duration of surgical prophylaxis for clean cases. This inappropriate antibiotic usage increases the selective pressure favoring the emergence of antimicrobial resistance and colonization of drug resistant strains. Judicious use of antibiotics is thus essential.

Methods: A prospective study was carried out in 2 surgical units in Wockhardt hospital, Bangalore, India to evaluate the prescription pattern of antibiotic prophylaxis and to determine the impact of prolonged antibiotic usage. Standardized recommendations were developed for prophylactic antibiotic usage. Cardiac and orthopedic cases undergoing clean surgical procedures were included in the study. By reviewing the infection monitoring worksheets the incidence of healthcare associated infections were detected

Results: A total of 120 cases, 60 of each unit were evaluated. It was noticed that although all cases received a single pre-operative prophylactic injectable antibiotic, it was not consistent as to the timing of the dose and the repetition of another dose intra-operatively if required. For orthopedic cases antibiotic was continued for 24 hours and more than 72 hours for cardiac cases. Antibiotic chosen for cardiac cases were either a third generation cephalosporin or a combination of third generation cephalosporin with a β lactamase inhibitor and for orthopedic cases only a second generation cephalosporin was used. The impact of prolonged antibiotic usage was monitored by the rate of healthcare associated infection. The rate for cardiac cases was 5% and there were no infections for orthopedic cases.

Conclusion: There is need for change from these conventional practices of prolonged "prophylactic" antibiotic usage to prevent post operative infections in clean cases.

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Synthesis and Antibacterial Activity of Piperazinyl Oxazolidinones Containing 5-(4-methyl-1,2,3-triazole)
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Introduction: The bioisosteric replacement of the 5-acetamidomethyl group of linezolid by 5-triazolylmethyl yielded compounds with superior antibacterial activity against Gram-positive bacteria strains. Replacing morpholine by acylpiperazinyl yielded compounds including PH038-PH047 with improved activities compared with PH-027 and linezolid. Furthermore, methyl substitution at 4-position of the triazole exhibited reduced monoamine oxidases and mitochondrial protein synthesis inhibition, while retaining good antibacterial potency. In this study we investigated the antibacterial activity of novel 5-(4-methyl-1,2,3-triazolyl)methyl oxazolidinones (PH-series) bearing morpholine and acylpiperazinyl moieties.

Methods: Novel 5-(4-methyl-1,2,3-triazole)methyl oxazolidinones were synthesized and evaluated against Gram-positive clinical isolates in comparison to linezolid, vancomycin and PH-027. Organisms tested included methicillin-susceptible (MSSA, n = 10) and -resistant S. aureus (MRSA, n = 10); methicillin-susceptible (MS-CNS, n = 6) and -resistant coagulase-negative staphylococci (MR-CNS, n = 3); and vancomycin-susceptible (VSE, n = 6) and -resistant enterococci (VRE, n = 4) and standard reference strains (n = 3). Minimum inhibitory concentrations (MIC’s, µg/ml) were determined by agar dilution method on Mueller Hinton agar with the medium containing dilutions of antibiotic agents ranging from 0.12—64 µg/ml, with and without 50% human plasma

Results: The most active compound, isopropylcarbonylpiperazino derivative (PH-121, ClogP: -0.097) with MIC range 0.5—1 µg/ml showed comparable activity to linezolid and PH-27 (MIC, 0.5—1 µg/ml) against all strains. This was followed by the morpholino (PH-84, Clog P: 0.900) and dichloroacetyl piperazino (PH-119, Clog P: 1.494) derivatives with MIC ranges of 0.5—2 µg/ml, respectively. Substitution with bulky acyl groups at the distal piperazine 4-position gave PH-108 (R = tert-butoxycarbonyl), PH-128 (R = heptanoyl) and PH-131 (R = trans-cinnamoyl) with reduced antibacterial activity and MIC ranges of 2—8, 4—8 and 8—16 µg/ml, respectively. Most of the new compounds showed increased MIC values in the presence of 50% human plasma suggesting plasma instability or binding.

Conclusion: All the compounds tested exhibited moderate to strong antibacterial activity against all Gram-positive cocci evaluated. The study highlighted significant structure-antibacterial activity relationships. Project is funded by the Research Administration, Kuwait University, Grant numbers PC01/05 (OAP) and GS01/01 and GS03/01 [Science Analytical Facilities (SAF)].

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Keywords: Salmonella; Multi-drug resistance; Surveillance; Nepal

Background of the study: Enteric fever caused by Salmonella is the most common febrile illness in Nepal and increasing/changing trend of antimicrobial resistance (AMR) in Salmonella species has constituted a serious threat to the public health. Methods used: This study was conducted at 10 major hospitals/laboratories of Nepal during 2006 under AMR surveillance program. Standard microbiological methods including serotyping were used for identification. Resistance screening was also carried out by standard Kirby-Bauer disk-diffusion method

Results: Of the total 1611 Salmonella strains isolated in 2006, 1147 isolates (63.7%), 448 isolates (24.9%) and 16 isolates (0.9%) were confirmed to be Salmonella typhi, S. paratyphi A and other Salmonella species respectively. Salmonella typhi isolates showed 100% susceptibility to Ceftriaxone and Ofloxacin, but high (67%) resistance to Nalidixic acid followed by 3% resistance to Ampicillin. For S. paratyphi A, 100% susceptibility was observed with Tetracycline only and the resistance rate was higher (89% resistance to Nalidixic acid, 10% to Ampicillin and 3% to Ofloxacin) than that observed with S. typhi. Similar resistance trend for both serotypes was found towards Chloramphenicol, Cotri-