# Virginia Department of Health Office of Epidemiology

# Healthcare-Associated Infections Report October 1, 2009 - December 31, 2009

Effective July 1, 2008, all acute care hospitals in Virginia were mandated by state law to make information on healthcare-associated (e.g., nosocomial) infections reportable to the Centers for Disease Control and Prevention (CDC). Virginia regulations state that all acute care hospitals shall collect and report data on central line-associated bloodstream infections (CLABSI) in adult intensive care units (ICU). The results of reporting may be released to the public by the Virginia Department of Health (VDH) upon request.

This report includes information on CLABSIs that occurred in adult intensive care units in Virginia hospitals within the date range given at the top of this report.

Data on healthcare-associated infections is provided for each of Virginia's 76 acute care hospitals that have at least one adult intensive care unit. Hospitals in this report are categorized by the number of licensed hospital beds.

This report is useful for measuring individual hospital performance over time. The information can also help consumers ask physicians and hospital representatives informed questions about infection control and prevention. You are encouraged to contact your healthcare facility or visit their web site to learn more about their infection control program.

Additional details about this report can be obtained by contacting VDH, Office of Epidemiology, at (804) 864-8141 or via an email at epi-comments@vdh.virginia.gov.

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## **Definitions**

#### **Bedsize:**

Number of licensed beds for a facility according to the Virginia Department of Health's Offic of Licensure and Certification as of January 2009. Bedsize is used to categorize hospitals into three tiers (less than or equal to 200 beds, 201-500, and over 500 beds) to attempt to group facilities with similar characteristics together.

## Central Line Associated Bloodstream Infection (CLABSI) Rates:

The central line infection rate refers to the number of infections per 1,000 central line days. Hospital data includes adult intensive care unit patients with a central line who developed an infection.

#### **Healthcare-Associated Infection:**

A healthcare-associated infection is an infection that was not present or incubating at the time of admission to the hospital. Infections included in this report meet specific criteria written by the Centers for Disease Control and Prevention.

#### Central Line:

A central line is a flexible tube that is inserted near the patient's heart or into one of the large veins or arteries. The device can be used to give fluids, measure the amount of fluid in the body or to give medications. Because of the location, it can cause potentially serious bloodstream infections.

## **Central Line Days:**

The numbers of days central lines are in place for patients in an ICU. They are counted each day; each patient with one or more central lines at the time the count is performed is counted a one central line day.

## **Intensive Care Unit (ICU):**

ICUs are hospital units that provide intensive observation and treatment for patients either dealing with, or at risk of developing, life threatening conditions. Intensive units are describe by the types of patients in them; smaller hospitals typically care for both medical and surgical patients in a medical/surgical ICU, while larger hospitals may have many ICUs.

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# **Central Line Associated Bloodstream Infection (CLABSI) Rates**

The Central Line Associated Bloodstream Infection (CLABSI) Rate is the number of infections per 1,000 central line days. The infections rates are categorized by the number of licensed beds in a given hospital.

The hospital CLABSI rate is a combination of all of the adult ICUs for a particular hospital. For a given bedsize category, hospitals are combined to provide a Virginia statewide infection rate.

# Important information to consider when interpreting the information presented in the following tables.

- One single source of information should not be used to determine the overall quality of a hospital.
- Consider the advice of your physician and other sources of information when deciding where to receive care.
- A patient's age, underlying diseases, and severity of illness may increase their risk for infection.
- Hospitals that treat more complex patients with greater risk of infection may have higher rates.
- A higher rate of infection may indicate a true problem or simply better surveillance.
   Sometimes high rates are based on small numbers, so both the number and the rate should be reviewed. A lower rate may reflect fewer infections or different levels of infection surveillance.
- Small numbers of infections, central lines used, and patients in a particular intensive care unit may make it difficult to compare one hospital to another.
- All hospitals are required to use the definitions for healthcare-associated infections defined by the CDC's definitions for healthcare-associated infections using their National Healthcare Safety Network data system.
- Infections are identified by trained hospital staff and reported directly to the CDC. Infection information is not validated by the health department.

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# Central Line-Associated Bloodstream Infections (CLABSI) Reported by Facilities in Virginia with Adult Intensive Care Units, by Bedsize Category Quarter 4, 2009

| Facility Name                           | Composite* | Number of<br>CLABSI | Central<br>Line Days | CLABSI Rate (per 1,000<br>Central Line Days)** |
|---|------------|---------------------|----------------------|--|
| ≤200 Licensed Beds                      |            |                     |                      |  |
| Alleghany Regional Hospital             | yes        | 0                   | 20                   | 0  |
| Bedford Memorial Hospital (Carillion)   | -          | 0                   | 3                    | 0  |
| Bon Secours Mary Immaculate Hospital    |            | 0                   | 199                  | 0  |
| Bon Secours Richmond Community Hos      | 0          | 90                  | 0                    |  |
| Bon Secours St. Francis Medical Center  | 0          | 266                 | 0                    |  |
| Buchanan General Hospital               |            | 0                   | 24                   | 0  |
| Carilion Franklin Memorial Hospital     |            | 0                   | 44                   | 0  |
| Carilion Giles Memorial Hospital        |            | 0                   | 1                    | 0  |
| Carilion New River Valley Medical Cente | r          | 0                   | 225                  | 0  |
| Carilion Stonewall Jackson Hospital     |            | 0                   | 8                    | 0  |
| Clinch Valley Medical Center            |            | 0                   | 45                   | 0  |
| Culpeper Regional Hospital              |            |                     |                      | Data Not Available                             |
| Fauquier Hospital                       |            | 0                   | 298                  | 0  |
| Halifax Regional Hospital               |            | 0                   | 240                  | 0  |
| Henrico Doctors' Hospital - Parham      |            | 0                   | 366                  | 0  |
| INOVA Fair Oaks Hospital                |            | 0                   | 435                  | 0  |
| INOVA Loudoun Hospital                  |            | 0                   | 424                  | 0  |
| John Randolph Medical Center            |            | 0                   | 268                  | 0  |
| Johnston Memorial Hospital              |            | 0                   | 184                  | 0  |
| Lee Regional Medical Center             |            |                     |                      | Data Not Available                             |
| Martha Jefferson Hospital               |            | 0                   | 214                  | 0  |
| Montgomery Regional Hospital            |            | 0                   | 286                  | 0  |
| Norton Community Hospital               |            | 0                   | 106                  | 0  |
| Prince William Hospital                 |            | 2                   | 477                  | 4.19   |
| Pulaski Community Hospital              |            | 0                   | 90                   | 0  |
| Rappahannock General Hospital           |            | 0                   | 56                   | 0  |
| Reston Hospital Center                  |            | 0                   | 611                  | 0  |
| Riverside Tappahannock Hospital         |            | 0                   | 34                   | 0  |
| Riverside Walter Reed Hospital          |            | 0                   | 159                  | 0  |
| Russell County Medical Center           |            | 0                   | 9                    | 0  |
| Sentara Bayside Hospital                |            | 0                   | 434                  | 0  |
| Sentara Care Plex Hospital              |            | 1                   | 960                  | 1.04   |
| Sentara Obici Hospital                  |            | 1                   | 432                  | 2.31   |
| Sentara Potomac Hospital                |            | 0                   | 167                  | 0  |
| Sentara Williamsburg Regional Medical   | Center     | 0                   | 86                   | 0  |
| Shenandoah Memorial Hospital            |            | 0                   | 23                   | 0  |
| Shore Memorial Hospital                 |            | 0                   | 148                  | 0  |
| Smyth County Community Hospital         |            | 0                   | 8                    | 0  |
| Southern Virginia Regional Medical Cent | er         |                     |                      | Data Not Available                             |
| Southside Community Hospital            |            | 0                   | 86                   | 0  |
| Tazewell Community Hospital (Carillion) |            | 0                   | 38                   | 0  |
| Twin County Regional Hospital           |            | 0                   | 171                  | 0  |
| Warren Memorial Hospital                |            |                     |                      | Data Not Available                             |

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| Facility Name                                       | Composite* | Number of<br>CLABSI | Central<br>Line Days | CLABSI Rate (per 1,000<br>Central Line Days)** |
|---|------------|---------------------|----------------------|--|
| Wellmont Lonesome Pine Hospital                     |            | 0                   | 60                   | 0  |
| Wellmont Mountain View Regional Medical Center      |            | 0                   | 42                   | 0  |
| Wythe County Community Hospital                     |            | 0                   | 44                   | 0  |
| Statewide Totals and Rate for this Bedsize Category |            | 4                   | 7,881                | 0.51   |
| 201 - 500 Licensed Beds                             |            |                     |                      |  |
| Augusta Medical Center                              |            | 0                   | 247                  | 0  |
| Bon Secours DePaul Medical Center                   |            | 4                   | 492                  | 8.13   |
| Bon Secours Maryview Medical Center                 | yes        | 2                   | 521                  | 3.84   |
| Bon Secours Memorial Regional Medica                | l Center   | 3                   | 1,001                | 3  |
| Bon Secours St. Mary's Hospital                     | yes        | 1                   | 1,011                | 0.99   |
| Chesapeake General Hospital                         | •          | 3                   | 1,364                | 2.2  |
| Community Memorial Health Center                    |            | 0                   | 97                   | 0  |
| Danville Regional Medical Center                    |            | 1                   | 140                  | 7.14   |
| Henrico Doctors' Hospital - Forest                  | yes        | 1                   | 1,561                | 0.64   |
| INOVA Alexandria Hospital                           | yes        | 0                   | 1,317                | 0  |
| INOVA Mount Vernon Hospital                         | •          | 0                   | 575                  | 0  |
| Mary Washington Hospital                            |            | 3                   | 1,371                | 2.19   |
| Memorial Hospital of Martinsville & Henr            | y County   | 0                   | 295                  | 0  |
| Retreat Hospital                                    | •          | 0                   | 185                  | 0  |
| Rockingham Memorial Hospital                        |            | 0                   | 564                  | 0  |
| Sentara Leigh Hospital                              |            | 0                   | 369                  | 0  |
| Sentara Virginia Beach General Hospita              | l yes      | 1                   | 1,625                | 0.62   |
| Southampton Memorial Hospital                       | •          | 0                   | 27                   | 0  |
| Southside Regional Medical Center                   |            | 0                   | 428                  | 0  |
| Virginia Hospital Center                            | yes        | 3                   | 752                  | 3.99   |
| Winchester Medical Center                           | yes        | 2                   | 1,389                | 1.44   |
| Statewide Totals and Rate for this Bedsize Category |            | 24                  | 15,331               | 1.57   |
| >500 Licensed Beds                                  |            |                     |                      |  |
| Carilion Medical Center (Roanoke)                   | yes        | 9                   | 2,680                | 3.36   |
| Centra Health                                       | yes        | 0                   | 1,333                | 0  |
| HCA CJW Medical Center                              | yes        | 2                   | 2,754                | 0.73   |
| INOVA Fairfax Hospital                              | yes        | 6                   | 4,060                | 1.48   |
| Lewis-Gale Medical Center                           | yes        | 0                   | 647                  | 0  |
| Riverside Regional Medical Center                   | yes        | 1                   | 1,047                | 0.96   |
| Sentara Norfolk General Hospital                    | yes        | 0                   | 3,566                | 0  |
| University of Virginia Medical Center               | yes        | 11                  | 3,770                | 2.92   |
| VCU Health System                                   | yes        | 3                   | 3,869                | 0.78   |
| Statewide Totals and Rate for this Bedsize Category |            | 32                  | 23,726               | 1.35   |

<sup>\*</sup> Composite indicates facilities with more than one adult intensive care unit where the number of central line-associated blood stream infections and central line days are totals for the facility for the period..

Data Not Available: Data may not be available from a facility because the facility has not yet joined the National Healthcare Safety Network (NHSN) that is used to report CLABSIs to VDH, a facility may have joined NHSN but has not yet conferred rights for VDH to see the data, or a facility may not have entered data for the reporting period into NHSN.

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<sup>\*\*</sup> CLABSI Rate = (Number of CLABSI) / (Central Line Days) x 1,000