

Summary of Studies

Comparison of an Automated Handwash to a Manual Handwash – This study evaluated the performance of Meritech’s automated handcleansing system to a manual handwash using *serratia marcescens* as a marker organism, and a 4% Chlorhexidine Gluconate (CHG) antimicrobial agent. The transient microorganism log₁₀ reduction by Meritech’s automated system was measured at 3.80, which equated to a reduction of 99.95%. The results clearly substantiate the persistent effect (increasing efficacy over time) of CHG.

Healthcare Personnel Formulation Evaluation – This test was designed to study the immediate antimicrobial effectiveness of transient microorganism removal during Meritech’s wash cycle using *serratia marcescens* as a marker organism. The results showed a reduction of 99.3% after just one wash.

Comparison of a Manual Handwash to an Automated System – This study compared Meritech’s automated handcleansing system to a 30-second manual handwash using Chlorhexidine Gluconate (CHG). The results from both the manual and the automated handcleansing system demonstrated a statistically equivalent 99.9% reduction in transient microorganisms. The persistence of CHG was demonstrated with increasing reductions with repeated hand washes.

Determination of Microorganism Reduction with Chlorhexidine Gluconate – This study was designed to test the efficacy of Chlorhexidine Gluconate (CHG) on transient microorganisms during a standard automated wash using one of Meritech’s systems. The transient microorganism reduction was measured at 99.88%.

Two Phase Handwash Evaluation Using Two Different Concentrations of CHG – The purpose of this study was to determine and rate the antimicrobial efficacy of several handwash configurations using CHG 2% and CHG 4%, testing against *serratia marcescens* as the marker organism. The results show that CHG 4% clearly outperformed CHG 2%, with CHG 4% resulting in a 3.64 log reduction, equating to a percent reduction of 99.93%. CHG’s persistence was clearly evident once again.

Determination, Comparison, and Evaluation of Antimicrobial Efficacy of Nine Handwash Configurations – This test was designed to study the efficacy of nine different handwash configurations in Meritech’s automated handcleansing system using *Serratia marcescens* as a marker organism. The percent pathogen reductions ranged from a low of 99.41% to a high of 99.98%. The increasing efficacy over time due to CHG’s persistence was substantiated.

Antimicrobial Efficacy Determination – This study evaluated the efficacy of five different handwash configurations. The results showed Meritech’s CleanTech system provided a 99.15% reduction in transient microorganisms.

“All five product configurations demonstrated statistically significant log₁₀ reductions in bacterial populations. The manual wash and the standard CleanTech wash with CHG were statistically equivalent in degerming effectiveness.”

Pilot Determination of Handwash Configurations – The study was designed to test the efficacy of the Meritech automated handcleansing system. Results show that *E. coli* was reduced by 99.17% after just one wash.