HEALTH NOTES

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COMBAT DRUG RESISTANCE

No action today, no cure tomorrow…

On World Health Day 2011, the World Health Organization ("WHO") will introduce a six-point policy package to combat the spread of resistance to antibiotics.

Most of us live longer and healthier lives today, partly because powerful and effective medicines are available to treat infectious diseases (still the #1 cause of death worldwide). Until the discovery and availability of antimicrobials in the 1940's, people died needlessly from infectious diseases. Today, none of us can imagine living in a world without antimicrobials.

But, we are now on the brink of losing this precious arsenal of medicines. The use and misuse of antimicrobials in human medicine and animal husbandry over the past 70 years have increased the number and types of microorganisms resistant to these medicines, causing deaths, greater suffering and disability, and soaring healthcare costs.

ANTIBIOTIC RESISTANCE: ITS GLOBAL SPREAD

When antimicrobial resistance (sometimes referred to as drug resistance) occurs, it renders these medicines ineffective. For World Health Day 2011, WHO will be calling for intensified worldwide commitment to safeguard these medicines for future generations. Antimicrobial resistance and its global spread, threatens our ability to use available medicines to effectively treat many potentially life-threatening infectious diseases. WHO will call on governments and stakeholders such as pharmaceutical researchers, manufacturers and distributors to implement the policies and practices needed to prevent the emergence of highly resistant microorganisms.

WHAT ARE ANTIMICROBIAL AGENTS?

Antimicrobial agents are medicines used to treat infections caused by microorganisms (tiny living creatures we lump together in the category of "germs") including bacteria, viruses, fungi (molds) and parasites. The discovery of antimicrobials is one of the most important advances in human history – alleviating suffering from disease and saving billions of lives over the past 70 years. Antimicrobials include antibiotics, chemotherapeutic agents, anti-fungal, anti-viral and anti-parasitic medicines.

WHAT IS ANTIMICROBIAL RESISTANCE?

Antimicrobial resistance – drug resistance – occurs when microorganisms change in ways that make the medications used to treat the infections they cause ineffective. (Imagine they develop a little suit of armor, and the medicine just bounces off, rather than penetrating and killing the germ!). When microorganisms become resistant to most antimicrobials, they are often referred to as "superbugs". Resistance is a major concern because a resistant infection may kill, can spread to others, and imposes an enormous cost to individuals and society. (Many of us have heard or read about MRSA – methicillin resistant *Staph aureus* – a drug resistant form of a very common germ that has spread rapidly around the world, demanding many lives and limbs in the process. MRSA is just one of a growing number of germs that are becoming increasingly difficult to treat.)

WHAT'S CONTRIBUTING TO THIS PROBLEM?

Antimicrobial resistance is facilitated by the inappropriate use of medicines, for example, when taking less than the appropriate dose (incorrect prescription or "I forgot to take them every six hours") or not finishing a prescribed course of treatment ("…but I was already feeling better, so I thought I'd save the rest for…") Low quality medicines, wrong prescriptions and poor infection control (lack of hand washing, covering coughs/sneezes, good hygiene and housekeeping, etc.) also encourage the development and spread of drug resistance. Lack of government and healthcare commitment to address these issues, poor surveillance, poor patient and public education, and a diminishing arsenal of tools to diagnose, treat – better yet, prevent! – also hinder the control of drug resistance.

SO, WHAT CAN *I* DO?

There are simple things that you can do to help in controlling the development and spread of drug-resistant germs:

- talk with your healthcare provider about antibiotic use and antibiotic resistance: ask whether an antibiotic is necessary in treating your illness; ask what else you can do to feel better sooner
- do NOT take an antibiotic for a viral infection like a cold or the flu (viruses are different kinds of germs and don't respond to antibiotic treatment)
- do NOT save some of your antibiotic for the next time you get sick! Take it exactly as it was prescribed (unless you develop signs of allergy or drug reaction – then stop, and report your symptoms immediately to your doctor) or discard any leftover meds if directed to do so
- take your antibiotics *exactly* as prescribed – don't skip doses, and don't stop just because you begin to feel better; if treatment stops too soon, some bacteria may survive, and cause re-infection
- do NOT take antibiotics prescribed for someone else: it may not be the right drug or dose for you, and delaying correct treatment allows bacteria to multiply
- if your healthcare provider determines that you do not\ have a bacterial infection, ask about ways to help relieve your symptoms; do NOT pressure your provider to prescribe a medication that is not appropriate for treatment of your illness!

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www.cdc.gov/getsmart/antibiotic-use/antibiotic-resistance-faqs.html
www.who.int/world-health-day/2011/en/index.html