

Adult ED Sepsis Guidelines Algorithm (2022)

Additional Recommendations

This does not pertain to presumed isolated COVID-19 infection

- Early investigations to determine infectious source (radiologic, surgical, other cultures i.e., CSF, joint aspiration) and early source control within 6-12 hours through appropriate consultation and using the least invasive technique.
- Selection of broad-spectrum antibiotics, including MRSA, MDRO and fungal coverage, should be based on local antibiograms and clinical indication (see SSCG 2021). Empiric antimicrobials should be discontinued if an alternative cause of illness is demonstrated or strongly suspected.
- For adults with sepsis or septic shock, we suggest guiding resuscitation to decrease serum lactate in patients with elevated lactate level, over not using serum lactate. Lactate should be rechecked every 2-4 hours during resuscitation. An elevated lactate, or failure to clear lactate, does not necessarily imply the patient needs IV fluid. Patients should be assessed for fluid responsiveness, need for vasopressors/inotropes or further imaging. We suggest using capillary refill time to guide resuscitation as an adjunct to other measures of perfusion.
- Consultation with critical care services or transfer to ICU ideally within 6 hours either locally or through BC Patient Transfer Network.

If hypotensive despite balanced crystalloid bolus (30 cc/kg) we suggest:

- Initiate norepinephrine targeting mean arterial pressure (MAP) of 65 mm Hg. We suggest starting norepinephrine peripherally (in or proximal to the antecubital fossa) to restore mean arterial pressure rather than delaying initiation until a central venous access is secured. Peripheral access sites running vasopressors should be checked every hour. Local protocols for extravasation management should be established. Central access and intra-arterial monitoring should be obtained within 6 hours.
- For further assessment of fluid resuscitation, we suggest using dynamic measures over physical examination or static parameters alone.
- For adults unable to obtain a MAP greater than 65 mmHg with 15 ug/min or 0.25 ug/kg/min of norepinephrine we suggest adding vasopressin 0.03 units/minute fixed dose (or 1.8 units/hr). Vasopressin should not be infused through peripheral IVs.
- For adults with septic shock and inadequate mean arterial pressure levels despite norepinephrine and vasopressin, we suggest adding epinephrine. Norepinephrine can be safely infused through a peripheral IV in the AC fossa or more proximal for up to 6 hours.
- Using further hemodynamic assessment (such as assessing cardiac function) to determine the type of shock if the physical exam does not lead to a clear diagnosis.
- Use dobutamine OR epinephrine as needed if there is evidence of sepsis induced myocardial suppression (determined by ECHO, low ScvO₂ or physical exam). Continue to assess response.
- For adults with septic shock and significant ongoing requirement for vasopressor therapy (greater than 4 hours or expected to be greater than 4 hours), we suggest using IV hydrocortisone at a dose of 50 mg IV q6h.
- For adults with sepsis or septic shock we suggest against using IV vitamin C.
- Consultation with critical care services or transfer to ICU (either locally or through BC Patient Transfer Network).