

Resistance anywhere is resistance everywhere.

Get Smart About Antibiotics Week

Thursday, November 18, 2010

Did you know?

1. Antibiotic resistance is one of the world's most pressing public health threats.
2. Antibiotics are the most important tool we have to combat life-threatening bacterial diseases.
3. Increased antibiotic resistance is compromising the effectiveness of antibiotics.
4. Patients, healthcare providers, hospital administrators, and policy makers must work together to employ effective strategies for improving appropriate antibiotic use – ultimately saving lives.

Geographical Distribution of *Klebsiella pneumoniae* carbapenemase (KPC) Infections



Geographic spread of the problem

- We've seen that antibiotic resistance can travel the globe. Carbapenem-Resistant *Enterobacteriaceae* (CRE) and *Klebsiella pneumoniae* carbapenemase (KPCs) infections, which were once seen in limited locations in the United States, are now spread throughout the country.
- Another type of CRE, caused by New Delhi metallo-beta-lactamase (NDM-1), was initially identified in India, but has now been seen in several other countries.

Geographic Spread of CREs:

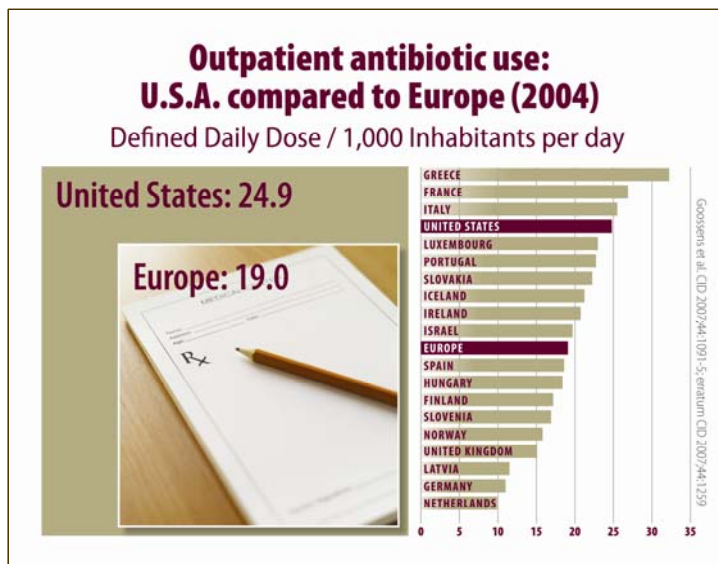
- Originally found in only one U.S. state – now spread to 35
- Becoming an alarming problem worldwide
- NDM-1 gene, originally found in India and Pakistan, has spread to the United States, Canada, Netherlands, United Kingdom, Australia, and beyond

Why we must act now

- Antibiotics are a shared resource – and becoming a scarce resource.
- Appropriate use of existing antibiotics can limit the spread of antibiotic resistance, preserving antibiotics for the future.
- Antibiotic resistance is not just a problem for the person with the infection. Some resistant bacteria have the potential to spread to others – promoting antibiotic-resistant infections.

Global health professionals can help

- Antibiotic resistance is a global problem.
- Through the work of the Trans Atlantic Task Force on Antimicrobial Resistance (TATFAR), the European Union and the United States will cooperate to focus on the following:
 1. Appropriate therapeutic use of antibiotics in the medical and veterinary communities;
 2. Preventing antibiotic-resistant infections;
 3. Strategizing to improve the pipeline of new antibiotics, diagnostic procedures and techniques, and maintain existing drugs on the market.
- The United States will observe the third annual Get Smart About Antibiotics Week, November 15-21, 2010. The 2010 observance is an international collaboration which will coincide with European Antibiotic Awareness Day and an observance day in Canada, both on November 18, 2010.
- European Union – The EU Health Ministers' Council Recommendation on the prudent use of antimicrobial agents in human medicine presents a series of specific measures aimed at containing the spread of antibiotic resistance by prudent use of antibiotics.
- World Health Organization – WHO suggests that countries should be prepared to implement hospital infection control measures to limit the spread of multidrug-resistant strains and to reinforce national policy on prudent use of antibiotics, reducing the generation of antibiotic-resistant bacteria.
- WHO strongly recommends that governments focus control and prevention efforts in four main areas:
 1. Surveillance for antimicrobial resistance;
 2. Rational antibiotic use, including education of healthcare workers and the public in the appropriate use of antibiotics;
 3. Introducing or enforcing legislation related to stopping the sale of antibiotics without prescription; and
 4. Strict adherence to infection prevention and control measures, including the use of hand-washing measures, particularly in healthcare facilities.
- Successful control of multidrug-resistant microorganisms has been documented in many countries, and the existing and well-known infection prevention and control measures can effectively reduce transmission of multidrug-resistant organisms if rigorously and systematically implemented.
- WHO will continue to support countries to develop relevant policies and to coordinate international efforts to combat antimicrobial resistance. Antimicrobial resistance will be the theme of WHO's World Health Day 2011.



Centers for Disease Control and Prevention

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