MATTHEW HUNTER and STEVEN ROOF, Dept of Biology, Fairmont State University, Fairmont, WV, 26554. Analysis of disinfectant wipe effectiveness – an introductory microbiology lab?

Determining the effectiveness of chemical germicides is a common laboratory exercise used in introductory microbiology course and examines the ability of disinfectants to kill 100% of a test organism. To make this more challenging for students we wanted a more quantitative approach and to make it more interesting we wanted to use commonly available disinfectant wipes. The goal was to develop and test a simple, inexpensive procedure that could be used in an introductory microbiology lab to quantitate the effectiveness of antibacterial wipes. Overnight cultures of *S. epidermidis* were spotted on glass slides and allowed to dry. Disinfectant wipes were placed over a small rubber stopper and used to "wipe" the slide by rotating 90 degrees with moderate pressure. After wiping the slide 100 µl of sterile water was applied to the slide, and immediately 50 µl was removed and serially diluted to determine the number of bacteria recovered from the slide. Multiple serial dilutions were tried to find a replicable procedure suitable for lab curriculum. Overall, the methods used showed results with rather inconclusive data and the techniques used to date would not be suitable for an introductory microbiology laboratory.