

MEASURING PATIENT SAFETY IN OUR HOSPITALS

Bloodstream Infections



April 2016

For Hospital Patient Safety

Reducing Central Line Associated Bloodstream Infections in Intensive Care Units in Kaiser Foundation Hospitals

What are we measuring and why?

We are currently measuring central-line-related bloodstream infections (BSIs) in adult medical-surgical intensive care units (ICUs). This population is considered at high risk of developing this type of bloodstream infection.

- Intravascular catheters are indispensable in modern-day medical practice, particularly in ICUs. Although they provide necessary vascular access, their use puts patients at risk for local and systemic infections.
- Although the frequency of bloodstream infections varies, and is usually low; when an infection occurs, it can result in significant patient suffering.

How are we doing and how do we compare?

Report Card 2015 (lower is better)	Kaiser Foundation Hospitals Programwide Average	Kaiser Permanente Target* / Goal
Reducing bloodstream infections** (per 1,000 line days)	.69	0.30 / 0.00

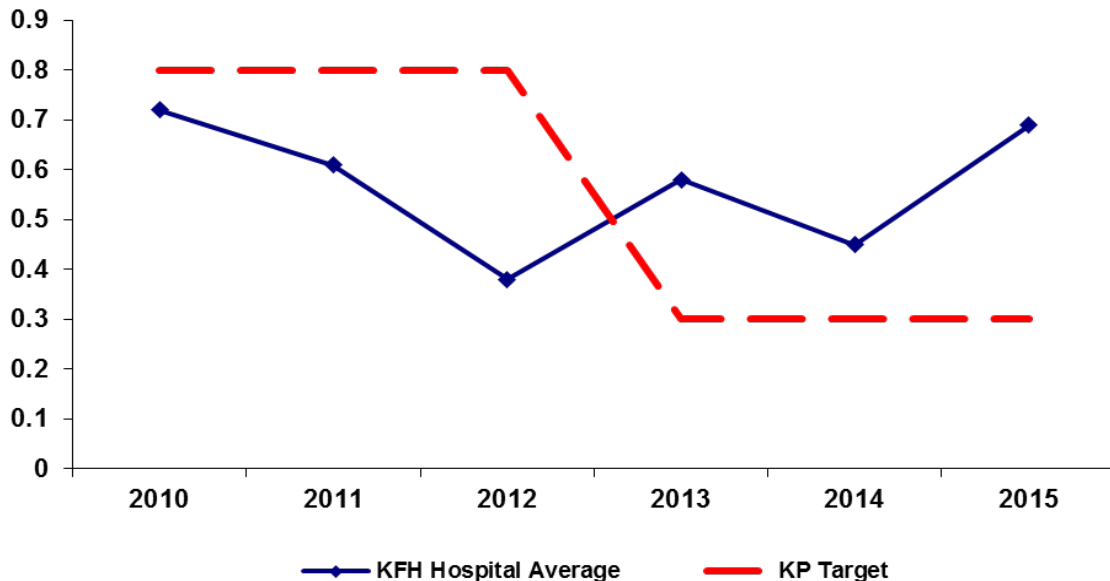
Since our formal program to reduce the risk of central line associated bloodstream infections was implemented in 2001, we have made continual progress in the reduction of these infections in all Kaiser Foundation Hospitals. Our national infection rate has remained below 1/1000 line days for a full decade, and we continue to work toward reaching and sustaining our aspirational goal of zero infections.

* The current national KP benchmark for ICU Med Surg Adult BSI is 0.3/1000 line days. This represents the CDC NNIS/NHSN* 10th percentile for non-teaching medical centers from the 2004 NNIS report. See link to CDC below.

** This measure is the rate of hospital-associated Bloodstream Infections (BSI) per 1,000 days that a patient has an intravascular catheter in place (referred to as "line days"). The patients in the measure have a central intravenous catheter in place while staying in an adult medical-surgical critical care unit.

The following graph shows the improvement over time of programwide performance in Kaiser Permanente's Kaiser Foundation Hospitals for Adult Medical Surgical ICU bloodstream infections in relation to our target. (Lower is better.)

Bloodstream Infections in ICU in Kaiser Foundation Hospitals 2010 - 2015



What are we doing to improve?

Since 2001, we have put a number of practices and products in place in all Kaiser Permanente medical centers to reduce the risk of bloodstream infections.

- **Practices and products include:**

- Use of chlorhexidine/alcohol skin prep
- A national hand hygiene program
- Cleaning of central line hubs and ports
- Full barrier precautions during insertion of central catheters
- Avoidance of femoral site during line placement
- Daily review of the necessity of the line
- In addition, medical centers have implemented measures to further support the drive to zero infections, such as creating a dedicated central line team for insertion and care of all central lines and using antiseptic impregnated cloths for patient bathing.

To learn more about the epidemiology of bloodstream infections and overall United States performance and efforts to reduce the risk of BSIs, please see the Center for Disease Control Web site: <http://www.cdc.gov/>.