

## MicroClave® Neutral Displacement Connector Change Recommendations

The MicroClave family includes the original Neutral Displacement Connector, the MicroClave Clear, and the Antimicrobial MicroClave. According to the MicroClave directions for use, the device should be *changed in accordance with current, recognized guidelines of IV therapy*. What this means is that the MicroClave should be changed in accordance with the current established protocol for infusion therapy devices within your facility, or if the facility does not have an established protocol, in accordance with the CDC Guidelines.<sup>1</sup> The CDC guidelines recommend tubing changes no more frequently than at 96-hour intervals, but at least every 7 days. The CDC goes on to say that infusion sets for lipids and blood products should be changed every 24 hours.

ICU Medical recognizes that the most common change protocol for changing the MicroClave is at 72- or 96-hour intervals and always in cooperation with the standard tubing change protocol for the facility. We also recognize that when the MicroClave is placed on a peripherally inserted central venous catheter (PICC), users will change the device once per week in cooperation with the dressing change.

The MicroClave is also compatible with blood products and may be used for both blood sampling and infusion. ICU Medical does not specifically recommend changing the MicroClave after use with blood, as this increases manipulation that may pose additional unnecessary risks. In a study, a large teaching institution found that they were able to decrease their numbers of contaminated blood samples by not changing the MicroClave after blood use.<sup>2</sup> Blood flush studies have been conducted by ICU Medical to demonstrate that the MicroClave can be effectively cleansed of any blood residuals following use.<sup>3</sup> When using blood products with the MicroClave, the post-flush procedure should be carefully considered to ensure that blood residue has been appropriately flushed.

If there are further questions or concerns, please visit our website at [www.icumed.com](http://www.icumed.com) or contact the corporate offices at 949-366-2183 or 800-824-7890.

Technical Services

ICU Medical Inc.

1. Guideline for the Prevention of Intravascular Catheter-Related Bloodstream Infections, Final Issue Review, May 17, 2010 ([http://www.cdc.gov/hicpac/pdf/BSI\\_guideline\\_IssuesMay17final.pdf](http://www.cdc.gov/hicpac/pdf/BSI_guideline_IssuesMay17final.pdf)).

2. Landreth et al. The Connector or not the Connector: Reduction of Blood Culture Contamination. Program and abstracts of APIC's 2010 Annual Educational Conference & International Meeting, July 11-15th New Orleans, LA

3. Breznock EM, DVM, PhD, Diplomate ACVS, Sylvia CJ, DVM, MS. Biosurg, Inc. The In Vivo Evaluation of the Flushing Efficiency of Different Designs of Clear Needlefree Connectors. March 2011.