Clinical and socio economic determinants of antibiotic usage and prescription prior admission for clinical severe pneumonia in children under five years of age in Rabat, Morocco

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Scarc data is available regarding antibiotic usage and prescription in children with respiratory tract infections in the Kingdom of Morocco, a middle-income country in Northwestern Africa. A National survey in 2006, showed that in ambulatory setting, almost 35 percent of children under five visiting the primary health care centers receive antibiotics for non severe acute respiratory infection. We hereby present data on antibiotic usage prior the admission and antibiotic susceptibility of major circulating respiratory pathogens in children under five years of age admitted to the Hôpital d’Enfants de Rabat, Morocco, with a diagnosis of clinical severe pneumonia (using World Health Organization (WHO) standardized case definitions) during a period of 14 months (November 2010–December 2011), as part of a larger hospital-based surveillance study designed to understand the etiology and epidemiology of severe pneumonia cases among children. Data were collected through a questionnaire administered to the parents and from the medical record. Seven hundred children were recruited after obtaining parental consent. The mean age was 21.5 months (SD 14.6). 29.4% (206/700) received antibiotics two weeks previous their admission. 86.5% (166/192) of antibiotics were prescribed by a physician, (21/192; 10.9%) obtained directly the antibiotics from the pharmacy and 5 (2.6%) by self-medication. The multivariate analysis, showed that the use of antibiotics in pre admission was associated with a symptom duration of more than seven days (adjusted OR 3.98, 95% CI 2.17 to 7.31), with fever (aOR 1.52, 95% CI 1.2 to 2.28 ) and incomplete vaccination status(aOR 1.89, 95% CI 1.11 to 3.23). The bacterial susceptibility to the antibiotics used showed a good susceptibility rate to most antibiotics used for ARI. A good understanding of the determinants of the pre-admission usage of antibiotics in children with severe respiratory infections linked with an adequate surveillance of the antibiotic susceptibility from circulating pathogens could help policy makers improve their recommendations on management of respiratory infections.

Biography
Jroundi Imane is MD, MPH, and a PhD candidate in the University of Barcelona. She is an Assistant Research Professor at the unit of training and research on public health and community health at the School of Medicine and pharmacy of Rabat, University Mohamed V in Morocco. Her field of research is about the determinants of respiratory infection among children under five in Morocco. She has published 20 papers in reputed journals and has is serving as volunteer in remoted areas for community projects for preventing and controlling respiratory infections.

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