

P1077 Pertussis infection in Sfax, Tunisia (2013-2018)

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Background: Pertussis or whooping cough remains a public health problem in high vaccination coverage countries including Tunisia. It is a respiratory disease usually caused by *Bordetella pertussis* and rarely by *B. parapertussis*. It may cause severe complications, mainly in children under 1 year. The aim of this study is to assess the epidemiological features of pertussis infections in our region, Sfax, Tunisia.

Materials/methods: It is a retrospective study including all pertussis cases diagnosed in the laboratory of Microbiology, Sfax, Tunisia between 01/01/2011 and 15/11/2018. Variables recorded: age, sex and vaccination status and clinical evolution. Complete vaccination status definition: administration of at least three doses. Microbiological diagnosis was done in nasopharyngeal aspirate or swab by RT-PCR.

Results: 225 cases of pertussis were diagnosed: 2013: 54 cases; 2014: 98 cases; 2015: 5 cases; 2016: 1 case; 2017: 9 cases; 2018: 58 cases. Most of the cases, n=202 occurred in children up to 2 years old with a mean age of 81.5 days (extremes; 10 days- 240 days). Of those, 94% occurred in children up to 6 months old. Only 23 cases were diagnosed in adults. Most of cases, 156 (70%) occurred between March and August. Regarding the vaccination status, 72.2% were not vaccinated, 18.3% received 1 dose, 5.6% received 2 doses and 3.9% received at least 3 doses of vaccine. Case fatality rate was 5.44% among the infants.

Conclusions: During the study period, there was a cyclic evolution of whooping cough in our region. The majority of pertussis cases occurred in children younger than 6 months who received <3 doses of pertussis vaccine. The need of booster doses in adults should be evaluated in order to reduce the burden of this disease.

