

## Catheter-related bloodstream infections

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### Abstract

Central-venous-catheter-related bloodstream infections (CRBSIs) are an important cause of hospital-acquired infection associated with morbidity, mortality, and cost. Consequences depend on associated organisms, underlying pre-morbid conditions, timeliness, and appropriateness of the treatment/interventions received. We have summarized risk factors, pathogenesis, etiology, diagnosis, and management of CRBSI in this review. Catheter-related bloodstream infection (CRBSI) is defined as the presence of bacteremia originating from an intravenous catheter. It is one of the most frequent, lethal, and costly complications of central venous catheterization and also the most common cause of nosocomial bacteremia. Intravascular catheters are integral to the modern practices and are inserted in critically-ill patients for the administration of fluids, blood products, medication, nutritional solutions, and for hemodynamic monitoring. Central venous catheters (CVCs) pose a greater risk of device-related infections than any other types of medical device and are major causes of morbidity and mortality. They are also the main

source of bacteremia and septicemia in hospitalized patients. Majority of CRBSIs are associated with CVCs and in prospective studies, the relative risk for CRBSI is up to 64 times greater with CVCs than with peripheral venous. Based on the North American data compiled from the National nosocomial infection surveillance system (NNIS) from October 1986 to December 1990, CRBSI incidence was 2.1 per 1000 catheter days for respiratory Intensive Care Units, 5.1 for medical-surgical ICUs, 5.8 for trauma ICUs, 30.2 for burn units. More recent data from NNIS from January 1992 through June 2004 showed the median rate of CRBSI in ICUs of all types ranged from 1.8-5.2 per 1000 catheter .

### Biography:

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