

Perspectives on Efficacy Standards and the Development of a Standard Test Method for Validating the Antimicrobial Efficacy of Whole Room UV Devices.

Matthew Hardwick¹ and Ashish Mathur²

¹. ResInnova Laboratories, Silver Spring, MD, USA

². Ultraviolet Devices, Inc., Innovation and Technology, Los Angeles, CA, USA

*Corresponding author: mhardwick@resinnovalabs.com

UV light has been used for decades to reduce microbial loads in numerous settings, most notably in water disinfection. Whole room UV disinfection devices have seen increasing use in healthcare facilities with the goal of greater reduction of microorganism contamination.

UV devices are regulated by the EPA under FIFRA section 2(q)(1) and section 7(i) as pesticidal devices. Pesticidal devices are not registered like pesticides but are subject to many of the FIFRA provisions including misbranding and false claims. The lack of a standard laboratory efficacy test method has resulted in manufacturers using different approaches to make efficacy claims. This lack of standardization has created confusion in the healthcare industry. At present, infection prevention specialists cannot accurately compare performance of UV devices and make informed purchase decisions. Furthermore, some manufacturers make misleading public health claims regarding their device which could result in a false sense of security of their performance.

A standard laboratory method will provide clarity on the antimicrobial efficacy of a UV device in a controlled and reproducible setting. Establishment of a standard efficacy protocol that is utilized by manufacturers would greatly benefit the industry, healthcare facilities and ultimately aid in the overall mission of public health. To this end, an IUVA subcommittee is working to develop such a standard test method for whole room UV devices.