Screening Patients for Severe Sepsis

A patient who meets the following 3 criteria has a positive screen suggestive of severe sepsis:

INFECTION—Does your patient have **one or more** of the following infection criteria?

- ☐ **DOCUMENTED OR SUSPECTED**—Does the patient have positive culture results (from blood, sputum, urine, etc.)?
- ☐ **ANTI-INFECTIVE THERAPY**—Is the patient receiving antibiotic, antifungal, or other anti-infective therapy?
- ☐ **PNEUMONIA**—Is there documentation of pneumonia (x-ray, etc.)?
- ☐ **WBCs**—Have WBCs been found in normally sterile fluid (urine, CSF, etc.)?
- ☐ **PERFORATED VISCUS**—Does the patient have a perforated hollow organ (bowel)?

A ☐ ▶ **DID YOU CHECK ANY BOXES ABOVE?**

SIRS—Does your patient have **two or more** of the following SIRS criteria?

- ☐ **TEMPERATURE**—Is the patient's temperature ≥ 38°C (≥ 100.4°F) or ≤ 36°C (≤ 96.8°F)?
- ☐ **HEART RATE**—Is the patient's heart rate ≥ 90 bpm?
- ☐ **RESPIRATORY RATE**—Is the patient's respiratory rate ≥ 20 breaths/min?
- ☐ **WBC COUNT**—Is the patient's WBC count ≥ 12,000/mm^3, ≤ 4000/mm^3, or are there > 10% immature neutrophils (left shift)?

B ☐ ▶ **DID YOU CHECK TWO OR MORE BOXES ABOVE?**

ACUTE ORGAN DYSFUNCTION—Does your patient have **one or more** of the following organ dysfunction criteria?

- ☐ **CARDIOVASCULAR**—Does the patient have a systolic BP ≤ 90 mm Hg or mean arterial pressure ≤ 70mm Hg (for at least 1 hour despite fluid resuscitation) or require vasopressor support?
- ☐ **RESPIRATORY**—Does the patient have a PaO_2/FiO_2 ratio ≤ 250, PEEP > 7.5 or require mechanical ventilation?
- ☐ **RENAL**—Does the patient have low urine output (eg, < 0.5 mL/kg/hr for 1 hour despite adequate fluid rescuscitation), increased creatinine (> 50% increase from baseline) or require acute dialysis?
- ☐ **HEMATOLOGIC**—Does the patient have a low platelet count (< 100,000/mm^3) or PT/PTT > upper limit of normal?
- ☐ **METABOLIC**—Does the patient have a low pH with high lactate (eg, pH < 7.30 and plasma lactate ≥ upper limit of normal)?
- ☐ **HEPATIC**—Are the patient's liver enzymes > 2x upper limit of normal?
- ☐ **CNS**—Does the patient have altered consciousness or a reduced Glasgow Coma score?

C ☐ ▶ **DID YOU CHECK ANY BOXES ABOVE?**

IF YOU CHECKED:

A) INFECTION + B) SIRS + C) ORGAN DYSFUNCTION = POSITIVE SCREEN SUGGESTIVE OF SEVERE SEPSIS

Lilly Acute Care

Lilly

Definitions for Sepsis-related Clinical Conditions

SIRS Systemic inflammatory response to an insult or injury, independent of cause, with more than one of the following manifestations[1]:

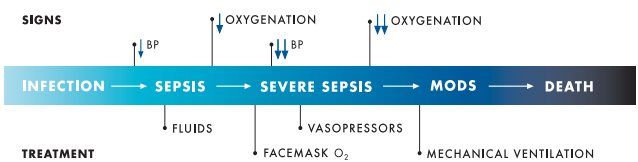
- Temperature ≥ 100.4°F or ≤ 96.8°F (≥ 38°C or ≤ 36°C)
- Heart rate ≥ 90 beats/min
- Tachypnea, as manifested by a respiratory rate ≥ 20 breaths/min or hyperventilation, as indicated by a $PaCO_2$ ≤ 32 mm Hg
- Alteration of white blood cell count ≥ 12,000 cells/mm^3, ≤ 4000 cells/mm^3, or the presence of > 10% immature neutrophils

Sepsis SIRS resulting from infection (bacterial, viral, fungal, or parasitic)[1]

Severe sepsis Sepsis associated with signs of at least one acute organ dysfunction, hypoperfusion, or hypotension[1]

Septic Shock Sepsis-induced hypotension persisting despite adequate fluid resuscitation[1]

MODS Multiple Organ Dysfunction Syndrome. Presence of altered function of two or more organs in an acutely ill patient such that homeostasis cannot be maintained without intervention[1]



This document lists some (but not all) common clinical criteria that may be used to screen patients for severe sepsis. It is intended for healthcare professional educational purposes only. By providing this document, Lilly is not making recommendations on diagnosis or treatment of any particular patient. The judgment of the physician/clinician, based on knowledge of the specific patient, should always be the deciding factor.

Reference:
1. Bone RC, Balk RA, Cerra FB, et al. *Crit Care Med*. 1992;20:864-874.

DR 31792 Printed in USA. 3000085213 050410

Lilly