

P1039

Abstract (poster session)

Pertussis: characteristics of hospitalised and outpatient cases

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Objectives: Pertussis is a respiratory disease caused by *B. pertussis*. In Catalonia (a region in the Northeast of Spain with >7 million inhabitants), pertussis generates high public health costs due to disease-related hospitalizations. The objective of the study was to evaluate differences between hospitalized and outpatient cases of pertussis, the determinants of hospitalization and strategies to avoid admissions. Methods: The study included cases reported to the Department of Health of Catalonia during 2004-2008. Only confirmed cases were included (laboratory-confirmed or epidemiologically-linked). Cases were classified in 2 groups: hospitalized and outpatients. Results: A total of 555 confirmed cases were reported, of which 222 (40%) were hospitalized 333 (60%) outpatients. Distribution by sex was the same in hospitalized and outpatient cases: 54% female and 46% male. The age distribution was 211 (95.0%) <1 year; 10 (4.5%) 1-14 years and 1 >=15 years in hospitalized cases, and 103 (30.9%) <1 year; 134 (40.2%) 1-14 years and 96 (28.8%) >=15 years in outpatients. Only 3 (1.4%) hospitalized cases were diagnosed by epidemiological link compared with 88 (26.4%) outpatient cases ($p<0.001$). Clinically, 136 (61.3%) hospitalized patients and 277 (83.2%) outpatients had cough for more than two weeks at the time of diagnosis ($p<0.001$). 80 (36.0%) hospitalized patients and 38 (11.4%) outpatients had apnoea 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 ($p<0.001$). Table 1 shows the proportions of hospitalized and outpatient cases fully vaccinated according to age. A total of 157 (70.7%) hospitalized cases had received 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.

Fully vaccinated according to age	Hospitalized cases (n=222)	Outpatient cases (n=333)
<1 year	50 (23.7%)	63 (62.2%)
1-14 years	5 (50.0%)	88 (65.7%)
>=15years	0 (0%)	10 (10.4%)