distributed all over the world, and the infection is prevalent in both developing and developed countries. Although 5-nitroimidazole compounds have been used for Giardiasis treatment for several years, the increasing number of reports of refractory cases and side effects of some drugs resulted in establishment of more investigation for new compounds. The aim of present study was to compare the efficacy of praziquantel and Mebendazole, given as a single – dose, with Metronidazole, given 5-7 days, in the treatment of Giardiasis.

**Methods:** In a randomized clinical trial, 90 subjects, each proven to be infected with G.L by the microscopically examination of fecal sample, were randomly allocated to 3 groups, Group 1 was given praziquantel as a single – dose, Groups 2 mebendazole as a single – dose and Group 3 metronidazole for 7 days, parasitological cure was documented when there was 3 times negative stool examination for G.L at 7 – 10 days after therapy

**Results:** Seventeen of 30 individuals (56.6%) treated with praziquantel and 15 of 30 individuals (50%) treated with mebendazole and 28 of 30 individuals (93%) treated with metronidiazole were cured. Cure rate between praziquantel and mebendazole wasn’t significantly different (P>0.05), but between these (praziquantel, mebendazole) and metronidazole, the difference was significant (P < 0.05). No side effects of these drugs were observed.

**Conclusion:** Metronidazole as a standard dose is more effective in the treatment of Giardiasis.

Rationalizing the use of Linezolid through Antibiotic Stewardship program in a tertiary care teaching hospital in Pakistan

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**Background:** Rationalizing the use of antibiotics which are considered last resort against organisms resistant to first line agents has remained the top priority of antibiotic stewardship programs in healthcare institutions. The problem is particularly important in developing countries where more discrepancies have been reported and the range of available antimicrobials for resistant organisms is also quite narrow. We conducted this study in our hospital which is a 550 bed tertiary care, ISO certified, JCIA accredited teaching hospital in Pakistan.

**Methods:** Rational use of antibiotics is the dashboard indicator of the hospital in which the Pharmacy Department conducts retrospective drug utilization reviews (DUR) of the selected antibiotics. When Linezolid was added in the formulary, hospital's Antibiotic Subcommittee (ABSC) approved its utilization criteria. It was listed as restricted antibiotic as being the only drug available for treating Vancomycin Resistant Enterococcus (VRE).

Staff was made aware regarding the criteria through hospital's published Antibiotic Guideline, flyers, computer alerts, educational sessions and through clinical pharmacists assigned in wards.

First DUR was conducted 3 months after the formulary addition. The compliance was found to be only around 80%; therefore ABSC further posed mandatory ID/Micro consults irrespective of the C/S reports of a patient prior to initiation of therapy. Moreover empiric use of Linezolid was also restricted. Pharmacy would dispense Linezolid only when a verbal endorsement is given by ID/Micro directly to pharmacy. Further 3 months later, second clinical audit was performed and the compliance to criteria increased to 94%.

**Results:** Second DUR revealed good compliance i.e. 94% to Linezolid utilization criteria. Areas of improvement were noted along with degree of compliance was also determined in different clinical departments.
Major areas of improvement included: Prescribing Linezolid without ID/Micro approval, concomitant Vancomycin usage, interrupted therapy, monitoring for hematological side effects of Linezolid (Thrombocytopenia) and baseline + periodic CBC monitoring. The compliance rate is still maintained to more than 95% till date.

**Conclusion:** Antibiotic restriction was successfully implemented by involving various stakeholders and modalities as listed in methodology section. With the successful implementation of antibiotic restriction and prior approval, ABSC is also reviewing the possible addition of other broad spectrum antibiotics like Tigecycline and Caspofungin etc.

http://dx.doi.org/10.1016/j.ijid.2012.05.626

**Type:** Poster Presentation

**Final Abstract Number:** 56.076
**Session:** Antibiotics
**Date:** Saturday, June 16, 2012
**Time:** 12:45-14:15
**Room:** Poster & Exhibition Area

**Antibiotics use pattern and knowledge of antibiotics resistance among undergraduates in a Nigerian university**

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**Background:** Misuse of antibiotics is one of the notable causes of antibiotic resistance, but there is very little data on the community practices in our environment. The study is aimed at describing the antibiotic use pattern, knowledge and perception of antibiotic resistance among undergraduates at Obafemi Awolowo University.

**Methods:** This cross-sectional study was carried out from May - July 2011. 400 respondents were selected using a multistage sampling technique across six faculties. A Pilot tested semi-structured self administered questionnaire was used to collect data after informed consent was obtained. Data was analysed using SPSS. Frequency distributions and percentages were determined as applicable.

**Results:** Majority (73.8%) of respondents were aged between 15-24 years. Most (81.9%) of them admitted taking antibiotics without completing the full course while only 16.0% completed the full course of antibiotics. 20.5% of the respondents admitted taking incomplete courses every time, while 43.6% admitted doing so sometimes. Major reasons for stopping the antibiotic were: improvement in condition (47.3%) and dislike of medicine (14.1%).

Most (48.1%) got the prescription for the last antibiotic from a doctor, while a significant 18.1% were self prescribers. Only (0.5%) got their prescription from drug hawkers. Ampicilox, Ampicillin and Tetracycline were the most frequently used antibiotic. Convenience was the major reason reported for choosing the sources of antibiotics however, majority (63.3%) usually procure their antibiotics from a commercial pharmacy.

Some inappropriate reasons for antibiotic use were: ‘fever unresponsive to other drugs’ (44.8%), ‘eating food suspected to be contaminated’ (19.7%), ‘to wash blood’ (18.4%), and ‘after unprotected sex’(5.1%) among others. More than half of the respondents (55.5%) have heard of antibiotic resistance and had good knowledge of it causes and consequences. (37.8%) have never heard of antibiotic resistance.

**Conclusion:** The study concluded that the antibiotic use pattern of the students was sub-optimal as many of them engaged in taking incomplete courses of antibiotics while others engaged in inappropriate use of antibiotics, despite the high awareness of the problem of antibiotic resistance among them. These findings emphasize the need to educate the students on the judicious use of antibiotics.

http://dx.doi.org/10.1016/j.ijid.2012.05.627

**Type:** Poster Presentation

**Final Abstract Number:** 56.079
**Session:** Antibiotics
**Date:** Saturday, June 16, 2012
**Time:** 12:45-14:15
**Room:** Poster & Exhibition Area

**Improving outcomes in the treatment of cellulitis**

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**Background:** We sought to identify risk factors that placed patients with cellulitis at risk for relapse and develop treatment strategies to prevent it from occurring.

**Methods:** This study was a retrospective chart review. Initial collection of patient-specific data included antibiotics prescribed, microbiology results, length of stay, risk factors for cellulitis, and prescriber specialty. Treatment guidelines for cellulitis were developed based on the IDSA guidelines. Physician education consisted of inservice presentations; posters promoting treatment guidelines were displayed throughout the hospital; an infectious disease physician gave Medical Grand Rounds on the topic; and an article was published in the physician's newsletter. Charts of a repeat sample of 50 cellulitis patients were reviewed to assess the effectiveness of standardizing therapy. Outcome data for patients in the post-intervention phase was compared to the patients in the baseline group.

**Results:** Fifty consecutive admissions of adult patients with a diagnosis of cellulitis were included in each phase of the study. In the initial group the mean age was 56 years and 48% were female. The average length of stay was 3.6 days. The mean age in the post-intervention group was 58.8 years and 48% were female as well. The average length of stay was 5.2 days. The use of penicillin/nafcillin and first generation cephalosporins increased in the post-intervention group (28%) compared to the initial group (18%). Only 17% of the patients in the initial group were switched to narrower spectrum agents once culture and sensitivity results became available compared to 31% in the post-intervention group. The use of quinolones while hospitalized and at discharge was 14% and 16% in the initial group, but their use decreased to 8% and 8% in the post intervention group. With it there was decrease in the number of clinical relapses and readmissions to the hospital in the post intervention group, 2% versus 10% in the baseline group.

**Conclusion:** By educating physicians to use agents with better Gram positive activity, e.g. penicillins and first generation cephalosporins in the treatment of cellulitis and discouraging the use of fluoroquinolones, we decreased the number of relapses and readmissions to the hospital.

http://dx.doi.org/10.1016/j.ijid.2012.05.628