

P0086 Age-dependent analysis of diagnostic performance of patients with acute respiratory syndrome using the FILMARRAY Point-of-Care platformIván Sanz^{*1}, Ana Lopez¹, Silvia Rojo^{2,1}, Raul Ortiz De Lejarazu^{2,1}¹ National Influenza Centre, Valladolid, Hospital Clínico Universitario de Valladolid, Valladolid, Spain, ² Servicio de Microbiología e Inmunología, Hospital Clínico Universitario de Valladolid, Valladolid, Spain

Background: The new multiplex Point-of-Care syndromic panels allow to obtain results in less than 60 minutes, with great sensitivity and specificity. The price of these panels compared to conventional PCR complicate their use as a primary screening method, so it is necessary to analyze what kind of patient will obtain the highest diagnostic performance from their use. The aim of this work is to analyze these parameters for the use of FilmArray Respiratory-Panel (RP) for the diagnosis of respiratory viruses.

Materials/methods: A prospective study was conducted in which 169 respiratory samples from patients with acute respiratory syndrome of three age groups (0-14, 15-64, ≥65) were analyzed. FilmArray RP (BioFire) was used for the detection of respiratory viruses in those samples. Data analysis was done by analyzing the diagnostic performance adjusted by age using Odds Ratio (CI95%). This analysis was conducted with a focus on negative results, positive results, single-infections and coinfections by at least two respiratory viruses. The ≥65 years group was used as reference.

Results: We included 62 samples (36.7%) of children, 47 (27.8%) of adults and 60 (35.5%) of ≥65 years. The results of diagnostic performance analyzed as Odds Ratio (CI95%) and p-value are shown in the following table.

	Age group			
OddsRatio(CI95%)	0-14	p-value	15-64	p-value
Negative	0.2(0.1-0.5)	0.000	0.4(0.2-0.9)	0.036
Positive	4.9(2.2-10.9)	0.000	2.3(1.1-5.1)	0.036
Single-Infection	0.1(0.0-0.3)	0.001	0.6(0.1-6.6)	0.644
Co-infection	28.3(3.5-225.3)	0.001	1.8(0.2-20.9)	0.644

Conclusions: Our results show that it is 4.9 times more likely to detect a positive result of respiratory viruses in children and 2.3 times more likely in adults than in those older than 65 years. Moreover, it is 28.3 times more likely to detect several respiratory viruses in the same sample in children than in those over 65 years of age, being as likely in adults as in those over 65 years. These results show that the highest diagnostic performance of FilmArray is found in younger individuals, where viral etiology is more frequent in respiratory infections, and that this performance decreases with age. It is necessary to perform further studies to evaluate the clinical relevance of these detections in different age groups.

