

**EVLB61**

**ePoster Viewing**

**Late breaker session: Other**

### **Comparison of Luminex xTag Respiratory Panel Fast Assay with NxTAG Respiratory Pathogen Panel for detection of respiratory pathogens in nasopharyngeal secretions**

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**Background:** Simultaneous detection of respiratory infectious agents may be useful for epidemiological, preventive, and therapeutic reasons. The Luminex xTAG Respiratory Virus Panel Fast assay (LFA) is commonly used at this regard. However, it detects only viruses with several problems in sensitivity and with limitations in the identification of viral species. To overcome these difficulties, a new assay (NxTAG Respiratory Pathogen Panel, RPP), able to detect the same viruses identified by LFA, to distinguish respiratory syncytial virus (RSV)-A from RSV-B and to identify *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, and *Legionella pneumophila* has been developed. This assay requires very little hands-on time and enables batch processing. To measure real efficiency of this new assay and to evaluate its possible use in clinical practice, comparison with LFA is mandatory.

**Material/methods:** A total of 185 nasopharyngeal samples collected in children with respiratory infection was tested to evaluate efficiency of each of the multiplex tests. Samples with discordant results were re-evaluated with a real-time PCR specific for each pathogen.

**Results:** LFA identified 152 viruses (82.2%: 69 RSV, 22 rhino/enterovirus [R/E], 15 bocavirus (BoV), 14 metapneumovirus [MpV], 9 influenza virus [Iv], 9 adenovirus [AdV], 9 parainfluenzavirus [PIv] and 5 [CoV]) in 125 positive samples. NPP confirmed all these findings but resulted positive in 25% additional cases ( $p < 0.001$ ): it detected 11, 11, 10, 20, and 17 more RSV, R/E, BoV, MpV, If and AdV, respectively. Moreover, 33 *M. pneumoniae* cases were identified by RPP. PCR for each pathogen confirmed all the results obtained with RPP and evidenced two more cases positive for *M. pneumoniae*.

**Conclusions:** NPP seems significantly more sensitive and specific than LFA and not significantly different than singleplex PCR in detection of viral respiratory pathogens. Moreover, it permits the identification of *M. pneumoniae* with a sensitivity only slightly reduced in comparison to that of specific PCR. This results show that NPP seems to offer significant advantages in comparison to LFA and might be currently used in clinical practice instead of it.