Lifetime risks data were extrapolated from a published Markov model. Screening and population data were extracted from official references. Costing was assessed through the compiled 5 year activities of a gynaecologic department (CHUV, Lausanne), TARMED (2005) and Compendium (2005). Sensitivity analyses examined vaccine parameters, range of treatment patterns and costs. **RESULTS:** For a 12 year old cohort of girls with 40% vaccine coverage rate, the model predicts a lifetime reduction of 22% of CC and related deaths, –23% of CIN 2/3, –11% for CIN 1 and –36% for genital warts. The associated increase in the national health care budget was only 3% (+4,5 million CHF). If vaccine coverage rate reached 80%, clinical impact on CC would be more than 50% better whilst increasing the budget by only 6%. Results are robust to sensitivity analyses. **CONCLUSION:** Preventing HPV related diseases through vaccination with a quadrivalent (6, 11, 16, 18) HPV vaccine alongside CC screening in Switzerland could result in significant clinical benefits with only a slight increase on the national health care budget.

PIN2

A COST-BENEFIT ANALYSIS OF DIFFERENT VARICELLA VACCINATION STRATEGIES INVOLVING ITALIAN CHILDREN AND ADOLESCENTS

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OBJECTIVES: To assess the potential epidemiological, clinical, and economic effects of different varicella vaccination strategies in Italy, involving children and adolescents. **METHODS:** The simulation model EVITA (Banz et al. 2003) was developed to analyse universal varicella vaccination strategies. Epidemiological and economic model input data were collected from Tuscany region data banks and the available Italian literature. The vaccination strategies analysed included: 1) 1–1.5 y (years), 85% coverage; 2) 1–1.5 y + catch-up 12 y (1 dose, 30% catch-up coverage); 3) 1–1.5 y + catch-up 13 y (2 doses, 30% coverage); and 4) 1–1.5 y with 2 doses + catch-up 13 y (2 doses, 30% coverage). Analysis time horizon was 30 years. **RESULTS:** Without universal vaccination, the model predicted 501.644 varicella cases and 27.341 related complications in Italy each year. All vaccination strategies resulted in excellent clinical outcomes, with strategy 2) being the most effective, preventing over 83% of varicella cases and complications. A low coverage scenario (50%) prevented only 68% of varicella cases, with a rebound of cases occurring after around 15 years of initial decline. Average yearly cost savings for strategy 2) are 62 million Euros for the society and 2.3 million Euros for the NHS, and for the 1) strategy 59.7 and 2.5 million Euros, respectively. The most favourable clinical and economic outcomes of a catch-up programme occurred when vaccinating 12 y adolescents with 1 dose instead 13 y adolescents with 2 doses. Only strategy 4) failed to generate savings for the NHS. No significant differences in outcomes were detected when using epidemiological and seroprevalence data corresponding to North, Centre and South of Italy. **CONCLUSIONS:** Universal varicella vaccination in children (with or without an adolescent catch-up programme) is very effective in reducing the high burden of disease and leads to significant cost savings.

PIN3

COST–EFFECTIVNESS ANALYSIS OF TONSILOPHARYNGITIS AND RHYNOPHARINGITIS ACCUTA, ANTIBIOTIC TREATMANT, SRBIJA, NIS REGION

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OBJECTIVES: Identification of cost–effectivness antibiotic treatment method tonsilopharyngitis and rhynopharingitis accuta in pediatric population from just born to 12 years old children in which these diagnosis were establish on the level of private and government primary health care practice system, depending of clinical report and possible drug hypersensitivity. **METHODS:** Cost–effectiveness analysis was done in two different periods of time; The first one was before establishing "The National guide for antibiotic treatment", and the second one after that. Four possible treatments with 30 children each were observed. These are following–before the implementation of the National guide 1) Phenoxymethylpenicillin oral suspension (300,000 IJ/5 ml 10 days); 2) Erythtomycin oral suspension (200 mg/5 ml 5 days); 3) Benzylpenicilin procainpennicillin inj i.m. (800,000 IJ 7 days); 4) Lincomycin inj i.m (600 mg/2 ml 7 days). After 1) Amoxicilin + clavulonic acid oral suspension (7 days); 2) Azirohromycin oral suspension (200 mg/5 ml 4 days), 3) Benzylpenicillin procainpenicillin inj i.m.; 4) Phenoxymethlpenicillin oral suspension. Real costs were calculated for each possible treatment contains direct (first doctor visit, control check up, medicines and OTC therapy costs), indirect (additional treatment payment and eventual complication payment). Patients were sorted in those with completely, partly successful and total unsuccessful treatment. ICER (Incremental cost effectivness ratio) was defined for each possible treatment; base was number of days without refreshing infection. Comparison of ICER value gave cost effectivness therapy. **RESULTS:** ICER showed for the first period that Benzylpenicillin procainpenicillin inj i.m. (7 days) was the best cost effectivness treatment. In addition The National guide confirmed and recommended it also. On the contrary, after implementation of the National guide the most prescribing treatments were Amoxicilin+clavulonic acid oral suspension (7 days) and Phenoxymethlpenicillin oral suspension (10 days). It doesn't reduce therapy costs. **CONCLUSIONS:** Prescribing practice in Serbia should be changed by using the most CE methods and that will cause decrease in total costs of antibiotic therapy.

PIN4

ANTIBIOTIC THERAPY OF NOSOCOMIAL INFECTION IN THE INTENSIVE CARE UNIT: A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: To determine the cost-effectiveness of meropenem treatment versus standard strategy of antibiotic (AB) therapy for high-risk patients with nosocomial infection (NI) in the intensive care unit (ICU). **METHODS:** Two group high-risk patients with NI were randomly assigned to AB treatment: 1st—62 pts received meropenem (1.5–3 g daily) and 2nd—73 pts treated by standard AB therapy (combination of penicillins with or without a beta-lactamase inhibitor, cephalosporins III or IV generation, fluoroquinolons with aminoglicosides). Direct medical costs (cost of drag administration, resource utilization, duration of hospitalization) were estimated. Achievement of recovery was used as effectiveness. Unit costs were based on detailed data from the Moscow Obligatory Insurance Fond (2006). The rate of exchange was 34,44 rubles for 1 EUR. **RESULTS:** Direct medical costs were 1618.6 EUR for group 1 (C1) and 2065.7 EUR for group 2 (C2). Achievement of recovery –80.6% (E1) and 46.6% (E2) for each group respectively, $p < 0,01$. The final calculation of cost/effectiveness ratio (CER) was: CER1 = €20.08 and CER2 = €44.32 per every percent of recovered patients for group 1 and 2 respectively. **CONCLUSION:** Meropenem usage versus standard AB therapy is more effective from the position "cost-effectiveness" in the treatment of high-risk patients with nosocomial infection in the intensive care unit.