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PIN7
LONG-TERM VIROLOGICAL OUTCOMES OF HIV INFECTED PATIENTS ON ANTIRETROVIRAL TREATMENT IN UGANDA
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OBJECTIVES: To report the virological outcomes of a cohort of HIV infected patients started on antiretroviral treatment (ART) and followed up for 10 years in Uganda. METHODS: The study was performed at the Infectious Diseases Institute, Uganda. Virological load (VL) testing was performed every 6 months. We reported proportion and cumulative probability (Kaplan-Meier method) of 1) achieving viral suppression (VS) (at least one VL <400 copies/ml) and 2) experiencing viral failure in patients who achieved suppression, and 3) clinical failure (VL >1000 copies/ml). RESULTS: 472/559 (84.8%) patients had at least one VL (67 died, 14 lost, 4 transferred, 2 no VL available). 69% were female, mean age 32.8 years, 51% were married. Mean CD4 count was 102 cells/mm³ (IQR: 31-167), median log10 VL 5.4 (IQR: 5.1-8.5). 71% started on d4T/3TC/nevirapine and 26.4% on AZT/3TC/efavirenz. 438/472 (93%) achieved VS, with VL <50 copies/ml for 1st line patients and 462 for early switch respectively. 11 Only 9 patients were classified C according to CDC criteria (A=577, B=2). We obtained an overall appropriate resistance score of 0.86, tenofovir-based Single Tableau Regimen (TVDR) rate of 13%, and 1st line based Regimen (1LβR) rate of 0.91. Mean monthly therapy cost was €627.3 vs. €719.8 respectively. After three months, all patients were virologically suppressed. CONCLUSIONS: Our study helped in defining the APROSE system as an efficacious tool to evaluate the correlation of treatment appropriateness, drug resistance and clinical outcomes. Higher score is a predictor of better outcomes and less drug expenditure. Related savings might be invested in more complex patient management with multi drug resistant strains or AIDS predictors.

PIN8
ADHERENCE, HEALTHCARE RESOURCE USE (HRU) AND COSTS: A COMPARISON OF SINGLE-TABLET REGIMEN (STR) VERSUS MULTI-TABLET REGIMEN (MTR) CONTAINING FIXED DOSE COMBINATION (FDC) REGIMENS
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OBJECTIVE: To compare all available once-daily fixed dose STR to MTR (of any frequency, containing FDC) using randomized controlled trials, observational studies and economic models focused on adherence measures which could inform HIV healthcare providers and policy makers regarding modalities of patient disease management with multi drug resistant strains or AIDS presenter. Methods: A systematic review and meta-analysis of trials, MTCs play a crucial role in guiding clinical decision making. The analysis from published literature was conducted to compare STR to MTR. METHODS: Published literature in English between 2005 and 2014 was searched using Embase, Medline, PubMed and other available clinical trials and Clinical Gov databases. Two-level screening was undertaken by two independent researchers to finalize articles for evidence synthesis. Adherence, efficacy, safety, tolerability, HRU and costs were assessed comparing STR to MTR. A random effects meta-analysis was performed and heterogeneity examined using meta-regression. Adherence, HRU/Cost evaluations are summarized in this abstract. RESULTS: Of 39 articles identified for qualitative evidence synthesis, 22 reported patient adherence outcomes and 5 had quantifiable data on both efficacy and adherence. Adherence rates for patients were significantly differ- ent (per respective study-defined adherence goals) compared to MTR patients of any frequency (Odd’s Ratio (OR): 2.37 (95% CI: 1.68, 3.35) (p < 0.001)) medication regimen and one daily (MTR). OR: 1.81 (1.5, 2.1). Seven studies reported significant reduction in HRU and costs among STR group versus MTR (albeit, none was eligible for meta-analysis): mean costs (annual, bi-annual, monthly or per diem) were found to be lower for the STR group compared to MTR, and STR was also observed to be cheaper based on its lower incremental cost-effectiveness ratios (ICER). CONCLUSIONS: STR demonstrated significant impact on improving adherence and potentially lowering overall HRU and costs in comparison to MTR. These findings may have policy implications for HIV disease management in resource limited settings, considering the known associations between ART adherence and improvement in humanistic clinical burden among HIV patients, and the potential HRU cost savings associated with STRs.

PIN9
PUBLIC HEALTH OUTCOMES OF PEDIATRIC INFLUENZA VACCINATION WITH AN INTRANASAL TETRAVALENT LIVE ATTENUATED VACCINE IN BELGIUM USING A DYNAMIC TRANSMISSION MODEL
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OBJECTIVES: To estimate the public health outcomes associated with vaccination of healthy Belgian children aged 2-17 years using an intranasal tetralivalent live-attenuated influenza vaccine (iAV) compared to the current strategy using a risk-based algorithm involving individuals with the trivalent inactivated vaccine (IVIV). METHODS: A deterministic age-structured, dynamic model was used to simulate influenza transmission (4 stratification levels: age, current/last season coverage, iAV or IVIV) and vaccine efficacy (as a proportion of susceptible individuals receiving vaccine coverage to healthy children aged 2-17 with iALIV: Differential equations describe demographic changes, exposure to infectious individuals (between-individual contact frequencies from the Belgian POLYMOD matrix), vaccination immunity dynamics, transmission and recovery parameters from the literature. The basic reproduction number (R0) was calibrated to the observation of 285,951 influenza doctor visits/year (Belgian surveillance network). Efficacy was 0% iALIV & 59.6% IVIV. RESULTS: The 10-year incidence of symptomatic infections was calculated with different coverage scenarios (add-to-current coverage). RESULTS: Model calibration yielded R0=1.1. A coverage of 50 to 75% of the 2-17 years-old with iALIV would prevent 295,400 to 429,000 symptomatic influenza cases (5% - 57% of the current number of cases), of which 187,000 to 242,000 were cases among adults ≥ 18 (due to indirect effects). Vaccinating 75% of the 2-11 years-old and 50% of the 12-17 years-old averted 333,200 cases/year (of which 213,000 cases/year was in adults ≥ 18). Vaccinating only the 2-17 years-old averted 4% (to 35%) of total averted cases (45-455% of total averted cases). The model demonstrates both direct and indirect protection benefits of vaccinating healthy children with iALIV in Belgium. Policies targeting only at-risk individuals or the youngest provide limited herd protection as school-age children are important influenza vectors due to their high contact frequencies within the community.

PIN10
APPROPRIATENESS SCORE AND COST EVALUATION IN HIV: THE APROSE SYSTEM, ON FIELD CLINICAL EVALUATION
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OBJECTIVES: To evaluate the virological outcomes of a cohort of HIV infected Belgian children aged 2-17 years using an intranasal tetravalent live-attenuated influenza vaccine (iAV) compared to the current strategy using a risk-based algorithm involving individuals with the trivalent inactivated vaccine (IVIV). METHODS: A deterministic age-structured, dynamic model was used to simulate influenza transmission (4 stratification levels: age, current/last season coverage, iAV or IVIV) and vaccine efficacy (as a proportion of susceptible individuals receiving vaccine coverage to healthy children aged 2-17 with iALIV: Differential equations describe demographic changes, exposure to infectious individuals (between-individual contact frequencies from the Belgian POLYMOD matrix), vaccination immunity dynamics, transmission and recovery parameters from the literature. The basic reproduction number (R0) was calibrated to the observation of 285,951 influenza doctor visits/year (Belgian surveillance network). Efficacy was 0% iALIV & 59.6% IVIV. RESULTS: The 10-year incidence of symptomatic infections was calculated with different coverage scenarios (add-to-current coverage). RESULTS: Model calibration yielded R0=1.1. A coverage of 50 to 75% of the 2-17 years-old with iALIV would prevent 295,400 to 429,000 symptomatic influenza cases (5% - 57% of the current number of cases), of which 187,000 to 242,000 were cases among adults ≥ 18 (due to indirect effects). Vaccinating 75% of the 2-11 years-old and 50% of the 12-17 years-old averted 333,200 cases/year (of which 213,000 cases/year was in adults ≥ 18). Vaccinating only the 2-17 years-old averted 4% (to 35%) of total averted cases (45-455% of total averted cases). The model demonstrates both direct and indirect protection benefits of vaccinating healthy children with iALIV in Belgium. Policies targeting only at-risk individuals or the youngest provide limited herd protection as school-age children are important influenza vectors due to their high contact frequencies within the community.

PIN11
ESTIMATION OF THE RELATIVE EFICACY OF LICENSED REGIMENS FOR GENOTYPES 1-2-3 HCV INFECTION USING AN ADEQUATE TREATMENT COMPARISON
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OBJECTIVES: A number of treatment combinations are licensed for genotype 1 (GT1) hepatitis C HCV infection. A mixed treatment comparison (MTC) is a methodological tool that allows estimation of the relative effectiveness of interventions that have not been compared directly through phase III comparative randomised controlled trials (RCT). The aim of this study is to indirectly estimate the relative treatment effect of the licensed regimens for the treatment of genotype 1 (GT1) patients with chronic HCV infection. METHODS: A systematic review identified relevant RCTs and II studies. Studies that evaluated licensed interferon-containing and interferon-free regimens for GT1 chronic HCV were included. A MTC was undertaken for an overall cohort of GT1 TN patients, not stratified according to genotype 1a or 1b, or the presence or absence of cirrhosis. The results were obtained by using Markov chain Monte Carlo simulation in OpenBUGS. RESULTS: Two hundred and forty nine studies were identified of whom thirty-five met the inclusion criteria. Eight treatments were compared in a MTC analysis, where single-agent studies were excluded. A cumula-