

Ellinor Davenport
Persistent & Resistant

The Healthcare environment consists of abnormal situations involving the cataclysmic enemy of a malfunctioning domain, bacteria. To reduce the element of antibiotic resistant bacteria we introduce cleaners to eliminate their existence. So to eradicate common viruses that may transit from bacteria we endorse cleaning products that should withstand their intensity. With common knowledge we understand that any manufactured merchandise would be the most effective as seen on the shelf. But could cleaners be more effective when its concentration is diluted? The measure of inhibition of each infused disc was acquired at the Fort Lewis BSL-1 lab. Subsequently, I matured the bacteria in a sterile environment. When exposed to the diluted cleaner (Bleach:25%=2.5 ml of Bleach and 7.5 ml of dH₂O; and so forth with the Multi Surface Cleaner) the Bleach brought measurable results (Plates 1a-1b: averaged 50%= 3.0 cm/ 25%= 1.95 cm; and Plates 4a-4b: averaged 50%= 2.0 cm/ 25%= 1.35 cm) and (Plates 2a-2b: averaged 50%= 0.0 cm/ 25%= 0.0 cm; and Plates 3a-3b: averaged 50%= 0.0 cm/ 25%= 0.0 cm). When reviewing the above data, I found the most adequate cleaner when diluted to 50% was the Bleach with a high average of 3.0 cm. These results have the ability to enable schools worldwide to efficiently dilute cleaners for maximum benefit; particularly those using strong or amalgamated solutions.