ECONOMIC ANALYSIS OF MICAFUNGIN VERSUS CASPOFUNGIN THERAPY FOR THE TREATMENT OF CANDIDAMIA AND PNEUMONIA INFECTIONS
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OBJECTIVES: The primary objective is to compare candidemia treatment success between micafungin and caspofungin. Secondary objectives are to identify cost and mortality rates associated with the use of micafungin versus caspofungin.
METHODS: This is a chart review of patients who received one dose of micafungin or caspofungin during their hospitalization in a regional VA medical center between January 1, 2004 and February 29, 2008. A combination of electronic data extraction and manual chart review was performed on each subject's medical record for patient characteristics, risk factors, antifungal use prior and post echinocandin, adverse drug reactions associated with echinocandins, microbiological eradication, clinical success, length of stay, total hospital cost, and echinocandin cost. All statistical tests were two-tailed with p-value of less than 0.05 considered statistically significant.
RESULTS: A total of 42 patients with at least one positive diagnostic or prosthetic culture for C. albicans or C. non-albicans were included. Treatment groups had similar baseline characteristics in all areas except more micafungin patients had renal failure (p = 0.016), prior antifungal use (p = 0.021) and post antifungal use (p = 0.002). Treatment success was comparable among groups (74% micafungin compared to 64% caspofungin, p = 0.279). Microbiological success was 54% vs. 45% (p = 0.367) for micafungin vs. caspofungin, respectively. There was no difference in microbiological success between C. albicans and C. non-albicans for micafungin (p = 0.802), however, a significant difference was seen in the caspofungin patients (C. albicans 33% vs. 59% C. non-albicans, p = 0.05). Total cost of patient care (p = 0.027) and echinocandin overall cost (p = 0.001) were significantly lower in the micafungin group. Length of stay and mortality rates were comparable among groups.
CONCLUSIONS: We found overall treatment success was non-inferior among micafungin and caspofungin therapies.

US HEPATITIS C BURDEN ASSESSMENT FROM A TRANSMISSION MODEL
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OBJECTIVES: Achieving sustained virologic response (SVR) could prevent further transmissions, which are comparable among groups (74% micafungin compared to 64% caspofungin, p = 0.279). Microbiological success was 54% vs. 45% (p = 0.367) for micafungin vs. caspofungin, respectively. There was no difference in microbiological success between C. albicans and C. non-albicans for micafungin (p = 0.802), however, a significant difference was seen in the caspofungin patients (C. albicans 33% vs. 59% C. non-albicans, p = 0.05). Total cost of patient care (p = 0.027) and echinocandin overall cost (p = 0.001) were significantly lower in the micafungin group. Length of stay and mortality rates were comparable among groups.
CONCLUSIONS: We found overall treatment success was non-inferior among micafungin and caspofungin therapies.

PHARMACOGENOMICS: APPLICABILITY IN ANTIRETROVIRAL THERAPY (ART) IN HIV PATIENTS
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OBJECTIVES: The objective of the study was to explore the applicability of pharmacogenomics in ART (Antiretroviral therapy). METHODS: Pharmacogenomics studies to identify the association of SNPs in the genome and ART response was performed in 360 patients. The study involved 360 HIV positive patients identified through the HIV clinic of a government hospital in Chandigarh, India. Genotyping was performed using the TaqMan® method. RESULTS: The pharmacogenomics study identified a significant correlation between 39 SNPs and ART response. The study demonstrated a better response rate in patients with specific SNPs in the genome. The study concluded that pharmacogenomics can be used to improve the efficacy of ART in HIV patients.

A DATA ANALYSIS OF INPATIENTS AFFICTED BY THE HUMAN PAPILLOMAVIRUS
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OBJECTIVES: The human papillomavirus is the most common sexually transmitted disease in America. This virus will affect 6.2 million Americans yearly. Most cases of HPV come from sexual contact or vaginal delivery from an infected mother. It is the objective of this study to gain more knowledge about HPV in order to be able to control or prevent the spreading of this virus. METHOIDS: A data set of over 20,000 pediatric patients from the 2005 National Inpatient Sample was used for analysis with SAS Enterprise Guide to examine different characteristics of HPV. From SAS, we were able to set one up way frequencies, pie charts, kernel densities, and logistic and linear regressions to compare and contrast different aspects of HPV. We also examined patient diagnosis and procedure codes. RESULTS: The most prominent age groups affected by HPV are young children and adolescents. The reason for this is concern about the relationship to cervical cancer in later life. Although two types of the virus (16 and 18) are responsible for 70% of cervical cancers, less than 1% of the patients in our sample died with HPV. This virus is not costly to treat or detect with the majority of the patients charged a little $3,000 from hospitalization with the virus plus the patients with a URI also had HPV. We found many statistically significant relationships between demographics, procedures, and diagnoses, and length of stay or total charges of the patient. CONCLUSIONS: Further research is still needed for doctors to be able to prevent or cure HPV. Trial medications are out on the market targeting young females, but surprisingly, more males have HPV because they are the carriers of this virus. We need to focus more time and money to find a cure for HPV.

EXPLORING CELLULITIS: WHO GETS IT AND HOW SERIOUS IS IT?
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OBJECTIVES: Cellulitis is a skin infection caused by bacteria. In children, cellulitis most often occurs on the face, legs, arms, or around the area near the anus. It can be usually treated with antibiotics (oral or topical). However, if not treated, the infection can spread and cause far more serious conditions such as meningitis or blood clots in the legs. Studies have shown that about 1 in 47 children who have cellulitis have cellulitis and to compare the results to patients who do not have the disease. Basic variables such as age, race, and gender are examined along with recorded patient diagnosis and procedure codes. METHODS: The statistical software SAS was used to analyze and explore the data supplied by the National Inpatient Sample (NIS). The dataset contained 1287 patients with cellulitis and a control group of 1300 without cellulitis. Statistical methods used include one-way frequencies, kernel densities, summary statistics, table analyses, logistic regression, and linear regression. We also examined the most frequent patient diagnoses and procedures for these patients in the dataset. RESULTS: The patients represented by the data are all pediatric. About 63% of patients with cellulitis are male, with about 37% female. The age group with the highest concentration of patients is 0-3 with about 29% of the total. Only 0.08% of the patients with cellulitis actually died. In general, the disease is not fatal. The average