

Duration of Action of Theraworx® Against Methicillin Resistant Staphylococcus Aureus Utilizing an Inoculated Collagen Model

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Abstract

Duration of action testing to evaluate the antimicrobial performance of Theraworx® against Methicillin Resistant Staphylococcus Aureus was performed using a collagen based inoculation model. Eight millimeter thick pieces of bovine collagen were prepared using sterile technique. The identical sized pieces were then divided into three groups; control (normal saline), alcohol based skin cleanser and Theraworx®. The collagen was placed in the assigned solution and allowed to saturate for 5 minutes. All specimens were then removed and allowed to air dry for 5 minutes on sterile paper with each specimen being turned over to facilitate even air drying at the 2.5 minute time mark. After drying they were placed in a sterile lidded specimen container.

At designated intervals (15 minutes, 30 minutes, 60 minutes, 120 minutes, 180 minutes) ten samples from each group were subjected to inoculation using 10 to the sixth MRSA followed by incubation for 24 hours. Punch biopsies were then performed from the center of each specimen and quantitative cultures performed. Results are summarized in the table below:

Time	Normal Saline Control	Alcohol based skin cleanser	Theraworx®
15 minutes	Too numerous to count (TNTC)	Too numerous to count (TNTC)	>99 effective
30 minutes	TNTC	TNTC	>99% effective
60 minutes	TNTC	TNTC	>99% effective
2 hours	TNTC	TNTC	>99% effective
3 hours	TNTC	TNTC	>99% effective









