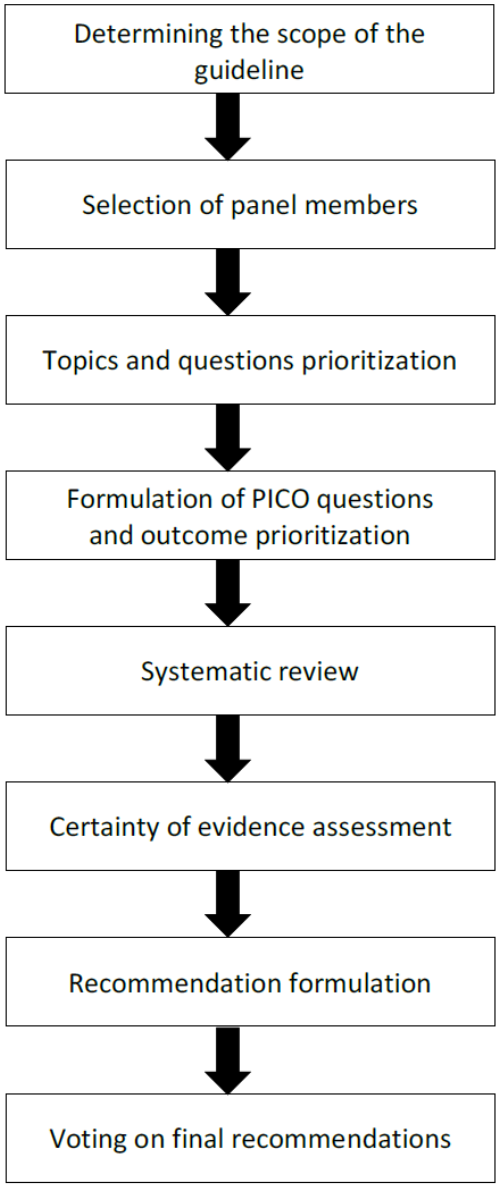
  for sepsis and septic shock –

  Sepsis – 3

Management of Potential Conflict of Interest

- No industry input
- Panelists did not receive honoraria
- Personal disclosure of potential COI upon joining guidelines panel and annually
- Management of potential COI
  - Limited voting on topics pertinent to COI
  - Group reassignment

SSC Guidelines Process



Sepsis and septic shock are medical emergencies and we recommend that treatment and resuscitation begin immediately

Best Practice Statement

Sepsis Bundle Change

- In 2017 new SSC guidelines published contain major changes to the sepsis bundle
- The most important change in the revision of the SSC bundle is that 3 hour and 6 hour bundles have been combined into a single hour one bundle
- It has the explicit intention of beginning resuscitation and management immediately

Sepsis Bundle Change

- It reflects the clinical reality at the bedside of these seriously ill patients with sepsis and septic shock-that clinician begin treatment immediately especially in patients with hypotension
- Resuscitation can be completed more than one hour but initiation of resuscitation and treatment are all begun immediately
- At present it does not differentiate various subgroups like burn, immuno compromised patient, This knowledge gaps need to be addressed in future studies

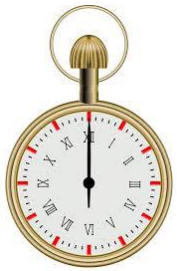
Sepsis Bundle

- Measure lactate level, re-measure if initial lactate is >2 mmol/L
- Obtain blood culture prior to administration of antibiotics
- Administer Broad spectrum Antibiotic
- Begin rapid administration of 30ml/kg crystalloid for hypotension or lactate >4mmol/l
- Apply vasopressors if patient is hypotensive during or after fluid resuscitation to maintain MAP >65 mm hg

Time Zero or time of presentation is defined as the time of triage in the emergency department or if presenting from another care venue from the earliest chart annotation consistent with all element of sepsis

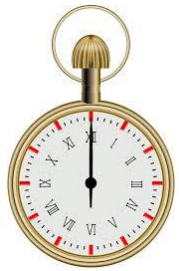
Time Zero

- Time zero must offer the best chance of reliability and reproducibility while optimizing the value of performance improvement program, leading to early diagnosis and appropriate treatment of sepsis and septic shock
- The key to reducing mortality from sepsis or septic shock is not just standardized evidence based treatment but equally important the early recognition of sepsis
- Altering time zero would turn the bundle into a treatment only bundle-rather than diagnosis and treatment bundle



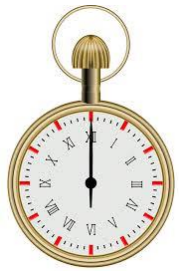
Time Zero – Limitations

- Diminish practitioners incentive to identify patients at risk based on history, symptom and examination finding in emergency department
- Reduce the reliability and reproducibility of time zero
- Make data collection more onerous and costly



Time Zero

- For presentation in ED, continue to use triage time as time zero
- For non ED presentation, continue to use as time zero the earliest chart annotation consistent with all element of sepsis (formerly severe sepsis) or septic shock
- Maximize bundles effectiveness for diagnosis as well as treatment
- Acknowledge that some patients may not meet criteria for sepsis at triage



Conclude

- **Start resuscitation early with source control, intravenous fluids and antibiotics**
- **Frequent assessment of the patients' volume status is crucial throughout the resuscitation period**
- **We suggest guiding resuscitation to normalize lactate in patients with elevated lactate levels as a marker of tissue hypoperfusion**

SCREENING FOR SEPSIS AND PERFORMANCE IMPROVEMENT

We recommend that hospitals and hospital systems have a performance improvement program for sepsis including sepsis screening for acutely ill, high-risk patients. (BPS)

Sepsis Performance Improvement

- Performance improvement efforts for sepsis are associated with improved patient outcomes
- A recent meta-analysis of 50 observational studies:
  - Performance improvement programs associated with a significant increase in compliance with the SSC bundles and a reduction in mortality (OR 0.66; 95% CI 0.61-0.72).
- Mandated public reporting:
  - NYS, CMS, UK

Guidelines

- This new Sepsis hour one bundle based on 2016 guidelines should be introduced to emergency department, floor and ICU staff as next iteration of ever improving tools in the care of patient with sepsis and septic shock

- As we all work to lessen the global burden of sepsis


Thanks