People getting medical care can have serious complications called healthcare-associated infections (HAIs). Two of the most costly and preventable types of HAIs can occur when a person has a central-line or urinary catheter. A central line is a tube placed in a large vein to access the bloodstream. A urinary catheter is a tube placed in the bladder to drain urine. Patients with these devices have a much higher chance of getting an infection, yet in many circumstances the devices are essential in the course of treatments. These infections are largely preventable when healthcare providers use CDC-recommended infection prevention steps.

Many Kansas hospitals are sharing data with the Kansas Department of Health and Environment (KDHE), as a part of a nationally coordinated effort, to learn about how these HAIs affect patients treated in Kansas hospitals. KDHE is pleased to present this brief summary of HAI information learned from data collected in 2011. For more information, the full report is available at: www.kdheks.gov/epi/hai.htm

In 2011, patients treated in Kansas hospitals reporting data to this program had an estimated:

- **67% fewer bloodstream infections** from central-line devices, and
- **26% fewer urinary tract infections** from urinary catheter devices in intensive care units than expected from the 2006 to 2008 national reference data.
Central Line-Associated Bloodstream Infections

What is a Central line?
A central line is a tube that a physician usually places in a large vein of a patient’s neck or chest. It is used to administer medications, fluids, nutrition, or to obtain samples for blood testing.

What is a central line-associated bloodstream infection?
A bloodstream infection can occur when bacteria or other germs travel along a central line and enter the blood. When not put in correctly or kept clean, central lines can become a pathway for germs to enter the body and cause serious bloodstream infections.

How well are we doing?
In 2011, participating Kansas hospitals reported 67% fewer bloodstream infections from central line devices in intensive care units (ICU) than expected based on national reference data from 2006-2008. Forty hospitals contributed central line usage and infection data for 56 ICUs, representing 95% of all ICU beds in the state. Overall, the use of central lines in Kansas hospital ICUs was reported to be 32% lower than the national average (*See Limitations section on pg. 4).

What can I do to help prevent a central line-associated bloodstream infection?
• Ask your doctors and nurses to explain why you need the central line and how long you will have it.
• Ask your doctors and nurses if they will be using methods that prevent infections when inserting and caring for your central line.
• Make sure that all doctors and nurses caring for you clean their hands with soap and water or an alcohol-based hand rub before and after caring for you.

* If you do not see your care providers clean their hands, please ask them to do so.

• If the bandage covering your central line comes off or becomes wet or dirty, tell your nurse or doctor immediately.
• Inform your nurse or doctor if the area around your central line is sore or red, or if you feel feverish.
• Do not let family and friends touch the central line tubing or bandage.
• Make sure family and friends clean their hands with soap and water or an alcohol-based hand rub before and after visiting you.
• Make sure you wash your hands with soap and water or an alcohol-based hand rub before handling your central line.
Catheter-Associated Urinary Tract Infections

What is a urinary catheter (sometimes called a Foley)?

A urinary catheter is a thin tube placed in the bladder to drain urine. Urine drains through the tube into a bag that collects the urine. These are used if you are unable to urinate on your own, during and after some types of surgery, during some tests of the kidneys or bladder, or when precise measurements of urine production are needed.

What is a catheter-associated urinary tract infection?

A urinary tract infection can occur when bacteria or other germs travel along an urinary catheter, resulting in an infection in your bladder or your kidney.

How well are we doing?

In 2011, participating Kansas hospitals reported 26% fewer urinary tract infections from urinary catheter devices in intensive care units (ICU) than expected based on national reference data from 2006-2008. Thirty-five hospitals contributed catheter usage and infection data for 50 ICUs representing 92% of all ICU beds in the state. Overall, the use of urinary catheters in Kansas hospital ICUs was reported to be 38% lower than the national average (*See Limitations section on pg 4).

What can I do to help prevent a catheter-associated urinary tract infection?

* If you do not see your care providers clean their hands, please ask them to do so.

- Always clean your hands before and after doing catheter care.
- Always keep your urine bag below the level of your bladder.
- Do not tug or pull on the tubing.
- Do not twist or kink the catheter tubing.
- Ask your healthcare provider each day if you still need the catheter.
- Empty the bag regularly. The drainage spout should not touch anything while emptying the bag.

- Ask your doctors and nurses to explain why you need the urinary catheter and how long you will have it.
- Ask your doctors and nurses if they will be using methods that prevent infections when inserting and caring for your catheter.
- Before the catheter is inserted, the skin in the area where the catheter will be placed should be cleaned.
- Make sure that all doctors and nurses caring for you clean their hands with soap and water or an alcohol-based hand rub before and after caring for you.
Limitations of the Data
Because this is the first year of data collection for Kansas, it is not yet known if these estimates indicate improvement or how well the data represent the true occurrence of these HAIs in Kansas hospitals. Additionally, this data was self-reported by participating hospitals and has not been validated. Variation in interpretations of infection definitions by each hospital could potentially bias the estimated results. More evaluation work is needed to better understand the lower reported utilization rates for central lines and catheters, which may have an impact on the infection rates being reported. Despite these limitations, these results are encouraging and, as additional data are collected, more specific results will be possible.

Resources for Healthcare Consumers
The Society for Healthcare Epidemiology of America (SHEA)
FAQs about Central Line-associated Bloodstream Infections:
www.cdc.gov/hai/pdfs/bsi/BSI_tagged.pdf
FAQs about Catheter-associated Urinary Tract Infections:
www.cdc.gov/hai/pdfs/uti/CA-UTI_tagged.pdf

Centers for Disease Control and Prevention (CDC)
Central Line-associated Bloodstream Infections:
www.cdc.gov/HAI/bsi/bsi.html
Catheter-associated Urinary Tract Infections:
www.cdc.gov/HAI/ca_uti/uti.html

Contact Information
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