

casposfungin. The cost of achieving one more patient successfully treated with anidulafungin, casposfungin, and micafungin compared to fluconazole was € 17,199, € 23,962, and € 27,339, respectively. The result remained stable despite modification of the duration of the first-line and second-line treatments, as well as most of the dosing regimens. The probabilistic analysis also remained stable. **CONCLUSIONS:** According to the model, anidulafungin produced savings and was the dominant treatment compared with micafungin and casposfungin in non-neutropenic adult patients with candidemia and/or invasive candidiasis in ICUs in Spain.

#### PIN52

##### ECONOMIC EVALUATION OF THE ROTAVIRUS VACCINATION AMONG CHILDREN UNDER 5 YEARS OF AGE IN SWITZERLAND

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**OBJECTIVES:** Rotavirus (RV) infection is a leading cause of severe diarrhoea among young children in Switzerland and it is associated with a significant financial burden. Two RV vaccines are marketed globally, but only RIX4414 is licensed in Switzerland. This study aims to evaluate the cost-effectiveness of RV vaccination with RIX4414 among children less than 5 years of age in Switzerland. **METHODS:** A previously published age-compartmental Markov cohort model with monthly cycles was used to evaluate the RV events and the associated health outcomes and costs over the first 5 years of a new-born cohort. It compared the RV burden in a cohort of 84,823 new-borns with or without RIX4414. Transition probabilities, vaccine efficacy, Quality-Adjusted-Life-Years (QALY), Swiss specific incidence and costs data were obtained from literature or official reports. Retail vaccine price of CHF61.60 per dose was used. Incremental cost-effectiveness ratio (ICER) was calculated under a payer's perspective. Extensive sensitivity analyses were also performed to test the robustness of the results. **RESULTS:** The vaccination programme with RIX4414 at 90% coverage rate would prevent 1,411 hospitalisation (88%), 145 nosocomial infections (63%), 3,914 emergency room visits (88%), 13,006 medical visits (87%) and 27,861 (70%) RV events. From a payer's perspective, the vaccine cost completely offset the direct RV medical cost and vaccination may offer 39 extra QALYs. Sensitivity analyses showed that the frequency of medical visits, of RV events and the cost of hospitalisation were the key drivers influencing the results. **CONCLUSIONS:** RV vaccination programme with RIX4414 could reduce substantially the number of RV cases. The vaccine cost offsets the total direct medical costs.

#### PIN53

##### ESTIMATING THE COST-EFFECTIVENESS PROFILE OF A UNIVERSAL VACCINATION PROGRAMME WITH A NINE-VALENT HPV VACCINE IN AUSTRIA

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**OBJECTIVES:** In the European context, the nonavalent HPV vaccine (6/11/16/18/31/33/45/52/58) expands the spectrum of prevention from 75% to 89% of HPV-positive cancer cases and from 47% to 82% of precancerous lesions in the cervix, vulva, vagina and anus. This analysis aims to estimate the public health impact and the incremental cost-effectiveness of a universal (girls and boys) vaccination program with a nonavalent HPV vaccine as compared to the current universal vaccination program with a quadrivalent HPV vaccine (6/11/16/18), in Austria. **METHODS:** A dynamic transmission model including a wide range of health and cost outcomes related to cervical, anal, vulvar, vaginal diseases and genital warts was calibrated to Austrian epidemiological data. The clinical impact due to the 5 new types was included for cervical diseases only, producing conservative outcomes. In the base case, a two-dose schedule, lifelong vaccine type-specific protection and a vaccination coverage rate of 60% and 40% for girls and boys respectively for the 9-year old cohorts were assumed. A threshold of €30,000/QALY-gained was considered. **RESULTS:** Universal vaccination with the nonavalent vaccine was shown to be having the potential to reduce the incidence of HPV16/18/31/33/45/52/58-related cervical cancer by 92% and the related CIN2/3 by 96% after 100 years, relative to 75% and 76% with the quadrivalent vaccine respectively. Furthermore, the nonavalent vaccine was projected to prevent an additional of 8,281 cases of CIN1, 14,893 cases of CIN2/3 and 2,544 cases of cervical cancer, over 100 years. Finally, the base case analysis resulted into an ICER of approximately €16,441. **CONCLUSIONS:** The findings of the analysis indicate that universal vaccination with a nonavalent vaccine in Austria is estimated to be cost-effective when compared to the quadrivalent vaccine across a range of sensitivity analyses and, further reduce the public health burden of HPV-related cancers and diseases.

#### PIN54

##### COST-EFFECTIVENESS OF SOFOSBUVIR AND LEDIPASVIR IN THE TREATMENT OF PATIENTS WITH HEPATITIS C

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**OBJECTIVES:** In France, 190,306 patients were suffering from chronic hepatitis C in 2012. These patients have a decreased life expectancy and are susceptible to complications associated with chronic hepatitis. The association of Ledipasvir and Sofosbuvir, an interferon-free treatment, has demonstrated in several phase III trials sustained viral response (SVR) rates close to a 100% for genotype 1 (G1) and 4 (G4) patients in 8 to 12 weeks. The objective of this study was to compare the cost-effectiveness of using this association in the treatment of chronic HCV infection in multiple clinical context including past treatment (naïve or experience), coinfection, cirrhosis and stage at treatment initiation. **METHODS:** A Markov model was used to assess the cost-effectiveness of sofosbuvir-ledipasvir association compare to every available current and upcoming strategy. The model simulated the natural history of HCV infection from F0 to F4 taking into account the characteristics of the patients at treatment. To be conservative, the model also included fibrosis progression for SVR patients. SVR rates for F0 to F4 were based on data from clinical trials. Utilities associated with different stages of disease were based on data from the literature. French direct medical

costs were used. Price for sofosbuvir-ledipasvir was the price used in the early access program in France. **RESULTS:** The incremental cost-effectiveness ratio for patient treated at F2F3 ranged from 3 000 € / QALY to 20 000 € / QALY for 8 and 12 weeks treatment duration. The sensitivity analyses carried out confirmed the robustness of this result. **CONCLUSIONS:** Sofosbuvir-ledipasvir association is a cost-effective treatment option for patients with hepatitis C in most clinical contexts.

#### PIN55

##### COST-EFFECTIVENESS OF ACTIVE SURVEILLANCE OF CARBAPENEM-RESISTANT ENTEROBACTERIACEAE IN INTENSIVE CARE UNITS IN HONG KONG

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**OBJECTIVES:** The prevalence of carbapenem-resistant Enterobacteriaceae (CRE) has been increasing and proactive surveillance is highly recommended. Patients in intensive care unit (ICU) are particularly prone to CRE acquisition due to multiple risk factors. The objective of this study was to examine the potential cost and clinical outcomes of active CRE surveillance upon ICU admission from the perspective of healthcare providers in Hong Kong. **METHODS:** A Markov model was designed to compare the outcomes of active CRE surveillance versus no active surveillance in patients admitted to an ICU in Hong Kong. CRE-associated direct medical cost and CRE-associated quality-adjusted life years (QALYs) loss were simulated based on the model inputs derived from the literature. Sensitivity analyses were conducted to evaluate the robustness of the results. **RESULTS:** In the base-case analysis, active surveillance group showed less QALYs loss (0.3335 vs 0.3827) with higher CRE-associated cost (HKD9,825 vs HKD9,800) (USD1=HKD7.8) than control group. The incremental cost-effectiveness ratio (ICER) of active surveillance was HKD 500 per QALY saved compared to control group. Sensitivity analysis found base-case results robust to variation of all model inputs. In 10,000 Monte Carlo simulations, active surveillance group was less costly by HKD1,064 per patient (95%CI HKD1,025-1,103; p<0.001) and lower mean QALYs loss by 0.430 (95% CI, 0.422-0.438; p<0.001) when compared with control group. ICERs per QALY saved by the active surveillance group were less than the gross domestic product per capita in Hong Kong (HKD330,113) in 99.98% of the simulations. **CONCLUSIONS:** Active CRE surveillance upon ICU admission appears to be a cost-effective strategy from the perspective of healthcare providers in Hong Kong.

#### PIN56

##### LEDIPASVIR / SOFOSBUVIR FOR THE TREATMENT OF CHRONIC HEPATITIS C: A COST-EFFECTIVENESS ANALYSIS ACROSS DIFFERENT GENOTYPE 1 CLINICAL SUBGROUPS

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**OBJECTIVES:** Sofosbuvir (SOF), a new pan-genotypic inhibitor of the hepatitis C virus (HCV), has been approved for use in chronic hepatitis C (CHC) patients, having shown unprecedented sustained virologic response (SVR) rates and tolerability profile. More recently, the combination of SOF and ledipasvir (LDV) – a new HCV inhibitor with potent antiviral activity – has resulted in higher rates of SVR, especially in genotype-1 HCV. The objective of this analysis was to assess the cost-effectiveness of LDV/SOF fixed-dose combination for the treatment of HCV genotype-1 in Portugal. **METHODS:** Cost and effectiveness were based on a CHC natural history evolution Markov-type model accounting for the presence of cirrhosis and previous treatment experience for genotype-1. The model incorporated 5 Metavir score states, 2 SVR states (with and without cirrhosis) and 3 advanced liver disease states. Results are expressed in incremental costs per life year (LY) and quality-adjusted life year (QALY). The choice of comparators was based on identical therapeutic indication and financing by the Portuguese National Healthcare System (except for SOF which is currently seen as the standard of care). **RESULTS:** Overall LDV/SOF is expected to result in increments between 0.21 and 6.80 LY (0.26 and 5.80 QALY) depending on the clinical subgroup and comparator, with costs ranging from -56,981€ savings and 23,288€ increment. Incremental cost-effectiveness ratios (ICER) varied between LDV/SOF dominance and a maximum of 10,563€/LY (9,098€/QALY). In the comparison against SOF+PegIFN+RBV or SOF+RBV, LDV/SOF was shown to be dominant, while versus boceprevir regimens ICER varied between 1,896€/LY (2,597€/QALY) (experimented cirrhotic) and 10,563€/LY (9,098€/QALY) (experimented non-cirrhotic). When LDV/SOF was compared against PegIFN+RBV, the ICER variation was 3,828€/LY (5,396€/QALY) (naïve cirrhotic) to 8,042€/LY (6,776€/QALY) (experimented non-cirrhotic). **CONCLUSIONS:** Ledipasvir/sofosbuvir is expected to represent good value for money including cost-saving scenarios in the treatment of CHC genotype-1 in Portugal, irrespective of the clinical subgroup or comparator.

#### PIN57

##### RECTAL CULTURE TESTING BEFORE TRANSRECTAL ULTRASOUND-GUIDED PROSTATE BIOPSY (TRUSBX) IN HONG KONG – A COST-EFFECTIVENESS ANALYSIS

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**OBJECTIVES:** Rectal culture-guided antibiotic prophylaxis is an effective strategy in preventing post-TRUSBx infections. This study aimed to examine the cost-effectiveness of pre-biopsy rectal swab culture-guided antibiotic prophylaxis in patients undergoing TRUSBx from the societal perspective in Hong Kong. **METHODS:** A decision tree model was designed to compare clinical outcomes and cost of TRUSBx with rectal culture-guided versus empirical antibiotic prophylaxis in a hypothetical cohort