Background The objectives of this study were to define the phylogenetic groups in urinary and commensal E. coli isolated from urine and stool samples of hospitalized children and to determine the pattern of resistance to antibiotics.

Method A total of 100 urine and stool samples were processed during the study period from September 2009 to August 2010. Samples were cultured using standard microbiological techniques. Biochemical testing was used to identify the organisms, E. coli isolates were tested for phylogenetic grouping by using triplex PCR and antibiotic susceptibility test done by the Kirby Bauer method.

Results Phylogenetic group B2 and D were predominant in urinary samples (54% and 34% respectively). Phylogenetic group A, D and B2 were found in decreasing order of 41%, 26% and 16% respectively in the stool samples.

Following resistance patterns were observed in urinary E. coli isolates vs. commensal E. coli, respectively: nitrofurantoin (2% vs. 8%); imipenem (2% vs. 1%); amikacin (4% vs. 3%); ciprofloxacin (5% vs. 5%); nalidixic acid (6% vs. 27%); amoxicillin (16% vs. 20%); ceftazidime (12% vs. 7%); amoxicillin-clavulanic acid (14% vs. 9%); gentamicin (0% vs. 0%); cefpodoxime (0% vs. 19%); cefotaxime (4% vs. 27%); co-trimoxazole (61% vs. 82%); and aztreonam (7% vs. 16%). Multi-drug resistance (MDR = resistance to >8 drugs) was most commonly associated with UPEC isolates.

Conclusion Although group B2 E. coli strains were uncommon in stool samples, as they are highly virulent they still represent a potential reservoir for urinary tract infection. Resistance to most antimicrobials is high both in UPEC and commensal strains.
hearing loss. Infected infants received one-year therapy (pyrimethamine/sulfadiazine); 1/13 infant developed neutropenia as adverse therapy effect.

At a median age of 2 years all infected infants had a normal psychomotor development (range 1–10 years).

**Conclusions** It is advisable to perform IgM/IgG-WB on infant serum and the compared analysis for mother-infant pairs within the first month of life when high risk factors for Toxoplasmosis transmission are present.

**Materials and Methods**

### 2010.

**Background and Aims** *H. influenzae* is a human pathogen responsible for various infections in both children and adults.

We describe in this study the susceptibility patterns and β-lactam resistance mechanisms of 62 ampicillin-resistant *H. i* strains isolated from children at the children’s hospital of Tunis during 2009 and 2010.

**Materials and Methods**

All strains were identified and serotyped using conventional methods. Antimicrobial susceptibility was determined by E-test. The antibiotics tested were amoxicillin, amoxocillin-clavulanate, ceftaxim, cefuroxim, cefotaxim, cefpodoxim and imipemem. The β-lactamase production was performed using the nitrocefin test. We determined the resistance genes (blaTEM-1, blalacA, and ψ1) by PCR.

**Results** Isolates were identified as non capsulated and were classified into 3 groups according to their β-lactam resistance mechanisms: β-lactamase positive ampicillin-resistant (BLPAR: 50%); β-lactamase negative ampicillin-resistant (BLNAR: 40.52%) and β-lactamase positive amoxicillin-clavulanate-resistant (BLPACR: 9.68%). All strains showed high amoxicillin, amoxicillin-clavulanate, cefuroxim and imipemem MICs. Among these, the less active one was imipemem with MIC >32 mg/l in all strains. The highest MICs of cefuroxim were in BLPACR strains (2–4 mg/l). MICs ranges of this antibiotic were 0.5–6 mg/l in BLNAR and 0.125–4 mg/l in BLPAR. Cefotaxim, ceftaxim and cefpodoxim were the most active agents tested against our strains.

**Conclusion** This study indicates that many β-lactams are ineffective among some *H. i* strains. So, it’s important to have an appropriate usage of antibiotics to stop these phenomena. We must make other investigations to know if these strains belonged to the same clone or if it’s a question of an outbreak in our hospital.

**Aims** A prospective study was initiated in Brasov, Romania in 2009 to assess the antimicrobial resistance pattern of *Streptococcus pneumoniae* (*Pnc*) isolated from middle ear fluid in children with acute otitis media (AOM) <5 years old.

**Methods** Patients diagnosed with AOM who underwent tympanocentesis or presented with purulent otorrhea of <24 hours duration were enrolled.

**Results** 206 patients were enrolled, 132 (64%) episodes occurred in children <2 years old; 105 (51%) were culture-positive. 108 isolates were recovered: *Pnc* - 75 (67%), *H. influenzae* - 26 (24%) and others - 7 (9%). Nonsusceptibility to penicillin was found in 25/27 (93%): 11/27 (41%), 11/27 (41%) and 3/27 (11%) respectively. Of the 39 β-lactamase positive *Pnc* serotyped the most common were: 19F (26%), 6B (18%), 16/27 (59%), 13/27 (48%) and 15/27 (56%), respectively. Of the 39 β-lactamase positive *Pnc* serotyped the most common were: 19F (26%), 6B (18%), 16/27 (59%), 13/27 (48%) and 15/27 (56%), respectively. Of the 39 β-lactamase positive *Pnc* serotyped the most common were: 19F (26%), 6B (18%), 16/27 (59%), 13/27 (48%) and 15/27 (56%), respectively.

**Conclusions** The proportion of penicillin resistance *Pnc* isolated from MEF was extremely high as well as resistance to other common antibiotics. Coverage of PCV7 and PCV10 vaccines was equal. The PCV13 coverage was 90%. Most antibiotic resistant serotypes were included in the PCV13.

**Background and Aims** *Haemophilus influenzae* (Hi) is a human pathogen responsible for various infections in both children and adults.

We describe in this study the susceptibility patterns and β-lactam resistance mechanisms of 62 ampicillin-resistant *H. i* strains isolated from children at the children’s hospital of Tunis during 2009 and 2010.

**Materials and Methods** All strains were identified and serotyped using conventional methods. Antimicrobial susceptibility was determined by E-test. The antibiotics tested were amoxicillin, amoxocillin-clavulanate, ceftaxim, cefuroxim, cefotaxim, cefpodoxim and imipemem. The β-lactamase production was performed using the nitrocefin test. We determined the resistance genes (blaTEM-1, blalacA, and ψ1) by PCR.

**Results** Isolates were identified as non capsulated and were classified into 3 groups according to their β-lactam resistance mechanisms: β-lactamase positive ampicillin-resistant (BLPAR: 50%); β-lactamase negative ampicillin-resistant (BLNAR: 40.52%) and β-lactamase positive amoxicillin-clavulanate-resistant (BLPACR: 9.68%). All strains showed high amoxicillin, amoxicillin-clavulanate, cefuroxim and imipemem MICs. Among these, the less active one was imipemem with MIC >32 mg/l in all strains. The highest MICs of cefuroxim were in BLPACR strains (2–4 mg/l). MICs ranges of this antibiotic were 0.5–6 mg/l in BLNAR and 0.125–4 mg/l in BLPAR. Cefotaxim, ceftaxim and cefpodoxim were the most active agents tested against our strains.

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