> There appears to be a close association between catheter-related thrombosis and catheter-related infection, and as such, ***it behooves the [healthcare provider] to utilize strategies to prevent both.***[5]
>
> Nakazawa, N., et al.

# CATHETER-RELATED THROMBOSIS & INFECTION

## Myth:

- Intravenous catheter-related thrombosis and infection are not related and should be treated independently

## Reality:

- Thrombosis ***is*** a risk factor for infection in patients with intravenous catheters[1,2,4,5]

## Evidence:

- When thrombosis is present, patients experience:
  - Higher rates of ***colonization*** (32% vs. 19.4%)[1]
  - More than double the rate of catheter-related ***sepsis*** (19% vs. 7%)[1]
  - More than triple the rate of ***septicemia*** (11.6% vs. 3.6%)[1]
- Animal and human studies have shown that fibrin sheath formation around catheters is a significant promoter of colonization, infection, and bacteremia[2,3,5]

## Clinical Implications:

- Even a small percentage occurrence of thrombosis or infection has a significant impact on patient morbidity and increases healthcare costs, given that there are more than ***six million CVCs*** inserted each year in the U.S. alone, and that ***two million of those are PICCs***[2]

## Consider Removing Catheters If:

- **There is active line infection** that cannot be controlled[4]
  - Upon removal, provide an interval of time where the patient is "line-free" to ensure that bacteremia is cleared[6]
  - **NOTE:** Do not remove PICC if there is no objective evidence of CLABSI in patients with fever[6]
- **Patient is unable to receive anticoagulants**[6]
  - **NOTE:** Do not remove if PICC is clinically necessary, positioned appropriately, and otherwise functioning despite PICC-related DVT[6]

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