

Maintained low rate of catheter related bloodstream infections (CRBSIs) after discontinuation of a luer access device (LAD) at an academic medical center

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PURPOSE

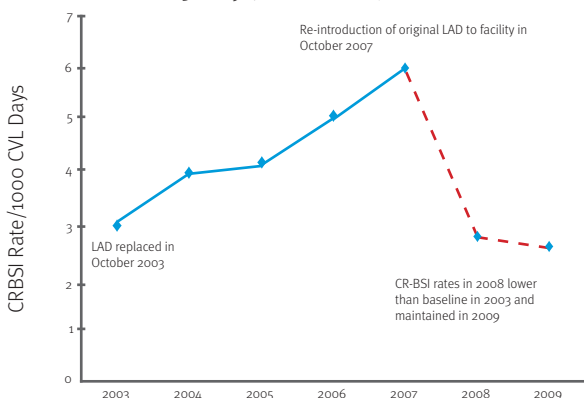
In October 2003, the University Medical Center in Tucson, Arizona, converted from Clave[®] connectors to SmartSite[®] connectors. In October 2007, SmartSite connectors were discontinued and Claves were reinstated due to a temporal association between steadily increasing CRBSIs and the change to SmartSite. This study compares rates of CRBSIs while SmartSite connectors were in use to rates of CRBSIs after Clave connectors were reinstated including the conversion to MicroClave[®] connectors in 2009.

MATERIALS AND METHODS

CRBSIs were identified using CDC-NNIS definitions. There were no changes in policies, surveillance methods, or procedures for accessing the device. Hand hygiene compliance and central line bundle handling were also monitored.

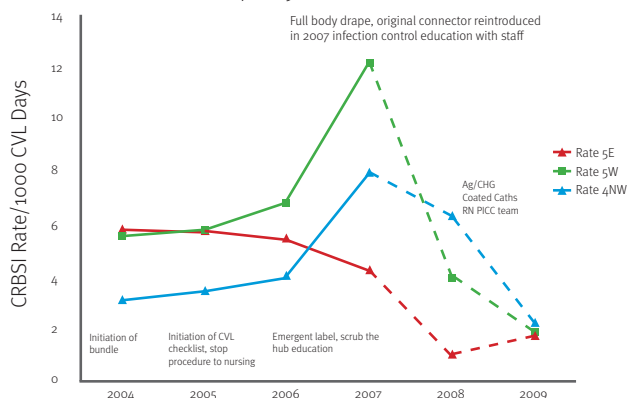
RESULTS

ICU CRBSI Rates 2003-2009 (NICU Excluded)



All ICUs: Rates of CRBSI steadily increased until the Clave connector was reinstated in 2008. Lower rates continued after the conversion to the MicroClave in 2009.

Adult ICU CRBSI Rates 2004-2009



CRBSI rates by ICU

After Clave connectors were reinstated, CRBSIs declined from 5.95 infections per 1000 central line catheter days in 2007 to 2.83 in 2008 and further improved in 2009 to 2.64.

CONCLUSION

The findings were consistent with other studies documenting a temporal association between a change in LAD, particularly the SmartSite LAD, and increased CRBSIs, as well as decreased CRBSIs following reinstatement of Clave connectors.