SHYLD

Clinical and Technical Evidence Summary

Shyld AI Autonomous UV-C Disinfection

Product Overview

Shyld AI (Sunnyvale, CA) makes a fully autonomous UV-C disinfection device which utilizes AI technology to identify potentially contaminated surfaces and inactivate Healthcare pathogens on those surfaces without requiring labor to operate. Equipped with two 265nm UV-C LED bulbs, the Shyld AI device has demonstrated rapid broad-spectrum efficacy of high-risk pathogens both independent laboratory and clinical testing.

The Shyld AI device is equipped with five multimodal sensors to perform additional Infection Control and Patient Care services, including Automated Operating Room traffic monitoring.

Independent Laboratory Efficacy Testing

The Antimicrobial efficacy of the Shyld AI Autonomous UV-C Disinfection device has been verified in independent laboratory testing conducted at AEMTEK Laboratory (Fremont, CA) and at the Shimadzu Corporation Technology Research Center (Kyoto, Japan).

Pathogen	% Inactivation	Time	Distance
***C. difficile* spores**	99.9%	30 seconds	6.5 ft (2m)
Methicillin-resistant *staphylococcus aureus* (MRSA)	99.99%	20 seconds	6.5 ft (2m)
Pseudomonas aeruginosa	99.9%	20 seconds	8 ft (2.4m)
Staphylococcus epidermis	99.9%	20 seconds	6.5 ft (2m)
Escherichia coli	99.9%	30 seconds	6.5 ft (2m)
Candida auris	99.9%	60 seconds	6.5 ft (2m)
MS-2 bacteriophage virus	99.9%	90 seconds	6.5 ft (2m)

Independent Clinical Efficacy Testing

The antimicrobial efficacy of the Shyld AI Autonomous UV-C Disinfection device has been verified in independent clinical testing conducted at Stanford Hospital (Palo Alto, CA) and Loma Linda University Medical Center (Loma Linda, CA)

Stanford Hospital Study | Endoscopy Unit Bioburden Reduction

The current study aimed to measure the effectiveness of the Shyld AI Autonomous UV-C Disinfection device in reducing bioburden in a clinical setting when used daily as part of a comprehensive cleaning and disinfection protocol.

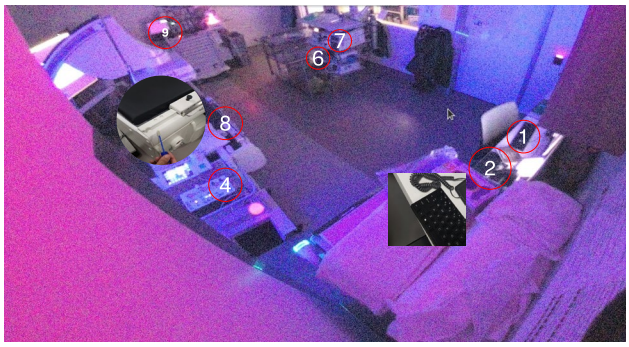
The study was completed in two rooms in the Endoscopy unit, one room as a control room ("Control") and the other with two Shyld AI devices installed ("AUV").

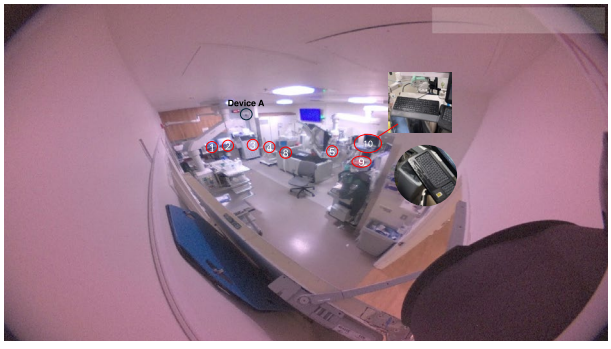
To measure the potential impact on pathogenic bioburden levels (bacteria, yeast and mold), swab sampling was conducted on ten pre-selected high-touch surfaces over a period of four weeks and analyzed for CFU/mL levels by an independent laboratory (AEMTEK Laboratories, Fremont, CA).

Results

Results indicated 93.3% reduction of bioburden in the Endoscopy unit room ("AUV") where the Autonomous UV-C Disinfection device was installed and as compared to the Control room ("Control").

Results indicate that the addition of an Autonomous UV-C Disinfection device effectively reduced bioburden on high-touch surfaces that still harbored bacteria, yeast and mold following manual cleaning and disinfection and the use of a Pulsed Xenon UV tower. This study supports the effectiveness of a frequently applied, fully autonomous UV-C Disinfection device throughout the day in a high-traffic procedural area.





Loma Linda University Medical Center Study | Patient Room Efficacy at Multiple Times and Distances

The current study aimed to measure the effectiveness of the Shyld AI Autonomous UV-C Disinfection device in inactivating *E. coli* applied to stainless steel coupons, placed on five surfaces at various distances from the Shyld AI device.

Surface	% Inactivation	Time	Distance
Surface 1	99.995%	15 sec	4 ft.
Surface 2	99.995%	30 sec	13 ft
Surface 3	99.995%	30 sec	15 ft.
Surface 4	99.995%	45 sec	18 ft.
Surface 5	99.995%	45 sec	20 ft.

Results

The Shyld AI Autonomous UV-C Disinfection device achieved 99.995% inactivation of *E. coli* on all five surfaces in 15-45 seconds from 4 ft to 20 ft from the device. The results demonstrate the device's ability to deliver a highly effective UV-C dose to various surfaces at lengthy distances from the device, representative of real-world application in a patient room. The results also demonstrate the device's capability to automatically adjust and calibrate the length of the UV-C dose delivered to surfaces at various distances in a patient room to achieve a targeted log reduction.