PMAC PRINCE MAHIDOL AWARD CONFERENCE 2018

PARALLEL SESSION 2.2

AMR: ADDRESSING EXCESSIVE AND INAPPROPRIATE USE OF ANTIBIOTICS

| BACKGROUND

The tripartite, Food and Agricultural Organization, World Health Organization and World Organization for Animal Health and other relevant organizations had declared Antimicrobial resistance (AMR) a serious and growing global public health threat. The loss of effective antibiotics is reducing an ability to protect people from infectious diseases, with profound impacts on healthcare systems, global trade, agriculture, environment and health sectors. Based on World Bank Group projections of the world economy in 2017-2050, if AMR problems continue at the current pace, the annual global GDP would fall by 1.1-3.8% by 2050 and the global healthcare cost would range from US$ 300 billion to more than US$ 1 trillion.

Though AMR is a natural mechanism of pathogen survival; the excessive and inappropriate use of antibiotics are key drivers of the emergence of antimicrobial resistance. Decision to prescribe antibiotics by health professionals still occurs in the absence of adequate information about the nature of the infection or before the results of diagnostic and sensitivity tests become available. Moreover, the regulation of antimicrobial use is poorly enforced in some areas, such as over-the-counter, unregulated use of antibiotic in agriculture, substandard medicines for both human and animal antibiotics.

Several attempts to optimize use of antibiotics in human and animal sectors have shown in the last decade at global, regional and national levels. To fulfill key action proposed by the Global Action Plan, countries need to strengthen the evidence base through surveillances of AMR and the consumption of antimicrobials, and strengthen regulation of the distribution and use of antibiotics in human and animals. The information on AMR and antibiotic consumption will guide the treatment of patients and inform local and national actions. Thus, antibiotic, as a global public good requires regulation on distribution and use.

It is imperative that PMAC audiences recognize the drivers contributing to excessive and inappropriate use of antibiotics; but more importantly, learn and share practical and successful solutions.

| OBJECTIVES

The panelists in this session will address the following questions

On problem streams

1. Why there are excessive and inappropriate use of antibiotics in humans, animals and crops (i.e. in citrus for treatment of greening disease), such as self-medication of antibiotic from over-the-counter purchases, inefficiently regulated the use of antibiotic. Stakeholder analysis are helpful to unpack the complexity. Key actors involved in the use of antibiotics:
    a) Demand for antibiotics: patients and farmers,
    b) Supply of antibiotics: pharmaceutical industry, professionals: veterinarians, physicians and pharmacists,

On solution streams

2. What are the good practices and lessons for countries or regional organization such as ECDC and networks such as ESAC and ESVAC, to develop and maintain an effective system for surveillance of AMR, antimicrobial consumption and Point prevalence survey in human, and animal?
3. How evidences of surveillance of antimicrobial consumption are used:
    a) To guide antibiotic prescribing decisions of health professionals
    b) To formulate, support and monitor policies which curb down antimicrobial consumption and promote rational use of antibiotics
4. What are the challenges of use of antibiotics in crops? Is there any monitoring system on impacts of antibiotic use in crops, such as antibiotic resistance in food crops and environment, and antibiotic residue in environment and food crops?
5. How does the regulatory system support the control of antibiotic use?

On recommendations

6. What are the policy interventions on “demand” and “supply” sides, which address the excessive and inappropriate use of antibiotics in developing countries?

Panelist

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Otto Cars is a specialist in infectious diseases. He was the head of the Department of Infectious Diseases at Uppsala University Hospital, Sweden during the years 1991-1999. In 2003, he became Professor of Infectious Diseases at Uppsala University, and since 2014 he holds a position as Senior Professor. His research has focused on pharmacokinetics and pharmacodynamics of antibiotics, optimal antibiotic dosing regimens, resistance epidemiology and antibiotic policies. Otto Cars was the chairman of the Swedish strategic programme against antibiotic resistance (Strama) from its inception in 1995 until 2011. In 2005 he initiated the international network ReAct –Action on Antibiotic Resistance. He has been actively involved in numerous European and international initiatives in the area of antimicrobial resistance and has served as an expert to European Commission, the European Centre for Disease Prevention and Control and the European Medicines Agency. He is a member of the WHO Strategic and Technical Advisory Group and the UN ad hoc Interagency Coordination Group on Antimicrobial Resistance.