

RSV BRONCHIOLITIS: VALIDATION OF THE DIAGNOSIS IN HOSPITALIZATIONS

Mónica López-Lacort¹, Cintia Muñoz-Quiles¹, Alejandro Orrico-Sánchez¹, Javier Díez-Domingo¹
¹ Vaccine Research Department, FISABIO-Public Health, Valencia, Spain

To validate the reliability of the bronchiolitis cases due to Respiratory Syncytial Virus (RSV) recorded in the Minimum Basic Data Set (**MBDS**), by calculating the positive predictive value (PPV) using the Valencia Microbiological Network (**RedMiVa**) as the reference standard.

Methods

A retrospective population-based study using health databases of Valencia Region.



Health databases of Valencia Region

Population: Children under 2 years of age born between 2008 and 2012 with an admission for RSV bronchiolitis. **Period:** 2008-2012.

Case definition: First admission for bronchiolitis (ICD-9 466.11) in first diagnostic position. (Mc Connachie definition)

PPV estimation: 20% of the hospitalizations do not have an associated test result, this missing information was estimated by multiple imputation. The imputation and PPV were assessed using a Bayesian model adjusted by age, year of admission and hospital as a random effect.

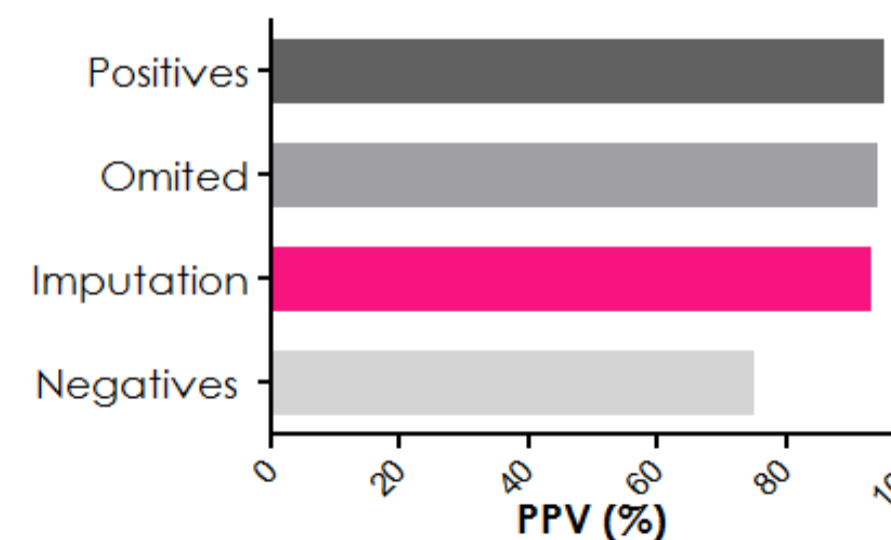
Results

Of the **3707 RSV** bronchiolitis hospitalizations, 96.6% occurred in children under one year of age. Among them, **20.3%** (n = 753) had no associated laboratory test, 4.3% (n = 160) had negative test result and 75.3% (n = 2790) had positive test result. According to the imputation model, the estimated **PPV** was:

93.7% CI (95%) (92.7-94.7)

RedMIVA (Gold standard)			
MBDS	+ TEST	- TEST	MISSING
466.11	2790	160	753

Other strategies



Missing = Negative Results
75.3 % CI(95%)(73.9-76.7)

Missing = Positive Results
95.7 % CI(95%)(95-96.3)

Missing values omitted
94.6 % CI(95%)(93.7-95.4)

Conclusion

The PPV of bronchiolitis due to RSV was 94%. Only 6% of the diagnoses would be incorrect.