Sepsis and Septic Shock: Recognition and Management

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Disclaimer: This protocol is an educational reference intended to support — not replace — institutional policy, pharmacy and therapeutics review, and individual clinical judgment. Verify current dosing, contraindications, and local formulary/practice constraints before adopting into an EMR or using in patient care.

Overview

Sepsis is life-threatening organ dysfunction from a dysregulated host response to infection; septic shock is sepsis with hypotension requiring vasopressors plus lactate elevation despite adequate fluids. The 2026 Surviving Sepsis Campaign (SSC) update reframes bedside decision-making around two questions asked together: **is shock present or absent**, and **how probable is infection** (definite / probable / possible / unlikely)? Antibiotic urgency, not just the diagnosis itself, now hinges on both answers. This protocol is built from that 2026 update and from an internal LBMC ICU team teaching summary of it.

Steps

01 Screen Every Acutely Ill Patient

- Use **NEWS/NEWS2, MEWS, or SIRS** as the screening trigger — the 2026 guideline favors these over qSOFA alone for screening sensitivity.
- Do **not** use qSOFA as the sole screen, and do not rule sepsis in or out based on a single biomarker or rapid host-response test.
- A positive screen means: now evaluate infection probability and organ dysfunction — it is not itself a diagnosis.

02 Classify Shock Status and Infection Probability

Say both out loud before deciding on timing: **shock present/absent**, and **definite / probable / possible / unlikely** sepsis.

Table 1. Infection probability categories

CATEGORY	MEANING
Definite	Confirmed infection + organ dysfunction; alternate diagnosis very unlikely
Probable	Sepsis most likely; alternate diagnosis less likely
Possible	Sepsis possible; alternate diagnosis also likely
Unlikely	Clinical assessment favors another diagnosis

03 Activate the Sepsis Huddle for High-Acuity Presentations

- Trigger: positive screen + clinical concern, or shock.
- Huddle team: bedside RN + intensivist + pharmacist + bedside team.
- Define locally, in advance: who can activate, who responds, and what happens in the first 15 minutes.
- The huddle should accelerate diagnosis and treatment — not add an approval step.

04 Obtain Cultures and Pursue Source Control

- Collect blood cultures as soon as possible, ideally before antibiotics — but do not delay antibiotics in an unstable patient to get them.
- Rapidly identify an anatomic source; pursue source control (drainage, device removal, debridement) ideally within 6 hours when one exists.
- Choose empiric coverage based on MDR/fungal/anaerobic risk — cover MDR pathogens only when risk is high; avoid routine empiric antifungal or anaerobic coverage without risk factors.

05 Start Antibiotics — Timing Depends on Shock + Probability

Table 2. Antibiotic timing

PRESENTATION	TARGET
Shock present (possible, probable, or definite sepsis)	Immediately, ideally within 1 hour
Shock absent, probable or definite sepsis	Immediately, ideally within 1 hour
Shock absent, possible sepsis	Rapid evaluation for infectious/noninfectious causes; treat within 3 hours if concern persists

06 Initial Fluid Resuscitation

- Give **≥30 mL/kg IV balanced crystalloid** over the first 3 hours for sepsis-induced hypoperfusion or septic shock — this remains a conditional ("suggest"), not a strong, recommendation: reassess continuously rather than running it on autopilot.
- Balanced crystalloids are suggested over 0.9% saline as first-line.
- Calculate the dose on actual body weight; consider adjusted/ideal body weight for BMI > 30 kg/m².

07 Vasopressor Support

- **Norepinephrine is first-line.** Start after the initial crystalloid bolus if hypotension persists; concurrent vasopressor + fluid may be warranted case-by-case in unstable shock.
- **Peripheral start is acceptable** — do not delay restoration of perfusion waiting for central access — but only under a defined local safety protocol (site selection, concentration limits, monitoring, extravasation response).
- **MAP target:** 65 mmHg initially (reasonable range ±~5 mmHg). For septic shock, age ≥ 65, an initial target of **60–65 mmHg** is suggested over a higher range.

08 Reassess and Escalate Thoughtfully

- Monitor at least hourly: BP, HR, RR, temperature, consciousness; trend lactate and capillary refill.
- Use dynamic measures of fluid responsiveness where possible; avoid repeated static boluses in a non-responder — persistent shock is not automatically a fluid problem.
- Escalation options, chosen by phenotype rather than reflexively: add vasopressin, epinephrine, corticosteroids, or an inotrope (if cardiac dysfunction with persistent hypoperfusion despite adequate volume and MAP).
- Albumin: crystalloids alone are preferred; albumin may have a role after large-volume resuscitation or in cirrhosis; avoid in TBI.
- After acute resuscitation, consider active fluid removal (diuresis/ultrafiltration) if fluid-overloaded.
- Avoid routine add-ons: no recommendation supports midodrine for vasopressor weaning; beta-blockers are suggested against as shock treatment. Methylene blue has insufficient evidence — individualized rescue use only.

09 Respiratory Support

- **HFNC is favored** over conventional oxygen and over initial NIPPV in acute hypoxemic respiratory failure.
- Trial awake proning in non-intubated hypoxemic patients — do not sedate a patient purely to improve proning tolerance.
- For moderate-severe ARDS, lung-protective ventilation is unchanged: tidal volume 6 mL/kg IBW, plateau pressure ≤ 30 cmH_2O, prone positioning > 12 h/day.
- Document HFNC/NIPPV failure criteria in advance: work of breathing, gas exchange, mental status, hemodynamics, trajectory.

10 Adjunctive Therapies and Core ICU Bundles

Table 3. Adjuncts and daily bundle elements

CONSIDER / USE	AVOID / SUGGEST AGAINST	CASE-BY-CASE / INSUFFICI
IV corticosteroids if septic shock requires ongoing vasopressors	IV vitamin C	Methylene blue as rescue
Restrictive transfusion strategy	IV immunoglobulins	Midodrine for vasopressor
Stress ulcer prophylaxis only with GI bleeding risk factors	Blood purification / polymyxin B hemoperfusion	Formal time-limited trial pr
Early enteral nutrition within 72 hours	Probiotics, vitamin D as sepsis treatment	Early post-discharge follow

Daily ICU bundle checklist (build into rounds, not memory):

- Glucose: start insulin at ≥ 180 mg/dL.
- VTE prophylaxis: pharmacologic unless contraindicated; LMWH preferred.
- RRT: not indicated for AKI without a definitive indication.
- Bicarbonate: consider only if pH ≤ 7.2 with AKI in septic shock.
- Enteral nutrition within 72 hours.

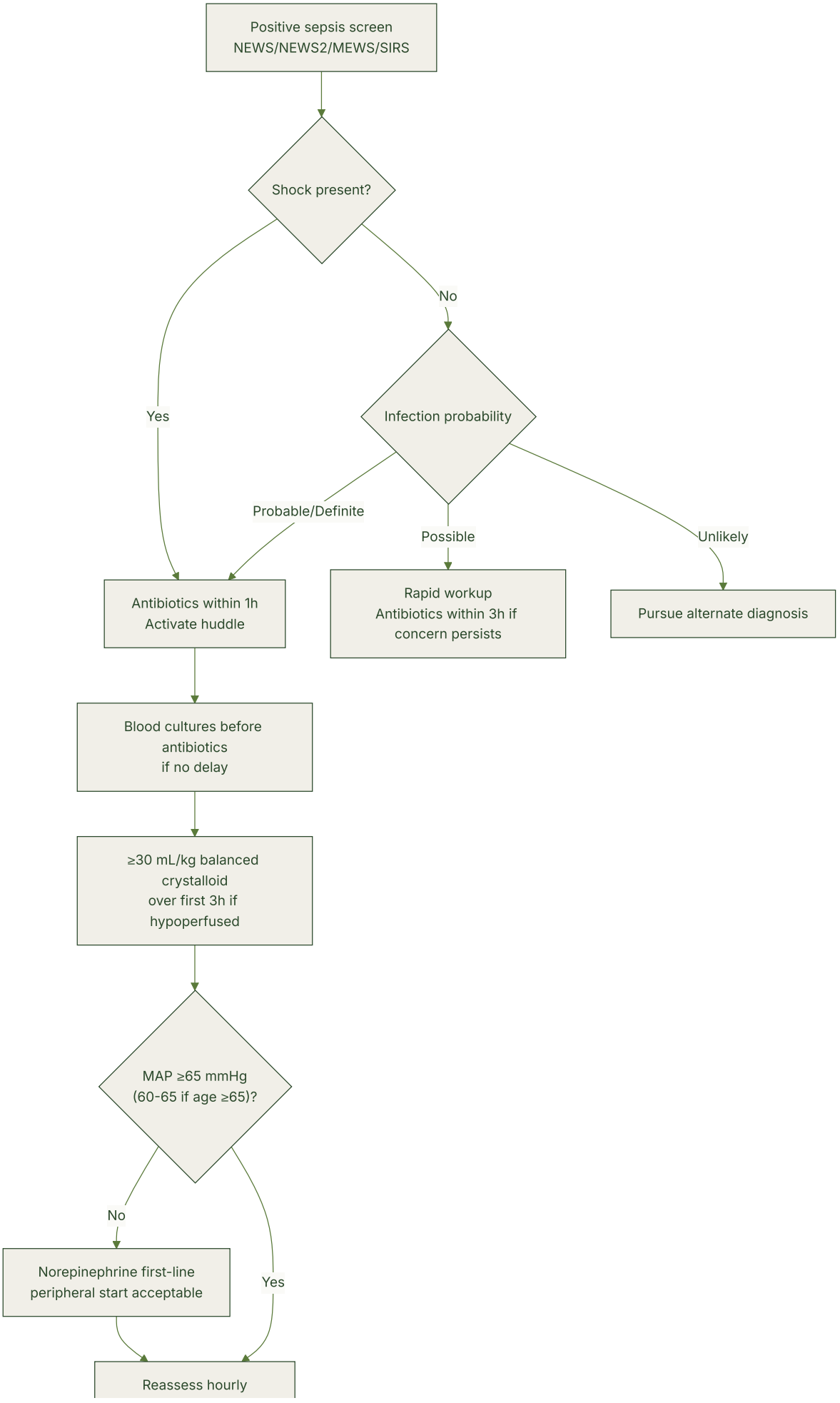
11 Daily Antibiotic Timeout

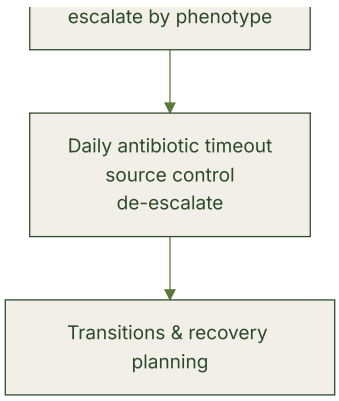
Ask every day: Is infection still likely? Is the source controlled? Have cultures resulted? Can the regimen be narrowed? What's the stop date?

12 Transitions, Goals of Care, and Recovery

- Discuss prognosis and goals of care early; integrate palliative principles when appropriate.
- Use structured handoff, medication reconciliation, and discharge education at transitions.
- Assess physical, cognitive, and emotional problems after discharge; consider post-critical-illness follow-up.

Algorithm


Positive sepsis screen
NEWS/NEWS2/MEWS/SIRS
Shock present?
Yes
No
Infection probability
Probable/Definite
Possible
Unlikely
Antibiotics within 1h
Activate huddle
Rapid workup
Antibiotics within 3h if
concern persists
Pursue alternate diagnosis
Blood cultures before
antibiotics
if no delay
≥30 mL/kg balanced
crystalloid
over first 3h if
hypoperfused
MAP ≥65 mmHg
(60-65 if age ≥65)?
No
Yes
Norepinephrine first-line
peripheral start acceptable
Reassess hourly



EMR Order Set

PHYSICIAN ORDERS

- Sepsis screen-positive order set trigger (links Steps 1–5).
- Empiric antibiotic selection, stratified by local MDR/fungal/anaerobic risk (stewardship-linked smart list, not free text).
- MAP target order: 65 mmHg default, 60–65 mmHg selectable for age ≥ 65.
- Peripheral norepinephrine order, gated to the local peripheral-pressor safety protocol (Step 7).
- Source control consult order (surgery/IR/procedural, as applicable).
- Goals-of-care discussion order/reminder (Step 12).

NURSING ORDERS

- Screening tool documentation (NEWS/NEWS2/MEWS) at defined intervals.
- Hourly vitals + lactate and capillary-refill trend, visible as a flowsheet trend (not just discrete values).
- Huddle activation button/order, timestamped for the first-15-minutes metric.
- Peripheral vasopressor site monitoring per safety protocol (site checks, extravasation response).
- Fluid bolus administration and mandatory reassessment documentation before a repeat bolus can be given.

PHARMACY ORDERS

- Antibiotic stewardship verification on empiric selection.
- Daily antibiotic timeout note (Step 11), pharmacist-initiated.
- Renal dosing adjustment for antibiotics/other agents.
- Vasopressor concentration and peripheral-line compatibility setup.

RESPIRATORY THERAPY ORDERS

- HFNC initiation/titration order with documented failure criteria.
- Awake proning trial order (non-intubated hypoxemic patients).
- Lung-protective ventilator order set (6 mL/kg IBW, Pplat ≤ 30 cmH_2O) with prone positioning > 12 h/day protocol for moderate-severe ARDS.

Build notes — the huddle activation, screening tool, and MAP target should be discrete/structured fields (not free text) so time-to-lactate, time-to-antibiotics, and time-to-vasopressor can be pulled automatically for the metrics in the section below.

Adoption Notes

A pragmatic 30/60/90-day rollout, per the LBMC ICU team's implementation plan for this guideline update:

- **Days 0–30:** Agree on shared language (probability categories) and screening triggers; map the current sepsis workflow; identify gaps in cultures, lactate, antibiotics, fluids, and pressor timing.
- **Days 31–60:** Build the tools — huddle script, peripheral-pressor safety protocol, antibiotic-timeout process, hemodynamic-reassessment order prompts.
- **Days 61–90:** Pilot in ICU/ED; review metrics weekly; revise based on frontline feedback and stewardship data.

Success Metrics & Monitoring

Minimal metric set: time to lactate, cultures obtained before antibiotics (yes/no), time to antibiotics, fluid volume given and reassessment documented, time to vasopressor, ICU admission delay, and antibiotic de-escalation rate at 48–72 hours. Track via the critical care database or EMR flowsheet trend; review at least monthly during rollout, quarterly thereafter.

Suggested Reading

1 Prescott HC, Antonelli M, Alhazzani W, et al. Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2026. *Crit Care Med*. 2026;54(4):725–812. doi:10.1097/CCM.0000000000007075. Primary current guideline; this protocol is built directly from it (129 statements, 46 new versus 2021), including the shock/probability-driven antibiotic-timing framework and the shift toward HFNC and NEWS/MEWS/SIRS screening.

2 Evans L, Rhodes A, Alhazzani W, et al. Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021. *Crit Care Med*. 2021;49(11):e1063–e1143. Prior edition; useful for understanding what changed in 2026 (e.g., qSOFA-alone screening, fixed 30 mL/kg as a stronger default, MAP targets without an age-stratified range).

3 Singer M, Deutschman CS, Seymour CW, et al. The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3). *JAMA*. 2016;315(8):801–810. Source of the underlying sepsis/septic-shock definitions this protocol assumes.

Revision History

VERSION	DATE	EDITOR	SUMMARY
0.1	2026-07-19	FunctionalHealth editorial team	Initial version using a generic order-set template
0.2	2026-07-19	FunctionalHealth editorial team	Rewritten in book-style stepwise format, grounded in the LBMC ICU team's SSC 2026 teaching deck; added EMR order set by role, adoption plan, and success metrics

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