



# INTEGRAL SURFACE PROTECTION PROGRAM

Case Studies



# AEGIS ANTIMICROBIAL EVALUATION

## January/February 2019

### BACKGROUND:

Cleaning and disinfecting surfaces can remove/kill pathogens on surfaces but studies have shown that more than half of the time surfaces are not adequately cleaned or are recontaminated within minutes. A durable or persistent antimicrobial has the potential to reduce microbial load and facilitate better cleaning and sanitizing. A lower bacterial load can reduce patient and employee risk of cross-contamination and hospital acquired infections.

### OBJECTIVE:

Evaluate the ability of the AEGIS Durable antimicrobial, in an out-patient setting, to reduce the growth of microorganisms on treated surfaces as an adjunct to existing cleaning and disinfecting protocols

### CLOSING THE GAP HEALTHCARE:

The vision of Closing the Gap Healthcare began when Connie Clerici saw a need for increased accountability and transparency for those providing healthcare services in the community.

As a practicing nurse, Connie left the hospital setting in search for a new career path. She was surprised by the lack of skills and training that private nurses had at that time, and knew that there was an opportunity to provide better care in Ontario's healthcare community. Soon after, Closing the Gap Healthcare was born.

Closing the Gap have agreed to test AEGIS Microbe Shield wipes in their clinics in the hope that reduced risk of cross contamination can be achieved.

### METHOD:

The Aegis Microbe Shield was applied as an adjunct to these existing protocols. Application was by "Wipe" format. Multiple high touch surfaces in the nursing clinic, physio clinic, waiting areas and bathroom underwent an application of the Aegis Microbe Shield. These surfaces were tested for presence of microbial growth after the application, and again two more times to evaluate durability of effect. See results table for findings.

Consistent Test sites were identified and tested using a Hygiena ATP meter. Measure: SystemSURE Plus ATP hygiene monitoring system was used to measure cleanliness of surfaces. Hygiena systems come preset with Pass and Fail limits of 10 and 30 respectively. Any score of 10 RLU or less is a Pass. Scores from 11 to 30 RLU are a Caution. Any score greater than 30 RLU is a Fail.



Baseline ATP measures were taken on site (recorded below), the site had been cleaned the night prior following existing cleaning and disinfection protocols. Following baseline measure, the site was treated with AEGIS wipes. In the case of the curtain and two textile chairs AEGIS spray was used. Post AEGIS application ATP measure taken immediately following baseline test, **FOLLOW-UP Jan 25, 2019 and Feb 8, 2019**



## SURFACE

	Application baseline January 15, 2019	Post Aegis Application Jan 15, 2019	Post Aegis Application Jan 25, 2019	Post Aegis Application Feb 8, 2019
<b>Physio Clinic</b>				
Cold Sink Tap	48	0	1	3
Computer office chair right arm	49	4	4	13
Keyboard	128	9	11	16
Right Exercise bike handle	155	4	9	26
Treatment area 1 curtain	172	7	7	12
Ultrasound wand	127	0	24	18
Waiting room Pt chair (vinyl)	160	0	30	25
<b>Nursing Clinic</b>				
Fridge Handle	335	0	1	17
Syringe cart handle	212	3	1	22
IV pole handle	73	4	13	24
Clinic Phone	57	0	22	19
Patient chair	129	9	4	18
IV Control	27	0	1	8
Waiting room chair (fabric)	173	15	16	14
<b>Bathroom</b>				
Toilet support arm	236	6	16	18
Right sink tap	115	0	8	20
<b>Data Summary:</b>				
# Sites Pass	0	15	9	2
% Sites Pass	0	94	56	12
# Sites Caution		1	7	14
% Sites Caution		6	44	88
# Sites Fail	100	0	0	0
% Sites Fail	100	0	0	0

## DISCUSSION:

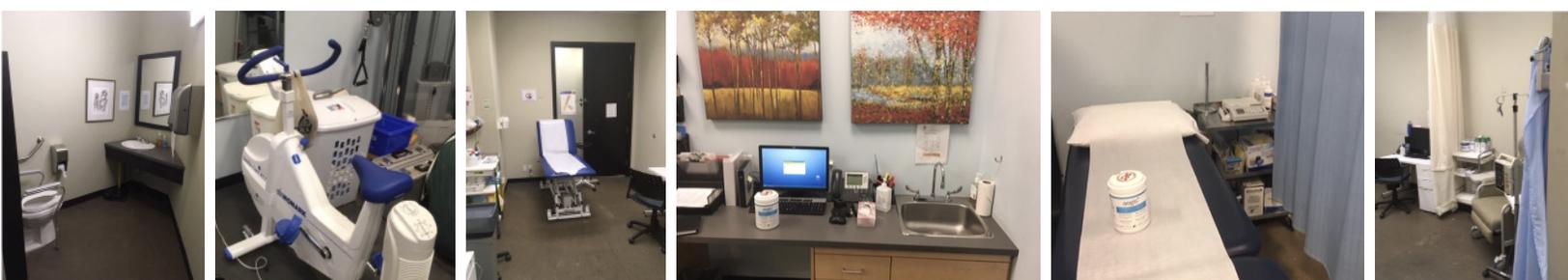
Baseline measure on all surfaces was above the Hygiene limits for "pass". These results were seen despite full facility cleaning the evening before. This reinforces that "clean" is not necessarily disinfected. For disinfection it is recognized that the right product, right concentration, right dwell time and correct application are all required for optimal effect. It is this relatively long list of variables which conspire to challenge the effectiveness of existing cleaning and disinfection protocols everywhere.

The simple addition of the Aegis Microbe Shield applied via a wipe system was shown to have a dramatic impact on the measurable growth of microbes on treated surfaces. It was demonstrated that 100% of sites exhibited either a pass or caution result weeks after the initial application.

## CONCLUSION:

The addition of the AEGIS Microbe Shield, applied via a wipe or spray system, can be seen as a valuable addition to the existing cleaning and disinfection efforts in a private clinic setting, as measured by the ability to reduce the growth of microbes on treated vs. untreated surfaces.

## CLINIC IMAGES





# AEGIS ANTIMICROBIAL EVALUATION OSHAWA CLINIC April/May 2019

## BACKGROUND:

Cleaning and disinfecting surfaces can remove/kill pathogens on surfaces, but studies have shown that more than half of the time these surfaces are not adequately cleaned or are re-contaminated within minutes. A durable or persistent antimicrobial has the potential to reduce the microbial load and facilitate better cleaning and sanitizing. A lower bacterial load can reduce patient and employee risk of cross-contamination and hospital acquired infections.

## THE DISINFECTION GAP:

Cleaning and disinfecting surfaces can remove/kill pathogens on surfaces, but studies have shown that more than half of the time these surfaces are not adequately cleaned or are re-contaminated within minutes. A durable or persistent antimicrobial has the potential to reduce the microbial load and facilitate better cleaning and sanitizing. A lower bacterial load can reduce patient and employee risk of cross-contamination and hospital acquired infections.

## PERSISTENT DISINFECTION WITH AEGIS MICROBE SHIELD:

AEGIS Microbe Shield is a Health Canada registered, proven solution to protect surfaces from mould bacteria and related odours. AEGIS is the number one durable antimicrobial in the world. AEGIS has been incorporated into countless products, some of which may already be in your hospital.

## METHOD:

The study was done at the test facility clinic in Ontario (details are available on request). All testing was conducted while existing cleaning and disinfection protocols were being deployed. There was no change to existing cleaning and disinfection protocols during this study.

The Aegis Microbe Shield was applied as an adjunct to these existing protocols. Application was achieved using the wipe formats. Multiple high touch surfaces in the clinic and waiting area were tested and underwent application of the Aegis Microbe Shield. These surfaces were tested for the presence of microbial growth after the application, and again two more times to evaluate durability of effect. See results table for findings.

Consistent Test sites were identified and tested using a Hygiena ATP meter. Measure: SystemSURE Plus ATP hygiene monitoring system was used to measure cleanliness of surfaces. Hygiena systems come preset with Pass and Fail limits of 10 and 30 respectively. Any score of 10 RLU or less is a Pass. Scores from 11 to 30 RLU are a Caution. Any score greater than 30 RLU is a Fail.



Baseline ATP measures were taken on site (recorded below). The site had been cleaned the prior evening following existing cleaning and disinfection protocols. Following baseline measure, the site was treated with AEGIS wipes.

## TEST FACILITY

The test facility is a one of Ontario's largest patient care clinics.

The facility and management agreed to test AEGIS Microbe Shield wipes in their clinics with the hope that reduced risk of cross contamination can be achieved

## OBJECTIVE:

Evaluate the ability of the AEGIS persistent antimicrobial, in a dialysis unit setting, to reduce the growth of microorganisms on treated surfaces as an adjunct to existing cleaning and disinfecting protocols



## SURFACE

### Oshawa Clinic

	Application baseline Jan 15, 2019	Post Aegis Application Jan 15, 2019	Post Aegis Application May 30, 2019
Urgent Care reception counter	187	3	18
Urgent Care Physician counter	34	1	5
Elevator button	261	50	6
Patient bathroom support bar	91	4	2

## DISCUSSION:

Baseline measures on all surfaces exceeded the Hygiene limits for "pass". These results were seen despite full facility cleaning the evening before. This reinforces that "clean" is not necessarily disinfected.

For disinfection it is recognized that the right product, right concentration, right dwell time and correct application are all required for optimal effect. It is this relatively long list of variables which conspire to challenge the effectiveness of existing cleaning and disinfection protocols everywhere.

The simple addition of the Aegis Microbe Shield applied via a wipe or spray system was shown to have a dramatic impact on the measurable growth of microbes on treated surfaces. It was demonstrated that 100% of sites exhibited either a pass or caution result weeks after the initial application. By reducing bacterial load, application of disinfectants becomes even more effective.

## CONCLUSION:

The addition of the AEGIS Microbe Shield, applied via a wipe or spray system, can be seen as a valuable addition to the existing cleaning and disinfection efforts in a private clinic setting, as measured by the ability to reduce the growth of microbes on treated vs. untreated surfaces.

## DIALYSIS CLINIC

# AEGIS ANTIMICROBIAL EVALUATION

April/May 2019

### BACKGROUND:

Cleaning and disinfecting surfaces can remove/kill pathogens on surfaces, but studies have shown that more than half of the time these surfaces are not adequately cleaned or are re-contaminated within minutes. A durable or persistent antimicrobial has the potential to reduce the microbial load and facilitate better cleaning and sanitizing. A lower bacterial load can reduce patient and employee risk of cross-contamination and hospital acquired infections.

### INFECTION CONTROL AND THE DIALYSIS UNIT:

It is vital to understand the actions and procedures in hemodialysis settings that put patients at greatest risk for acquiring infections. Infection risks specific to dialysis settings include the common unit design in which patients are treated in close proximity to one another by the same shared staff. Additional dialysis-specific infection risk factors include, multiple patient co-morbidities, invasiveness of the procedures performed, and complex equipment used. All infection risk factors must be considered when performing site assessments, planning and providing staff education, and executing prevention strategies to safeguard the patient and staff.

### ENVIRONMENTAL CLEANING AND DISINFECTION

Many organisms can survive on contaminated environmental surfaces for days or months including: multidrug-resistant organisms such as MRSA, Clostridium difficile, Acinetobacter baumannii, and HBV. [Centers for Disease Control and Prevention. Recommendations for preventing transmission of infections among chronic hemodialysis patients. MMWR 2001;50(RR-5):1-43.] Contaminated healthcare worker hands can also be involved in transmission of these organisms. Similarly soiled equipment can transmit organisms from patient to patient. Using an Environmental Protection Agency (EPA) registered healthcare disinfectant with friction to the surface will remove the soil (clean) and kill the organisms (disinfection). If there is no visible soil on the surface, a one-step (wiping surface with cleaner/disinfectant) process is adequate to both clean and disinfect the surface. If soil is visible, then a two-step method is recommended (clean first, discard wipe, wipe surface again with fresh wipe and let air dry). In all situations, immediately clean any visibly soiled surfaces, and always clean the entire patient zone between patients (any surface touched by dialysis staff and/or patient).

### THE DISINFECTION GAP:

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### PERSISTENT DISINFECTION

#### WITH AEGIS MICROBE SHIELD:

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### TEST FACILITY

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### EQUIPMENT CLEANING AND DISINFECTION

Use the same principles for cleaning and disinfecting equipment as you would for environmental surfaces. Blood pressure cuffs, stethoscopes, scissors, clamps and other equipment used during the patient visit should be cleaned/disinfected before use on another patient.



## OBJECTIVE:

Evaluate the ability of the AEGIS persistent antimicrobial, in a dialysis unit setting, to reduce the growth of microorganisms on treated surfaces as an adjunct to existing cleaning and disinfecting protocols

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### SURFACE

#### Dialysis Clinic

	Application baseline April 3, 2019	Post Aegis Application April 3, 2019	Application baseline May 8, 2019	Post Aegis Application May 30, 2019
Thermometer	242	11	36	11
Scale control pad	299	14	16	0
Fridge handle	356	6	15	4
Patient waiting chair	153	11	2	10

## DISCUSSION:

Baseline measures on all surfaces exceeded the Hygiena limits for "pass". These results were seen despite full facility cleaning the evening before. This reinforces that "clean" is not necessarily disinfected. For disinfection it is recognized that the right product, right concentration, right dwell time and correct application are all required for optimal effect. It is this relatively long list of variables which conspire to challenge the effectiveness of existing cleaning and disinfection protocols everywhere.

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## CLINIC IMAGES



**Integral Services Group** has become the fastest growing commercial janitorial services group in Western Canada.

Our 'big company experience', putting our front line workers first and our family-business mentality, has allowed us to grow with companies big and small.

Today's world is changing rapidly, and the culture at Integral is uniquely positioned to not only clean your facility, but to become a part of your team.

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- SPECIAL EVENT CLEANING
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- CARPET CLEANING
- WINDOW WASHING
- PRESSURE WASHING
- CARETAKING SERVICES
- OUTSOURCED HOUSEKEEPING AND LABOUR SUPPORT

## PROUD MEMBER / PARTNER:



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