3 MONTH HOSPITAL STUDY



BIOPROTECT's efficacy was tested over a 3 month period at 3 different hospitals across the United States. Testing was performed by Microbac Laboratories, Inc., for Hospitals A & B and Chestnut Laboratories conducted the testing for Hospital C. Within each hospital, 2 to 3 high traffic areas were selected for testing including a variety of different



substrates. Swab tests were performed every 15 days over a 3 month period in 2010. The tests were monitored by each hospital's environmental supervisor and sent to the third party labs for testing.

Hospital A: University of Louisville Hospital

Hospital A is a teaching hospital located near downtown Louisville, Kentucky. The hospital's emergency room is one of the largest trauma facilities in the country and is able to accommodate up to 86 patients simultaneously. The center is staffed 24-hours a day and admits more than 2,400 patients each year; 40 percent of those are referred from other hospitals throughout the region. No patient numbers were readily available for the inpatient facilities.

Hospital B: Nationwide Children's Hospital

As one of the largest and most comprehensive pediatric hospitals and research institutes in the United States, Hospital B is home to the department of pediatrics for a local university medical school. In a typical year, the hospital sees patients from across the country and around the world. Hospital B is located in Co-lumbus, Ohio and maintains a medical staff of approximately 950, a hospital staff of 6,800, and delivers pediatric care for almost 823,000 patient visits annually.

Hospital C: Freeman Hospital

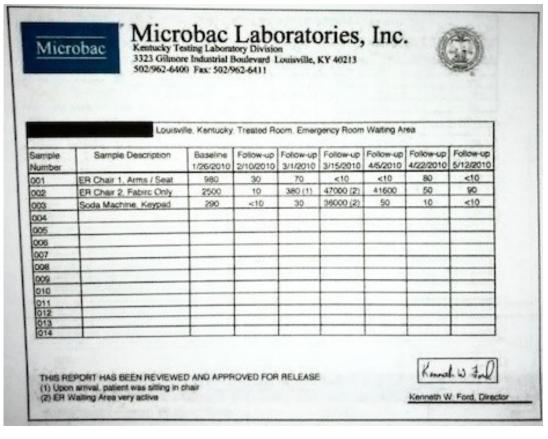
Hospital C located in Joplin, Missouri, is also a teaching hospital and features a 404-bed, three-hospital system, which includes a comprehensive behavioral health center. The facility has recently completed a \$47 million expansion project Hospital C is a member of the Oklahoma Osteopathic Medical Consortium of Oklahoma and the regional Osteopathic Postdoctoral Training Institution and an affiliate of Oklahoma State University-College of Medicine.

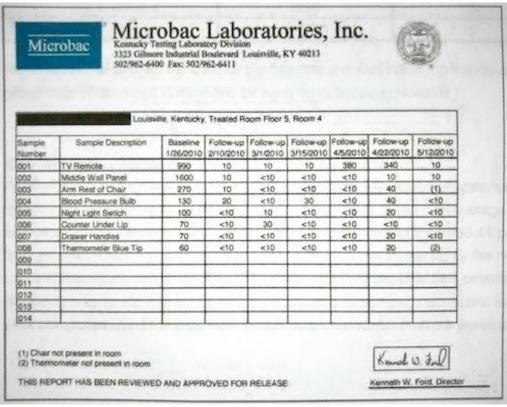


Hospital A Test Results

As demonstrated on the following certified reports from Microbac Laboratories, a significant decrease in microbes in all areas treated and tested at Hospital A was found. In fact, the average decrease in harmful bacteria and microbes for the three rooms treated and tested at Hospital A was 97.85%.

1.1. The results shown to the right from the Emergency Room Waiting Area of Hospital A shows a significant decrease in microbes when compared to the baseline sample. Swab tests were conducted every 15 days from January 2010 to May 2010 on three surfaces including two chairs and the vending machine keypad. The total decrease in microbes from the baseline test to the last follow-up test for this room was 97.13 %!

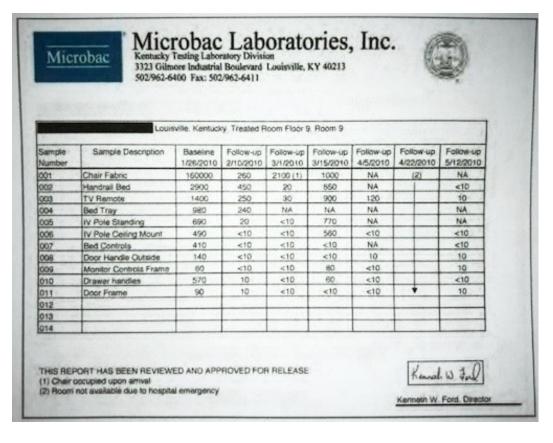




1.2 The results shown to the left from Room 4 on the 5th floor of Hospital A also shows a significant decline in microbes when compared to the baseline sample. Swab tests were conducted every 15 days from January 2010 to May 2010 on eight surfaces including the television remote, chair, blood pressure bulb, switch for the night light, drawer handles, thermometer, one wall panel, and underside of the counter lip. The decrease in microbes for this room was an astounding 99.95%!



1.3 The results shown to the right from Room 9 on the 9th Floor of Hospital A continues to show a significant decrease in microbes when compared to the baseline sample. Swab tests were conducted every 15 days from January 2010 to May 2010 on 11 surfaces including the TV remote, chair, drawer handles, bed handrail, controls and tray, IV equipment, outside door handle and frame as well as the frame for the monitor controls. The decrease in microbes for this room was 96.47%!



Hospital A Results								
Room	Baseline	Last Follow Up	Total % Decrease					
Emergency Room Waiting Area	3770	108	97.13%					
Floor 5, Room 4	3290	116	96.47%					
Floor 9, Room 6 167730 76 99.95%								
This outlines the data for the basel tested in Hospital A.	This outlines the data for the baseline and final follow-up testing as well as the total percentage of decrease in microbes for each room							

Hospital B Test Results

As demonstrated on the following certified reports from Microbac Laboratories, a significant decrease in microbes in all areas treated and tested at Hospital B was found. The average decrease in harmful bacteria and microbes for the two rooms treated and tested at Hospital B was 68.44 %. This result is lower than generally found in Hospitals A and C. The difference is explained by the notes on the Microbac Laboratories results certificate. Microbac determined the baseline data presented by the previous laboratory was invalid due to poor quality standards. Therefore, calculations for % of decrease were completed using the data from the first follow-up rather than the baseline.





Microbac Laboratories, Inc. Kentucky Testing Luboratory Division 1323 Gilmore Industrial Boulevard Louisville, KY 40213

502/962-6400 Fax: 502/962-6411



	Columbus	Ohio, Trea	ieu noon 4	003				
Sample Number	Sample Description	Baseline 1/26/2010	Follow-up 2/10/2010	Follow-up 3/1/2010	Follow-up 3/15/2010	Follow-up 4/5/2010	Follow-up 4/22/2010	Follow-up 5/12/2010
001	Sink handle	***	200	4000	60	<10	<10	<10
002	Talaghone		<10	<10	70	<10	<10	<10
003	Wall by Towel Dispenser		<10	10	<10	<10	<10	<10
004	Drawer handles		20	<10	<10	<10	<10	20
005	Chair		<10	30	1200	<10	(1)	10
006	Entry Door Handle Outside		<10	<10	<10	<10	20	<10
007	Sink Drain		30	3400	4400	<10	<10	<10
008	Light switch		<10	20	<10	<10	<10	<10
009	Sanitizer Housing by Sink		30	<10	10	<10	<10	<10
010	Black Spotlight Handles		<10	<10	<10	<10	<10	<10
011	VCR / Radio / CD Controls		<10	<10	20	<10	<10	<10
012	Thermostat		90	10	150	<10	(2)	10
013	Bottom of Towel Dispenser		<10	<10	<10	<10	<10	<10
014	Door Frame		<10	<10	380	<10	<10	<10
015	Wall Area at Bottom of Bed		30	10	<10	<10	40	<10
016	TV Remote		<10	<10	50	<10	10	<10
017	Nurses Call Button on Wall		<10	10	<10	<10	60	10

*** All baseline testing invalidated due to previous labs quality control. Use Control room A6633.

for baseline comparisons.

(1) Chair removed from room

(2) Thermostat not accessible due to patient positioning

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE.

Kenol W. For Kenneth W. Ford, Director

2.2 The results shown to the right from Room 4029 at Hospital B show a significant decrease in microbes. Swab tests were conducted every 15 days from January 2010 to May 2010 on 14 surfaces including the sink handle and drain, door handles. light switch, phone, toilet handle, television remote, chair, drawer handles, countertop and wall towel dispenser. The percentage of decrease in microbes from the first follow-up to the last follow-up test was 70.34 %



Microbac Laboratories, Inc.

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2.1 The results shown to the left

from Room 4009 at Hospital B show a significant decrease in microbes.

Swab tests were conducted every

15 days from January 2010 to May 2010 on 17 surfaces including the sink handle and drain, telephone, walls, drawer handles, chair, light switch, VCR/ Radio/CD controls, door frame, television remote, and the nurse call button. The

percentage of decrease in microbes from the first follow-up to the last follow-up test was 66.53 %

Sample Number	Sample Description	Baseline 1/26/2010	Follow-up 2/10/2010		3/15/2010	Follow-up 4/5/2010	Follow-up 4/22/2010	Follow-up 5/12/2010
901	Door handle		<10	<10	<10	<10	20	<10
002	Sink handle		<10	<10	<10	<10_	10	<10
003	Drawer handles		20	<10	<10	<10	50	<10
004	Light switch by sink		<10	<10	<10	<10	<10	<10
005	Phone		20	<10	30	<10	<10	180
006	TV Remote		<10	<10	10	<10	<10	10
007	Countertop		10	10	<10	<10	<10	<10
006	Toriet handle		790	850	470	3,000	<10	<10
009	Chair		30	<10	50	<10	<10	<10
010	Santizer housing		<10	<10	<10	<10	<10	<.10
011	Sink drain		20	<10	4,200	1,900	<10	<10
012	Wall towel dispenser		<10	<10	<10	<10	<10	<10
013								
014								1

*** All baseline testing invalidated due to previous labs quality control. Use Control room A6633. for baseline comparisons

Kennel W Int Kenneth W. Ford. Director

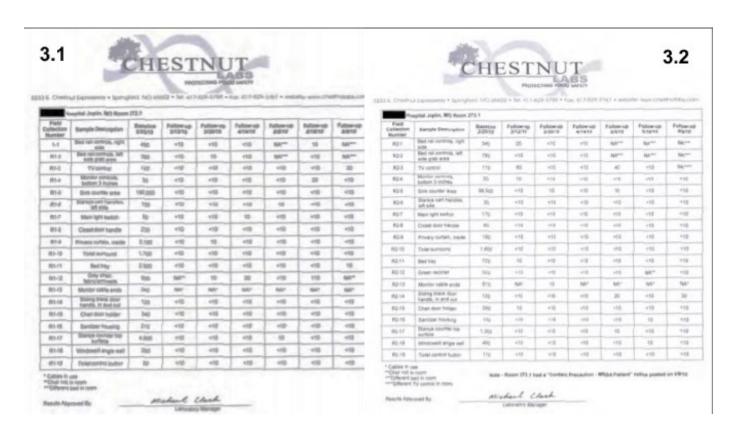


Hospital B Results								
Room	First Follow Up	Last Follow Up	Total % Decrease					
Room 4009	499	167	66.53%					
Room 4029	944	280	70.34%					
This outlines the data for tested in Hospital B.	This outlines the data for the first and last follow-up testing as well as the total percentage of decrease in microbes for each room tested in Hospital B.							

Hospital C Test Results

As demonstrated on the following certified reports from Chestnut Labs, a significant decrease in microbes in all areas treated and tested at Hospital C was found. In fact, the average decrease in harmful bacteria and microbes for the two rooms treated and tested at Hospital C was an astounding 99.84 %!

3.1 The results shown from Room 272 at Hospital C show a significant decrease in microbes. Swab tests were conducted every 15 days from February 2010 to June 2010 on 19 surfaces including the bed rail controls, television control, sink counter, monitor controls, light switch, closet door handle, privacy curtain, toilet surround and handle, chair, bed tray, sliding door handle, chart holder, and windowsill. The microbes in this room decreased by 99.87 %



3.2 The results shown from Room 273 at Hospital C also show a significant decrease in microbes. Once again, swab tests were conducted every 15 days from February 2010 to June 2010 on 19 surfaces including the bed rail controls, television control, sink counter, monitor controls, light switch, closet door handle, privacy curtain, toilet surround and handle, chair, bed tray, sliding door handle, chart holder, and windowsill. The microbes in this room decreased by 99.81 %!



Hospital C Results							
Room	First Follow Up	Last Follow Up	Total % Decrease				
Room 272	205830	277	99.87%				
Room 273	103940	193	99.81%				

Final Conclusions

All antimicrobials are not created equal. It's important to understand the basic chemical, physical, and biological properties of an antimicrobial so the best choice can be made. Because of its unique mode of ac-tion and inability to migrate from a treated surface, our technology is the obvious choice to minimize envi-ronmental contamination and the development of resistant organisms. Our EPA approved products are safe for the environment, humans, and pets. They are non-dissipating, non-leaching, non-migrating from the applied substrate and cannot be absorbed by micro-organisms or by humans.





Hospital A: University of Louisville Hospital 530 S Jackson Street Louisville, KY 40202

	26th Jan 10	10th Feb 10	1st Mar 10	15th Mar 10	5th Apr 10	22nd Apr 10	12th May 10
	Pre BioProtect						
Emergency Room Waiting Area	Treatment	Results	Results	Results	Results	Results	Results
ER Chair #1 Arms/Seat	980	30	70	<10	<10	80	<10
ER Chair #2 Fabric only	2,500	10	****380	**47,000	41,600	50	90
Soda Machine keypad	290	<10	30	**36,000	50	10	<10

^{*****} Upon arrival, patient was sitting in test chair ** Emergency room was very active

	26th Jan 10	10th Feb 10	1st Mar 10	15th Mar 10	5th Apr 10	22nd Apr 10	12th May 10
	Pre BioProtect						
Floor 5, Room 4	Treatment	Results	Results	Results	Results	Results	Results
TV Remote	990	10	10	10	380	340	10
Middle Wall Panel	1,600	10	<10	<10	<10	10	10
Armrest Chair	270	10	<10	<10	<10	40	NA
Blood pressure bulb	130	20	<10	30	<10	40	<10
Night Light switch	100	<10	10	<10	<10	20	<10
Counter under lip	70	<10	30	<10	<10	<10	<10
Drawer handles	70	<10	<10	<10	<10	20	<10
Thermometer Blue tip	60	<10	<10	<10	<10	20	NA

	26th Jan 10	10th Feb 10	1st Mar 10	15th Mar 10	5th Apr 10	22nd Apr 10	12th May 10
	Pre BioProtect						
Floor 9, Room 9	Treatment	Results	Results	Results	Results	Results	Results
Chair Fabric	160,000	260	***2,100	1,000	*NA	_	NA
Bed Handrail	2,900	450	20	650	**NA	patient in	<10
TV Remote	1,400	250	30	900	120	en	10
Bed Tray	980	240	NA	NA	NA	ati	NA
IV Pole standing	690	20	<10	770	NA	I 0	NA
IV Pole Ceiling Mounted	490	<10	<10	560	<10	on ät	<10
Bed Controls	410	<10	<10	<10	NA	rool	<10
Door Handle outside	140	<10	<10	<10	10	₽	10
Monitor Controls	60	<10	<10	80	<10	<u>e</u>	10
Drawer Handles	570	10	<10	60	<10	Unable	<10
Door Frame	90	10	<10	<10	<10] j	10

All testing performed independently by Microbac Laboratories, Inc, Louisville

*** Chair was occupied on arrival

** Missing Items

* Room undergoing renovation; chairs and cabinets being changed



Hospital B: Nationwide Children's Hospital

700 Children's Drive Columbus, Ohio 43205

	10th Feb 10
Untreated Control Room (A6633)	Pre BioProtect Treatment
Light switch	<10
Bed Tray	620
Bed Controls	<10
TV Remote	570
Reclining Chair	1,200
Couch	530
Bed Rail	1,000
Telephone	720
Toilet Handle	350
Table	1,300
Cabinet Handles	730
Door Handle	<10
Wall under sink	40
VCR/DVD Controls	<10
Door Blind Control	<10

Note - The reason the rooms below have no pre-BioProtect 500 results is that they had just been cleaned prior to arrival on site, and would not have given meaningful baseline readings. The hospital selected this room being similar and adjacent for baseline testing.

	10th Feb 10	1st Mar 10	15th Mar 10	5th Apr 10	22nd Apr 10	12th May 10
Floor 4, Room 4009	Results	Results	Results	Results	Results	Results
Sink Handle	200	4,000	60	<10	<10	<10
Phone	<10	<10	70	<10	<10	<10
Wall by Towel Dispenser	<10	10	<10	<10	<10	<10
Drawer Handles	20	<10	<10	<10	<10	20
Chair	<10	30	1,200	<10	NA	10
Door Handle Outside	<10	<10	<10	<10	20	<10
Sink Drain	30	3,400	4,400	10	<10	<10
Light Switch	<10	20	<10	<10	<10	<10
Sanitizer Housing by sink	30	<10	10	<10	<10	<10
Black Spotlight left handle	<10	<10	<10	<10	<10	<10
VCR/Radio/CD Controls	<10	<10	20	<10	<10	<10
Thermostat	90	10	150	20	NA	10
Bottom of Towel Dispenser	<10	<10	<10	NA*	<10	<10
Door Frame	<10	<10	380	<10	<10	<10
Wall area Bed end	30	10	<10	<10	40	<10
TV Remote	<10	<10	50	<10	10	<10
Nurse Call Button	<10	10	<10	<10	60	10

^{*}All testing performed independently by Microbac Laboratories, Inc, Louisville

	10th Feb 10	1st Mar 10	15th Mar 10	5th Apr 10	22nd Apr 10	12th May 10
Floor 4, Room 4029	Results	Results	Results	Results	Results	Results
Entry Door Handle	<10	<10	<10	<10	20	.⊑
Sink Handle	<10	<10	<10	<10	10	
Drawer Handles	20	<10	<10	<10	50	e e
Light Switch by sink	<10	<10	<10	<10	<10	patient
Phone	20	<10	30	<10	<10	
TV Remote	<10	<10	10	<10	<10	t as m
Countertop at sink	10	10	<10	<10	<10	test a room
Toilet Handle	790	850	470	3,000	<10	to tr
Chair - arms and seat	30	<10	20	<10	<10	
Sanitizer Housing by door	<10	<10	<10	<10	<10	ğ
Sink Drain	20	<10	4,200	1,900	<10	Unable
Wall below Towel Dispenser	<10	<10	<10	<10	<10	

^{*}All testing performed independently by Microbac Laboratories, Inc, Louisville



Hospital C: Freeman Hospital 1102 West 32nd Street Joplin, MO 64804

		25th Feb 10	12th Mar 10	30th Mar 10	14th Apr 10	5th May 10
		Pre BioProtect				_
Ref.	Room 272.1	Treatment	Results	Results	Results	Results
R1.1	Bed Rail Controls, right side	490	<10	<10	<10	NA***
R1.2	Bed Rail Controls, left side grab area	380	<10	<10	<10	NA***
R1.3	TV control	120	<10	<10	<10	<10
R1.4	Monitor controls, bottom 3 inches	30	<10	<10	<10	<10
R1.5	Sink counter area	190,000	<10	<10	<10	<10
R1.6	Starsys cart handles, left side	150	<10	<10	<10	10
R1.7	Main light switch	50	<10	<10	10	<10
R1.8	Closet door handle	230	<10	<10	<10	<10
R1.9	Privacy curtain, inside	3,100	<10	<10	<10	<10
R1.10	Toilet surround	1,700	<10	<10	<10	<10
R1.11	Bed tray	2,900	<10	<10	<10	<10
R1.12	Grey Chair, fabric/armrests	900	NA**	10	20	<10
R1.13	Monitor cable ends	340	NA*	NA*	NA*	NA*
R1.14	Sliding back door handle, inside and out	120	<10	<10	<10	<10
R1.15	Chart door holder	340	<10	<10	<10	<10
R1.16	Sanitizer housing	210	<10	<10	<10	<10
R1.17	Starsys counter top surface	4,800	<10	<10	<10	10
R1.18	Windowsill angle wall	260	<10	<10	<10	<10
R1.19	Toilet control button	50	<10	<10	<10	<10

All testing performed independently by Matthew Fuller of Chestnut labs, Springfield, Missouri

^{***} Different bed in room"

		25th Feb 10	12th Mar 10	30th Mar 10	14th Apr 10	5th May 10
		Pre BioProtect				
Ref.	Room 273.1	Treatment	Results	Results	Results	Results
R1.1	Bed Rail Controls, right side	340	20	<10	<10	NA**
R1.2	Bed Rail Controls, left side grab area	780	<10	<10	<10	NA**
R1.3	TV control	110	60	<10	<10	40
R1.4	Monitor controls, bottom 3 inches	20	10	<10	<10	<10
R1.5	Sink counter area	96,000	<10	10	<10	10
R1.6	Starsys cart handles, left side	30	<10	<10	<10	<10
R1.7	Main light switch	170	<10	<10	10	10
R1.8	Closet door handle	80	<10	<10	<10	<10
R1.9	Privacy curtain, inside	180	<10	<10	<10	<10
R1.10	Toilet surround	1,900	<10	<10	<10	<10
R1.11	Bed tray	720	10	<10	<10	<10
R1.12	Grey Chair, fabric/armrests	520	<10	<10	<10	<10
R1.13	Monitor cable ends	610	NA*	10	NA*	NA*
R1.14	Sliding back door handle, inside and out	120	<10	<10	<10	20
R1.15	Chart door holder	390	10	<10	<10	<10
R1.16	Sanitizer housing	100	<10	<10	<10	<10
R1.17	Starsys counter top surface	1,300	<10	<10	<10	10
R1.18	Windowsill angle wall	460	<10	<10	<10	<10
R1.19	Toilet control button	110	<10	<10	<10	<10

All testing performed independently by Matthew Fuller of Chestnut labs, Springfield, Missouri

[&]quot;* Cables in use

^{**} Chair not in room

^{*} Cables in use

^{**} Different bed in room