

# Review Key Tips for Prepping Antimicrobial Lock Therapy

You're on the front lines to **prepare antimicrobial lock therapy (ALT) for treating IV-line infections**.

It's usually best to remove infected IV lines. But some can't be taken out due to long-term chemotherapy, limited IV access, etc.

ALT offers a way to salvage these lines. Antimicrobials aren't infused...they only stay and "dwell" in the IV line instead. The solution is then taken out of the line several hours later.

Different antimicrobials can be used...and choices depend on the patient's infection. Common options include aminoglycosides (gentamicin, etc)...ceftazidime...ciprofloxacin...daptomycin...and vancomycin.

You may hear about ethanol or taurolidine injections as alternatives...but they're costly. For example, ethanol is \$1,000 per vial.

Look for ALT orders to say "lock" in the title...or have an "intracatheter" route. Apply "For lock use only" stickers to labels to prevent these meds from being mistakenly given as an IV push.

Check with your pharmacist if you get multiple ALT labels for the same patient...they may be getting ALT in several lines at once. Request that labels specify "Line 1," "Line 2," etc, for clarity.

Spot differences with ALT during IV prep.

Watch antibiotic concentrations carefully. To help kill tougher bacteria, anticipate prepping higher ALT strengths...ciprofloxacin 100 mg/mL, gentamicin 5 mg/mL, vancomycin 500 mg/mL, etc.

Don't be surprised if some ALT orders include anticoagulants such as heparin (up to 5,000 units/mL) or citrate. They break down IV-line clots to help antibiotics work better.

Confirm heparin strengths to avoid 10-fold dosing errors..."1,000 units" and "10,000 units" look similar. Use barcode-scanning technology during prep, if available, to confirm products as an added safety step.

Expect to dispense ALT doses in syringes. Doses are typically 2 to 5 mL...just enough to fill the inside of the IV catheter.

Review your pharmacy's policies about batching these syringes to limit waste. Many ALT doses can be made from 1 diluted antibiotic vial.

Keep beyond-use dates in mind. They vary depending on the ALT med concentration...and some can be short (72 hours or less, etc).

Alert your pharmacist if ALT orders don't have a stop date. They can coordinate discontinuing the order after 7 to 14 days.

Continue maintaining your other sterile prep skills using our CriticalPoint resources. And get guidance on promoting safe and wise antibiotic use in our Antimicrobial Stewardship toolbox.

## Key References:

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