Direct testing of bronchoalveolar lavages from ventilator-associated pneumonia patients

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In line with a rapid de-escalation of empirical antimicrobial therapy, this study assessed the validity of an Etest–based direct specimen testing method on bronchoalveolar lavage (BAL) samples from ventilatorassociated pneumonia (VAP) patients. E-test strips were directly applied onto Mueller-Hinton agar plates seeded with BAL samples and read after 24 h of incubation. In parallel, the BAL samples were analyzed by the routine diagnostic laboratory. The microbroth dilution approach was used as a control method. In a cohort of 20 patients, 135 microorganism–antibiotic combinations were studied. Total agreement between the 2 methods was achieved for 88.9% combinations, with 1.5% very major errors (isolates susceptible by E-test and reported resistant by the diagnostic laboratory) and 9.6% major errors (isolates resistant by E-test and reported susceptible by the diagnostic laboratory). These results indicate that applying E-test directly on BAL samples is a promising method for obtaining susceptibility data after 24 h in critical patients with VAP.