AMR and HAIs

Antimicrobial Resistance and Healthcare Associated Infections

"The ability of a microorganism to stop an antimicrobial from working against it. As a result, standard treatments become ineffective, infections persist and may spread to others." (WHO)

The Cause

While AMR occurs naturally over time, its progression has been accelerated by the misuse and overuse of antimicrobials.

1 in 3 bacteria associated with HAIs is resistant to antibiotics *ECDC, 2018*

30% of oral antibiotics prescribed in the US are unnecessary *PEW, 2018*

The Consequences

Human & Healthcare

Each year, **33.000** people die from an infection due to bacteria resistant to antibiotics *ECDC 2018*

Heavy Economic Burden

€1.1 billion

Estimated annual cost to the healthcare system in the EU/EEA countries. *OECD 2019*

What can medtech do?

Medical technology has a role to play in reducing AMR and preventing HAIs.

Prevent and contain healthcare-associated infections and the development and spread of resistant bacteria.

Examples of technologies: coated sutures and implants, impregnated incise drapes, predictive monitoring, alcohol-based antiseptic and proper hand disinfection, and single use duodenoscopes.

Detect and identify bacterial infections and their susceptibility to medication, therefore avoiding the misuse or overuse of antibiotics.

Examples of technologies: Point-of-Care C-reactive protein test and Strep A pharyngitis rapid test.

Guide treatment duration and enable patient compliance to the appropriate use of antibiotics.

Examples of technologies: monitoring of immune biomarkers, real time molecular tests and digital health solutions.

Outbreak management and surveillance.

Hospital and healthcare facilities can compile data from diagnostic tests to track antimicrobial resistance patterns. This is also vital for the effective implementation of antibiotic stewardship programmes.

Example of technologies: clinical surveillance software, next generation sequencing-based technologies.

Help new antibiotic drug development by supporting the recruitment of appropriate patients for clinical trials.

Find out more

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