

# ABOUT ANTIMICROBIAL RESISTANCE

## WHAT IS ANTIMICROBIAL RESISTANCE (AMR)?

### SELECTIVE ANTIMICROBIALS?

Substances with a selective mode of action (e.g. enzyme inhibition) used to treat a wide variety of infectious diseases in humans and animals. They:

- Kill micro-organisms
- Stop micro-organisms from growing and multiplying

Example: systemic and local antibiotics



### ANTIMICROBIAL RESISTANCE?

The ability of micro-organisms to with-stand antimicrobial treatments.

Antibiotic resistances transmitted via plasmides are passed down through generations.



### WHY IS RESISTANCE GROWING?

- Overuse of antibiotics
- Misuse of antibiotics
- Spread through various routes

### EFFECT OF GROWING RESISTANCE?

- Treatment may become ineffective
- Serious risk to public health



## FACTS

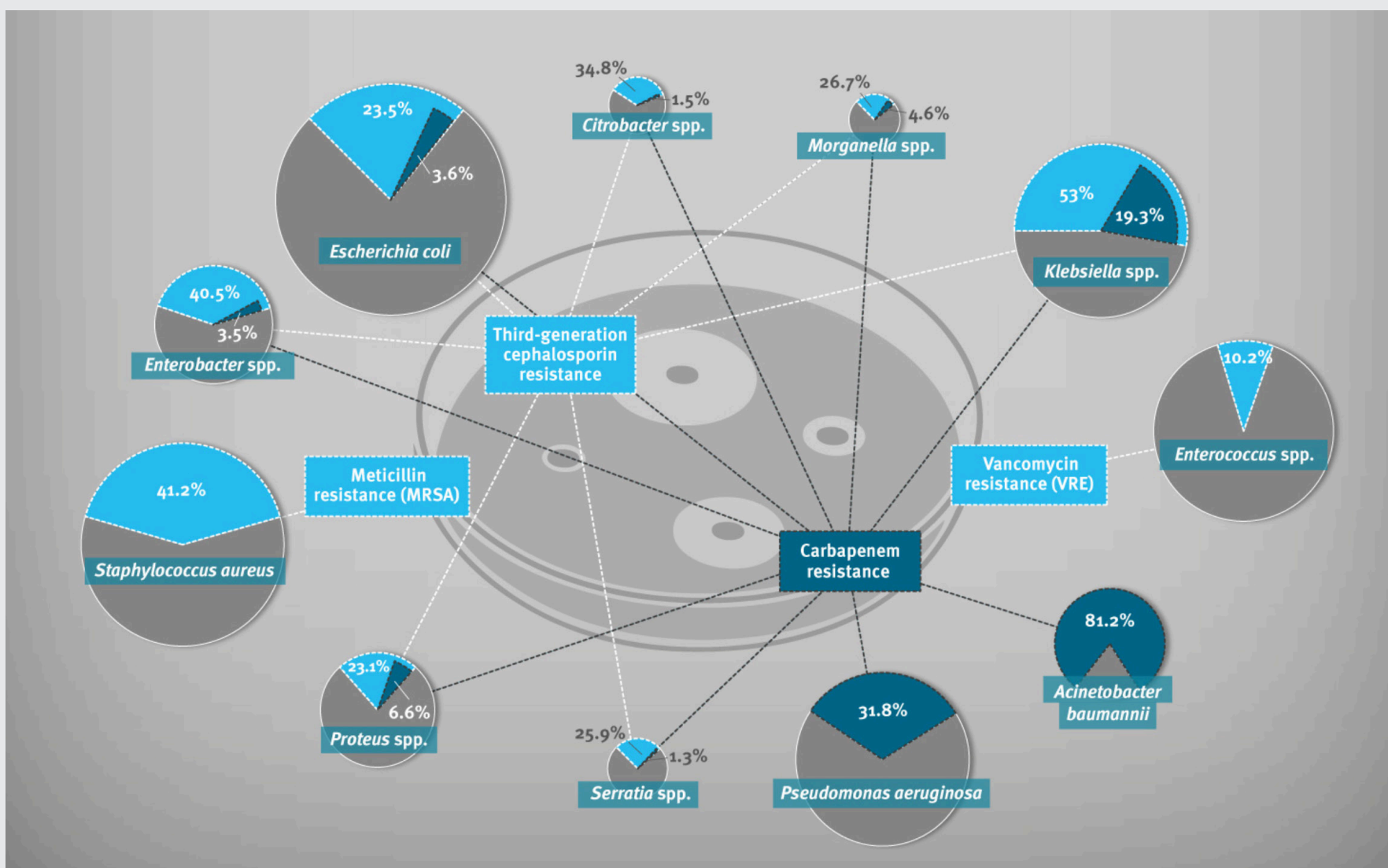
ANTIMICROBIAL RESISTANCE IS A  
**SERIOUS THREAT**  
TO PUBLIC HEALTH IN EUROPE.<sup>2</sup>

**68 %**  
OF ANTIMICROBIALS ARE PRESCRIBED  
FOR TREATMENT OF AN INFECTION<sup>1</sup>

STUDIES SHOW  
**POSITIVE**  
CORRELATION BETWEEN HAND  
HYGIENE COMPLIANCE IMPROVEMENT  
AND DECREASE OF MULTIDRUG RESISTANT  
ORGANISMS<sup>3</sup>

## RESISTANT MICROORGANISMS

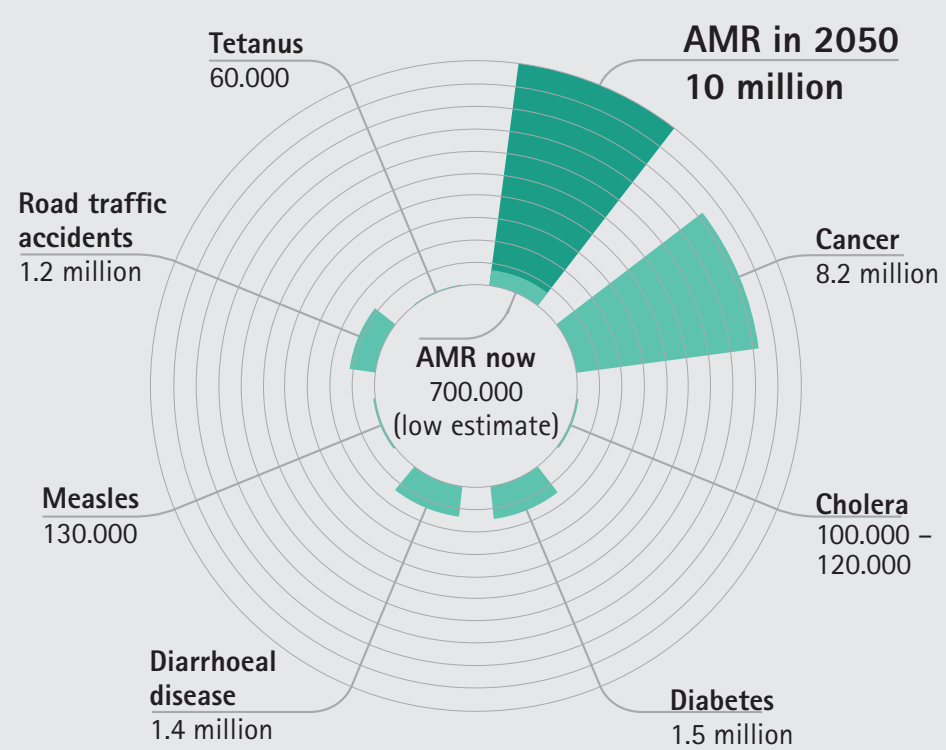
Percentage of antimicrobial resistance of most frequent microorganisms that cause health-care acquired infections



## ACTION REQUIRED

Antimicrobial resistance continues to rise as a major cause of death<sup>4</sup>. Prudent antimicrobial use and comprehensive infection prevention and control strategies targeting all healthcare sectors need to be implemented<sup>2</sup>.

Continued rise in resistance by 2050 would lead to 10 million people dying every year and a reduction of 2% to 3.5% in Gross Domestic Product (GDP). It would cost the world up to 100 trillion USD.



## PREVENT INFECTIONS – FIGHT AMR

**B. BRAUN AGAINST AMR**

**Decolonization with Prontoderm®**

- Bactericidal efficacy for MRSA, ESBL / ESCR and VRE proven by EN13727
- Proven antimicrobial barrier effect for up to 24 hours<sup>7</sup>
- Does not have to be washed off
- Outstanding skin tolerance, dermatologically tested
- Available as solution, wipes, nasal gel, hair foam, shower gel and mouth rinse solution

**Surface Disinfection with Meliseptol®**

CDC<sup>8</sup> named surface disinfection as a major accompanying method for the abatement of transmission of multidrug-resistant organisms MDRO. Without a sufficient disinfection of all frequently-touched surfaces (bedrails, charts, bedside tables, doorknobs and light switches), MDRO can spread and increases the risk of unforced infections. Available as solution and ready-to-use wipes.

**Hand Hygiene with Softa-Man®/Softalind®**

Most MDROs are spread via simple hand contact. Knowing that only 61% of health-care professionals do not clean their hands correctly makes hand hygiene even more important.<sup>5</sup>

**Catheter Maintenance with Uro-Tainer®**

For urethral and suprapubic catheters

- Reduces bacterial colonization on the catheter<sup>9</sup>
- Aid to remove of deposits, tissue waste, clots, and mucous<sup>9</sup>

**Wound Cleansing with Protosan®**

- Prevents infection
- Helps prevent biofilm formation<sup>10</sup>
- Reduces healing time<sup>10</sup>
- Gentle dressing change
- Available as solution, low and high-viscosity gel

Source

1: ecdc. 2012. Point prevalence survey (PPS) on healthcare-associated infections (HAIs) and antimicrobial use in European hospitals. [http://ecdc.europa.eu/en/healthtopics/Healthcare-associated\\_infections/point-prevalence-survey/PublishingImages/hai-point-prevalence-survey.jpg](http://ecdc.europa.eu/en/healthtopics/Healthcare-associated_infections/point-prevalence-survey/PublishingImages/hai-point-prevalence-survey.jpg) (accessed: 02.02.2017)

2: European Centre for Disease Prevention and Control. Antimicrobial resistance surveillance in Europe 2015. Annual Report of the European Antimicrobial Resistance Surveillance Network (EARS-Net). Stockholm: ECDC; 2017.

3: WHO. [http://www.who.int/gpsc/5may/MDRO\\_literature-review.pdf?ua=1](http://www.who.int/gpsc/5may/MDRO_literature-review.pdf?ua=1) (accessed: 01.02.2016)

4: AMR review. Antimicrobial Resistance: Tackling a crisis for the health and wealth of nations Chaired by Jim O'Neill. December 2014 <http://www.who.int/mediacentre/factsheets/fs436/en/>

5: [http://www.cdc.gov/hicpac/mdro/mdro\\_4.html](http://www.cdc.gov/hicpac/mdro/mdro_4.html) (accessed 25 Oct 2016)

6: WHO; Presentation: WHO\_Facts\_DRT661; „Health-Care Associated and Hand Hygiene Improvement – Slides for the Hand Hygiene Co-ordinator“, under <http://www.who.int> (accessed 2 May 2016)

7: Internal in Vitro Test - F.Brill 2008 - Data on File

8: Brill FHH. Phase II, step II in vitro study – Decolonization potential of Uro-Tainer Polihexanide 0.02% polihexanide in direct comparison to Uro-Tainer NaCl under practice conditions. Test report no. P10/053.2.

9: Brill FHH & Arndt A. Decolonisation potential of Uro-Tainer Polihexanide vs. Uro-Tainer NaCl measured by fluorescent microscopy. Data on file October 2014.

10: Perez R, Davies SC, Kaehn K., Effect of different wound rinsing solutions on MRSA biofilm in a porcine model, WundM 2010;4(2):44 – 48.

11: ecdc. 2012. Point prevalence survey (PPS) on healthcare-associated infections (HAIs) and antimicrobial use in European hospitals. [http://ecdc.europa.eu/en/healthtopics/Healthcare-associated\\_infections/point-prevalence-survey/PublishingImages/hai-point-prevalence-survey.jpg](http://ecdc.europa.eu/en/healthtopics/Healthcare-associated_infections/point-prevalence-survey/PublishingImages/hai-point-prevalence-survey.jpg) (accessed: 02.02.2017)