Asia Pacific Sepsis Alliance

Position Statement

Management of adult sepsis in resource-limited settings
Expert consensus based clinical practice statements (Revised July 2025)

KEY STATEMENT

The Asia Pacific Sepsis Alliance (APSA) is committed to promoting and ensuring the best evidence-based practice related to sepsis recognition, clinical management and rehabilitation. APSA believes that all clinicians and health services in the Asia Pacific region, regardless of income status, should have access to appropriate and current evidence-based guidelines and be provided with the resources needed for adherence. However, APSA acknowledges that there are important contextual considerations in the management of adults with sepsis in resource-limited settings.

BACKGROUND AND RATIONALE

APSA was formed in response to the 2018 Bangkok Declaration as a regional alliance under the auspices of the Global Sepsis Alliance. In collaboration with its membersl, APSA aims to improve sepsis recognition, diagnosis and clinical management within the Asia-Pacific region, as laid out by the WHO Resolution on Sepsis. For more information see: https://www.asiapacificsepsisalliance.org/

Sepsis is defined as life-threatening organ dysfunction caused by a dysregulated host-response to infection.[1] The Global Burden of Disease due to sepsis in 2017 was estimated to be 49 million sepsis cases and 11 million deaths, though 2021 data indicate at least a two-fold increase in deaths, with the majority of cases and deaths occurring in low-and middle-income countries.[2]

International guidelines such as Surviving Sepsis guidelines are used widely across the Asia Pacific Region, despite there being important contextual differences in resources, populations and causes of sepsis in the countries in the region and those where the evidence for guideline was created.[3] A recent APSA led Delphi consensus study involving 41 global experts in the clinical management of sepsis from 29 countries acknowledged the contextual differences and limited evidence for managing sepsis in adults in resource-limited settings and therefore undertook the Delphi study to generate expert consensus based practice statements.[4]

RESOURCES (OPEN ACCESS)

- *Thwaites L, Nasa P, Abbenbroek B, et al. Management of adult sepsis in resource-limited settings: global expert consensus statements using a Delphi method. Intensive Care Medicine. 2025 Jan;51(1):21-38.* https://link.springer.com/article/10.1007/s00134-024-07735-7
- *Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021.* *Surviving Sepsis Campaign: International Guidelines*
- *Dondorp AM, Dünser MW, Schultz MJ. Sepsis Management in Resource-limited Settings. Springer Nature; 2019*, Guide for adult patients with sepsis or septic shock. https://www.ncbi.nlm.nih.gov/books/NBK553809/

RECOMMENDATIONS
(See resources for full clinical practice statements)

1. Clinical and operational triggers for the escalation of care are severity of illness and risk, availability and expertise of staff, available equipment, safe transport and access to diagnostic and therapeutic interventions.
2. Prior to transfer clinically assess and provide appropriate airway maintenance, respiratory and oxygen support, IV access, fluids and antimicrobials.
3. Patients being managed outside a critical care area require:
   - virtual consultation with a critical care specialist to guide clinical management
   - a protocol for escalation of care should be in place
   - access to X-ray or ultrasound
   - access to source control e.g. percutaneous drain or surgery
   - clinical monitoring by staff with suitable clinical expertise of neurological and respiratory status; Sa02; blood pressure; peripheral perfusion/capillary refill time (CRT); blood glucose.
4. Diagnostics when infection is suspected then use:
   - clinical scores to assess patients with sepsis, with quick Sequential Organ Failure Assessment (qSOFA) score being a feasible score in most resource–limited settings.
   - altered mental status and CRT to assess tissue perfusion, in the absence of serum lactate.
   - routine monitoring of urine output in all patients with sepsis.
   - an indwelling urinary catheter if septic shock present.
5. For hemodynamic management:
   - clinical parameters such as CRT and urine output can guide resuscitation when serum lactate is not available.
   - fluid therapy can be guided by the response to a fluid challenge, pulse pressure variation (PPV), tidal volume challenge, passive leg raising test (used with pulse pressure or PPV) and ultrasonography (if available).
   - when a balanced salt solution is indicated, a non-proprietary balanced salt solution (e.g., Ringer's lactate, Hartmann's solution, etc.) may be used.
   - special considerations regarding the volume of fluid for resuscitation may be required for tropical infections.
   - epinephrine is an acceptable alternative for managing hypotension when norepinephrine or vasopressin unavailable.
   - vasopressors may be initiated and continued peripherally if central venous access is unavailable or not feasible.
6. Antimicrobial clinical guidance:
   - If a high likelihood of sepsis or septic shock, antimicrobials should be administered immediately, ideally within one hour
   - where a non–infectious cause of acute illness cannot be excluded and concern for infection persists, antimicrobials should be administered without delay.
   - administration of antiparasitic agents should not be delayed in patients with suspicion of sepsis of parasitic origin.
   - where the infection source has been adequately controlled, clinical improvement with an improving trend in white blood cell count can be used to guide the duration of antibiotic therapy.
7. Non-invasive ventilation (NIV) is an acceptable alternative to high low nasal oxygen (HFNO) when HFNO is not available in acute hypoxaemic respiratory failure.

1. 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. doi:10.1001/jama.2016.0287
2. Rudd, Kristina E et al. Global, regional, and national sepsis incidence and mortality, 1990–2017: analysis for the Global Burden of Disease Study, The Lancet, Volume 395, Issue 10219, 200 – 211.
3. Kumar A, Abbenbroek B, Hammond N, et al. Critical care resources, disaster preparedness, and sepsis management: Survey results from the Asia Pacific region. Journal of Hospital Administration. 2022;11(1):23-34
4. Thwaites L, Nasa P, Abbenbroek B, et al. Management of adult sepsis in resource-limited settings: global expert consensus statements using a Delphi method. Intensive Care Medicine. 2025 Jan;51(1):21-38.