

PREVENTION OF CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTION

GOAL: PREVENT CENTRAL VENOUS CATHETER-RELATED BLOODSTREAM INFECTION (CR-BSI) AND DEATHS FROM CR-BSI BY IMPLEMENTING A SET OF INTERVENTIONS KNOWN AS THE "CENTRAL LINE BUNDLE" IN ALL PATIENTS REQUIRING A CENTRAL LINE.

Background:

- § 48% of ICU patients have central venous catheters, accounting for about 15 million central venous catheter days per year in ICUs.
- § There are approximately 5.3 CR-Basis per 1,000 catheter-days in ICUs. The mortality for CR-BSIs is approximately 18%. This means there are about 14,000 deaths annually due to CR-BSIs in ICUs. Some estimates have put this figure as high as 28,000 deaths per year.

INTERVENTION - CENTRAL LINE BUNDLE

The power of a "bundle" is that it brings together those scientifically grounded concepts that are both necessary and sufficient to improve the clinical outcome of interest. The focus of measurement is the completion of the entire bundle as a single intervention, rather than completion of its individual components.

Our "central line bundle" has five components:

1. Hand hygiene;
2. Maximal barrier precautions;
3. Skin antisepsis;
4. Optimal catheter site selection (the subclavian vein is the preferred site for non-tunneled catheters in adults); and,
5. Daily review of line necessity with prompt removal of unnecessary lines.

**METRO HEALTH HAS ELIMINATED CR-BSIs IN THE ICU BY
IMPLEMENTING MEASURES INCLUDED IN THE CENTRAL LINE BUNDLE.**



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