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Health and Research Educational Trust (HRET)

Keystone Center for Patient Safety and Quality -Michigan Health & Hospital Association

Johns Hopkins Quality and Safety Research Group

## What It Takes To Eliminate Blood Stream Infections

Central line-associated bloodstream infections kill 31,000 patients a year; nearly as many deaths as breast cancer. **Most of these infections are preventable and you are part of the cure.** We have seen an ever-increasing number of hospitals reach and sustain a rate of zero central line-associated bloodstream infections (CLABSIs) for over a year. Each quarterly report of data shows that many clinical areas can eliminate CLABSIs. You can too. There is no single therapy that will wipe out these infections. It will take the concerted efforts of many people and tasks to reach zero.

Based on our experiences, site visits, and interactions with hospitals, we see significant reductions when the following occurs:

1. A senior leader commits to a goal of zero.
2. A senior leader holds unit-level leaders (not Infection Prevention) accountable for CLABSI rates. This means expecting unit leaders to present infection rates and weeks without an infection to senior leaders and boards of trustees, and to investigate every infection and report what they found (e.g., where the line was placed and whether the insertion or maintenance was the mode of the infection).
3. Infection preventionists work closely with unit-level teams to train, monitor, and investigate infections, and improve performance. Too many IPs must spend all of their time monitoring for infections rather than helping clinicians improve infection prevention techniques.
4. Unit physicians and nurse leaders own the problem.
5. Providers avoid placing catheters in the groin whenever possible.

6. Hospital managers make it easy to comply with the checklist. This means having a line cart (or a kit) that meets the needs of staff in each unit, where lines are inserted, and consistently stocks all of the needed supplies.
7. Clinical leaders standardize catheter insertion and maintenance practices across their hospital. Variation among units is okay if standardization is mindful rather than mindless. *Mindful variation* is driven by evidence, theory, or rationale that supports the variation in care. *Mindless variation* is driven by power, position, or just because “I say so.”
8. Clinical leaders create and enforce a policy that empowers nurses to stop a line insertion (or any potentially harmful act), with senior physicians serving as role models by supporting this empowerment.
9. Unit leaders and infection preventionists investigate all CLABSIs as defects. Each investigation should examine whether the checklist was used appropriately, where the catheter was placed (e.g., if placed in the OR, take issues to OR), and whether the infection resulted from insertion or maintenance practices (not a perfect distinction, but helpful). The investigators can develop a plan to prevent future infections based on their results.
10. Unit nurses review and audit catheter maintenance policy and practices.
11. Clinical leaders and infection preventionists build CLABSI prevention training into physician and nurse orientations. If your hospital employs residents or other rotating doctors, clinical leaders should ensure each new rotating doctor on a unit receives this training.
12. Infection preventionists post the quarterly rate of CLABSIs and the weeks without any infections in clinical units where infections are measured, and report these data to senior leaders. All unit staff should know their CLABSI rates and weeks without and infection.

**If these 12 tasks are done consistently, you will achieve zero CLABSIs.**