

Sheba Medical Center Pilot

March 2020

Overview

We are honored to take part in the Sheba Medical Center pilot, and target the health of hospital staff and patients.

Moreover, during this sensitive time in which the disease (COVID-19) has affected the whole world, we at Aura, believe that our device can help alleviate and treat infected air.

Aura aims on providing a comprehensive solution for improving and managing the air quality in one of Sheba Medical Center's departments, while increasing awareness of outdoor air quality. The pilot will be executed through an interactive data-based experience providing reports and insights.

August 13, 2019

Letter of Intent: Collaboration between Aura Smart Air Ltd. (515816114) to Surgical Department C, Sheba Medical Center.

Following the challenge we face with infections in the hospital, representatives of Aura Smart Air Ltd. contacted us, claiming that they could improve the current indoor air quality by disinfecting the purifying the air using the technology they developed.

After several meetings that included reviewing Aura Smart Air's technology, a tour in the department, and air samples conducted at the facility; We believe there is a great potential for collaboration. We agreed to hold a pilot in the operating rooms and department rooms, with the ambition to look at improving air quality and dealing with the infections in the hospital.

Best regards,

Professor Aviram Nissan

Director of Surgical Department C

Sheba Medical Center

אוריאל (אוריאל) מור
מנהל מחלקת כירורגיה C
מרכז רפואי שביה
אזור המרכז
תל אביב-יפו
טל: 03-52541114

"In American hospitals alone, the Centers for Disease Control (CDC) estimates that Healthcare-acquired infections (HAIs) account for an estimated 1.7 million infections and 99,000 associated deaths each year."



The Pilot

Schedule

Phase 1: Measurement

Since February 12th at 12:00 PM, the device was installed in the Surgery C-General and Oncology Department in Sheba Medical Center. We measured the following parameters: VOC, CO₂, PM 2.5, PM10, CO, temperature, humidity and AQI, to provide a comprehensive report.

Phase 2: Measurement and Treatment

Starting March 19th, the device will be installed with the purification and disinfection components.

Schedule:

Phase 1

Installation and Measurements

End of phase 1

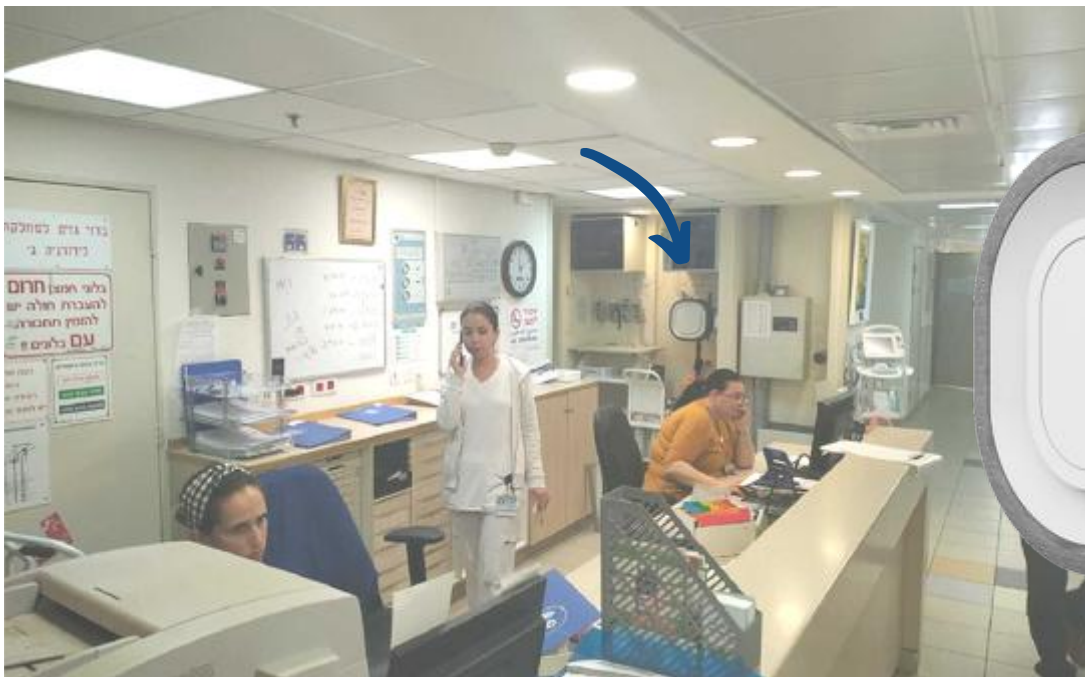
Comprehensive Report

Phase 2

Full Operation

End of phase 2

Feedback & Summary



Our Claim

(Based on the Aura Air white paper)

The efficiency of the Sterionizer in removing different types of pollutants is presented in Table 2.

Table 2- Sterionizer efficiency tests

Substance	Substance name	Removal
Bacteria	Escherichia Coli	99%
	Escherichia Coli ATCC	91%
	Staphylococcus aureus	91%
	Pseudomonas aeruginosa	99%
	Staphylococcus aureus (MRSA)	99%
Fungus	Aspergillus Niger	97%
	Candida albicans	36%
	Dichobotrys abundans	90%
	Penicillium	95%
Mold	Cladosporium cladosporioides	97%
Spores	Bacillus subtilis var Niger	89%
Viruses	Influenza H1N1	99%
	Influenza H5N1	99%

Table 2 shows that the Sterionizer decreased the amounts of bacteria for at least 1 order of magnitude (more than 90%) for all the strains tested. It also decreased the amounts of fungus for at least 36% and the amounts of mold, spores, and viruses for at least 89% for all the tested strains.

Examples of the plates after incubation are presented in Figures 12-13:

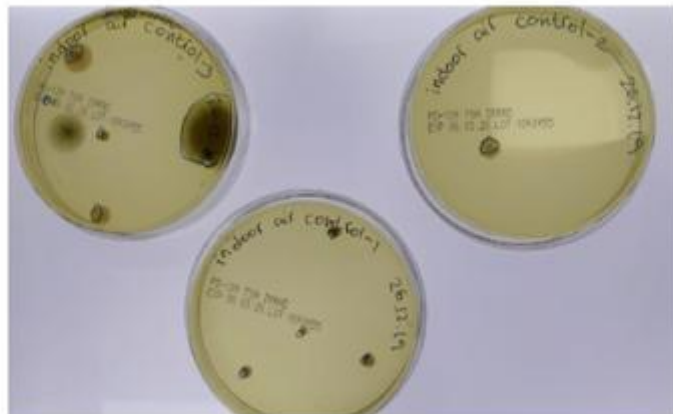


Figure 12: incubation results of the control plates on December 31st, 2019

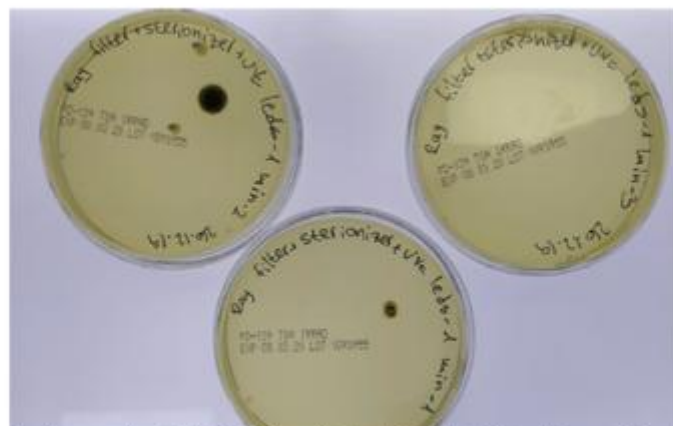


Figure 13: incubation results of the Ray filter+ Sterionizer+ UVC LEDs plates on December 31st, 2019

Past Pilot Results

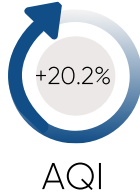
Hilton Hartford, Connecticut

Guest Room

PM 2.5 ↓ 42% $\mu\text{g}/\text{m}^3$

PM 10 ↓ 8% $\mu\text{g}/\text{m}^3$

VOC ↓ 31% ppb



Lexington Hartford, Connecticut

Residential Apartment

PM 2.5 ↓ 82% $\mu\text{g}/\text{m}^3$

PM 10 ↓ 48% $\mu\text{g}/\text{m}^3$

VOC ↓ 34% ppb



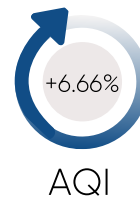
Shelbourne Hartford, Connecticut.

Conference Room

PM 2.5 ↓ 33.3% $\mu\text{g}/\text{m}^3$

PM 10 ↓ 2.4% $\mu\text{g}/\text{m}^3$

VOC ↓ 28% ppb



Method of Action



PM 2.5

PM 2.5 levels were decreased as a result of the Ray Filter's HEPA layer



PM 10

PM 10 levels were decreased as a result of the Ray Filter's HEPA layer



VOC

VOC levels were decreased as a result of the Ray Filter's Carbon layer



AQI

AQI decreased as a result of the Ray Filter, the UVC LED and the Sterionizer