PERTUSSIS: CHARACTERISTICS OF HOSPITALIZED AND OUTPATIENT CASES.

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INTRODUCTION

Pertussis is a respiratory disease caused by *B. Pertussis*. In Catalonia (a region in the Northeast of Spain with >7milion inhabitants), pertussis generates high public health costs due to the disease related hospitalizations. Nowadays vaccination schedule in Catalonia includes 5 doses of vaccine, at 2, 4, 6, 18 mo and 4-6 years. Pertussis cases must be reported to Department of Public Health at Generalitat de Catalonia.

OBJECTIVE

Evaluate differences between hospitalized and outpatient cases of pertussis, the determinants of hospitalization and strategies to aviod admissions.

METHODS

The study includes cases reported to the Department of Helath of Catalonia during 2004-2008. Only confirmed cases were included (laboratory confirmed or epidemiologically linked).

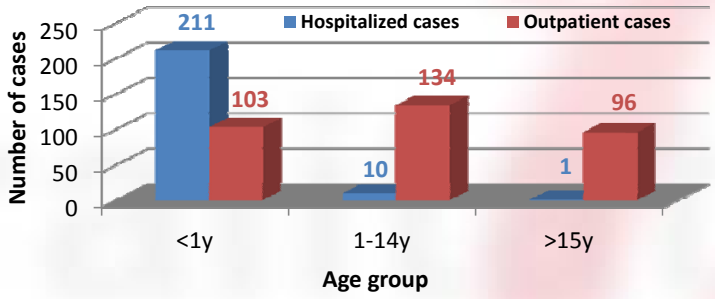
Cases were clasified in 2 groups: hospitalized and outpatients.

RESULTS

A total of 555 confirmed cases were reported, of wich 222 (40%) were hospitalized and 333 (60%) were outpatients. Distribution by sex was the same in hospitalized and outpatient cases: 54% were female and 46% were male. Figure 1 shows age distribution in hospitalized cases and in outpatients. Only 3 (0.4%) hospitalized cases were diagnosed by epidemiological link compared with 88 (26.4%) outpatient cases (p<0.001).

Age Group Fully vaccinated cases	Hospitalized cases (n= 55)	Outpatient cases (n= 161)	Total cases (n=216)
< 1 year	50 (90.9%)	63 (39.1%)	113 (52.3%)
1-14 years	5 (9.1%)	88 (54.7%)	93 (43.1%)
> 15 years	0 (0%)	10 (6.2%)	10 (4.6%)

Table 1. Vaccinations status of hospitalized and outpatients cases according to age.



Clinically, 136 (61.3%) hospitalized patients and 277 (83.2%) outptients had cough for more than 2 weeks at the time of diagnosis (p<0.001). Only 24.8% of hospitalized cases were fully vaccinated according to age, compared with 48.6% of outpatients (p<0.001).

Figure 1. Hospitalized and outpatient cases by age grup.

A total of 157 (70.7%) hospitalized cases had recieved no dose of vaccine compared with 85 (25.5%) outpatients (p<0.001).

CONCLUSIONS

The percentage of hospitalized cases fully vaccinated according to age, although lower than that of outpatients cases, shows that vaccination coverage should be improved in children.

New strategies such as cocooning pertussis vaccine to prevent cases in infants should be considered.

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