



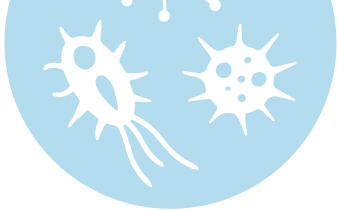
Why should I care about antimicrobial stewardship (AMS)?

Because a post-antibiotic era will be devastating to all



AMR&S
WORKING GROUP

The problem



Treatment of infections is becoming more difficult due to widespread emergence of antimicrobial resistance.¹

Antimicrobial resistance is prevalent in Asia.¹

This table shows the estimated percentage* of resistant pathogen isolates in South, East and Southeast Asian countries.²

Pathogen	Antibiotic	% of isolates with resistance**
<i>Staphylococcus aureus</i>	Methicillin	50 % to <60 %
<i>Escherichia coli</i>	3rd-generation cephalosporins	80 %
<i>Klebsiella pneumoniae</i>	3rd-generation cephalosporins	70 % to <80 %
<i>Acinetobacter baumannii</i>	Carbapenem	80 %

*Based on modeled estimates

**For each pathogen-drug combination, data is from the South/East/Southeast Asian country/countries with the highest prevalence



Up to 50 % of antibiotic prescriptions in Asian hospitals are inappropriate.³

High rates of inappropriate prescribing in hospitals



High rates of antimicrobial resistance and more difficult-to-treat infections^{4,5}

The consequences



In 2019, an estimated
1.27 million deaths
worldwide were directly
attributable to bacterial
antimicrobial resistance²

Without effective antibiotics⁶:

- Infections will be difficult, and sometimes impossible, to treat
- Patients cannot safely receive lifesaving medical advances, such as surgery, organ transplants, dialysis and cancer therapy

A post-antibiotic world would mean^{7,8}:

- Minor injuries could be deadly
- There could be a return to obsolete treatments, such as amputation
- Longer duration of illness and hospitalization

Without effective
intervention,
by **2050** antimicrobial
resistance may cause⁹:



10 million deaths/
year worldwide

>4.7 million deaths/year
in Asia Pacific

Economic losses of
\$US 100 trillion/year
worldwide



Why AMS is essential

Antimicrobial resistance affects all areas of health, involves many sectors and has an impact on the whole of society.¹⁰

AMS is essential to ensure ongoing patient safety and maintain the future effectiveness of antibiotics.^{10,11}

All hospitals need an AMS program to be part of the WHO global action plan.^{10,11}

All hospital workers have a responsibility to learn about AMS and work with AMS teams to ensure each patient gets the most appropriate antibiotic treatment for their infection.¹¹



AMS prescribers should ensure that patients get the right antibiotics¹²:

- Via the **RIGHT ROUTE**
- At the **RIGHT TIME**
- For the **RIGHT DURATION**

Be part of the solution

Combining effective AMS with a comprehensive infection control program limits the emergence and transmission of resistant organisms.¹³

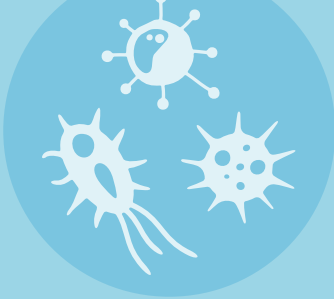
Everyone has an important role to play to ensure that antibiotics can be used for a long time to come.

Where do you fit?



AMS team^{11,13}

Core	Collaborative role	Supportive role
<ul style="list-style-type: none">• Physician	<ul style="list-style-type: none">• Clinical microbiologist	<ul style="list-style-type: none">• Nurses
<ul style="list-style-type: none">• Pharmacist	<ul style="list-style-type: none">• Infection prevention and control specialist• Information technology expert• Epidemiologist	<ul style="list-style-type: none">• Hospital administration



References:

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