

## **Central Line-Associated Bloodstream Infection (CLI)**

### **What is Central Line-Associated Bloodstream Infection (CLI)?**

CLI occurs when a central venous catheter (or "line") placed into a patient's vein gets infected. This happens when bacteria grow in the line and spreads to the patient's blood stream.

Patients require a central line when blood, fluid replacement and/or nutrition need to be given to them intravenously. Central lines also allow health care providers to monitor fluid status and make determinations about the heart and blood.

Hospitals follow best practices on how to prevent bacteria from entering into a central line. Patients in the ICU often require a central line since they are seriously ill, and will require a lot of medication, for a long period of time.

### **What are the risk factors for CLI?**

Anyone who has a central line can get an infection. The risk is higher if you:

- Are in the intensive care unit (ICU)
- Have a serious underlying illness or debilitation
- Are receiving bone marrow or chemotherapy
- Have the line in for an extended time

### **What is a case of CLI?**

A CLI case is defined as:

- Includes only ICU patients
- Blood stream infection (BSI) is considered to be associated with a central line if the line was in place during the 48-hour period before the development of the BSI

### **What determines the rate?**

The CLI rate is determined by the total number of newly diagnosed CLI cases in the ICU after at least 48 hours of receiving a central line, divided by the number of central line days in that month, multiplied by 1,000. Central line days are the total number of days a central line was used in ICU patients 18 years and older.

### **What are we doing to reduce Central Line-Associated Infections and improve patient safety at Hamilton Health Sciences?**

