

Abstract

In July, August and December was conducted a pilot project investigating the availability of antibiotics to the lungs on the model of piglets treated with VA ECMO. In the study were collected and processed samples from the pulmonary artery, artery, ECMO and BAL.

To determine the analytes there were used different analyzers that are capable of conducting the investigation. Most analyzers use the detection limit from the manufacturer. The measured values were lower than those limits, it was important to determine whether they are relevant and therefore usable for further statistical processing.

Data from this project was evaluated using the newly calculated limits of detection. Of the total group of 12 piglets all successfully completed the project, 2 of them suffered a pulmonary edema. It was concluded that the use of VA ECMO, despite the apparent reduction in pulmonary flow, does not reduce the concentration of vancomycin, gentamicin or amikacin in pulmonary artery and within one hour after administration of antibiotics can be detected in the tracheal aspirate.