Time Kill Studies for Anasept Gel, Antimicrobial Skin and Wound Gel

24 hour challenge test:

Anasept Antimicrobial Skin and Wound Gel was subjected to a high concentration of pathogenic micro-organisms (amount known to cause infection) in the presence of an interfering substance that simulates the organic load of the wound and is known to inactivate the antimicrobial agents. The duration of antimicrobial effectiveness of Anasept Antimicrobial Skin and Wound Gel was determined in a re-challenge of the original test sample with a high concentration of freshly prepared micro-organisms after 24 hours of initial exposure to pathogenic micro-organisms.

TIME KILL STUDIES

Test Organisms: Table of Antimicrobial Activity

Pathogenic Bacteria:	**Initial Organism**	**Exposure Time/% Kill**			
	Count	1 min.	3 min.	5 min.	10 min.
Escherichia coli	10^7	99.25%	99.986%	99.9995%	100%
Staphylococcus aureus	10^7	100%	100%	100%	100%
Methicillin Resistant Staphylococcus aureus (MRSA)	10^7	100%	100%	100%	100%
Vancomycin Resistant Enterococcus faecalis (VRE)	10^7	100%	100%	100%	100%
Pseudomonas aeruginosa	10^7	99.996%	100%	100%	100%
Proteus mirabilis	10^7	99.888%	99.998%	99.9998%	100%
Serratia marcescens	10^7	100%	100%	100%	100%
Acinetobacter baumannii	10^7	99.722%	99.977%	99.996%	99.998%
Clostridium difficile	10^5	100%	100%	100%	100%
Pathogenic Fungi:					
Candida albicans	10^6	100%	100%	100%	100%
Aspergillus niger	10^6	100%	100%	100%	100%

TIME KILL STUDIES

Test Organism: Table of Sporicidal Activity

Test Substance	**Initial Microrganism Count/ML**	**Exposure Time**	**Percent Reduction**	**Log Reduction**
Clostridium difficile - spore	10^6	15 minutes	99.986%	>4.0

Sustained duration of action:

Anasept Antimicrobial Skin and Wound Gel was shown to maintain microbiocidal activity even after 24 hours and repeated exposure to pathogenic micro-organisms in the simulated wound environment. The gel reduced all pathogenic test organisms by more than 99% within the first fifteen minutes of repeated exposure.

*J. Lindfors. A Comparison of an Antimicrobial Wound Cleanser to Normal Saline in Reduction of Bioburden and its Effect on Wound Healing. Ostomy / Wound Management 2004; 50 (8): 28-41.

TIME KILL STUDIES - 24 HOUR CHALLENGE:

Test Organisms: Table of Antimicrobial Activity

Pathogenic Bacteria:	**Initial Organism Ct.** / Re-challenge Organism Ct	**Exposure time after re-challenge** at 24 hours / % Kill		
		5 min.	10 min.	15 min.
Escherichia coli	10^7 / 10^7	71.25%	96.63%	99.49%
Staphylococcus aureus	10^7 / 10^7	95.91%	96.45%	99.16%
Methicillin Resistant Staphylococcus aureus (MRSA)	10^7 / 10^7	95.69%	99.38%	99.78%
Vancomycin Resistant Enterococcus faecalis (VRE)	10^7 / 10^7	92.8%	96.9%	99.61%
Pseudomonas aeruginosa	10^7 / 10^7	84.35%	98%	99.88%
Proteus mirabilis	10^7 / 10^7	67.14%	97.71%	99.74%
Serratia marcescens	10^7 / 10^7	96%	99.36%	99.94%
Acinetobacter baumannii	10^7 / 10^7	13.64%	85.25%	99.25%
Pathogenic Fungi:				
Candida albicans	10^6 / 10^6	98.89%	99.99%	99.9996%
Mix of all above including Candida albicans	10^7 / 10^7	88.75%	97.31%	99.8%