Monthly Newsletter
June 2012

ANSORP *NOW*

CONTENTS :

Dear ANSORP Investigators

Greetings from Seoul !
I hope all ANSORP investigators are doing well.

This is the 2012 June issue of ANSORP NOW. It provides update information and current status of ANSORP activities. "ANSORP NOW" is a monthly newsletter, delivered to all ANSORP investigators by e-mail and website of APFID (www.apfid.org). Please read this ANSORP NOW carefully to update our international collaboration. If you have any ideas, opinions, or issues that can be shared with other ANSORP investigators, please send us e-mails or FAX.

I always appreciate your active participation in the ANSORP activities.

Jae-Hoon Song, MD, PhD
Organizer, ANSORP
Founder & Chairman, APFID

Report of the APEC Health Working Group meeting in St. Petersburg, Russia

The APEC Health Working Group (HWG) meeting was held in St. Petersburg, Russia from June 23 to June 24, 2012. Dr. So Hyun Kim, ANSORP Project Manager, attended the HWG meeting to propose a new project entitled ***"Strengthening health security – APEC symposium on strategies to control and prevent antimicrobial resistance"*** to get APEC support and to present the future plan of a newly approved APEC project entitled ***"Enhancing health security in APEC – International campaign program to control antimicrobial resistance in the Asia-Pacific"***.

Our international campaign project was ranked number 1 among proposed projects submitted to APEC HWG and it was approved for APEC support on June 29, 2012. So, the newly approved APEC project, international campaign project, will be performed from August 2012 to December 2013.

Notification of approval of our newly submitted project will be posted in September 2012.

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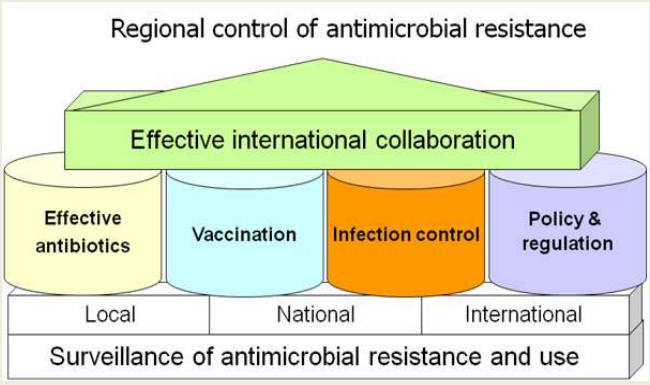
Introduction of new APEC project

– Enhancing health security in APEC - International campaign program to control antimicrobial resistance in the Asia-Pacific

Our international project proposal entitled ***"Enhancing health security in APEC - International campaign program to control antimicrobial resistance in the Asia-Pacific"*** was accepted for APEC support on June 29, 2012. Thus, this project will be performed from August 2012 to December 2013.

We have performed the APEC project entitled "International initiatives to control antimicrobial resistance in the Asia-Pacific region" in 2010-2011. The previous APEC project was aimed to develop future strategies to control antimicrobial resistance (AMR) in the Asian region and we have successfully developed the first international strategic action plans for control and prevention of AMR in the Asian region. The five major action plans include surveillance of AMR and antibiotic use in the region to identify the problem of resistance, appropriate use of effective antibiotics to prevent the emergence of AMR, effective vaccination to prevent the occurrence of specific infections, hospital infection control to prevent the spread of resistance, and finally relevant policies and regulations to control antibiotic use and to prevent AMR.



Among the various strategic action plans, the most basic and essential strategy is to increase awareness of AMR and to promote the appropriate antibiotic use in the Asian region. Increase of awareness of AMR is the basis for the other strategic action plans to control AMR. In addition, since antibiotic abuse or misuse is the major driving force for the emergence of AMR, appropriate use of antibiotics must be the first step to control AMR in the region. Despite the serious situation of AMR in the region, however, there have been no adequate educational and campaign activities for this issue in most Asian countries.

This project is based on the previous APEC project completed in 2011 and is **aimed to set out to implement an international campaign program to increase the awareness of AMR as well as to promote appropriate use of antibiotics in the AP region**. For this international campaign program, platform contents and materials will be prepared based on campaign strategy. Expert Forum will be held for campaign planning with healthcare experts and policymakers from Asian countries and non-APEC stakeholders.

This international campaign project will be the first campaign program to promote increased awareness of AMR and appropriate use of antibiotics in the Asian region. And, APEC's support of the campaign program will make this campaign program more effective and sustainable in the Asian region. This APEC supported international campaign project will contribute to enhance the preparedness against AMR in the AP region, resulting in enhancing the preparedness against health threat caused by AMR in the region.

Publication of APFID

Prevalence and molecular characterization of serotype K1 *Klebsiella pneumoniae* strains from various clinical specimen sources in 11 Asian countries

J Infect. 2012 Jun;64(6):622-5 / Chung DR, Park MH, Kim SH, Ko KS, Kang CI, Peck KR, Song JH

SUMMARY

Klebsiella pneumoniae is an important pathogen causing liver abscess in Taiwan and Korea, and K1 has been reported to be the predominant serotype among those isolates, accounting for around 60% of cases. Despite increasing reports from many countries on infections by these strains, there have been few data from Asian countries other than Korea, Taiwan, Hong Kong, and Singapore. In addition, the role of these strains in other types of infection except liver abscess has not been clear. Here, we determined the serotype and genotype for the *K. pneumoniae* clinical isolates from various specimen sources collected in 11 Asian countries. This study showed that serotype K1 *K. pneumoniae* strains of ST23 were frequent in Korea, Taiwan, China, Japan, Singapore, Vietnam and India, whereas not found among the isolates from Thailand, Indonesia, and Sri Lanka. Those strains were more frequent in the isolates from blood and sputum rather than in urinary isolates. Analysis of the PFGE patterns revealed that K1 strains of ST23 in Asian countries were genotypically close. Our findings suggest that serotype K1 *K. pneumoniae* strains of ST23 are common pathogens of various type of infections in many Asian countries; however the prevalence would differ by country and type of infections.

Interesting papers

Multidrug-resistant, extensively drug-resistant and pandrug-resistant bacteria: an international expert proposal for interim standard definitions for acquired resistance.

Clin Microbiol Infect. 2012 Mar;18(3):268-81

Magiorakos AP, Srinivasan A, Carey RB, Carmeli Y, Falagas ME, Giske CG, Harbarth S, Hindler JF, Kahlmeter G, Olsson-Liljequist B, Paterson DL, Rice LB, Stelling J, Struelens MJ, Vatopoulos A, Weber JT, Monnet DL.

ABSTRACT

Many different definitions for multidrug-resistant (MDR), extensively drug-resistant (XDR) and pandrug-resistant (PDR) bacteria are being used in the medical literature to characterize the different patterns of resistance found in healthcare-associated, antimicrobial-resistant bacteria. A group of international experts came together through a joint initiative by the European Centre for Disease Prevention and Control (ECDC) and the Centers for Disease Control and Prevention (CDC), to create a standardized international terminology with which to describe acquired resistance profiles in *Staphylococcus aureus*, *Enterococcus* spp., Enterobacteriaceae (other than *Salmonella* and *Shigella*), *Pseudomonas aeruginosa* and *Acinetobacter* spp., all bacteria often responsible for healthcare-associated infections and prone to multidrug resistance. Epidemiologically significant antimicrobial categories were constructed for each bacterium. Lists of antimicrobial categories proposed for antimicrobial susceptibility testing were created using documents and breakpoints from the Clinical Laboratory Standards Institute (CLSI), the European Committee on Antimicrobial Susceptibility Testing (EUCAST) and the United States Food and Drug Administration (FDA). MDR was defined as acquired non-susceptibility to at least one agent in three or more antimicrobial categories, XDR was defined as non-susceptibility to at least one agent in all but two or fewer antimicrobial categories (i.e. bacterial isolates remain susceptible to only one or two categories) and PDR was defined as non-susceptibility to all agents in all antimicrobial categories. To ensure correct application of these definitions, bacterial isolates should be tested against all or nearly all of the antimicrobial agents within the antimicrobial categories and selective reporting and suppression of results should be avoided.

Carbapenem resistance in Enterobacteriaceae: here is the storm!

Trends Mol Med. 2012 May;18(5):263-72.

Nordmann P, Dortet L, Poirel L.

ABSTRACT

The current worldwide emergence of resistance to the powerful antibiotic carbapenem in Enterobacteriaceae constitutes an important growing public health threat. Sporadic outbreaks or endemic situations with enterobacterial isolates not susceptible to carbapenems are now reported not only in hospital settings but also in the community. Acquired class A (KPC), class B (IMP, VIM, NDM), or class D (OXA-48, OXA-181) carbapenemases, are the most important determinants sustaining resistance to carbapenems. The corresponding genes are mostly plasmid-located and associated with various mobile genetic structures (insertion sequences, integrons, transposons), further enhancing their spread. This review summarizes the current knowledge on carbapenem resistance in Enterobacteriaceae, including activity, distribution, clinical impact, and possible novel antibiotic pathways.

Carbapenem-resistant Enterobacteriaceae: an emerging problem in children

Clin Infect Dis. 2012 Jun 14. [Epub ahead of print].

Logan LK.

ABSTRACT

Antibiotic resistance among gram-negative bacteria has reached critical levels. The rise of carbapenem resistance in Enterobacteriaceae carrying additional resistance genes to multiple antibiotic classes has created a generation of organisms nearly resistant to all available therapy. Carbapenem-resistant Enterobacteriaceae (CRE) infections are known to be associated with significant morbidity and mortality, and these pathogens have now made their way to the most vulnerable populations, including children. This review provides a brief overview of CRE, with a focus on CRE infections in children, and highlights available data on the epidemiology, clinical characteristics, carbapenemase types, risk factors, treatment, and outcomes of these multi-drug resistant infections in the pediatric population.

9th ISAAR 2013 in Kuala Lumpur, Malaysia in March 2013

The 9th ISAAR 2013 will be held at Kuala Lumpur Convention Center (KLCC) in Kuala Lumpur, Malaysia on March 13-15, 2013.

We hope that you can take the opportunity to share your knowledge and expertise with other professionals at the 9th ISAAR 2013. We will do our best to provide you with interesting and valuable information on infectious diseases and antimicrobial resistance. We hope to see you all at ISAAR 2013 in Kuala Lumpur, Malaysia next year.

We always appreciate your active contribution to ANSORP activities.
If you have any questions, or issues that can be shared with other ANSORP investigators, please let us know them at any time.