



# **ANSORP** NOW

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## **Dear ANSORP Investigators**

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

This is the 2012 February 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 HWG meeting in Moscow, Russia

The APEC Health Working Group (HWG) meeting was held in Moscow, Russia from Feb 7 to Feb 9, 2012. Dr. Jae-Hoon Song and Dr. So Hyun Kim, ANSORP Project Manager, attended the HWG meeting to present the final report of the APEC supported project entitled "International initiatives to control antimicrobial resistance in the Asia-Pacific region", which was performed in 2011, and to propose a new project entitled "International campaign program to control antimicrobial resistance (AMR) in the Asia-Pacific region" to get APEC support.

Our new proposal was ranked number 1 among proposals submitted to HWG and it will be submitted to APEC as a rank 1 HWG project in March 2012. The final approval of the new project by APEC will be notified in early July 2012.

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## **Publications of ANSORP**

Clinical features and outcomes of *Staphylococcus aureus* infections in non-neutropenic cancer patients.

Support Care Cancer. 2012 Mar; 20(3):483-8

Kang CI, Song JH, Ko KS, Chung DR, Peck KR; Asian Network for Surveillance of Resistant Pathogens (ANSORP) Study Group.

#### **ABSTRACT**

**GOAL OF WORK:** This study was performed to evaluate the clinical features and outcomes of *Staphylococcus aureus* infection in non-neutropenic cancer patients.

**MATERIALS AND METHODS:** From the database of a surveillance study for *S. aureus* infections, the data regarding *S. aureus* infections in non-neutropenic cancer patients were analyzed.

**MAIN RESULTS:** Of 649 non-neutropenic cancer patients with *S.* aureus infections, 156 (24.0%) had a central venous catheter and 176 (27.1%) had an indwelling urinary catheter. The prevalence of methicillin-resistant S. aureus (MRSA) infections was 54.7% (355 out of 649). As for types of infection, skin and soft tissue infections were the most common (n = 173, 26.7%), followed by pneumonia (n = 165, 25.4%) and primary bacteremia (n = 91; 14.0%). Overall, the 30-day mortality rate was 28.2% (124 out of 440), 34.1% (73 out of 214) in MRSA group, and 22.6% (51 out of 226) in methicillin-sensitive S. aureus group (P = 0.007). When outcomes according to the types of infection were evaluated, the mortality rates were 49.5% (53 out of 107) for pneumonia and 41.2% (49 out of 119) for bacteremia. Multivariate analysis showed that pneumonia, concomitant bacteremia, comorbid liver disease, and intubated state with ICU care were independent risk factors associated with 30-day mortality.

**CONCLUSION:** Our study demonstrated that *S. aureus* infections in cancer patients are serious clinical conditions with high mortality rates, even in non-neutropenic patients.

Clinical predictors of Enterobacter bacteremia among patients admitted to the ED

Am J Emerg Med. 2012 Jan;30(1):165-9

Kang CI, Chung DR, Ko KS, Peck KR, Song JH; Korean Network for Studies on Infectious Diseases (KONSID).

#### **ABSTRACT**

**OBJECTIVES:** This study was performed to evaluate clinical features of community-onset Enterobacter bacteremia and determine the risk factors for Enterobacter bacteremia among patients admitted to the emergency department.

**METHODS:** A post hoc analysis of a nationwide surveillance database of bacteremia was performed. A total of 53 patients with community-onset Enterobacter bacteremia were compared with 882 patients with *Escherichia coli* bacteremia.

**RESULTS:** As for the underlying disease, solid tumor was more likely common in Enterobacter bacteremia than in *E. coli* bacteremia (39.6% [21/53] vs 19.7% [174/882], P < .001). Neutropenia, indwelling urinary catheter, and tube insertion were significantly more common in Enterobacter bacteremia than in *E. coli* bacteremia (all Ps < .05). As for the site of infection, lung and abdomen were more likely common in Enterobacter bacteremia than in *E. coli* bacteremia, whereas urinary tract was less likely frequent in Enterobacter bacteremia than in *E. coli* bacteremia (all Ps < .05). In the multivariate analysis, pneumonia, tube insertion, solid tumor, and health careassociated infection were found to be significantly associated with Enterobacter bacteremia (all Ps < .05).

**CONCLUSIONS:** Enterobacter species were important pathogens among community-onset gram-negative bacteremia, in association with health care-associated infections. Pneumonia, tube insertion, solid tumor, and health care-associated infections were found to be significantly associated with Enterobacter bacteremia.

Risk factors for infection and treatment outcome of extended-spectrum  $\beta$ -lactamase-producing *Escherichia coli* and *Klebsiella pneumoniae* bacteremia in patients with hematologic malignancy.

Ann Hematol. 2012 Jan;91(1):115-21

Kang CI, Chung DR, Ko KS, Peck KR, Song JH; Korean Network for Studies on Infectious Diseases.

#### **ABSTRACT**

This study was performed to evaluate the impact of extended-spectrum  $\beta$ -lactamase (ESBL)-producing bacteremia on outcome in patients with hematologic malignancy. We collected and analyzed data on 156 hematologic malignancy patients with *Escherichia coli* or *Klebsiella pneumoniae* bacteremia from the database of nationwide surveillance studies for bacteremia. Thirty-seven of the 156 patients (23.7%) harbored ESBL-producing bacteremia. No significant differences in underlying diseases were found in either group. The multivariate analysis showed that significant factors associated with ESBL-producing bacteremia were ICU care (OR=7.03, 95% CI=1.79-27.6) and nosocomial acquisition (OR=5.66, 95% CI=1.60-20.23).

There was an association between prior receipt of cephalosporins and ESBL-producing bacteremia, although this association was not statistically significant (OR = 2.27, 95% CI = 0.99-5.23). The overall 30-day mortality rate of the study population was 20.4% (29/142), and the 30-day mortality rate for the ESBL group was significantly higher than that for the non-ESBL group (44.8% vs. 14.2%, P<0.001). Multivariate analysis showed that ESBL-producing bacteremia was the most important risk factor associated with 30-day mortality (OR, 5.64; 95% CI, 1.91-16.67), along with ICU care (OR = 4.35, 95% CI = 1.16-16.26) and higher Pitt bacteremia score (per 1-point increment) (OR = 1.50, 95% CI = 1.18-1.92). In conclusion, ESBLproducing bacteremia was the most important risk factor associated with 30-day mortality in patients with hematologic malignancy, along with ICU care and higher Pitt bacteremia score. Our data suggest that determining the optimal empiric antimicrobial therapy in patients with hematologic malignancy is now becoming a challenge for clinicians in the era of multidrug-resistant Gram-negative bacilli.

If you need PDF version of the papers, please contact ANSORP Project Manager (Dr. So Hyun Kim, shkim@ansorp.org).

# **Introduction of ANSORP study proposals**

Antimicrobial Stewardship Programme (ASP) in Asia: Capacity Survey

- This study was proposed by Dr. David Lye at Tan Tock Seng Hospital in Singapore and was approved by ANSORP Executive Committee in January 2012.
- This study is a multicenter online questionnaire survey study and the aim of this study is to evaluate the presence of antimicrobial stewardship programme (ASP) and/or capacity for antimicrobial stewardship in Asian hospitals.
- The data obtained from this study will be used to create a map of existing antimicrobial stewardship practices in the region and the needs and resources required to establish ASP, to analyze and publish the results, and to provide feedback to policy-makers and professional societies for the furtherance of ASP setup.
- Local Network Organizers in China, Hong Kong, India, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam showed their interest in participating in this study.

Surveillance and correlation of antibiotic prescription and Gram-negative bacterial resistance in Asian hospitals

- This study was proposed by Dr. Li Yang Hsu at National University Hospital in Singapore and was approved by ANSORP Executive Committee in January 2012.
- This study is multicenter, hospital-based study on antibiotic prescription and Gram-negative bacterial resistance in Asian hospitals.
- The aims of this study are to survey bacterial antimicrobial resistance trends in Asian hospitals and to determine correlation between antibiotic prescription and Gram-negative bacterial resistance.
- Local Network Organizers in China, Hong Kong, India, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam showed their interest in participating in this study.

If you would like to participate in new ANSORP studies and/or if you would like to submit study proposals, please contact ANSORP Project Manager (Dr. So Hyun Kim, shkim@ansorp.org).



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

Preparation of the 9<sup>th</sup> ISAAR 2013, which will be held at Kuala Lumpur Convention Center (KLCC) in Kuala Lumpur, Malaysia in March 2013, has been started.

We hope that you can take the opportunity to share your knowledge and expertise with other professionals at the  $9^{th}$  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.