



# Division of Public and Behavioral Health

## Technical Bulletin



**Topic: Defining infection versus colonization**

**Section/Program: Division of Public and Behavioral Health/Office of Public Health Informatics and Epidemiology**

**Date: June 29, 2016**

**To: All State-Licensed Healthcare Facilities**

In healthcare facilities, there will be patients who are colonized or infected with certain bacteria. This technical bulletin defines the differences between the two, and provides a brief guidance to healthcare workers in order to prevent infections.

According to the Centers for Disease Control and Prevention (CDC) states in reference to Clostridium difficile, "a patient who is colonized exhibits no clinical symptoms, and tests positive for Clostridium difficile organism and/or its toxin. When a patient is infected, they exhibit clinical symptoms and tests positive for the Clostridium difficile organism and/or its toxin." (Centers for Disease Control and Prevention, 2012) In this same likeness when a patient is colonized with a biological agent they will test positive for that particular agent, but will not express clinical symptoms such as; Inflammation (redness, warmth, swelling, and pain), fever, pneumonia, purulence (fluid form inflammation) and elevated with blood cell count. When a patient is infected, they will express these clinical symptoms as well as have positive lab results.

In order to ensure that biological agents are not transmitted from one patient to another, proper provider hand hygiene and universal contact precautions should be applied without any exceptions and at all times especially when handling patients regardless if they were infected/colonized or not. Adequate hand hygiene, the application of universal precautions, proper disinfection and sterilization procedures and the utilization of sound environmental health should be the cornerstone of a healthcare facility's infection prevention efforts.

Early identification of healthcare associated infections (HAI) and the rapid containment and control measures are critical to prevent the transmission of infections. Additionally, analyzing root causes that could have lead for such HAI are important to prevent future events. Isolation precautions for patients infected with a multidrug resistant organism (MDRO) are required at all times. Additionally, should such patient be transferred to another medical facility, transportation teams and receiving facilities must be notified regarding the patient status and precautions required.

Facilities should have/develop an efficient communicating system to notify clinicians regarding the detection of antibiotic resistant bacteria so that effective contact precautions could be promptly and rapidly implemented.

- Visit CDC website [http://www.cdc.gov/HAI/organisms/cdiff/Cdiff\\_faqs\\_HCP.html#a6](http://www.cdc.gov/HAI/organisms/cdiff/Cdiff_faqs_HCP.html#a6) for more information on Clostridium difficile.
- Visit CDC website <http://www.cdc.gov/hicpac/pdf/MDRO/MDROGuideline2006.pdf> for more information on MDROs.

Leon Ravin, MD  
Acting Chief Medical Officer

Cody L. Phinney, MPH  
Administrator