

Weekly epidemiological monitoring of respiratory viruses is useful to select targeted viruses for routine molecular diagnosis for better resource management: a one-year study

Pezzi L, Charrel R, Nougairède A, Zandotti C, de Lamballerie X, Ninove L

UMR "Émergence des Pathologies Virales"

(EPV: Aix-Marseille Univ – IRD 190 – Inserm 1207 – EHESP – IHU Méditerranée Infection), Marseille, France

1 INTRODUCTION

Knowing viral circulation patterns allows a timely etiology determination, with a better resource management.

2 AIM OF THE STUDY

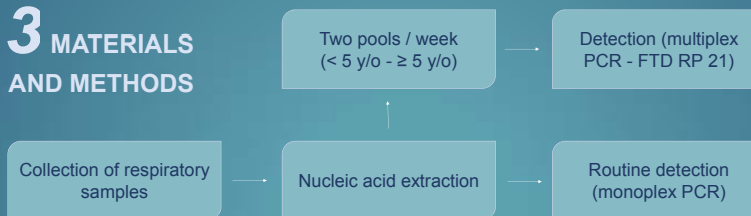
Exploring respiratory viruses' circulation patterns in pediatric and adult patients

Sept. 2015 - Sept. 2016

La Timone University Hospital, Marseille

Multiplex PCR assay FTD RP 21 (Fast - Track Diagnostics)

3 MATERIALS AND METHODS

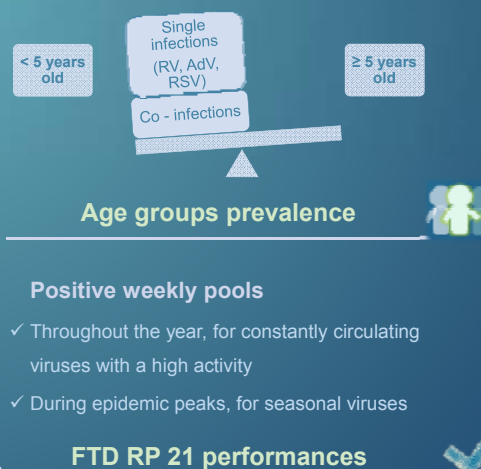


Seasonal variations

	Autumn	Winter	Spring	Summer
Rhinovirus (RV)	✓✓✓	✓✓✓	✓✓✓	✓
Enterovirus (EV)	✓	✓	✓	✓
Influenza A (FLU A)		✓✓	✓✓	
Influenza B (FLU B)		✓✓✓	✓✓✓	
Respiratory syncytial virus (RSV)	✓	✓✓✓	✓	
Metapneumovirus (MPV)	✓	✓✓	✓	
Parainfluenza 3 (PIV 3)				✓

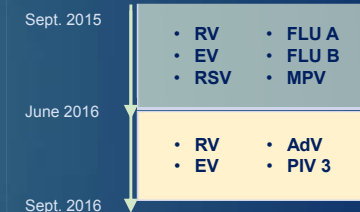
Fig 1. Viral distribution according to the average number of cases/week.

4 RESULTS



5 DISCUSSION

Routine and pools results used to modify diagnostic routine protocol



6 CONCLUSION

- Multiplex PCR performed weekly on pooled samples allows to monitor respiratory pathogens' circulation levels in order to adapt syndromic testing to the present epidemiology.
- A clear picture of viral prevalences across all seasons and age groups is useful to design effective diagnosis strategies.