

## AMR is

the ability of microorganisms to resist antibiotic, antiviral, antifungal and antiparasitic medicines.

## The World Health Organization

declared AMR as one of the ten major global public health threats facing humanity. Infections caused by multi-resistant bacteria are predicted to be **a leading cause of death** by 2050

It affects not only humans, but also animals, plants and the environment, and thus should be tackled with a **One Health approach**



## THE CONTRIBUTION OF ANTHROPOSOPHIC MEDICINE TO REDUCE THE THREAT OF AMR



The concept of health promotion and infection prevention strategies lie at the heart of Anthroposophic and Integrative Medicine and should be at the core of any strategy tackling infectious diseases.



Integrative Medicine contributes to reducing the threat of AMR by:



being patient-centred



being health system oriented



using effective prevention strategies



avoiding the misuse and overuse of antimicrobials

Anthroposophic and Integrative Medicine support the One Health approach by extending their practice into multi-sectoral fields. Some recent examples are:



An app-based registry<sup>(1)</sup> collecting data on febrile infections showed that effective and directed fever management<sup>(2)</sup> strategies significantly reduce the need for the use of pyretics and antibiotics.



A prospective non-randomised, comparative study showed that the frequency of antibiotic use and need for surgical intervention in the treatment of children with chronic otitis media with effusion was **significantly lower using integrative-anthroposophic treatment (17.9% vs. 82.9%)**<sup>(3)</sup>.



In a prospective comparison of outcomes in patients with upper respiratory infections and ear infections under real-world conditions, a difference in antibiotic prescribing rates of 28 percentage points was noted (5.5% if treated by an anthroposophic physician, 33.6% if treated by a conventional physician).



Low antibiotic prescription rates have been found among physicians practicing other Integrative Medicine approaches. These findings are supported by a cohort study in France between 2007 and 2008<sup>(4)</sup>.





**1 POLICY**  
Anthroposophic Medicine and other Integrative Medicine approaches should be included as promising options in European and international policies to prevent AMR and reduce antibiotic use.



**4 RESEARCH & DEVELOPMENT**  
Further evaluation and research on Anthroposophic and Integrative Medicine approaches on AMR should be further prioritised and supported in academic and research institutions. Outcomes should be shared with healthcare professionals, policy makers, stakeholders and public through appropriate tools.



**2 HEALTHCARE SYSTEMS**  
Processes of health promotion and patient resilience should be included as strategies of prevention in national public health strategies and in National Action Plans (NAPs) on AMR.



**5 ONE HEALTH APPROACH**  
The One Health approach and the collaboration between human, animal, and plant sectors should be fostered on regional, national, and international level to effectively prevent AMR in an environmentally sustainable way.



**3 PATIENT INFORMATION AND EDUCATION**  
Public education on reducing antibiotic use in health services should include options of evidence-based Integrative Medicine approaches in prevention and treatment of infectious diseases.

## ABOUT IVAA

The international umbrella organization IVAA represents and coordinates the national anthroposophic doctors' associations from more than 30 countries.


IVAA focuses on:


- Demonstrating the contribution of Anthroposophic Medicine to address major health challenges
- Obtaining formal recognition of Anthroposophic Medicine as an integrative medical system
- Advocating for registration and availability of anthroposophic medicinal products
- Advocating for access to anthroposophic treatments such as anthroposophic nursing, art therapies, eurythmy therapy and body therapies
- Promoting pluralism in medicine and the right of patients to access the treatment of their choice

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(1) Martin, D., Wachtmeister, J., Ludwigs, K., & Jenetzky, E. (2020). The FeverApp registry - Ecological momentary assessment (EMA) of fever management in families regarding conformity to up-to-date recommendations. *BMC Medical Informatics and Decision Making*, 20(1), 1–8: <https://doi.org/10.1186/s12911-020-01269-w>

(2) Baars, E. W., Zoen, E. B., Breitzkreuz, T., Martin, D., et al. (2019). The Contribution of Complementary and Alternative Medicine to Reduce Antibiotic Use: A Narrative Review of Health Concepts, Prevention, and Treatment Strategies. *Evidence-Based Complementary and Alternative Medicine*, 5365608: <https://doi.org/10.1155/2019/5365608>

(3) The P.E.A.N.U.T. is a multimodal method developed in 2013 in Hungary, to reduce antibiotic use and need for surgical interventions in chronic otitis media in childhood. The method is efficient, safe, and cost-effective, easy to perform in different clinical settings. It involves the following six elements: Pneumatization exercises; Education of patients and parents; an Antiallergic diet; Nasal hygiene; Useful constitutional therapy; and Thermal interventions.

(4) Gimaldi-Bensouda, L., Bégaud, B., Rossignol, M., et al. (2014). Management of upper respiratory tract infections by different medical practices, including homeopathy, and consumption of antibiotics in primary care: the EPI3 cohort study in France 2007–2008. *PLoS One*, 9(3):e89990: [doi:10.1371/journal.pone.0089990](https://doi.org/10.1371/journal.pone.0089990)

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