

# **Practical testing of mobile ozone and UV-C disinfection unit at the Schwarzwald-Baar-Klinikum / Germany**

Performed by

**Ann-Kathrin Merath**  
Molekulare and Technical Medicine

Verifier

1. Verifier: Prof. Dr. Markus Egert; HFU
2. Verifier: Dr. med. Christine Molina-Benzing; Schwarzwald-Baar-Klinikum

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## 5. Summery

The new combination of ozone and UV-C light for room disinfection is a promising approach to improve and standardize the disinfection of the patient's environment. While UV-C light disinfects surfaces that it can reach due to its proven antimicrobial properties, the ozone also works in areas of the room where UV radiation does not arrive.

However, the maximum ozone concentration reached should be considered in further tests.

The cleaning performance of the personnel is exposed to many factors and therefore, as shown in this experiment, shows great fluctuations. Use in patient rooms is therefore a sensible step to support cleaning and disinfection by cleaning staff, but it is not a substitute for manual cleaning. Especially in rooms that were used to isolate patients with antibiotic-resistant pathogens, this provides automated method is a suitable step to standardize the final cleaning.

The UV-Mobil 240*combi* was convincing due to the very significant germ reduction on surfaces. An average reduction of 80.09% and **the complete killing of proven pathogenic and facultative pathogens** confirms a very good disinfection performance.

The ease of use is another big advantage because the staff can use the device without extensive training.

The surgical department represents another interesting area of application for the UV-Mobil 240*combi*. However, there are many organizational and technical challenges that need to be clarified before use in this area.

The station staff only provided positive feedback on the use of the device. However, the ideal runtime for the device should be determined more precisely and adapted to the room size and the sequence on the wards.

In order to be able to optimally use the device in practical use, the responsibility for the device would have to be determined. The cleaning service could, for example, ideally use the device due to the previous cleaning and organize and carry out the use of the device at all stations. The UV-Mobil 240*combi* could thus be an enrichment for hospital hygiene and reduce the risk of nosocomial infection.