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**Cluster of shigellosis among refugee children: data from a large tertiary paediatric hospital, Athens, Greece**

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**Background:** Refugees are a population at risk for acquiring infectious diseases mainly due to their exposure to difficult environmental circumstances, poor hygiene condition, and overcrowding in reception or transit centers. Shigellosis is a well-known infection in these settings. In addition, since antimicrobial resistance of *Shigella* species is of growing concern for the treatment of shigellosis, antibiotic susceptibility testing is of crucial importance for the infection management. We present a cluster of 11 shigellosis cases in refugee children (9 males-2 females) aged from 12-120 months, proceeding to a pediatric hospital of Athens, during the period July - September 2015.
**Materials and methods:** Isolates were identified by standard biochemical methods and antimicrobial susceptibility testing by the disk diffusion method according to the current CLSI guidelines. All isolates resistant to cefotaxime and/or ceftazidime were tested for extended-spectrum β-lactamases (ESBLs) by the double disk diffusion test. *Shigella* group and types were identified by a slide agglutination method using specific antisera.
**Results:** Both *Shigella flexneri* (n =5) and *Shigella sonnei* (n =6) were identified, distributed in various serotypes. Among *S. sonnei* three isolates were identified as serotype F(II) and one as serotype S(I). Of the *S. flexneri* isolates two were identified as serotype 2b one as serotype 2a and one as serotype 2. Of the total isolates, 4 (36.3%) were ESBL- producers. The resistance rates of all *Shigella* isolates were as follows: cotrimoxazole 9/11(81.8%), ampicillin 8/11(72.7%), ciprofloxacin 1/11(9%) cefotaxime 4/11(36.3%), ceftazidime 4/11(36.3%), nalidixic acid 2/11(18.1%).

**Conclusions:** Emergence of *Shigella* isolates with rare serotypes such as F(II) and S(I) was observed among refugee children. Ampicillin and cotrimoxazole exhibited the highest resistance rates, while the rate of ESBL producers underlines the important role of the antibiotic susceptibility testing for the effective patient treatment. Accurate diagnosis of shigellosis cases among refugees may contribute to increased awareness and preparedness to prevent the potential of epidemic outbreaks.