PINF5
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: Pharmacogenomic studies in HIV patients were identified from the database of WHO, Pubmed, Clinical trials, and relevant grey literature from 2000–2008. Two reviewers independently extracted data. RESULTS: Pharmacogenomics provides a powerful support to investigate variable responses to antiretroviral therapy. To date, few antiretrovirals appear to have a clear genotype-phenotype correlation. However, such correlations have been demonstrated for CYP2B6 and eflavirenz disposition, HLA-B*5701 and abacavir hypersensitivity, and UGT1A1 and atazanavir hyperbilirubinemia. Clinically significant and confirmed pharmacogenomic relationships were identified for three ART drugs. Out of 465 studies, 62/22 studies were identified as relevant to CYP2B6 and eflavirenz disposition (2RCTs, 1RCT and 3 pharmacokinetic studies). Three (3/118) studies were identified for HLA-B*5701 and abacavir hypersensitivity (2 RCTs and 1 RCT) and 2/85 studies for UGT1A1 and atazanavir hyperbilirubinemia (1RCT and 1RCT). Studies (2/6) revealed that genotype and sex were identified as predictive covariates of eflavirenz disposition. Studies (2/3) across the world have consistently demonstrated that HLA-B*5701 predicts the likelihood of hypersensitivity reactions to abacavir. As a consequence, pharmacogenomic screening for HLA-B*5701 has entered routine clinical practice and is recommended in most guidelines before starting an antiretroviral containing regimen. Studies (1/2) show that polymorphism SMT4343 significantly influence atazanavir plasma concentrations, although ATV plasma concentrations directly correlate with bilirubin levels, the risk of severe hyperbilirubinemia is further increased in the presence of the UGT1A1*1A7 allele. CONCLUSIONS: Although the widen applicability of pharmacogenomics relationships is prevalent and its use in clinical practice is still limited. Pharmacogenomics can greatly contribute in taking more adequate therapeutic decisions and to optimise treatment for HIV/AIDS.

PINF6
A DATA ANALYSIS OF INPATIENTS AFFECTED BY THE HUMAN PAPILLOMAVIRUS
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OBJECTIVES: The human papillomavirus is the most common sexually transmitted illness in the United States. This virus will affect 1.2 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. ME1THODS: 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 up one 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. This is a concern since there is a direct 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 detect or treat with the majority of the patients charged under $3,000 from hospitalization with the virus. 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.

PINF7
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 usually be 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. 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. ME1THODS: The statistical software SAS was used to analyze and explore the data supplied by the National Inpatient Sample. This 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 pathogens, most frequent procedures, and the length of stay of 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