2022
UPDATE

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Why should I care about antimicrobial stewardship (AMS)?

Because a post-antibiotic era will be devastating to all

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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**
Staphylococcus aureus	Methicillin	50 % to <60 %
Escherichia coli	3rd-generation cephalosporins	≥80 %
Klebsiella pneumoniae	3rd-generation cephalosporins	70 % to <80 %
Acinetobacter baumannii	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 resistance[2]

Without effective antibiotics[6]:

- 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 cause[9]:

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 antibiotics[12]:

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

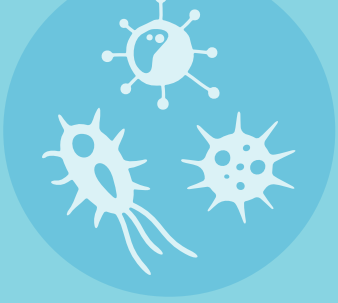
Be part of the solution

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**
• Physician	• Clinical microbiologist	• Nurses
• Pharmacist	• Infection prevention and control specialist	• Hospital administration
	• Information technology expert	
	• Epidemiologist	



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The Antimicrobial Resistance & Stewardship Working Group would like to acknowledge the support from Pfizer that has made this material possible.

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EM-HKG-HOS-0007