screening programme is highly cost-effective for further reducing the burden of cervical cancer, pre-cancerous lesions and genital warts in Belgium.

**PIN24**

THE COST-EFFECTIVENESS OF A QUADRIVALENT HUMAN PAPILLOMAVIRUS VACCINE (6, 11, 16, 18) IN NORWAY

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OBJECTIVES: to assess the cost-effectiveness of alternative quadrivalent human papillomavirus (HPV) vaccination strategies in Norway. METHODS: A non-linear, deterministic, age-structured, mathematical model of the transmission dynamics of HPV infection (HPV types 6,11,16,18) and disease development in the population was developed and integrated with an economic model. Inputs for the model were obtained from public data sources, published literature, and clinical trials. We assumed a vaccine coverage rate of 90%. We varied duration of protection from 10 years to lifetime. Current cervical cancer screening practices were assumed to remain unchanged with vaccination. RESULTS: Vaccinating girls before the age of 12 augmented by a female, 12–24-year olds temporary 5-year catch-up program was the most effective strategy examined, reducing the incidence of HPV 6/11/16/18-related genital warts, cervical intraepithelial neoplasia (CIN1,2,3), and cervical cancer by 96%, 94%, and 94%, respectively 100 years following vaccine introduction. Early reductions in disease and associated costs were primarily attributable to prevention of infection with HPV types 6/11. For example, 90% of the costs of HPV disease avoided and 92% of the cases avoided during the first 5 years was attributable to preventing HPV 6/11 infection. However after 35 years, the majority of HPV disease cost avoided was primarily attributable to preventing HPV 16/18 infections. The cost-effectiveness ratio for this strategy compared with a strategy of vaccinating females before the age of 12 was NOK6,116,65 per quality adjusted life year (QALY) gained. The following parameters were most influential on the RESULTS: degree and duration of vaccine-derived protection, vaccine coverage and costs, and preference weights. CONCLUSION: A quadrivalent HPV (6,11,16,18) vaccine national program can reduce the incidence of cervical cancer, CIN (1,2,3), and genital warts and provide survival benefits and quality of life improvements at a cost-effectiveness ratio within the range accepted as cost-effective for a reasonably wide range of model input values.

**PIN26**

THE COST-EFFECTIVENESS OF A QUADRIVALENT HUMAN PAPILLOMAVIRUS VACCINE IN HUNGARY

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OBJECTIVES: to assess the cost-effectiveness of alternative quadrivalent human papillomavirus (HPV) vaccination strategies in Hungary. METHODS: A non-linear, deterministic, age-structured, mathematical model of the transmission dynamics of HPV infection (6, 11, 16, 18) and disease development in the population was developed and integrated with an economic model. Inputs for the model were obtained from public data sources, published literature, and clinical trials. We assumed a vaccine uptake of 85% for routine vaccination and 10% for catch-up vaccination. We varied duration of protection from 10 years to lifetime. Current cervical cancer screening practices were assumed to remain unchanged with vaccination. RESULTS: Vaccinating females before the age of 12 augmented by a female, 12–24-year olds temporary 5-year catch-up program was the most effective strategy examined, reducing the incidence of HPV 6/11/16/18-related genital warts, cervical intraepithelial neoplasia (CIN), and cervical cancer by 91%, 91%, and 94%, respectively one hundred years following vaccine introduction. The cost-effectiveness ratio for this strategy when compared with a strategy of vaccinating females before the age of 12 was HUF2,501,730 per quality adjusted life year (QALY) gained. The following parameters were most influential on the RESULTS: degree and duration of vaccine-derived protection, vaccine coverage and costs, and preference weights. CONCLUSION: A quadrivalent HPV vaccination program can reduce the incidence of cervical cancer, CIN, and genital warts and provide survival benefits and quality of life improvements at a cost-effectiveness ratio within the range accepted as cost-effective for a reasonably wide range of model input values.