longitudinal studies on the natural history of anal, penile, and oropharyngeal cancers. The objective of this paper is the synthesis of the totality of evidence on anal, penile, and oropharyngeal cancers for the purpose of parameterizing decision analytic modeling. Following the known natural history of cervical carcinogenesis, our goal is to estimate the probability of transition from HPV infection to precancer, the rate of precancer clearance, and the rate of progression of precancer to cancer. METHODS: We conducted a systematic review of the literature to identify all articles with longitudinal data on the natural history of anal, penile, and oropharyngeal cancers. Including those studies that report quantifiable evidence, we conduct a meta-analysis on the core parameters. The review was performed as per the methods recommended by the Cochrane Collaboration. RESULTS: Using PubMed, we identified 605 articles relevant to the anal site, 340 articles for the penile site, and 267 on the oropharyngeal site. However, systematic review resulted in only 9 studies, all of which pertained to anal precancer/cancer. Given the available data, we estimated the annual rates of precancer clearance and progression to be 11.4% (8.34%, 14.55%) and 2.18% (0.92%, 3.47%), respectively. CONCLUSIONS: Decision analytic models provide a framework for formulation of vaccination policies, incorporating all available evidence. This review summarizes the totality of evidence on HPV and these three cancers to inform health policy, specifically policies concerning male vaccination against papillomavirus (MVP).

BUDGETARY IMPACT OF METASTATIC RETINAL CELL CARCINOMA (mRCC) TREATMENT ON THE COLOMBIAN GENERAL HEALTH SOCIAL SYSTEM (SGSSS)

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OBJECTIVES: Medical treatment for mRCC during 2002 represented around 4% of the resources designed for cancer treatment in Colombia; a local study has shown that Sunitinib (SU) was the most cost-effective medication for first-line treatment of mRCC. We evaluated the budgetary impact of including SU as choice for first-line treatment of mRCC compared to the current treatment being offered in Colombia (Lanreotide Autogel® (IFN), Bevacizumab+IFN and Sorafenib). METHODS: Sunitinib's budgetary impact was estimated including mRCC patients that were candidates to receive first-line treatment under the SGSS, using a 5-year time horizon. A Markov model was developed to predict costs for each patient under study. Data regarding frequencies of use and health service cost units consumed was taken from a series of 24 patients treated in four different cities. Service costs corresponded to the average value billed by the HMOs, calculated from 33 sources of information which were representative of the country's market. The 5-year projected profile for the current treatment of patients suffering from mRCC was estimated starting from each medication's market share and then compared to a scenario of changing Sunitinib's share to being 100%. The measures of effectiveness applicable for the projection were taken from previously published clinical trials. A one-way sensitivity analysis was conducted for validating the model's robustness and costs are shown in Colombian pesos (Col$) (Exchange rate 1 USD = 1966.26 Col$). RESULTS: The total budgetary impact of SU as first-line treatment for mRCC represented a saving for the Colombian SGSS of Col$ 2,054,519 in 2008 and Col$ 2,161,393 in 2009, Col$ 2,164,559 in 2010, Col$ 2,164,559 in 2011, Col$ 1,923,678,137 in 2012 and Col$ 1,840,410,375 in 2013. This would represent an overall saving of Col$ 10,085,967,048 for the next 5-years. CONCLUSIONS: Including SU as the option of choice for first-line treatment of mRCC in the Colombian SGSSS would be favorable and cost-saving.