



## ANTIMICROBIAL STEWARDSHIP AND CHILDREN FACTSHEET

### ABOUT EAP

The European Academy of Paediatrics (EAP) is the UEMS – European Union Medical Specialists Paediatric Section – and as such, represents the official political voice for both children, families and paediatricians throughout Europe.

With delegates from 40 countries, EAP represents national paediatric societies and professional organisations of the European Economic Area countries as well as the National Associations of Medical Specialists of the Associated European members and observer countries. In addition European Specialist/Scientific societies are also part of the EAP. EAP seeks to promote the health of children and young people across the European continent as well as operating at the European level to defend and promote the interests of Medical Specialists. EAP is a member of ISSOP. It aims to improve standards in training, service and research and is an influent advocate of children, youth and the medical profession in the political arena.

### KEY FACTS ON ANTIMICROBIAL RESISTANCE AND ANTIMICROBIAL STEWARDSHIP



#### What is Antimicrobial Resistance (AMR)?

By Antimicrobial Resistance (AMR), we mean the capacity of microbes to resist the effects of the medication which has been used to treat them.

#### Why is tackling AMR important?

AMR is an increasing public health threat, with antimicrobial-resistant bacteria causing approximately 25,000 deaths in the European Union every year. Over the past years, there have been significant shortages in the development and availability of new antibiotics.

#### What is Antimicrobial Stewardship (AMS) and why is it a crucial topic?

Antimicrobial Stewardship (AMS) refers to the need to limit the prescription of antibiotics to strictly necessary instances. These efforts will help to tackle AMR by reducing unnecessary or suboptimal use of antibiotics, therefore maximising outcomes for patients.

AMS is recognised as a key element to stop the current spread of antimicrobial resistance in Europe, with AMS action programmes seeking to minimise selective pressure on the emergence of drug-resistance strains. Several EU-wide examples demonstrate that cost-effective AMS is possible.

### ANTIMICROBIAL STEWARDSHIP AND CHILD HEALTH

#### Is there a difference between AMR and AMS practices aimed at adult patients and those targeting children?

Given that their organs (like liver and kidney) and immune system are still developing, children must not be seen or treated as “small adults” when it comes to antimicrobials. They have different antimicrobial needs (e.g. type of antimicrobial, dosing, formulations, etc.), and are more likely to develop resistance, due to a future lifetime of antibiotic exposure. Children may also experience different antimicrobial side effects or adverse events compared to those felt by adult patients.



#### Studies of AMS and children

While there is vast research on the effects of antibiotics on adult patients, the number of studies on antibiotics and children is less than ideal. While there is a pressing need for more research on antibiotics and children, it is also imperative that, in the meantime, child healthcare professionals engage in AMS-friendly practices to maximise antibiotics' effects when they must be given.

## HOW DO WE INCREASE AWARENESS AND AMS-FRIENDLY PRACTICES AMONG PAEDIATRICIANS AND OTHER HEALTH PROFESSIONALS?



### Lifelong learning

When it comes to AMS awareness among health professionals, “the sooner, the better”: assimilation of knowledge on AMS starts during medical school, deepens during clinical training and is reinforced during postgraduate training. This is only the beginning, though: as medicine progresses and healthcare professionals face new challenges, paediatricians should make a conscious effort to continuously strengthen their AMS knowledge throughout their career. To meet the need of the global population, antibiotic stewardship models need to evolve from infection specialist-based teams to develop and use cadres of health-care professionals. Ideally, all hospitals in Europe should have AMS that serve all patient types, including children.

### Beyond hospital walls

If AMS is to be successfully put into practice, paediatricians must not limit their AMS efforts to hospital settings. Collaboration and joint actions between hospitals and outpatient or ambulatory care facilities are crucial to spread AMS awareness among communities and, thus, increase the chances of tackling AMR in an effective and systematic way.

### eHealth and cross-border actions

Digital health platforms can go a long way to foster AMS in areas with challenging access to education. Through e-learning, webinars and similar eHealth tools, healthcare professionals can develop interactive platforms to share best practices at local, national and transnational levels. Healthcare institutions should collaborate regionally and internationally to fight antimicrobial resistance successfully.

Likewise, AMR prevention is not restricted to the efforts of healthcare professionals and facilities. The support of governmental and non-governmental institutions is key to implement rigorous actions at practice, ward, institutional, national and supra-national levels.

## WHAT CAN EU POLICY-MAKERS DO TO FOSTER ANTIMICROBIAL STEWARDSHIP?

### Facilitate the access to eHealth tools and foster eHealth literacy

Government's health education programmes can prioritise public information about the need only to seek antibiotic treatment when necessary and use their media to promote awareness of a 'one Health' approach, limiting use of antibiotics in animal husbandry.

### Increase AMS training and knowledge-sharing opportunities for health professionals

The European Commission intends to develop AMR training programmes for health professionals through the ECDC, and the EU health programme. Given that many factors related to paediatric AMS are unique to children, the EAP is ready to share its knowledge and experience.

### Increase funding opportunities for research on antibiotics and children

Governments should cooperate to incentivise research by pharmaceutical companies into novel antibiotic and vaccine solutions.

### Foster “vaccine confidence” among parents and the general adult population, and support immunisation initiatives

Specifically, EU policy-makers can raise awareness about the positive effect of vaccinations to prevent serious illness and further development of AMR.



More materials on antimicrobial stewardship available at [www.eapaediatrics.eu](http://www.eapaediatrics.eu)



Scientific article



Statement



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