aureus(MRSA), streptococci and many common Gram-negative pathogens. The objective was to evaluate the efficacy of ceftaroline fosamil monotherapy versus other antibiotics routinely used in initial empiric treatment of MRSA-suspected CSSTI. **METHODS:** MEDLINE, Medline-In-Progress, EMBASE and the Cochrane Controlled Trials Registry were searched to identify published randomised controlled trials in which ceftaroline fosamil, daptomycin, linezolid, teicoplanin, tigecycline and vancomycin (with or without a Gram-negative antibiotic) were used to treat patients admitted to hospital with CSSTI. Primary outcomes were clinical success at test-of-cure visit in the modified intention-to-treat (MITT) and clinically evaluable (CE) populations using a NMA with uninformative priors. Clinical success for each antibiotic was reported with 95% credible intervals ($CrI_{95\%}$). A fixed effects model was used. **RESULTS:** Thirteen studies involving five antibiotics and a total of 8,152 patients with CSSTI were included. No data were found for teicoplanin. Pooled clinical success rates and $CrI_{95\%}$ in the MITT population for each antibiotic were: ceftaroline fosamil 81.2% ($CrI_{95\%}$: 76.8% to 85.0%), daptomycin 81.4% ($CrI_{95\%}$: 72.5% to 87.9%), linezolid 84.9% ($CrI_{95\%}$: 80.0% to 88.8%), tigecycline 79.9% ($CrI_{95\%}$: 74.1% to 84.7%) and vancomycin 80.4% ($CrI_{95\%}$: 77.9% to 82.6%). Clinical success rates in the CE population were: ceftaroline fosamil 89.2% ($CrI_{95\%}$: 85.3% to 92.3%), daptomycin 93.3% ($CrI_{95\%}$: 88.5% to 96.2%), linezolid 94.2% ($CrI_{95\%}$: 90.7% to 96.5%), tigecycline 88.1% ($CrI_{95\%}$: 84.7% to 90.9%) and vancomycin 90.0% ($CrI_{95\%}$: 88.2% to 91.6%). **CONCLUSIONS:** Although limited data were identified and differences across trials were noted, the results of this NMA suggest that ceftaroline fosamil is comparable in efficacy to other antibiotics used in the treatment of MRSA-suspected CSSTI.

PIN8

A PRELIMINARY ECONOMICAL ANALYSIS BASED ON THE EARLY IMPACT OBSERVED ON GENITAL WARTS BURDEN REDUCTION FOLLOWING QUADRIVALENT HPV VACCINATION IN BELGIUM

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OBJECTIVES: Quadrivalent human papillomavirus (qHPV) vaccine prevents from genital warts in addition to HPV-related cancers. Study objective was to provide first estimates of savings offered by the reduction in GW incidence observed in Belgium, 4 years after the introduction of the qHPV vaccine. **METHODS:** A retrospective observational study was performed using the MLOZ health care insurance database. Number of GW was described by age-group, gender, between 2003 and March 2011. GW cumulative incidence estimates were compared between women vaccinated or not with qHPV vaccine from 2007 onwards. Analyses were restricted to age-groups of women likely to have been vaccinated. Direct medical treatment costs published were updated to €2010 using the purchasing parity power conversion rates method and estimated at 324.2€/case (public health care payer perspective). **RESULTS:** A total of 55,193 women aged 16-20 year-old were retrieved, of whom 13,117 were vaccinated with qHPV vaccine. Within this age-group, 435 first GW cases were observed, 423 in the control group (non vaccinated: 1.01%) and 12 in the vaccinated group (0.09%), representing 920 GW cases/100,000 vaccinated women avoided among this age group during a limited period of 4 years. Cumulative incidence estimates of GW were also significantly lower among women vaccinated with qHPV vaccine compared to those that were not: 0.12% (CI: 0.07%-0.23%) vs. 0.93% (CI: 0.85%-1.03%), relative reduction (RR): -87.1%, $p<0.0001$. Among girls aged 16-20 and over 4 years, direct health care cost saved were estimated at 298K€/100,000 vaccinated girls. **CONCLUSIONS:** This preliminary analysis suggests that a marked reduction of GW and related resources used in Belgium may be achievable through qHPV vaccination. The reduction of GW and associated treatments costs would be higher if more cohorts were considered and should become more prominent in the coming years when the current and future qHPV vaccinated cohorts will enter into the peak age of risk for GW.

PIN9

CONTRAINDICATIONS TO HEPATITIS C TREATMENT: WHICH ONES MODIFY THE LIKELIHOOD OF VETERANS RECEIVING TREATMENT?

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OBJECTIVES: We studied the influence of absolute and relative contraindications on likelihood of treatment with dual-therapy for chronic heptatis C (HCV) infection in a national cohort of HCV-infected veterans. **METHODS:** We identified patients with an HCV diagnosis and either laboratory confirmation or a second diagnosis within a year. We excluded those with no encounters at least 6 months before the first diagnosis to ensure treatment naiveté. Cox Proportional Hazards regression models were developed with contraindications as time-varying exposures to assess their influence on treatment likelihood. **RESULTS:** Of 318,814 previously untreated veterans diagnosed from 2004-2009, 101,444 (31.8%) met all criteria. Mean (SD) age was 58.6 (8.2) years and 96.7% were male. Race was known in 51.9%; of which most were white (49.9%) or black (40.4%). At diagnosis, most patients had unknown genotype (56.4%) or genotype 1 (35.3%). Contraindications were present at diagnosis in 17.2% of patients and 30.1% developed contraindications during follow-up. Predictive models revealed that several contraindications were significantly and independently associated with a decreased likelihood of treatment including kidney transplant (hazards ratio [HR]=0.29), thrombocytopenia (HR=0.38), acute myocardial infarction (HR=0.43), iron-deficiency anemia (HR=0.46), acute coronary syndromes (HR=0.62), bipolar disorder (HR=0.63), hepatic decompensation (HR=0.70), and retinopathy (HR=0.74). Patients with a liver transplant were much more likely to receive treatment (HR=3.51). Contraindications that had no influence on the likelihood of treatment were intractable epilepsy, pregnancy, major depression, and hemoglobinopathies. Neutropenia, auto-immune hepatitis, and other organ transplant had too few events and so were dropped from the models. **CONCLUSIONS:** This study provides evidence that clinicians make real-world treatment decisions for HCV based on some contraindications but not all. Future work should examine the occurrence of adverse events or treatment failure in contraindicated patients and explore ways to improve clinician awareness of contraindications when making treatment decisions.

PIN10

FOURTH YEAR POST-ROTAVIRUS VACCINATION IN BELGIUM: DECREASE OF ROTAVIRUS-POSITIVE STOOL SAMPLES IN HOSPITALISED CHILDREN

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Rotavirus vaccination in infants has been reimbursed in Belgium since November 2006 and vaccine coverage is about 85%. **OBJECTIVES:** To assess and to compare the impact of mass rotavirus vaccination on the rotavirus related hospitalisations in children ≤5 y old pre-vaccination and up to 4 years post-introduction of the vaccine in 9 paediatric wards in Belgium. **METHODS:** Stool samples for rotavirus detection were collected from all ≤5y old hospitalised children. The absolute number of rotavirus positive tests pre-vaccine launch (01/06/2004-31/05/2006) were compared with data at launch (01/06/2006-31/05/2007), and post-launch (01/06/2007-31/05/2011). Data are presented as a % reduction (95% CI) per year post-vaccination considering the annual average pre-vaccination period as a reference. **RESULTS:** The number of rotavirus-positive stool tests in children aged ≤5 years decreased from an average of 881 pre-vaccination to 600, a 32% reduction (95% CI: 29%-35%) during the launch period, to 368 (−58%, 95% CI: 55%−61%) in the 1st year post-launch, to 202 (−77%, 95% CI: 74%−80%) in the 2nd year, 180 (−80%, 95% CI: 77%−82%) in the 3rd year, and to 201 (−77%, 95% CI: 74%−80%) in the 4th year. In addition an overall decline (−38%, 95% CI: 36%−41%) in all-cause acute-gastroenteritis (AGE) related hospital admissions is observed from 1,757 per year pre-vaccination to 1,082 per year 4th year post-launch. The number of bed days due to AGE has fallen from 8974 pre-vaccination to 5362 (−40%, 95% CI: 39%−41%) post-vaccination. A reduction from 6340 to 4894 (−27%, 95% CI: 26%−28%) is also seen amongst the non-rotavirus positive cases. **CONCLUSIONS:** Significant declines in number of rotavirus and all-cause AGE related hospitalisations are seen in young children after 4 years of mass rotavirus vaccination in Belgium. A steady state may be reached after 3 years as no further decrease in the number of rotavirus related hospitalisations is observed.

PIN11

PHARMACOTHERAPY OF ACUTE BRONCHITIS IN CLINICS: RESULTS OF PHARMACOEPIDEMICAL RESEARCH

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OBJECTIVES: Perform pharmacoepidemical analysis on actual practice when using antibacterial therapy among adults with acute bronchitis. **METHODS:** We have analyzed 572 cases of acute bronchitis among patients receiving clinical treatment in four hospitals located in Moscow, Nizhniy Novgorod, St. Petersburg and Kazan. An individual registration folder featuring patient's demographic data, accompanying diseases, use of antimicrobial treatment, dose regimes and methods and length of treatment was filed for pharmacoepidemical research. The average age of patients was 39.8±5,7 years with 74% of men and 26% of women. **RESULTS:** Antibiotics were used in 85.7% of all cases. In Nizhniy Novgorod antimicrobial pills were given to 85% of patients while the number of such patients in Moscow and St. Petersburg amounted to 88.5% and 81.5% respectively. In Kazan all the patients received antimicrobial drugs. The most frequent drugs were macrolides (45.8%), inhibitor-protected penicillin (43.7%) and fluoroquinolines (ciprofloxacin) (4.9%). The less frequent ones were doxycycline (1.6%) and amoxicillin (1.8%) and ampicillin (2.2%). The most frequent macrolid was azitromicyn (33.7%) as well as clarythromycin (8.6%) and erythromycin (3.5%). **CONCLUSIONS:** As a result the actual practice of clinical treatment of acute bronchitis among adults majorly requres the use of antibacterial wide spectrum drugs (85.7%). The frequency of such therapy was high in all hospitals regardless of their locations. The use of antibiotics when treating virus etiology is obviously wrong and leads to the increase of non-desired consequences, higher cost of treatment and might be accompanied by the growing number of antibiotic resistant microorganisms. The above-mentioned data requires to create and practice methods aimed at the reduction of antimicrobial drug-taking for patients with acute bronchitis in clinical treatments.

PIN12

BURDEN OF DISEASE AND SEROTYPE DISTRIBUTION ASSOCIATED WITH REPORTABLE INVASIVE STREPTOCOCCUS PNEUMONIAE PNEUMONIA IN NORWAY, 2007–2009

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OBJECTIVES: Streptococcus pneumoniae (SP) pneumonia represents substantial morbidity and mortality worldwide. A retrospective study was conducted to describe the incidence, serotype distribution, and in-hospital mortality associated with reportable invasive SP pneumonia in all age groups in Norway from 2007–2009. **METHODS:** Patients with laboratory-confirmed invasive SP pneumonia were identified from the Norwegian Surveillance System for Communicable Diseases (MSIS) database from January 2007–December 2009. Population data were obtained from Statistics Norway. Incidence was reported annually as new cases per