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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 health-care professionals and patients engage in infection related decision making during consultations.

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Session: Poster Session I

Date: Thursday, March 3, 2016

Time: 12:45-14:15

Room: Hall 3 (Posters & Exhibition)

#### 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

