



ARPEC

Antibiotic Resistance and Prescribing in European Children

ARPEC is a partnership of several European universities and Health Institutions aiming to develop and implement a novel method of surveillance of antimicrobial consumption and resistance in children in hospitals and in primary care across Europe. ARPEC has received co-funding from the European Union in the Framework of the Health Programme.

Management Team

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Contact us

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ARPEC

The overall aim of the project is to improve antimicrobial prescribing in hospitals and in the community by obtaining up-to-date, clinically relevant data on variation in clinical management and antimicrobial consumption and resistance rates and then to feed this back via a number of educational initiatives to paediatricians in-training and in clinical practice across Europe.

Specific Objectives

- Development of a formal new European group drawing on paediatric infectious diseases expertise fostering research in optimal antimicrobial use for children
- Identification of the specific antibiotics used to treat common childhood infections in primary care in different European countries
- Evaluation of the specific antibiotics and doses used to treat common infections in partner hospitals in different European countries
- Analysis of the specific antimicrobial resistance patterns for key bacterial pathogens causing serious bacterial bloodstream infections in children in the partner hospitals
- Collection and comparison of specific primary care and hospital antibiotic prescribing guidelines for the most common childhood infections in use in European partner's institutions
- Development of a web-based educational training programme for paediatricians on the principles of prudent antibiotic prescribing containing country-specific prescribing and resistance data



ARPEC Core work packages

WP4: Primary Care Antibiotic Prescribing for common childhood infections

Existing primary care data sets will be used to determine the variation in specific antibiotic prescribing for common childhood infections between European countries

WP5: Point Prevalence Survey of Paediatric Hospital Antimicrobial Consumption

Development of an online tool based on existing ESAC methodology to determine the variation in paediatric and neonatal inpatient antibiotic consumption between EU countries

WP6: Antimicrobial Resistance in Europe in Serious Bacterial Infection in Children

Analysis of the variation in antibiotic resistance for key pathogens causing serious neonatal and paediatric bacterial bloodstream infections in Europe

WP7: Variation in paediatric antimicrobial prescribing guidelines

Collection and comparative analysis of community and hospital antibiotic prescribing guidelines for common childhood infections in Europe

Expected Outcomes

ARPEC will result in widely applicable methods for the surveillance of antibiotic use and antimicrobial resistance in neonates and children in Europe. Data from all work packages will be submitted for publication in the peer-reviewed literature and widely disseminated in the scientific community and to relevant stakeholders. Analyses will also form the basis for an online educational tool and programme focusing on rational use of antibiotics for children in the community and in hospital.



ARPEC Partners actively participating in the project



St George's University of London
Coordinating Partner, Lead WP6*



Erasmus University Medical Center,
Rotterdam, Lead WP4*



University of Antwerp, Lead WP5*



National and Kapodistrian University of Athens, Lead WP7*



University of Tartu*



University Medical Centre, Ljubljana*



Paediatric European Network for the Treatment of AIDS*



European Society of Paediatric Infectious Diseases *



University Medical Centre, Freiburg



Universita Degli Studi di Milano
PEDIANET – Societa di Servizi Telematici
Consorzio per la Valutazioni Biologiche e Farmacologiche



Vilnius University Children Hospital



Associacao de Saude Infantil de Coimbra



Fundacion para la Investigacion Biomedica del Hospital Gregorio Maranon, Spain & SERMAS Servicio Madrilenos-

* (SC) = Steering Committee Member



International Collaboration

Through ARPEC links are being formed between ESPID and ECDC with the aim of harmonising the ARPEC work plan with the on-going ECDC programme on antimicrobial prescribing and healthcare-associated infection. Since ARPEC adapts and modifies ESAC and EARS-Net methodology for paediatric populations, its components will be compatible in the long term with surveillance activities run through ECDC.

The ARPEC team and ESPID have also formed collaborative links with the Paediatric Infectious Diseases Society of the USA (PIDS) and are now working on a joint programme to harmonise the development of antimicrobial stewardship programmes and educational tools across the United States and Europe.