unnamed), leading to loss of ownership, frustration, anxiety and ultimately distancing them from participation in decision making. This poor communication drives individuals to seek information from alternative sources, including on-line resources, which are associated with concerns over reliability and individualisation. This failure of communication and information provision from clinicians in secondary care influences individual's future ideas about infections and their management. This alters their future actions towards infections and antimicrobials and can drive non-adherence to prescribed antimicrobial regimes and loss-to-follow-up after discharge from secondary care.

Conclusion: Current infection management and antimicrobial prescribing practices in secondary care may be failing to engage patients in the decision making process. It is vital that secondary care physicians do not view infection management episodes as discrete events, but as cumulative experiences which have the potential to drive future non-adherence to prescribed antimicrobial regimes and thus poor individual outcomes and antimicrobial resistance. This lesson is transferable to all settings of healthcare, where poor communication and information provision having the potential to influence future health seeking behaviours. We call for the development of clear, pragmatic mechanism to support healthcare professionals and patients engage in infection related decision making during consultations.

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Microbial profile of prosthetic joint infections and effectiveness of cefuroxime prophylaxis: Experience from a tertiary care hospital

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Background: Prosthetic Joint Infection (PJI) is a serious and devastating complication of total joint arthroplasty (TJR). Currently, second generation cephalosporins (cefuroxime or cefazolin) are the preferred antibiotics for prophylaxis in TJR. The aim of the study was to determine the microbial profile of PJI and assess the effectiveness of cefuroxime as antibiotic prophylaxis.

Methods & Materials: Patients with suspicion of PJI as per musculoskeletal infection society (MSIS) criteria were screened from June 2013 to June 2015. Each patient had multiple site samples (pus, synovial fluid & periprosthetic tissues). All samples were cultured aerobically and anaerobically as per standard microbiological practice. Antibiotic susceptibility of the isolates was performed according to Clinical Laboratory Standards Institute (CLSI) guidelines.

Results: A total of 54 patients were enrolled of which, 34 were referred from peripheral centers for management of suspected PJI. All the patients received Cefuroxime as antibiotic prophylaxis at the time of both primary and revision arthroplasty. Thirty-six patients were diagnosed to have PJI by microbiological criteria. Gram-negative aerobes were most frequently isolated (64%). Polymicrobial infections were present in 8% of cases. No anaerobes were isolated. The most common isolates were Staphylococcus aureus (23%) followed by Escherichia coli & Pseudomonas aeruginosa (18%) and Klebsiella pneumoniae (15%). Methicillin resistance was noted in 22%of the isolates. Fifty four percentages of gram-negative isolates were Multi Drug Resistant (MDR). In 87% of patients, the microorganisms cultured were not susceptible to cefuroxime. All the gram-negative isolates were uniformly resistant to cefuroxime whereas only 36% of gram-positive isolates were susceptible. Gram-positive isolates were uniformly susceptible to vancomycin, teicoplanin and linezolid; for gram-negative bacilli colistin followed by tigecycline and imipenem showed good activity.

Conclusion: Compared to Western literature a predominating MDR gram-negative aetiology of PJIs was noted. Uniform resistance of all the gram-negative isolates to cefuroxime has raised serious concerns about continuing with the practice of using this drug for prophylaxis against PJI at our center. The antibiotic prophylactic regimes should be based on a local knowledge of microbial profile and susceptibility patterns of the causative microorganisms to decrease the incidence of PJI.

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Antibiotic prescribing to the inpatients diagnosed with Malaria and Viral fever in two tertiary care hospitals in Madhya Pradesh India

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Background: Indiscriminate antibiotic prescribing is cause for the global increase in antibiotic resistance. Hospitals are major antibiotics users and thus substantially contribute in the development of resistant bacterial strains. The situation is highly under-estimated due to the paucity of studies from major antibiotic consumer countries like India. Aim of the present study was to describe and compare antibiotic prescribing among in-patients diagnosed for non-bacterial infections, at the medicine departments of two private sector hospitals, a teaching (TH) and a non-teaching (NTH), in Madhya Pradesh, India.

Methods & Materials: The data was collected manually for all in-patients for 3 years between 2008 and 2011. Patients were grouped using International Classification of Diseases-10 system for the recorded diagnoses. Patients having bacterial infections were excluded from analysis. Prescribed antibiotics were classified

based on WHO anatomical therapeutic chemical (ATC) classification system and Defined daily doses (DDDs) per 1000 patients were calculated. Type and class of prescribed antibiotics and adherence to the generic name prescribing and National list of essential medicines of India (NLEMI) were analyzed.

Results: Overall, 20303 patients were admitted in the medicine departments of two hospitals, of which 66% were prescribed antibiotics. Malaria or viral fever was diagnosed in 693 patients in the TH and 1177 in the NTH. Of these, 82% patients at the TH and 71% at the NTH (71%, p<0.001) were prescribed antibiotics. Prescriptions made at the TH show more adherence both towards the use of generic names and the NLEMI, compared with the NTH (p<0.001). Most commonly prescribed antibiotic classes at the TH were fluoroquinolones (48%) and third generation cephalosporins (21%) and at the NTH were third generation cephalosporins (47%), and fixed dose combinations (19%). The most prescribed antibiotic substances at the TH was ciprofloxacin (1940 DDD/1000 patients), and at the NTH was ceftriaxone (1052 DDD/1000 patients).

Conclusion: Frequent and unnecessary antibiotic prescribing practices at both hospitals were observed. Significantly high percentage of patients in non-bacterial infection groups i.e. malaria and viral fever, were prescribed antibiotics which is a point of concern. An urgent need is felt to develop and implement relevant antibiotic stewardship program to rationalize the antibiotic prescribing in the settings.

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Adherence to antiretroviral drug treatment ARV among people living with HIV/AIDS: A study from Eastern Nepal

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Background: **Background:** HIV/AIDS has threatened an enormous worldwide challenge on the survival of mankind. Antiretroviral therapy (ART) for HIV is increasingly being introduced and utilized in diverse areas of the world. However, little research exists on adherence to ART in different cultural settings, particularly in developing countries such as Nepal. This study aimed to determine adherence to ART and identify associated factors with adherence among people with HIV/AIDS and receiving ART/ARV therapy.

Methods & Materials: **Methods and materials:** In this cross sectional study total of 300 HIV positive subjects were interviewed using semi-structured questionnaire. Study subjects were randomly selected from different HIV clinics of three districts; Sunsari, Morang and Jhapa of Eastern Nepal. Informed & understood written consent was taken and cofidenciality was mentained throughout of the study.

Results: **Results**: The median age for patients was 34 yr. Majurity of the respondents were using a non protease inhibitor (PI) treatment regimen (98%). Mean 4-day adherence was 92%. Adherence was lower over longer periods of recall; Twenty percent reported missed does over the past 7 days; 33% reported ever missing a full day's medications and 16% had a treatment interruption of more than 7-days at least once. On univariate analysis less than university education, being unemployed, obtaining free treatment, severe depression, hospitalization >2 times, having moderate to severe side-effects and taking 4 or more medicines were associated with lower adherence (<90%). However, only obtaining free treatment (adjusted OR, 4.05, 95% CI 1.42-11.54, P=0.009) and severe depression (adjusted OR 4.48, 95% CI 1.64-12.27, P=0.003) were associated with lower adherence in multivariate analysis.

Conclusion: **Conclusion:** Although the overall adherence was high, lower levels of adherence were documented among poor patients receiving free ARV/ART. Provision of free treatment of ART and side effect management should make available up to unreached poor people of community.

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The antimicrobial and phytochemical analysis of the leaves of aspilia africana on clinical isolates

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Background: The uses of medicinal plants for treatment of various infections in traditional communities have been an age-long practice. This provides the rationale to study medicinal plant extracts as a possible source of alternative therapy against infections.

Methods & Materials: The current study was undertaken to evaluate the phytochemical and antimicrobial properties of *Aspilia africana*. The antimicrobial activity and minimum inhibitory concentration (MIC) of the extracts of *Aspilia Africana* were evaluated against eight organisms-*Staphylococcus aureus, Escherichia coli, Pseudomonas aureginosa, Salmonella typhi, Candida albicans, Aspergillus niger, Penicillum* spp *and Fusarium* spp. The ethanolic and aqueous extracts were obtained by standard methods. Antimicrobial activity was conducted using a modified agar well diffusion method.

Results: The phytochemical screening and analysis carried out in this study showed that the plant extracts contains alkaloids (6.35%), saponins (3.26%), flavonoids (2.01%), tannins(0.88%) and phenols (0.11%). The result showed that ethanolic extract of *Aspilia africana* exerted antimicrobial effect on the test organisms at 25mg/ml, 50mg/ml and 100mg/ml concentrations, while the hot aqueous extract exerted antimicrobial effect at 100mg/ml only on *Staphylococcus aureus* and *Pseudomonas aureginosa*. The ethanolic extract of *Aspilia Africana* showed the highest antimicrobial activity with diameter of zone of inhibition of 3.35mm to 17.9mm at 100mg/concentration. The minimum inhibitory concentration (MIC) of the ethanolic extracts was at a concentration of 25mg/ml.