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# Quick Facts and Protocol for Integrating the CL-3000 into a UVGI Disinfection Workflow

! CDC contends UVGI is a viable crisis capacity strategy to ensure continued mask availability[1].

**Key Scientific Considerations**

- SARS-CoV-1 (related to SARS-CoV-2) is not detectable on mask material after a 1J/cm$^2$ of UVGI[2].
- Soiling agents, surface type, and UVGI instrument design can influence efficacy of disinfection[2].
- Mask straps may require additional chemical disinfection[2].
- UVGI may not be recommended for all FFRs as integrity varies by make/model[1–3].
- Mask design can impede UV transmittance through mask layers[4].

**Key Instrument Considerations**

- UV dosage should be monitored in real-time by a radiometer[2,5].
- UVGI instrument should have safety features to protect user from accidental exposure[1,2].

**Key Features of the Analytik Jena CL-3000 Crosslinker**

- UV dosage is monitored in real-time with a **built-in radiometer pre-calibrated to NIST traceable standards**.
- Auto-shutoff when UV dosage is achieved.
- Safety interlock prevents accidental UV exposure.
- The CL-3000 produces 10X the UVGI required to prevent detection of related coronavirus[2] in one cycle.
- The CL-3000 is microwave size to facilitate decentralization of disinfection areas and scale-up for higher throughput disinfection.
- 1J/cm$^2$ can be achieved in 130 seconds (SD=1.73, CV=1.33%).
- High-light uniformity across illumination surface (7.45 mJ/cm$^2$, SD 0.76, CV=10.29%).

**Integrating the CL-3000 into a UVGI Workflow**

To operate the CL-3000 follow the instructions below:

1. Set the dosage on the instrument by selecting ENERGY, then pressing 1-0-0-0-0 for 1000.0 mJ/cm$^2$ (or 1J/cm$^2$), and then press ENTER.
2. Place mask into chamber and close door.
3. Press START.
4. Open door and flip mask over and repeat step 3.
5. Remove the mask and inspect for damage[2–4] and continue following the UVGI protocol approved by your hospital/institution.

Note: As an added precaution, users may consider repeating steps 1-3 with an empty crosslinker in between disinfection cycles if residual contamination is a concern.

! Hospitals and researchers should refer to the scientific literature, CDC[1], and mask manufacturers for guidance and validation protocols.

*Disclaimer: We do not advocate specific treatments or approaches. We are simply sharing the most recent evidence from the medical community to help HCWs during the SARS-CoV-2 pandemic. Your UVGI workflow should be set and approved by your hospital/institution. Users can refer to the UNMC[6] and/or Stanford University[7] workflows for process recommendations.*

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