



Securing Success in Catheter Salvage

Catheter-related bloodstream infections (CRBSI) are generally managed with antibiotic therapy and catheter removal. However, in select cases, salvaging the infected catheter may be possible. What is salvage therapy and who are candidates?

What is catheter salvage therapy?

Catheter salvage therapy includes a combination of systemic antibiotics and antibiotic lock therapy while keeping the infected catheter in place. This is an important option for patients who have limited catheter insertion sites remaining. Infectious diseases society guidelines recommend salvage therapy as an alternative to line removal and systemic antibiotic therapy in select situations. Patients who receive salvage therapy require longer durations of antibiotic therapy (e.g. 10 – 14 days). Patients who fail to improve with salvage therapy, should have their catheter removed.¹

What is antibiotic lock therapy?

Antibiotic lock therapy (ALT) is the practice of instilling a concentrated antibiotic solution into the lumen of an intravascular catheter to eradicate intraluminal bacteria. Bacterial deposition within the intraluminal space is associated with the development of biofilms, which can be difficult to eliminate at concentrations reached with standard systemic dosing. Therefore, antibiotic solutions used in ALT are usually between 100 – 1000 times greater than standard concentrations.

Who should NOT receive salvage therapy?

Patients with one or more of the following should be managed with catheter removal and systemic antibiotic therapy.¹

- Sepsis
- Hemodynamic instability
- Propagating clot
- Suppurative thrombophlebitis
- Endocarditis or metastatic infection
- Bacteremia > 72 hours after starting antibiotic therapy
- Tunneled tract infection or subcutaneous port infection
- CRBSI due to *Staphylococcus aureus*
- CRBSI due to *Pseudomonas aeruginosa*
- CRBSI due to *Candida* spp.

Key Takeaway: Catheter salvage therapy may be trialed in clinically stable patients with uncomplicated CRBSI that is NOT due to *S. aureus*, *P. aeruginosa*, or *Candida* spp. Catheter salvage therapy includes combination therapy with systemic antibiotics and antibiotic lock therapy while retaining the infected catheter in situ.

References:

1. Mermel LA, Allon M, Bouza E, et al. Clinical practice guidelines for the diagnosis and management of intravascular catheter-related infection: 2009 Update by the Infectious Diseases Society of America. Clin Infect Dis. 2009;49(1):1–45.