

Łódź, 10 September 2015

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Between 6 July and 31 August 2015 four NOVAERUS devices for plasma air disinfection were tested in the Department of Anaesthesiology and Intensive Care (DAIC) of the Brothers Hospitallers of Saint John of God Hospital in Łódź.

The devices were installed in the patient room and operated continuously for 24 hours. When testing the effectiveness of air disinfection, hospital staff took care to provide comparable test conditions. Thus:

- tests were performed between 9 and 9:30 AM, always on the same day of week (Thursday),
- tests were performed after cleaning of the DAIC, change of bed linen, doctor's rounds, and nursing and medical procedures; occasionally people visiting patients remained in the room,
- microbiological purity of the air was tested using the sedimentation method involving plates:
 - TSIR 90 nm (tryptose-soy agar) - first 5 tests,
 - Columbia agar + 5% sheep blood - last 2 tests (the change of medium was to increase sensitivity of the test),
- plates with medium were placed in 7 permanent places:
 - 1st small preparation table,
 - 2nd large preparation table,
 - 3rd work surface,
 - 4th bedside locker at patient bed 1,
 - 5th bedside locker at patient bed 2,
 - 6th bedside locker at patient bed 3,
 - 7th bedside locker at patient bed 4.
- the door to the patient room was closed during the test,
- the room is air-conditioned.

Conclusions from the tests performed:

- 1st The number of microorganisms in the air in the DAIC depends on numerous factors such as number of patients, number of staff, how often and for how long the door to the tested room was opened.
- 2nd **Results of the microbiological tests unequivocally indicate significant reduction in the number of microorganisms in the air in the DAIC.**
- 3rd **Over time, since the NOVAERUS plasma air disinfection devices were installed, the amount of microorganisms in subsequent tests was low.**
- 4th **The devices tested deserve to be widely used in healthcare facilities, and in particular in intensive care units, isolation rooms, admission rooms and primary care facilities (in waiting rooms and doctors' offices).**

Please find enclosed the table with detailed results of air microbiological purity tests performed in the DAIC.

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