

Translation from Bulgarian

NATIONAL CENTRE OF PUBLIC HEALTH AND ANALYSIS
ANALYTICAL LABORATORY ACTIVITIES DIRECTORATE
MICROBIOLOGICAL FACTORS DEPARTMENT

PROTOCOL

№ 003

28.07.2020

RE: Microbiological testing of the air after irradiation with a UV lamp, assigned by Medical Education Technology through ET "Agrolini - Ivan Paunov", with letter № 2240 / 20.07.2020 to the National Centre of Public Health and Analysis.

1. **Materials** - indoor air was examined before and after irradiation with an air flow UV-lamp
2. **Purpose** - to establish the microbial purity of the air in the room before and after 30 minutes of irradiation with an air flow UV-lamp
3. **Method - sedimentation method is applied:** two Petri dishes - with Czapek's agar medium and with mesopepton agar (MPA) medium, are placed open for 15 minutes in a room, before and after irradiation for an interval of 30 minutes with an air flow UV-lamp
4. **Results** - presented in the following table:

Indicator	Number of CFU of moulds and other microorganisms <u>before</u> irradiation with a UV lamp	Number of CFU of moulds and other microorganisms <u>after</u> 30 min of irradiation with a UV lamp
Total number of microorganisms (Petri dishes with MPA)	30 CFU with 15 min of exposure	4 CFU with 15 min of exposure
Total number of moulds (Petri dishes with Czapek's agar)	35 CFU of moulds with 15 min of exposure	8 CFU of moulds with 15 min of exposure

5. **Conclusion:** As a result of the performed microbiological analyses, it was proved that the applied irradiation with the tested air flow UV-lamp achieves very good results in terms of reducing the amount of microorganisms in the air. When applying a longer period of irradiation - e.g. about 60 minutes, an even better bactericidal effect would be achieved.



**HEAD OF MICROBIOLOGICAL
FACTORS DEPARTMENT**

(Chief Assistant V. Georgieva, MD)
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**ANALYSIS
PERFORMED BY:**

(Asst. Dr. Y. Tachev, MD)
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NATIONAL CENTRE OF
PUBLIC HEALTH AND ANALYSIS
Ref. № 1807/29.07.2020

I, the undersigned Dimitrina Georgieva Alexiadis, hereby certify that this is a true and accurate translation from Bulgarian to English language done by me of the attached document.

The translation consists of 2 (two) pages.

Translator: Dimitrina Georgieva Alexiadis

