Value of Effective Antimicrobial Stewardship (AMS)

What is AMS?

A multi-disciplinary approach designed to optimise the use of antimicrobials, improve patient outcomes, reduce the development of antimicrobial resistance (AMR) and hospital-acquired infections, and decrease healthcare costs.

Why is AMS needed?

Annually, AMR is estimated to be contributing to:

- 25,000 deaths in the EU
- 700,000 deaths globally
- €1.5 billion in extra costs in the EU alone

By 2050, a continued rise in AMR would lead to:

- 10 million deaths every year

Key steps in implementing AMS

- Establish AMS teams
- Develop processes
- Monitoring of antimicrobial use
- Medical education for patients and HCPs
- Communication of guidance on antimicrobial prescribing

Goals of AMS

- Improve patient outcomes
- Improve patient safety
- Reduce AMR
- Reduce healthcare costs

How is AMS economically evaluated?

Parameters used to evaluate AMS financially include:

- Implementation costs
- Antimicrobial costs
- Hospital day costs/total hospital cost per admission
- Operational costs
- Morbidity and/or mortality costs
- Societal costs

Current perspectives on the value of AMS

- Societal perspective: Beneficial for all if AMR rates are reduced
- Patient perspective: It is better to leave the hospital sooner
- Decision-maker perspective: A reduction in costs could help convince payors of the benefit of AMS

*Values were estimated by the World Bank using economic simulation tools.*
Measuring the clinical and economic benefits of AMS

Healthcare costs encompass clinical parameters, such as length of stay and mortality, as well as economic costs of antimicrobials.⁷

Challenges to introducing AMS

- Initial cost/investment⁶
- Difficulties in quantifying/qualifying the effectiveness of AMS and its financial evaluation⁵,⁸
- Integration and acceptance by hospital personnel¹
- Lack of recognition of the value of AMS¹
- There has been a lack of support at policy level, however, the WHO National Action Plan process is working to ensure governments take action⁹,¹⁰