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LOSS OF OPPORTUNITY LINKED WITH THE SUBOPTIMAL COVERAGE RATE OF HPV VACCINATION IN FRANCE

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OBJECTIVES: HPV vaccination is recommended in France for girls aged 11 to 14 with a catch-up from 15 to 19 years old. Though, with a cumulative coverage rate (UCR) of less than 20% in girls aged 16 years old for the HPV vaccine, France has one of the lowest rates in Europe. The objective of the present study is to examine how many girls would be averted by reaching in France the UCR currently observed in several EU countries.

METHODS: A dynamic transmission model including a wide range of health and economic outcomes related to cervical, anal, vulvar, vaginal diseases and genital warts, was adapted to French setting. The health outcomes resulting from the vaccination of girls with quadrivalent HPV vaccine was assessed according to two different vaccine coverage rates: (i) the 2014 cumulative coverage rate in girls aged 16 years old [1] [2] [3] and (ii) a UCR range of 9% to 47% as was observed in several European countries.

RESULTS: The analyses demonstrated that reaching in France a UCR comparable to those observed in other European countries would lead to averting additional 3,873,070 genital warts, 582,339 CIN2/3, 78,899 cervical cancers, 1,253 vaginal cancers, 1,756 vulvar cancers, and 17,993 anal cancers (including 4,774 in males) over 100 years. Overall, 27,222 deaths from HPV cancers could be averted by increasing the UCR at 70%.

CONCLUSIONS: The present study shows that the HPV vaccination coverage rate in France is currently much below the levels observed in other European countries. The results confirm that improving the HPV vaccination coverage rate would have a large impact on the health gains in the French population.

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COST-EFFECTIVENESS ANALYSIS ON STARTING PATIENTS WITH CHRONIC MYELOID LEUKEMIA ON A HIGHLY POTENT TYROSINE KINASE INHIBITOR AND EARLY SWITCHING TO IMATINIB

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OBJECTIVES: To evaluate the cost-effectiveness of several sequential treatment strategies for chronic myeloid leukemia (CML) dependent on early molecular response (EMR) in the Austrian healthcare context.

METHODS: We adopted a pre-viously developed Markov state transition model to model different treatment options (imatinib, dasatinib, nilotinib) dependent on achievement of EMR after 3 months. We analyzed eight sequential treatment strategies using cohort simulation over a lifelong time horizon. Model parameters were extracted from published literature. Demographic and economic databases. We applied a 3% discount for health outcomes and costs. We analyzed 3 different base-case scenarios for patients not achieving an EMR after 3-months of imatinib treatment that were switched to second-generation TKIs, assuming three different effectiveness for these second-generation TKIs. Comprehensive sensitivity analyses were conducted.

RESULTS: The base-case analysis resulted in two non-dominated strategies: (1) imatinib followed by nilotinib in case of non-achieved EMR at 3 months and dasatinib after treatment failure or imatinib continuation in case of achieved 3-month EMR and nilotinib after treatment failure; (2) nilotinib followed by its continuation in case of non-achieved EMR at 3 months or switch to imatinib in case of achieved 3 month EMR and dasatinib after treatment failure. Depending on the scenario, strategy 2 resulted in an incremental cost-effectiveness ratio (ICER) of €84,200/QALY, €118,500/QALY or €142,200/QALY gained compared to the baseline strategy. Remaining strategies were excluded due to dominance. Sensitivity analyses on generic pricing of imatinib showed that starting with a more potent second-generation TKI and switching to imatinib after an achieved EMR are the preferred options.

CONCLUSIONS: Based on our analyses, we suggest nilotinib and its continuation for non-achieved EMR at 3 months and dasatinib after treatment failure as a cost-effective strategy for Austria if the willingness-to-pay threshold is at least around €120,000/QALY.

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ESTIMATING THE PUBLIC HEALTH IMPACT OF A VACCINATION PROGRAMME WITH A NON-NATIVE HPV VACCINE IN GERMANY

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OBJECTIVES: The non-native vaccine, by protecting against five additional onco- genic HPV types, and nine HPV types in total (6, 11, 16, 18, 31, 33, 45, 52 and 58), is analysis results were consistent with the base-case findings. CONCLUSIONS: Based on the willingness-to-pay threshold for end-of-life cancer drug, ceritinib may be considered as a cost-effective option compared with other alternatives in patients who have progressed or are intolerant to crizotinib.