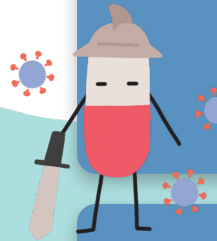


You can help prevent AMR!

Don't use antibiotics when they are not needed.

Antibiotics are not intended to treat colds. Antibiotics are ineffective against viruses that cause colds and flu. Do not ask for antibiotics when you have a cold. If you are unsure, please consult with your doctor or pharmacist.



Take antimicrobials properly!

Please finish an entire course of antimicrobials that is prescribed to you, even if you start feeling better before taking the full course. Your doctor prescribes antimicrobials tailored to your condition and physique. So if your doctor gives you antimicrobials, please take them as instructed. Don't save the antimicrobials for another time and then take it by yourself. Don't give your antimicrobials to others or receive antimicrobials from others.

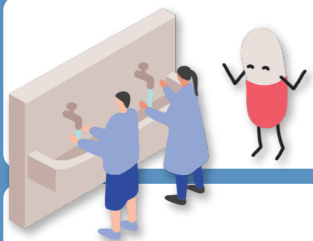


Avoid infections!

◆ Routine health care and infection prevention are important.

Good Hand Hygiene

◆ Wash hands thoroughly with soap and water. Alcohol-based hand sanitizer is also useful.



Coughing etiquette

◆ Wear a mask properly to avoid spreading droplets by coughing and sneezing. Cover your mouth and nose with a handkerchief or the inside of a sleeve if you do not have a mask.

Be Vaccinated

◆ Vaccines can prevent some infectious diseases.

Our task is to preserve the integrity of useful antimicrobials for the future

Center Hospital of the National Center for Global Health and Medicine
AMR 臨床リファレンスセンター
Antimicrobial Resistance Clinical Reference Center
Commissioned by Ministry of Health, Labour and Welfare



The Antimicrobial Resistance Clinical Reference Center was established in April 2017 as a project commissioned by Ministry of Health, Labour and Welfare to promote initiatives based on National Action Plan on AMR. The center provides data that can be utilised for AMR countermeasures and antimicrobial proper use activities, as well as promotional activities to inform the general public about antimicrobials and AMR.

Do you know / ANTIMICROBIAL RESISTANCE (AMR)?

What is AMR?

Antimicrobial drugs and antibiotics lose their efficacy against the bacteria causing the bacterial infections.

"The common cold" is caused by viruses. Antibiotics are not effective against a "cold." If you take antibiotics at your own discretion without medical advice, or do not follow your doctor's instructions, you will not only not improve, but side effects and "AMR" may develop, which will interfere with the treatment and prevention of infections.

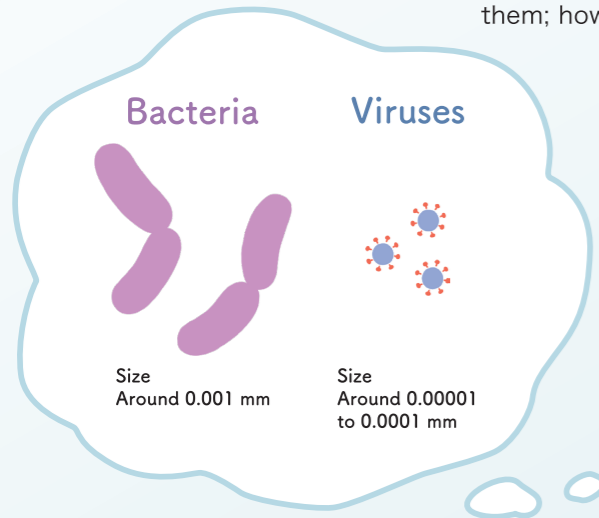


AMR
Clinical Reference Center
Commissioned by Ministry of Health, Labour and Welfare

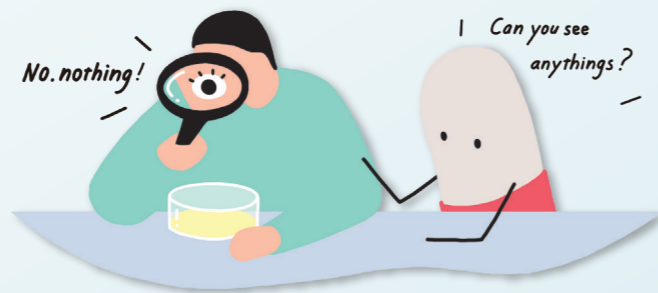
Antibiotics are NOT effective against VIRUSES

What is the difference between bacteria and viruses?

Both viruses and bacteria cause infections. Both organisms are so tiny that they are invisible to the naked eye, but their size, body structure and mechanism of multiplication are completely different from each other. Bacteria and viruses can spread from person to person through direct contact or by inhaling sneeze or cough droplets that contain them; however, such contact does not necessarily cause disease.



<p>Bacteria</p> <p>Bacteria divide and multiply within their own system.</p> <p>Ex. pneumonia, otitis media, cystitis, etc.</p>	<p>Viruses</p> <p>Viruses need to use the living cells of other organisms to multiply.</p> <p>Ex. cold, influenza, rubella, etc.</p>
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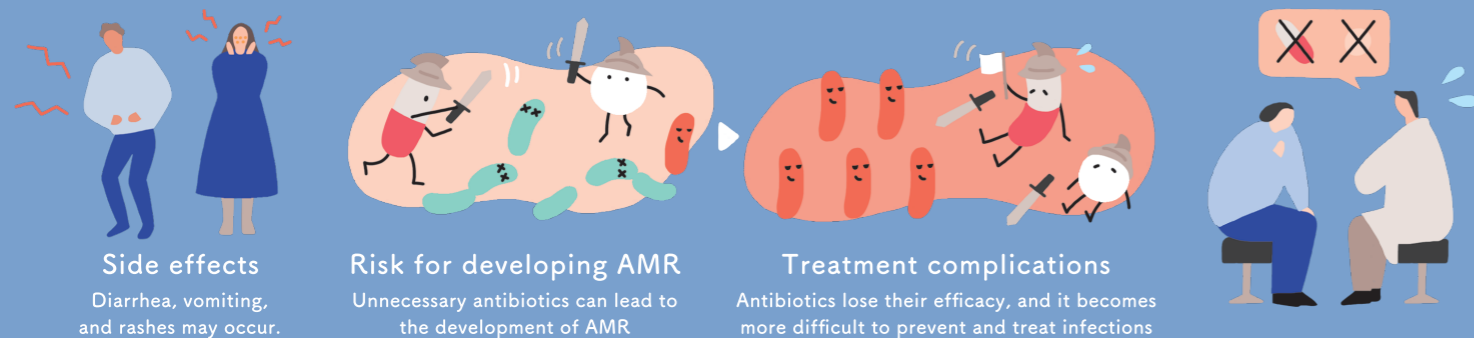


Antibiotics are drugs that are used to treat bacterial infections. Colds are caused by viruses. Antibiotics cannot help to treat colds!

"I caught a cold, so I want my doctor to prescribe me an antibiotic for quick relief." Have you ever thought like this? Most colds and flu are caused by viruses. Antibiotics are only effective against bacterial infections and are completely ineffective against colds caused by viruses. If you have a cold and feel better after taking an antibiotic, it may not be the effect of the antibiotic, but your own immunity that has killed the virus.

If antibiotics are taken incorrectly, it can cause side effects and the development of AMR

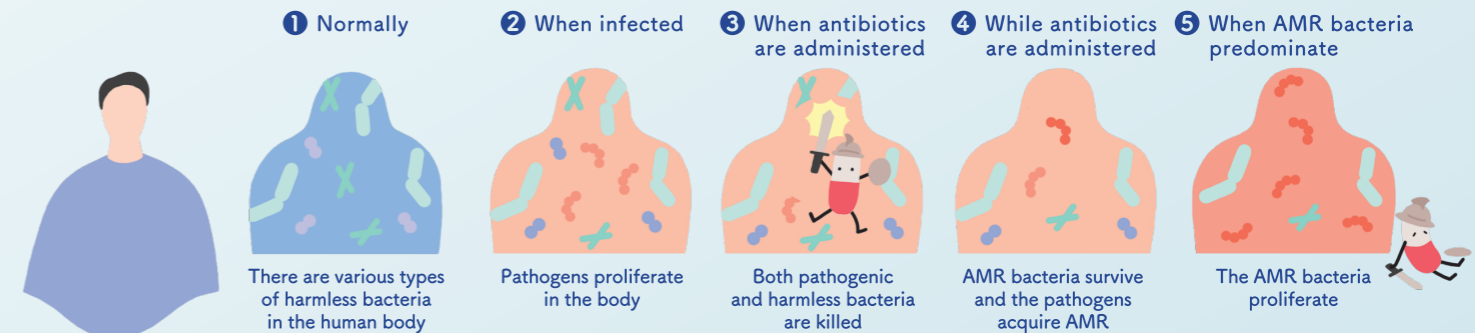
When bacteria develop antibiotic resistance, the antibiotics that were once effective against them will become ineffective. This not only complicates the treatment of infections and the prevention of infections during surgery, but also complicates organ transplants, chemotherapy and various other medical treatments.



What is AMR?

When antimicrobials are used, some bacteria become resistant to them. In other words, antimicrobials become less effective or completely ineffective to some bacteria. Numerous bacteria (normal bacterial flora) on the surface of the skin and the mucosa of the intestines maintain a healthy balance in our bodies. When disease-inducing bacteria (pathogenic bacteria or germs) cause illness, we take prescribed antibiotics, which kill the pathogenic bacteria, but also the normal bacterial flora. Pathogenic bacteria can then become AMR to escape being killed by antibiotics. In a habitable environment free of normal bacterial flora, some bacteria resistant to antimicrobials can easily multiply.

▼ The mechanisms whereby AMR development. ▼



AMR is a challenge that is tackled globally.

AMR represents an emerging and alarming threat to human health worldwide. It has been concluded that as many as 10 million people may die annually from AMR by 2050*, mainly in Asia and Africa, if no action is taken. It has become difficult to develop new antimicrobials in recent years. Within a few decades, antimicrobial resistant organisms may become widespread. The World Health Organisation (WHO) adopted a global action plan on AMR in 2015, and in Japan National Action Plan on AMR was formulated in 2016, and efforts to combat AMR have begun.

*<https://news.un.org/en/story/2019/04/1037471>
No Time to Wait: Securing the future from drug-resistant infections Report to the Secretary-General of the United Nations. April 2019



Not just a human problem.

Antimicrobials are used in various fields besides human and animal medicine, including livestock, fisheries and agriculture. The possibility that AMR genes may be transmitted not only between individual humans, but also through food and the environment, has also been pointed out. Consideration should be given both to human health as well as to animal health and environmental conservation. "One health" is an approach whereby the various fields involved cooperate to solve problems.

