

## **THE NEONATAL AND PAEDIATRIC ANTIMICROBIAL POINT PREVALENCE SURVEY: ANTIMICROBIAL USAGE IN LATVIAN HOSPITALS IN 2012**

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**Background and aims:** The Point Prevalence Survey (PPS) was conducted as part of the Antibiotic Resistance and Prescribing in European Children (ARPEC) Project. The study aimed at analyzing paediatric and neonatal antimicrobial prescribing patterns in Latvian hospitals, to identify targets for quality improvement.

**Methods:** A one-day PPS on antibiotic use in hospitalised children was conducted in November 2012 in 10 Latvian hospitals, using a validated and standard method. The survey included all inpatient paediatric and neonatal beds and identified all children receiving an antimicrobial treatment on the day of survey.

**Results:** There were 448 paediatric and 101 neonatal (< 29 days) inpatients reported. 169 (38%) paediatric patients and 23 (23%) neonates received at least one antibiotic. Overall, 8 antibiotics accounted for 75% of total paediatric use (DU75%). Paediatric top one antimicrobial was ceftriaxone (20% prescriptions). Top three classes were third-generation cephalosporins (27% prescriptions), broad-spectrum penicillins (15%), first generation cephalosporins (13%). Antibiotics were most predominantly used intravenously (78% of 207 prescriptions). Bacterial lower respiratory tract infections (LRTI) were the most common indication for antibiotic use (23% of all prescriptions). Neonatal DU75% included 5 antibiotics; top one antibiotic - benzylpenicillin (33% of 36 prescriptions). Top three classes were beta-lactamase sensitive penicillins (33%), aminoglycosides (25%), broad-spectrum penicillins (14%). LRTI were the most common indication for antibiotic use (39% of all 36 prescriptions).

**Conclusion:** We identified three problem areas for improvement: high use of third-generation cephalosporins for paediatric patients, prescription of antibiotic combinations with broad-spectrum antibiotics for neonates and predominant use of parenteral antibiotics.