

# ANSORP NOW

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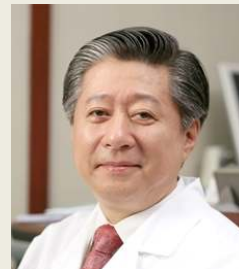
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## Dear ANSORP Investigators

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

This is the **2012 March 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](http://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

## News and updates

- Dr. Jae-Hoon Song, Organizer of ANSORP, was assigned to President of Samsung Medical Center in Seoul, Korea in March 2012 and also Dean of Sungkyunkwan University School of Medicine.
- Dr. Thomas So, Local Network Organizer (LNO) in Hong Kong, will be leaving the public service in the Princess Margaret Hospital and move to private practice in April 2012. We sincerely appreciate his contribution to ANSORP.

## Current status of ANSORP studies

- **A prospective, hospital-based, multicenter surveillance on antimicrobial resistance and serotypes of *Streptococcus pneumoniae* in hospitalized patients over 50 years with invasive pneumococcal diseases or pneumonia in Asia**
  - Principle investigator : Dr. Jae-Hoon Song (Korea)
  - The study proposal is currently under review by Pfizer.
- **A prospective multi-center, multi-national serosurvey study for pertussis among children in Asian countries**
  - Principle investigators : Dr. Cheng-Hsun Chiu (Taiwan), Dr. Yae-Jean Kim (Korea)
  - The study proposal is currently finalizing by PIs after investigators' review and will be submitted to Sanofi-Aventis.
- **Surveillance and correlation of antibiotic prescription and Gram-negative bacterial resistance in Asian hospitals**
  - Principle investigator : Dr. Li Yang Hsu (Singapore)
  - The study proposal is currently under review by ANSORP Local Network Organizers (LNOs).
- **Antimicrobial Stewardship Programme (ASP) in Asia: Capacity Survey**
  - Principle investigator : Dr. David Lye (Singapore)
  - The study proposal is currently under preparation by PI.

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This edition of *Infection Control and Hospital Epidemiology* (ICHE) is dedicated to articles on antimicrobial stewardship. Though such articles appear regularly in the pages of ICHE, this is the first time that an entire issue has been devoted to the topic. By design, this issue comes at a time of tremendous growth in the importance of antimicrobial stewardship. The combination of rising rates of antimicrobial resistance, a rapidly dwindling effective antimicrobial armamentarium, and increasing financial pressures for hospitals has spurred new interest in the one intervention that has been proven to address all these problems simultaneously. This special issue of ICHE provides an important “snapshot” of the current state of the science of antimicrobial stewardship.

#### ***SHEA/IDSA/PIDS Policy Statement***

**Policy Statement on Antimicrobial Stewardship by the Society for Healthcare Epidemiology of America (SHEA), the Infectious Diseases Society of America (IDSA), and the Pediatric Infectious Diseases Society (PIDS)** pp. 322-7

SHEA, IDSA, PIDS

#### **ABSTRACT**

Antimicrobial resistance has emerged as a significant healthcare quality and patient safety issue in the twenty-first century that, combined with a rapidly dwindling antimicrobial armamentarium, has resulted in a critical threat to the public health of the United States. Antimicrobial stewardship programs optimize antimicrobial use to achieve the best clinical outcomes while minimizing adverse events and limiting selective pressures that drive the emergence of resistance and may also reduce excessive costs attributable to suboptimal antimicrobial use. Therefore, antimicrobial stewardship must be a fiduciary responsibility for all healthcare institutions across the continuum of care. This position statement of the Society for Healthcare Epidemiology of America, the Infectious Diseases Society of America, and the Pediatric Infectious Diseases Society of America outlines recommendations for the mandatory implementation of antimicrobial stewardship throughout health care, suggests process and outcome measures to monitor these interventions, and addresses deficiencies in education and research in this field as well as the lack of accurate data on antimicrobial use in the United States.

#### **Definition**

Antimicrobial stewardship refers to coordinated interventions designed to improve and measure the appropriate use of antimicrobial agents by promoting the selection of the optimal antimicrobial drug regimen including dosing, duration of therapy, and route of administration. The major objectives of antimicrobial stewardship are to achieve best clinical outcomes related to antimicrobial use while minimizing toxicity and other adverse events, thereby limiting the selective pressure on bacterial populations that drives the emergence of antimicrobial-resistant strains. Antimicrobial stewardship may also reduce excessive costs attributable to suboptimal antimicrobial use.

#### **Recommendations**

1. Antimicrobial stewardship programs should be required through regulatory mechanisms
2. Antimicrobial stewardship should be monitored in ambulatory healthcare settings
3. Education about antimicrobial resistance and antimicrobial stewardship must be accomplished
4. Antimicrobial use data should be collected and readily available for both inpatient and outpatient settings
5. Research on antimicrobial stewardship is needed

#### ***APIC/SHEA Position Paper***

**Antimicrobial Stewardship: A Collaborative Partnership between Infection Preventionists and Health Care Epidemiologists** pp. 328-30

Moody J, Cosgrove SE, Olmsted R, Septimus E, Aureden K, Oriola S, Patel GW, Trivedi KK

#### **SUMMARY**

It is clear that the widespread and injudicious use of antimicrobials has greatly increased the presence of multidrug-resistant organisms that threaten the health of all. There is worldwide acknowledgment that this threat is growing and that prudent use of antimicrobials combined with infection prevention can prevent harm and improve patient safety. Antimicrobial stewardship programs (ASPs) must harness the talents of all members of the healthcare team to effectively identify the organism, determine its susceptibility, institute any precautions required, and prescribe the narrowest-acting antibiotic that will destroy it. This position paper highlights the critical importance of healthcare epidemiologists (HEs) and infection preventionists (IPs) in effective ASPs. IPs/HEs play a pivotal role in this approach by assisting with early organism and infected-patient identification, by promoting compliance with standard and transmission-based precautions and other infection prevention strategies such as care bundle practices, hand hygiene, and by educating staff, patients, and visitors.

#### ***Review Article***

**Antimicrobial Stewardship-the State of the Art in 2011: Focus on Outcome and Methods** pp. 331-7

McGowan JE

#### **ABSTRACT**

Antimicrobial stewardship programs attempt to optimize prescribing of these drugs to benefit both current and future patients. Recent regulatory and other incentives have led to widespread adoption of such programs. Measurements of the success of these programs have focused primarily on process measures. However, evaluation of outcome measures will be needed to ensure sustainability of these efforts. Outcome efforts to date provide some evidence for improved care of individual patients, some evidence for minimizing emergence of resistance, and ample evidence for cost reduction. Attention to evaluation methods must be increased to provide convincing evidence for the continuation of such programs.

*This special issue of ICHE also includes original articles, commentary, concise communications, etc. on antimicrobial stewardship.*

## Publications of APFID

### Multidrug-resistant *Streptococcus pneumoniae* serotype 6D clones in South Korea.

*J Clin Microbiol.* 2012 Mar;50(3):818-22

Ko KS, Baek JY, Song JH

#### ABSTRACT

To investigate the characteristics of main *Streptococcus pneumoniae* clones of serotype 6D (ST282 and ST3171) in South Korea, antimicrobial susceptibility testing was performed, and 11 genes around the *cps* locus were sequenced on ST282(6D), ST3171(6D), and ST81(6A) isolates. The antimicrobial susceptibility patterns were very similar between clones belonging to the same clonal complex, ST81(6A) and ST282(6D); nonsusceptibilities to penicillin and cefuroxime, high MICs of ceftriaxone, and high resistance rates to trimethoprim-sulfamethoxazole. However, ST3171(6D) isolates showed resistance to only macrolides and clindamycin. The sequences of 11 genes around the *cps* locus indicated the same genetic backgrounds between the ST81(6A) and ST282(6D) isolates. On the other hand, ST3171(6D) isolates showed nucleotide and amino acid differences from ST81(6A) and ST282(6D) isolates in most genes, indicating a different genetic background. The mosaic structure of *dexB* gene in ST282(6D) isolates indicated that recombination might occur in the *dexB* gene. Our results suggest that the multidrug-resistant ST282(6D) pneumococcal clone has emerged by serial genetic recombination, including capsular switch.

### Post-influenza pneumonia caused by the USA300 CA-MRSA in Korea

*J Korean Med Sci.* 2012 Mar;27(3):313-6

Sohn KM, Chung DR, Baek JY, Kim SH, Joo EJ, Ha YE, Ko KS, Kang CI, Peck KR, Song JH

#### ABSTRACT

Panton-Valentine leukocidin (PVL)-positive USA300 clone has been the most successful community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) clone spreading in North America. In contrast, PVL-negative ST72-CA-MRSA has been predominant in Korea, and there has been no report of infections by the USA300 strain except only one case report of perianal infection. Here, we describe the first case of pneumonia caused by the USA300 strain following pandemic influenza A (H1N1) in Korea. A 50-year-old man was admitted with fever and cough and chest radiograph showed pneumonic consolidation at the right lower lung zone. He received a ventilator support because of respiratory failure. PCR for pandemic influenza A (H1N1) in nasopharyngeal swab was positive, and culture of sputum and endotracheal aspirate grew MRSA. Typing of the isolate revealed that it was PVL-positive, ST 8-MRSA-SCCmec type IV. The analysis of the PFGE patterns showed that this isolate was the same pulsotype as the USA300 strain.

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

## 9<sup>th</sup> 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<sup>th</sup> 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.*