

CMS recently approved additional funding to support improved air quality in nursing homes. Facilities may now request up to \$3,000 for indoor portable air cleaners with high-efficiency particulate air (HEPA, H-13 or -14) filters to increase or improve air quality.

LeadingAge WA is currently working on an application to bring cutting edge Violett UVC Air Disinfection technology to Skilled Nursing members and is taking care of submitting the request! We are proud that Leading Age member organizations helped us to design and pilot our initial Violett units in 2021 and 2022.



Where RSV, colds and flus are currently the norm let's help to mitigate the problem NOW. In this environment, keeping staff and residents healthy and productive is one of your greatest challenges. Let's work together to create safer shared spaces! *Please note: SNFs may only apply for <u>one air cleaner grant</u>.*

In addition, recent research from Harvard has shown poor indoor quality dulls your brain, dampening creativity and cognitive function (<u>Healthy Buildings</u>: How indoor spaces can make you sick or keep you well). This topic has become so critical, that in October 2022, the White House had a summit on indoor air quality.

Violett M Product Description

Built in WA state and developed after the onset of the Covid-19 pandemic, Violett represents the future of advanced technology designed to clean the air for shared living communities.

- Each Violett M units will cover ~800 sq. feet and will be available at the end of January 2023
- Germ-killing UVC light
- HEPA filtration
- Odor removing nanotechnology
- Integrated air quality sensor (enabling you to assess room's air quality and act!)
- Web app dashboard with air quality sensing and data visualization

Specs: 100-240A, 5-2A, 50/60 Hz

A detailed spec sheet will be available mid-December.

What makes Violett air disinfection technology special?



Indoor air can now be disinfected effectively in minutes using Violett's patent-pending *air vortex* and *UVC light bomb* to properly kill the virus that causes Covid-19 and other pathogens. UVC light relies on two factors to kill germs: time and intensity. Our system has been designed to maximize both.

We use UVC emitters that produce light only at the peak germ-killing wavelength and use advanced materials to maximize UVC reflectivity. Our system design creates an air vortex, maximizing the time that airborne germs are exposed to UVC light so they can be properly killed in a single pass through Violett's system. In addition to UVC technology, Violett also uses the best available HEPA filtration material to capture dust, smoke, and other harmful particles from the air, and an advanced nanotechnology solution to remove unwanted odors.

Suggested Goals

- Odor elimination in targeted areas
- Safer shared spaces give peace of mind to staff, residents and loved ones
- Productivity reduce staff sick days
- Wellness reducing the risk of resident illness, could reduce care costs and increase length of stay

Organizations are unique in their needs, and thus we've seen a wide range of ways Violett units are utilized – from providing units in all resident apartments as well as common areas – to a more targeted approach, reducing overall risk of exposure by placing units in high traffic areas such as dining, staff break and activity rooms. Consider also:

- Violetts placed in a new resident's space for several days to help provide peace of mind (Relocation Stress Syndrome)
- Offering Violett self-pay daily rentals, especially for those who are significantly immune compromised a way to generate ~\$5k in additional revenues each year for only \$15/day.
- Temporary unit placement in apartments when a resident leaves, in order to eliminate odors.
- Violetts located in marketing office (first impression), lobby and any other high visibility/high traffic common areas.

Budget

| Purchase Description | Unit Price | Qty | Subtotal |
|--|------------|-----|------------|
| Violett M Portable Air Disinfector + 1 years' worth of odor-eliminating nanotechnology | \$2,500.00 | 1 | \$2,500.00 |
| HEPA filter + 4 prefilters with odor eliminating nanotechnology (covers maintenance supplies for year 2) | \$250.00 | 1 | \$250.00 |
| Subtotal | | | \$2,750.00 |
| Тах | | | \$220.00 |
| Total Cost | | | \$2,970.00 |

Evaluation Measures

| Location | Measures | | |
|------------------|--|--|--|
| Proposed | Odor eliminating nanotechnology – periodic 1-10 scale sniff tests | | |
| Additional Ideas | Noise level feedback - was it disruptive in any way? How does it compare to other | | |
| | devices you use like fans? Does it inhibit conversation or any ADLs? | | |
| | Placement - what was the best location and why? | | |
| | What specific comments/feedback did you receive? | | |
| | What were the most frequent questions? | | |
| | • Is this technology something residents, clients and staff value/appreciate? Yes/no - | | |
| | could they share any specifics? | | |
| | Employee satisfaction | | |
| | Peace of mind improvements | | |

Maintenance Costs Per Year

| Description | Cost |
|--|----------|
| Yearly: HEPA filter + 4 prefilters with odor-removing nanotechnology package | \$250.00 |
| -OR HEPA filter + 4 prefilters package | \$150.00 |
| Every 2 years: UVC Light emitter | \$250.00 |

3rd Party Testing – additional 3rd party testing data will be available mid-December



Net Log Reduction

(p) 913-850-6630 (f) 913-850-6635

MS2 Trials: Net LOG Reduction Large Chamber, Impinger and Viable Cascade Sampling, Enumerated in Triplicate 0.00 • Violett No LED Filter Only -0.92 -1.00 -0.88 -1.44 Violett LEDs and Filter -2.00 -2.22 -2.28 -2.91 -3.00 -3.39 -3.82 -4.00 -4.30 FASTER BETTER -5.00 5.54 -6.00 0 60 120 180 240

Initial preliminary results from testing at ARE Labs on the Violett device. Trials were conducted in a 16 m³ environmental chamber against the bacteriophage MS2

Time (min)

Principal Investigator:

W. andre Dente

W. Andrew Dexter M.S. Staff Research Scientist ARE Labs, Inc.

03/18/2022 Date

References

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| Торіс | Reference |
|---|---|
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| | https://www.nature.com/articles/s41598-020-79600-8 |
| | https://pubmed.ncbi.nlm.nih.gov/32673522/ |
| | |
| Study showing UVC light germicidal effect on | https://pubs.acs.org/doi/10.1021/es070056u |
| bioaerosol virus | |
| Study showing UVC light historical inactivation | https://nvlpubs.nist.gov/nistpubs/jres/126/jres.126.021.pdf |
| data of all other tested pathogens (virus, | |
| bacteria, mold, protozoa, etc.) | |
| White House Summit On Indoor Air Quality | https://www.youtube.com/watch?v=q1HCG1aXaBg |
| Healthy Buildings Book – Harvard University | https://healthybuildingsbook.com/ |
| Press | |