

DEFINE SEPSIS WITH SIMPLE CRITERIA

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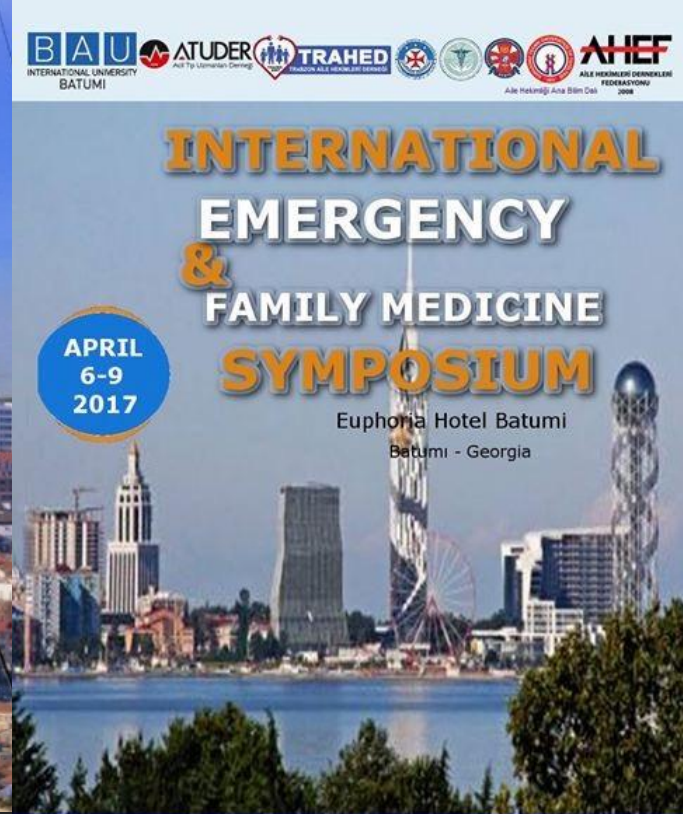
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Suspect **SEPSIS**



Save Lives

Sepsis is a life-threatening organ dysfunction resulting from dysregulated host response to infection.

The third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) 2016

SEPSIS

- ▶ Historically, the definition of severe sepsis has been based on the presence or absence of systemic inflammatory response syndrome (SIRS) criteria (from 1992). The definition that was required at least two SIRS criteria to be present in the setting of known or suspected infection. The SIRS criteria were notoriously **nonspecific**, and include heart rate, respiratory rate, white blood cell count, temperature, and so forth.



SIRS

1. Temperature $>38.3^{\circ}\text{C}$ (101°F) or $<36.0^{\circ}\text{C}$ (96.8°F)
2. Tachycardia >90 bpm
3. Tachypnoea >20 breaths/minute or $\text{PaCO}_2 <4.3$ kPa (32 mmHg)
4. Hyperglycaemia (blood glucose >7.7 mmol/L [>140 mg/dL]) in the absence of diabetes mellitus
5. Acutely altered mental status
6. Leukocytosis (WBC count $>12 \times 10^9/\text{L}$)
7. Leukopenia (WBC count $<4 \times 10^9/\text{L}$)
8. Normal WBC count with $>10\%$ immature forms.

SOFA

1. Respiratory
2. Neurological
3. Cardiovascular
4. Coagulation
5. Renal
6. Hepatic

SOFA (FOR ICU)

	1	2	3	4
PaO ₂ /FiO ₂ (mmHg)	< 400	< 300	< 200 and mechanically ventilated	< 100 and mechanically ventilated
GCS	13-14	10-12	6-9	< 6
MAP or vasopressors	MAP < 70 mm/Hg	dop ≤ 5 OR dob (any dose)	dop > 5 OR epi ≤ ;0.1 OR nor ≤ 0.1	dop > 15 OR epi > 0.1 OR nor > 0.1
Bilirubin (mg/dl) [μmol/L]	1.2–1.9 [> 20-32]	2.0–5.9 [33-101]	6.0–11.9 [102- 204]	> 12.0 [> 204]
PLT ×10 ³ /μl	<150	< 100	< 50	< 20
Creatinine (mg/dl) [μmol/L] (or urine output)	1.2–1.9 [110- 170]	2.0–3.4 [171- 299]	3.5–4.9 [300- 440] (or < 500 ml/d)	> 5.0 [> 440] (or < 200 ml/d)

qSOFA

Hypotension
Systolic BP
<100 mmHg

Altered
Mental
Status

Tachypnea
RR >22/Min

Score of ≥2 Criteria Suggests a Greater Risk of a Poor Outcome

INFECTION PLUS 2 OR MORE SEQUENTIAL ORGAN
FAILURE ASSESSMENT POINTS = HIGH RISK OF SEPSIS

(2016 CONSENSUS DEFINITIONS)

- ▶ Sequential Organ Failure Assessment (SOFA) Score:
<https://www.mdcalc.com/sequential-organ-failure-assessment-sofa-score>
- ▶ qSOFA (Quick SOFA) Score for Sepsis:
<https://www.mdcalc.com/qsofa-quick-sofa-score-sepsis>
- ▶ Pediatric SIRS, Sepsis, and Septic Shock Criteria (still discussed): <https://www.mdcalc.com/pediatric-sirs-sepsis-septic-shock-criteria>

«qSOFA appears a simple, rapid, inexpensive, and valid way to identify — among patients with suspected infection — those at a higher risk of having or developing sepsis.

Clinicians must rely on **clinical judgment**, potentially augmented by **clinical criteria** validated to identify sepsis among patients with infection,"

François Lamontagne, MD, from the University of Sherbrooke, Canada, and David A. Harrison, PhD, and Kathryn M. Rowan, PhD, both from the Intensive Care National Audit & Research Centre, London, United Kingdom.

qSOFA

- ▶ Alteration in mental status (Glasgow coma scale <15)
- ▶ Systolic blood pressure ≤ 100 mmHg
- ▶ Respiratory rate ≥ 22 per minute.

**ORGAN FAILURE CHECK BEST IN
THE ICU, QUICK SCORE BETTER
ELSEWHERE**



THANK YOU!