Monthly Newsletter
May 2014

ANSORP *NOW*

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Dear ANSORP Investigators

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

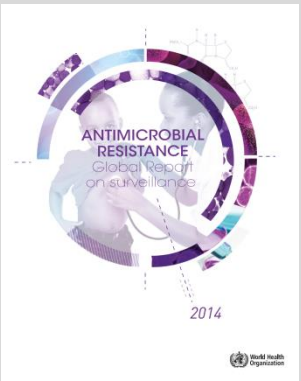
This is the 2014 May issue of ANSORP NOW. It provides update information and current status of ANSORP activities. "ANSORP NOW" is a monthly newsletter, delivered to all ANSORP investigators by e-mail and website of APFID (www.apfid.org).

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

WHO's first global report on antimicrobial resistance



WHO released the first global report on antibiotic resistance entitled as "Anti-microbial resistance: global report on surveillance" in Apr 2014. This new report by WHO–its first to look at antimicrobial resistance, including antibiotic resistance, globally–reveals that this serious threat is no longer a prediction for the future, it is happening right now in every region of the world and has the potential to affect anyone, of any age, in any country.

This report is kick-starting a global effort led by WHO to address drug resistance and produced in collaboration with Member States and other partners, provides for the first time, as accurate a picture as is presently possible of the magnitude of AMR and the current state of surveillance globally.

ANSORP also contributes this WHO report. Data derived from ANSORP studies were included in the report which represent the current status of antimicrobial resistance in the Asian region. We greatly appreciate the support and contributions of ANSORP investigators.

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Publications of APFID in May 2014

Extensively Drug-Resistant *Streptococcus pneumoniae*, South Korea, 2011-2012

Emerg Infect Dis. 2014 May;20(5):869-71

Cho SY, Baek JY, Kang CI, Kim SH, Ha YE, Chung DR, Lee NY, Peck KR, Song JH

ABSTRACT

To better understand extensively drug resistant *Streptococcus pneumoniae*, we assessed clinical and microbiological characteristics of 5 extensively drug-resistant pneumococcal isolates. We concluded that long-term care facility residents who had undergone tracheostomy might be reservoirs of these pneumococci; 13- and 23-valent pneumococcal vaccines should be considered for high-risk persons; and antimicrobial drugs should be used judiciously.

Extended-spectrum cephalosporins and the inoculum effect in tests with CTX-M-type ESBL *Escherichia coli*: Potential clinical implications of the revised CLSI interpretive criteria

Int J Antimicrob Agents. 2014 May;43(5):456-9

Kang CI, Cha MK, Kim SH, Wi YM, Chung DR, Peck KR, Lee NY, Song JH

ABSTRACT

Based on the new recommendations of the Clinical and Laboratory Standards Institute (CLSI), the revised cephalosporin breakpoints may result in many CTX-M-producing *Escherichia coli* being reported as susceptible to ceftazidime. We determined the activity of ceftazidime and other parenteral β-lactam agents in standard- and high-inoculum minimum inhibitory concentration (MIC) tests against CTX-M-producing *E. coli* isolates. Antimicrobial susceptibility was determined using a broth microdilution MIC method with inocula that differed 100-fold in density. An inoculum effect was defined as an eight-fold or greater increase in MIC on testing with the higher inoculum. When the revised CLSI ceftazidime breakpoint of 4μg/mL was applied, 34 (34.3%) of the 99 CTX-M-producers tested were susceptible. More specifically, for 42 CTX-M-14-producing *E. coli* isolates, 32 (76.2%) were susceptible at 4 μg/mL. Cefotaxime, ceftazidime, cefepime and piperacillin/tazobactam were found to be associated with inoculum effects in 100% of the evaluable tests for extended-spectrum β-lactamase-producing E. coli isolates. The MIC_{50} (MIC required to inhibit 50% of isolates) of ceftazidime was 16μg/mL in the standard-inoculum tests and >512 μg/mL in the high-inoculum tests. In the high-inoculum tests including isolates encoding CTX-M-14, ceftazidime was dramatically affected, with susceptibility decreasing from 82.1% of isolates inhibited at 4 μg/mL in the standard-inoculum tests to 0% at high inoculum. Although further studies may demonstrate that ceftazidime has a role in the treatment of infections caused by these organisms, we suggest that until more data become available, clinicians should be cautious about treating serious CTX-M-producing *E. coli* infections with ceftazidime or cefepime.

Interesting paper

Preparing for an era of untreatable gonorrhea

Curr Opin Infect Dis. 2014 Jun;27(3):282-7

Barbee LA.

ABSTRACT

PURPOSE OF REVIEW: The proportion of *Neisseria gonorrhoeae* isolates with reduced susceptibility to extended-spectrum cephalosporins (ESCs) has increased rapidly since 2006. Clinicians, researchers, and public health officials need to be prepared for the possibility of an era of untreatable gonorrhea. This review focuses on the evidence for current gonorrhea treatment recommendations, potential future treatment options, and other methods to control gonorrhea.

RECENT FINDINGS: In addition to an increase in isolates with decreased susceptibility to ESCs, there have been reported treatment failures to both cefixime and ceftriaxone. In response, some countries have increased the recommended cephalosporin dose, and most now recommend dual therapy with an ESC and azithromycin. The pharynx has been implicated as a site for acquiring resistance through transformation with commensal Neisseria species or induced resistance through subtherapeutic antimicrobial levels. Thus, appropriate screening of the pharynx and treatment with a regimen that eradicates gonorrhea from the pharynx is necessary. At present, several studies are evaluating various novel treatment regimens in preparation for an era of untreatable gonorrhea.

SUMMARY: Screening for asymptomatic infections, maintaining culture capacity to monitor antimicrobial resistance, treating with ceftriaxone and azithromycin, and ensuring that all sexual partners are treated are among the best strategies to control gonorrhea in the current clime

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

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.