

**Written Comment: Presidential Advisory Council on Combating Antibiotic-Resistant Bacteria,  
March 30-31, 2016**

One of the major approaches which institutions are utilizing to control multi-resistant organisms is universal daily Chlorhexidine Bathing. But there are concerns with the development of resistance.(1,2)

- #1. Researchers have recently reported data indicating that chlorhexidine bathing may affect the incidence of genetic resistance. (3)
- #2. The genes encode for efflux pumps which can cause resistance to multiple types of antibiotics. (4, 5, 6)
- #3. These pumps may be giving a selective advantage to CRE (6) and may well become a driver of the antibiotic resistance epidemic.
- #4. A number of institutions are using Minimal Inhibitory Concentration Testing to detect resistance but there are significant concerns regarding this test's validity with antiseptics.(7,8)

There are also concerns regarding chlorhexidine effectiveness. Much of the research has integrity problems. However, the following characteristics of chlorhexidine would be expected:

- #1. Chlorhexidine is not effective against bacterial spores, such as those formed by *C. Difficile*.
- #2. Chlorhexidine should not be used in the major location for MRSA colonization, the anterior nares.
- #3. Multiple studies have found Chlorhexidine bathing to not significantly prevent CAUTIs.
- #4. Finally, daily Chlorhexidine Bathing would not be expected to add much to CLABSI prevention, when the catheter is inserted with an alcohol Chlorhexidine prep and sealed under a plastic barrier.

We would encourage the committee to reexamine the use of surveillance as exemplified by last meeting's VA system's presentation on achieving a dramatic reduction in MRSA infections in a very high risk population.

Finally, I again would call upon the members of the CARB Committee to disclose their conflicts of interest.

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## References:

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