with surgeons and the operating room staff. Before implementation of policies, IPCO obtained baseline data on SAP practices of surgeons by reviewing charts of post-surgery patients for four (4) consecutive weeks by utilizing a form provided by WHO. Seventy five operations were reviewed. Wound class were classified, SAP practices and compliance of surgeons analyzed.
Results: Of the 75 operations, 37% 40%, 8%, 15% were wound class 1,2,3,4 respectively. SAP were given to 39% of wound class I, 70% of wound class 2, 67% of wound class 3 and 36% of wound class 4.Fifty three percent (53%) adhere to right timing within 60 minutes before incision with simple dose only were given to 44%; 40% continued post operatively. In 16% of cases, SAP was ordered after the operations.

Table I Shows the classifications of the 75 operations by wound class and SAP practice.

Wound class	No (%)	No. SAP applied
1	28(37)	11(39)
2	30(40)	21(70)
3	6(8)	4(67)
4	11(15)	4(36)
75(100)	40(53)	

Table II Compliance of surgeons to SAP recommendations.

Timing	%
Within 60 mins	53
Dosing	
Single dose	44
Post operative dose only	16
Continued post operative	40

Conclusion: The preimplementation survey revealed that only 53% of patients received SAP at the right timing, 44% received single dose but in 44%, antibiotic was continued after operation. A unified guideline for implementation of SAP is necessary to improve prophylaxis practices of surgeons.

PS 1-004

FLUOROQUINOLONES ARE STILL APPROPRIATELY THERAPEUTIC OPTIONS FOR NON-TYPHOIDAL *SALMONELLA* INFECTIONS IN SOUTHERN TAIWAN

Chin-Lu Chang. *Committee of Infection Control, Tainan Municipal Hospital, Tainan, Taiwan*

Purpose: Fluoroquinolone-resistant non-typhoidal *Salmonella* is increasing worldwide. This study was conducted to evaluate whether fluoroquinolones are still appropriately therapeutic options for non-typhoidal *Salmonella* infections in southern Taiwan.
Methods: This was a retrospective study at a regional hospital in southern Taiwan. From 2009 to 2013, all non-typhoidal *Salmonella* reported from clinical laboratory were enrolled in this study. If multiple isolates were identified from the same patient during the same hospitalization period, only the first isolate was enrolled. Antimicrobial susceptibility testing was done by disk diffusion method. The tested antibiotics included ampicillin, ceftriaxone, levofloxacin, and trimethoprim-sulfamethoxazole (TMP-SMX). The results were interpreted according to the criteria recommended by the Clinical Laboratory Standards Institute. Intermediate result was regard as resistant in this study.
Results: A total of 122 isolates of non-typhoidal *Salmonella* were enrolled in this study. Of the 29 isolates in 2009, the susceptibility rates of ampicillin, ceftriaxone, levofloxacin, and TMP-SMX were 69%, 96.6%, 100%, and 89.7%, respectively. Of the 17 isolates in 2010, those were 70.6%, 100%, 100%, and 88.2%, respectively. Of the 25 isolates in 2011, those were 60%, 100%, 100%, and 76%, respectively. Of the 22 isolates in 2012, those were 54.6%, 95.5%, 100%, and 90.9%, respectively. Of the 29 isolates in 2013, those were 58.6%, 100%, 100%, and 82.8%, respectively.
Conclusions: As a result of this study, levofloxacin has a susceptibility rate of 100% for non-typhoidal *Salmonella* from 2009 to 2013, indicating that fluoroquinolones are still appropriately therapeutic options for non-typhoidal *Salmonella* infections in southern Taiwan.

PS 1-005

THE EFFECT OF APPLYING POLYMERASE CHAIN REACTION TO DETECT METHICILLIN-RESISTANT AND -SUSCEPTIBLE *STAPHYLOCOCCUS AUREUS* IN BLOOD CULTURE OF PATIENT WITH GRAM-POSITIVE COCCUS BACTEREMIA

Eileen Kevyn Chang [a], Yu-Tsung Huang [a], Hui-Wen Lin [a], Fang-Yeh Chu [b], Hsin-Sui Hsu [a], Chun-Hsing Liao [a]. [a]*Infectious Disease Division, Taiwan;* [b]*Clinical Pathology Department, Far Eastern Memorial Hospital, New Taipei city, Taiwan*

Purpose: Gram-positive coccus (GPC) bacteremia is common clinically, but it takes several days to have final identification of microorganism and its antimicrobial susceptibility. Among all the GPCs, early detection of methicillin-resistant Staphylococcus aureus (MRSA) and shorten the duration of inadequate treatment is a target for decades. The objective of this study is to apply polymerase chain reaction to rapidly identify MRSA bacteremia and analyze its effect.
Methods: The study was performed at Far Eastern Memorial Hospital from July 2012 to June 2014. All cases with blood culture yielding GPC in clusters and a time to positive blood culture less than 20 hours were considered for inclusion. BACTEC 9240 automated blood culture system was used. Conventional identification and susceptibility test of GPC was performed, in parallel to polymerase chain reaction (Cepheid Xpert MRSA/SA Blood Culture Assay), if patients agreed to join the study. After knowing the PCR results, infectious disease physician contacts the primary physician and suggests the antimicrobial agent. Outcome of patients received PCR was compared to a control group of patients not receiving PCR.
Results: Eighty-three patients with GPC bacteremia were enrolled, including 36 cases of methicillin- susceptible *Staphylococcus aureus* (MSSA), 28 of coagulase negative Staphylococcus (CoNS), and 19 of MRSA. The median time to final report was 30.6 hours, compared to 84.4 hours with conventional method. The concordance rate of PCR and conventional methods was 96%. Knowing the PCR result resulted in 24 cases antimicrobial modification (29%). We compared 55 patients received PCR with SA bacteremia to a control group (69 patients) with similar clinical parameters. The chances of adequate empirical therapy within 48 hours were 73% in the PCR group and 77% in the control group. The 30 day mortality rates were 15% and 10%, respectively. In a survival analysis combined these two groups, only MRSA infection had a borderline significance of increased mortality ($p = 0.06$). Performance of PCR did not affect the outcome of patients.
Conclusion: Application of PCR for GPC bacteremia could shorten the time to final microbiological report for 54 hours and decrease the time of inadequate empirical therapy. However, the effect on patients' outcome could not be demonstrated in this study.

PS 1-006

CONSTRUCTION OF CLEAN SURGICAL ANTIBIOTIC PROPHYLAXIS MONITORING SYSTEM AT A MEDICAL CENTER

Kuei-Chu Hou [a,d], Chun-Sui Lin [a,d], Ting-Ying Chung [a,d], Yueh-Pi Chiu [a,c,d], Ting-Shu Wu [a,b,d], the Infection Control Group[a,b,d]. [a]*Infection Control Committee, Taiwan Hospital, Taiwan;* [b]*Division of Infection Disease, Taiwan Hospital, Taiwan;* [c]*Division of Infection Diseases, Taiwan Hospital, Taiwan;* [d]*Department of Medical Management, Administration Center, Chang Gung Memorial Hospital — Linkou Medical Center, Taoyuan, Taiwan Hospital, Taiwan*

Purpose: According to United States Centers for Disease Control Prevention of surgical site infection clinical guidelines stated in 1999: prophylactic antibiotics must be given within 60 minutes of the operation according to patient body weight administered relative dose. Cephalosporins and other first line class were the major prophylactic antibiotics in intravenous route based on the principle of not more than one day use, such as during surgery more than 2—4 hours, or excessive bleeding, according to the pharmacokinetics needing additional antibiotics. Prophylactic antibiotics can reduce surgical wound infection.
Methods: This reports were divided according to the structure of the surface quality control processes, procedures and results of surface surface clean surgical antibiotic prophylaxis to share the use of monitoring mechanisms to construct the experience:
A. Structures: 1. An increase in the revised "clean surgical antibiotic prophylaxis monitoring methods and processes", 2. Discussing with the Infectious