illness (RIH rate: 7.03%) of which 196 tested RSV-positive (RSVH rate: 1.76%). All RIHs were not or probably not related to palivizumab. 62 single or multiple SAEs were documented in 52 infants. Fourteen events in 6 patients out of 62 SAEs were hypersensitivity reactions (moderate: 11; mild: 3). These were deemed possibly (n=10) or probably (n=4) related to palivizumab (rate: 0.00028 events per patient-month). The remaining 48 SAEs in 46 patients were categorized as not related (n=39), probably not related (n=5), and unclassifiable (n=4). **CONCLUSIONS:** Using an active surveillance system, a very small proportion of infants in the CARESS registry experienced SAEs that had a clear relationship with palivizumab and these events appear to be idiosyncratic. In routine practice, palivizumab appears to be a safe and well-tolerated antibody for RSV infection prophylaxis in high-risk children.

PIN6

HIGH DOSE VANCOMYCIN LOADING VERSUS LOW DOSE IS ASSOCIATED WITH DECREASED NEPHROTOXICITY IN EMERGENCY DEPARTMENT SEPSIS PATIENTS

Rosini JM[1], Davis JJ[2], Muenzer J[2], Levine BJ[1], Comer D[1], Arnold R[1]
[1]Christiana Care Health System, Newark, DE, USA, [2]Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, PA, USA

OBJECTIVES: While infectious disease societies recommend weight-based loading doses of 25-30 mg/kg in critically ill patients, published meta-analyses describe increased vancomycin related nephrotoxicity at these doses. Our objective was to assess incidence of nephrotoxicity with vancomycin in emergency department (ED) sepsis patients when compliant with these recommendations. **METHODS:** This was a retrospective cohort study performed in three EDs. An electronic health record (EHR)-based clinical decision support tool provided guidance at the point of order for IV vancomycin compliant with recommendations. Inclusion criteria: age ≥ 18 years, IV vancomycin order, and hospital admission. Exclusion criteria: no documented weight, hemodialysis-dependent, or < 2 creatinine (Cr) values. The primary outcome was incidence of nephrotoxicity within 5 days defined as at least 2 serial Cr higher than the initial measurement by at least 0.5 mg/dL or 50% increase. The secondary outcome was acute kidney injury (AKI) within 5 days, defined as any single increase in Cr by 0.5mg/dL or 50%. Analyses compared the incidence of nephrotoxicity and AKI between patients who received high dose (>20 mg/kg) versus low dose (≤20 mg/kg). Parametric data were compared using the t-test and categorical data with chi-squared tests. **RESULTS:** An EHR-based query identified 2131 consecutive patients prescribed IV vancomycin over 6 months. Of these, 1330 patients met study criteria for the primary outcome and 1631 patients met criteria for the secondary outcome. Nephrotoxicity occurred in 8% of patients. High dose vancomcyin was associated with a lower rate of nephrotoxicity (6% vs 11%, p<0.05) and a lower rate of AKI (8% vs 13%, p<0.05). **CONCLUSIONS:** Initial dosing of vancomycin >20 mg/kg according to guidelines was associated with a decreased rate of nephrotoxicity compared with low doses. Future analyses should distinguish between the occurrence of nephrotoxicity due to disease progression in severe sepsis versus vancomycin exposure.

PIN7

SAFETY PROFILE OF FLUOROQUINOLONES: ANALYSIS OF ADVERSE DRUG REACTIONS IN RELATION TO CONSUMPTION DATA USING PHARMACOVIGILANCE DATABASE IN HEBEI, CHINA

Shi LW[1], Han S[1], Zhao YL[2], Guan XD[1]
[1]International Research Center of Medical Administration, Peking University, Beijing, China,
[2]School of Pharmaceutical Sciences, Peking University, Beijing, China

OBJECTIVES: The aim of this study was to reassess the safety profile of fluoroquinolones using the database of adverse drug reactions (ADR) Spontaneous report system and the purchases data of fluoroquinolones. **METHODS:** All ADRs reported related to fluoroquinolones were retrieved from Center for Drug Monitoring and Evaluation (CDME) of Hebei. Reports were classified by System Organ Classes with MedDRAâ®. Consumption data (numbers of defined daily dose [DDDs]) were used as denominators. Reporting rate and types of ADRs between different drugs were checked with Pearson's chi-squared test, and a p-value of <0.05 was considered statistically significant. **RESULTS:** Fluoroquinolones common ADRs related to skin and subcutaneous tissue, gastrointestinal, general disorders and administration site conditions. No delayed ADR or death caused by ADR was reported. Ofloxacin, levofloxacin and ciprofloxacin showed the lowest reporting rate adjusted by consumption data. **CONCLUSIONS:** These data suggest that different fluoroquinolones were characterized by different rates and types of ADRs. In current application of fluoroquinolones, clinicians did not pay sufficient attention to delayed-ADRs and ADRs resulting in glucose metabolism disorder, which might lead to more safety problems.

PIN8

THE METABOLIC CO-MORBIDITIES PREVALENCE AND RELATED TREATMENT COSTS BETWEEN HAART TREATED AND NOT TREATED HIV INFECTED PATIENTS IN TAIWAN

Chang CJ[1], Chou T[1], Fann CS[2]
[1]Chang Gung University, Kwei Shan, Tao Yuan, Taiwan, [2]Academia Sinica, Taipei, Taiwan

OBJECTIVES: Highly active antiretroviral therapy (HAART) was available for HIV-infected patients in Taiwan since 1997. HAART can effectively reduce mortality and morbidity, but it may also increase the risk and related drug costs of metabolic co-morbidities for HIV-infected patients. The aim of this research was to investigate the prevalence and treatment costs of metabolic co-morbidities such as diabetes, hypertension, and hyperlipidemia between HAART treated and not treated patients. **METHODS:** We conducted a population-based study using 1M sampling version of the National Health Insurance Research Database (NHIRD) from Taiwan between 2010 and 2012. We extracted HIV-infected patients from both outpatient and inpatient with primary or secondary diagnosis of HIV (ICD codes 042-044). Treatments such as HAART and other related information were extracted. The prevalence and related drug costs of metabolic co-morbidities was estimated and comparison were made using SAS version 9.3. **RESULTS:** In the sampling database, there were 488 and 235 HIV-infected patients with and without HAART treatments. They were mainly male (94.6% vs. 90.2%, p = 0.0255), HAART treated patients were

older than those without (37.5 vs. 34.5, p = 0.0017). The prevalence rate among all patients were 7.6% for diabetes, 13.3% for hypertension, 23.4% for hyperlipidemia, as compared to 3.4%, 8.5% and 6.8% in patients without HAART. There were statistically significant differences for diabetes (p = 0.0294) and hyperlipidemia (p < 0.0001). The difference for hypertension is boradline statistically significant (p = 0.0601). The mean expenditure per patient per year of dyslipidemia drugs, hypo-glycemic drug, antihypertensive drug, and sedative hypnotic drug were not statistically significant. **CONCLUSIONS:** Per previous literature reviews, the prevalence of diabetes, hypertension, hyperlipidemia for HIV-infected patients with HAART was confirmed and increasing year by year using the real world data in Taiwan. Good control of metabolic co-morbidities to reduce the risk of morbidity and mortality is highly recommended.

PIN9

INCREASING PREVALENCE OF CTX-M, TEM AND SHV BETA-LACTAMASES IN CLINICAL PATHOGENIC E. COLI CAUSES SIGNIFICANT HEALTH AND ECONOMIC LOSSES- A PERSPECTIVE FROM PAKISTAN

Hussain T[1], Jamal M[1], Nighat F[2], Andleeb S[1]
[1]National University of Sciences and Technology, Islamabad, Pakistan, [2]Riphah International University, Rawalpindi, Pakistan

OBJECTIVES: E. coli is the most frequently encountered pathogen in clinical set up causing devastating infections irrespective of age and gender resulting in significant morbidity and mortality. E. coli isolates have been found resistant to variety of antibiotics commonly used in empirical therapy at hospitals and clinics. CTX-M, TEM and SHV type extended spectrum beta-lactamases are mainly responsible for this resistance. The aim of this study was to investigate the prevalence of CTX-M, TEM and SHV beta-lactamases in clinical isolates of E. coli and to assess the resulted economic burden on the poor population. **METHODS:** E. coliisolates were collected from a tertiary care hospital between 2012 and 2013, and tested against several classes of antibiotics on Kirby- Bauer disk diffusion methods to check their multidrug resistance phenotype. Presence and identification of CTX-M, SHV and TEM beta-lactamases were confirmed on PCR. **RESULTS:** Overall resistance pattern to the tested antibiotics was amoxicillin(80%), cefazolin(74%), cefotaxime(63%), ceftazidime(58%), gentamycin(58%), ciprofloxacin(89%), levofloxacin(51%), chloramphenicol(38%), erythromycin(83%), amoxicillin/clavulanic acid(82%) and trimethoprim/sulfamethoxazole(91%). The prevalence of different beta-lactamase types in E. coliisolates was CTX-M(72 %), TEM(67%) and SHV(53%). **CONCLUSIONS:** CTX-M, TEM and SHV beta-lactamases are responsible for such overwhelming resistance in these isolates. These enzymes are present on mobile genetic elements such as plasmids which are readily exchanged between diverse bacterial communities and leading this alarming resistance to epidemic level. More than 50% of population live below the poverty line in Pakistan and cannot afford or have excess to expensive treatments, such resistance is challenging the very health care system of the country. Both rate of infections and resistance to antimicrobials is on the rise and is sped up by the unregulated sub-standard health practice in Pakistan. The current health and economic losses are incalculable but the more devastating consequences to the humanity and economy are not too far from reality.

PIN10

ANALYSIS OF RISK FACTORS OF DEATH IN H1N1 INFLUENZA PATIENTS IN A TERTIARY CARE HOSPITAL

Singh A[1], Agarwal J[1], Khera K[1], Thunga G[2], Awasthi S[1], Francis JM[1]
[1]Manipal College of Pharmaceutical Sciences, Manipal, India, [2]Manipal College of Pharmaceutical Sciences, Manipal University, Manipal, India

OBJECTIVES: H1N1 influenza infection associated with higher morbidity and mortality because of associated severe complications like acute respiratory distress syndrome (ARDS) and multiple organs dysfunction syndrome. We conducted a retrospective study to evaluate the clinical characteristics, different complication and management strategies adopted to treat H1N1 patients in a tertiary care centre. To study the clinical features, complication, different risk factors affecting the outcome along with different management strategies used in the patients with confirmed H1N1influenza infection. **METHODS:** The medical records of 141 patients were analyzed retrospectively who were admitted to KMC Hospital, Manipal, from June 2012 through May 2014. **RESULTS:** Among the study population 51.1% were female with mean age of 32.54 years. Among 55.3% patients admitted without any significant medical history and 44.7% patients had major problems like diabetes mellitus, respiratory tract infections and bronchial asthma. Fever with headache was observed in 92.9% followed by cough (78.7%) and breathlessness (54.6%). According to severity of disease 53.2% patients were put on mechanical ventilation. All the patients were started with oseltemivir for influenza management. The co-infections were treated by beta-lactams (60.28%) and macrolides (41.11%). Diuretics were given in 32.46%, anti-anxiety in 31.90% patients and antipyretics, bronchodilators and corticosteroids as supportive care in all patients. Mean of hospitalization period was 8.5 days. During the hospitalization the patients developed different complications like respiratory tract infections (31.20%), ARDS (17.7%) and sepsis (14.4%). The mortality rate of the study population was found to be 29.1 %. **CONCLUSIONS:** We observed that outcome was associated with low oxygen saturation during admission, metabolic acidosis, abnormal chest x-rays, use of diuretics, corticosteroids and anti-anxiety drugs. We also found that the complications like ARDS, sepsis and respiratory tract infections also influence the mortality rate.

PIN11

ASSESSING OUTCOMES WITH CEFTAROLINE TREATMENT COMPARED WITH STANDARD OF CARE AMONG HOSPITALIZED PATIENTS WITH COMPLICATED SKIN AND SKIN-STRUCTURE INFECTIONS (CSSSI)

Karve S, Hackett J, Levinson J
AstraZeneca, Gaithersburg, MD, USA

OBJECTIVES: This study assessed length of stay (LOS), inpatient costs and mortality among hospitalized patients with cSSSI treated with ceftaroline compared with