BRONCHIOLITIS AS ONE OF THE TOP CAUSES OF HOSPITALIZATION OF INFANTS IN SPAIN

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Background

- Bronchiolitis is the leading cause of hospital admission among infants during winter months.
- The aim was to analyze the characteristics and course of children admitted for bronchiolitis and to identify factors related to Respiratory Syncytial Virus (RSV) and a longer hospital stay.
- A comparison in demographics between years was performed.

Methods

- @Retrospective review of children admitted for bronchiolitis (January 2016-December 2017), with an analysis of clinical and epidemiological variables.
- @A logistic regression analysis was performed on the factors associated with a longer hospital stay (>3 days).
- @Bronchiolitis was defined as the first or second lower respiratory tract viral infection in infants < 2 years.

Results

- 209 bronchiolitis were admitted, 61% male, median age 3.8 (1.8-8.3) months.
- 3% chronic disease (bronchopulmonary dysplasia, Down's syndrome, psychomotor delay, immunodeficiency). 13% preterm

- Mean stay: 3 (2-6) days
- 11 patients were admitted to PICU, 6 relapsed
- 96% have good progress

BACTERIAL INFECTION: 21%

- 29 Pneumonia
- 1 Pneumonia and *E.coli* bacteremia
- 13 Acute otitis media

RSV was identified in 63%

RSV +	%	p
Fever	76	0.040
Less intake	75	0.048
Severe score	100	0.008
Bacterial infection	80	0.017
Oxygen therapy	73	<0.001
PICU admission	100	0.008
Relapse	11	0.001

VIRAL COINFECTION: 1.9%

- 1 Coronavirus OC43
- 2 Influenza A
- 1 Rotavirus (stool)

OXYGEN THERAPY

- Nasal cannulas (133)
- High-flow nasal cannula (17)
- CPAP (3)
- Mechanic ventilation (1)

TREATMENT

Children admitted in Nov-Dec 2017 (vs. Nov-Dec 2016)	%	p
< 3 months	58	<0.001
Severe score	60	0.011
PICU admission	60	0.041

- **Prenatal smoking** was correlated with more PICU admission (71%, p=0.006).
- Independent factors associated with a **longer hospitalization stay**:
 - ⊗ Younger children (p=0.001)
 - ⊗ Bacterial infection (p<0.001)
 - ⊗ Oxygen saturation < 92% (p<0.001)

$$X^2 = 0.702$$

Conclusions

- **RSV** was related with higher severity score, more bacterial infection, oxygen therapy, PICU admissions and fewer relapses.
- **Prenatal smoking** was correlated with more PICU admissions.
- Independent factors associated with **prolonged stay** were younger children, bacterial infection and lower oxygen saturation.
- Children admitted during **November-December 2017** were younger and associated more admissions to PICU vs. Nov-December 2016.
- Most of the children had **good progress**.