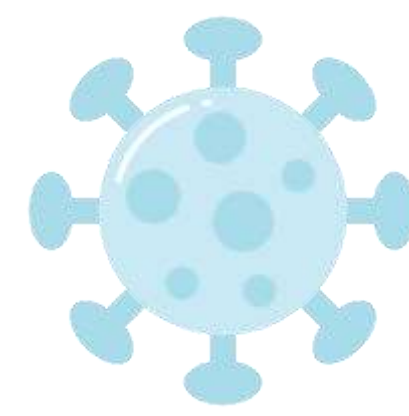


# IMMUNIZATION WITH NIRSEVIMAB: IMPACT ON RSV SEASON IN A PEDIATRIC HOSPITAL

E. Algarra Sanchez, A. Merino Pardo, M. Cuervas-Mons, B. Riva de la Hoz, B. Leal Pino,  
M. Echávarri de Miguel, S. Martín Prado, L. Fernández Romero  
Hospital Infantil Universitario Niño Jesús, Pharmacy, Madrid, Spain  
esther.algarra@salud.madrid.org

## BACKGROUND AND IMPORTANCE

- ✓ **Respiratory syncytial virus (RSV)** is the leading cause of acute lower respiratory tract infections in children, having a considerable impact on healthcare system and later comorbidities.
- ✓ **Nirsevimab** is a recently approved monoclonal antibody that provides passive immunity against RSV infection.



## AIM AND OBJECTIVES



Describe the **characteristics of patients** admitted for **RSV bronchiolitis** during the first immunization campaign with nirsevimab (conducted from October/2023 to March/2024).

## MATERIAL AND METHODS

### Retrospective and observational study



- Patients admitted for RSV infection who were eligible for nirsevimab

#### Patients eligible for nirsevimab included:

- Infants under 6 months at the start,
- born during the campaign
- high-risk patients aged 6 months to 2 years

#### Data sources

Electronic Health Record (HCIS)<sup>®</sup>, Modulab<sup>®</sup>

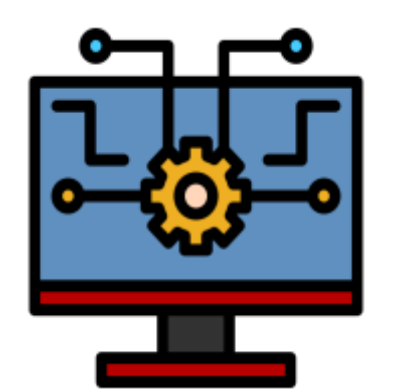
### Collected variables

Demographics (age, sex, high-risk factors)
Immunization with nirsevimab
Type of respiratory support
Length of stay and of oxygen therapy
Suspected bacterial superinfection
Admission in Pediatric Intensive Care Unit (PICU)



### Statistical analysis

Median and frequency distribution (%)



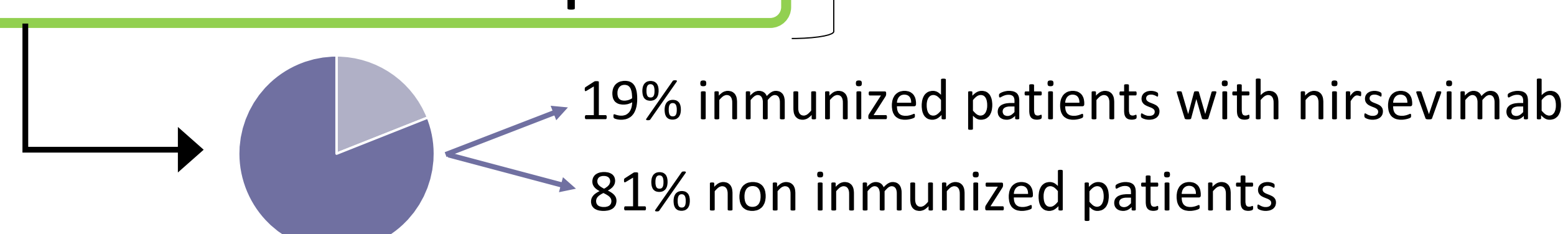
## RESULTS



### PATIENTS < 6 MONTHS OLD

Hospital admissions due to RSV infection:

2022-2023 RSV season: 172 patients  
2023-2024 RSV season: **57 patients** ↓ **67% HOSPITAL ADMISSIONS**



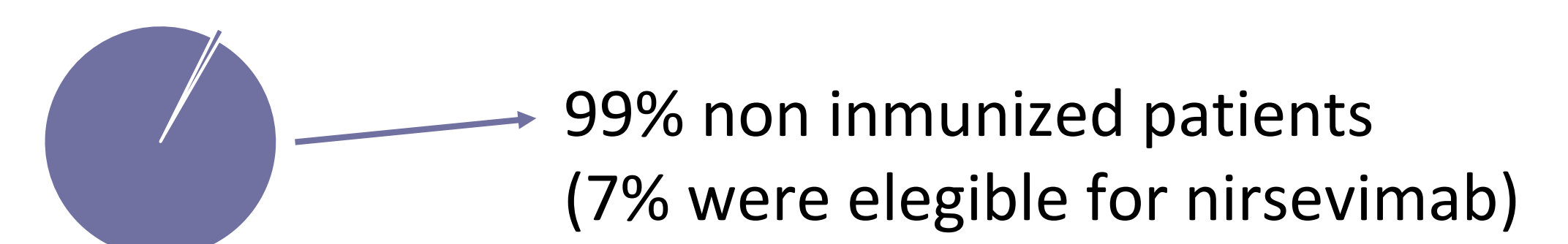
	Immunized Patients (N=11)	Non-Immunized Patients (N=46)
<b>Maximum respiratory support required</b>		
Nasal cannula	22%	58%
High-flow nasal cannula	33%	23%
CPAP	22%	10%
BIPAP	11%	6%
Median (range) days with respiratory support	4 (1-10)	4 (0-7)
<b>Admission in PICU (N=17)</b>	76%	24%
<b>Median (range) length of stay</b>	5 (3-7)	5 (2-12)



### PATIENTS 6 MONTHS – 2 YEARS OLD

Hospital admissions due to RSV infection:

2023-2024 RSV season: **84 patients**



	Non-Immunized Patients (N=83)
<b>Maximum respiratory support required</b>	
Nasal cannula	2%
High-flow nasal cannula	77%
BIPAP	2%
Mechanical ventilation	1%
Median (range) days with respiratory support	4 (0-28)
<b>Admission in PICU (N=15)</b>	100%
<b>Median (range) length of stay</b>	4 (1-37)

## CONCLUSION AND RELEVANCE



Our study shows a **decrease in admissions among immunized patients**; however, it does **not seem to modify the course of the disease** compared to non-immunized patients in terms of oxygen therapy needs and length of hospital stay, although there is a tendency to shorten them.

Abstract Number: 4CPS-187

ATC code:

