UROLOGICAL SOCIETY OF AUSTRALIA AND NEW ZEALAND

Guidelines

Treatment of Urosepsis

Number:	Pol 052	**Version:**		1.0	
Subject:	Patient Care	**Distribution:**		Public	
Authorised by:	Board of Directors	**Approved Date:**	22 Nov 25	**Review Date:**	Nov 2028

Purpose and Scope

This policy is intended to provide guidance to Urologists, emergency rooms, and medical practitioners in the treatment of Urosepsis, a type of sepsis that begins in the urinary tract.

The following statement outlines a consensus-informed approach, aligning the European Association of Urology urological infections guidelines, National Institute for Health and Care Excellence (NICE) sepsis standards, Australian national sepsis care standards, and Victorian Adult Sepsis Pathway.

These guidelines do not replace an infectious disease or specialist consult.

Position Statement

1. Diagnosis and Treatment

Urosepsis (sepsis secondary to a urinary tract source) is a life-threatening condition requiring prompt recognition, IV antimicrobial therapy, source identification, and source control. The treatment of urosepsis involves adequate life-supporting care, immediate broad-spectrum antimicrobial therapy, and source control by decompression of any obstruction or drainage of any abscesses in the urinary tract is essential. Mortality is considerably increased with delayed diagnosis. In the setting of suspected urosepsis:

1.1. Urologists are recommended to treat patients in collaboration with intensive care and infectious diseases specialists when urosepsis is suspected.

1.2. Microbiology sampling should be immediately applied to urine, two sets of blood cultures, and if appropriate, any drainage fluids. Gram-negative bacteria are the predominant organism in urosepsis, but gram-positive and fungal organisms are also possible.

1.3. Culture specific or broad-spectrum antibiotics should be administered within <60 minutes. Empiric therapy in urosepsis should cover most uropathogens (Gram-negative bacilli, sometimes Gram-positive) and consider local resistance patterns. IV gentamicin in combination with IV ampicillin, or IV meropenem are advised by the Australian urinary sepsis pathways, followed by de-escelation once the pathogen is identified. European guidelines give consideration to broad-spectrum β-lactams such as piperacillin/tazobactam as well.

1.4. Urgent imaging investigations are required for source identification. Imaging modalities may include contrast CT, non-contrast CT, or sonography with the aim to detect urinary obstruction, urinary stone, hydronephrosis, urinary abscess, or other urinary pathology.

1.5. Immediate source control in the event of urinary obstruction is required. Relief of urinary tract obstruction (i.e. decompression) should not be delayed.

1.6. Options for decompression include ureteric stenting, nephrostomy, percutaneous drainage, or urinary catheter insertion depending on the aetiology and location of obstruction.

2. Recommended Clinical Roles and Responsibilities

2.1 Urological instrumentation in the setting of urinary infection increases the risk of post-operative sepsis. Clinicians should address urinary infections prior to urinary instrumentation with treatments guided by preoperative MSU results. Clinicians should also administer broad spectrum and culture sensitive antibiotics at the time of urological instrumentation.

2.2 Institutions should develop their own urosepsis bundles tailored to integrating national sepsis standards with local antimicrobial stewardship, urology services, radiology resources, and multidisciplinary collaboration

2.3 Protocols should define roles, timing, escalation triggers, and audit metrics (time to antibiotic, time to source control, mortality, length of stay).

3. References

3.1 **European Association of Urology (EAU)**. *EAU Guidelines on Urological Infections 2025.* Arnhem, The Netherlands: EAU Guidelines Office; 2025.
Available at: https://d56bochluxqnz.cloudfront.net/documents/full-guideline/EAU-Guidelines-on-Urological-infections-2025.pdf

3.2 **National Institute for Health and Care Excellence (NICE)**. *Sepsis: recognition, diagnosis and early management (NG51).* London: NICE; updated 2024.
Available at: https://www.nice.org.uk/guidance/NG51

3.3 **British Association of Urological Surgeons (BAUS)**. *Guidelines and Publications: Endourology Section.* London: BAUS; 2024.
Available at:
https://www.baus.org.uk/professionals/sections/endourology/guidelines_publications.aspx

3.4 **American Urological Association (AUA)**. *AUA Clinical Consensus Statements and Best Practice Guidelines.* Linthicum, MD: AUA; 2024.
Available at: https://www.auanet.org/guidelines

3.5 **Royal Australasian College of Surgeons (RACS)**. *Surgical Care and Perioperative Sepsis Management Recommendations.* Melbourne: RACS; 2024.
Available at: https://www.surgeons.org

3.6 **Australian Commission on Safety and Quality in Health Care (ACSQHC)**. *Sepsis Clinical Care Standard.* Sydney: ACSQHC; 2022.
Available at: https://www.safetyandquality.gov.au/standards/clinical-care-standards/sepsis-clinical-care-standard

3.7 **Safer Care Victoria.** *Victorian Adult Sepsis Pathway (VASP).* Melbourne: Safer Care Victoria; updated February 2025.
Available at: https://www.safercare.vic.gov.au/best-practice-improvement/clinical-guidance/emergency/sepsis

Roles and responsibilities

- The USANZ Board of Directors is the approval authority for Position Statements and other Policies that relate to patient care.
- The Endourology Specialty Advisory Group is responsible for the development and review of position statements and policies that relate to urinary stone disease, including these guidelines, and for making recommendations to the Board of Directors.

Superseded documents

- None

Revision history

Version	Date	Notes	By
1.0	22 November 2025	Drafted by Endourology SAG and approved by the Board of Directors.	Board of Directors

Review date

This position statement will be reviewed every 3 years by the Board of Directors. The next review date is November 2028.

Contact

USANZ President
Email: president@usanz.org.au