ABSTRACT

Quadrivalent Human Papillomavirus Vaccine- Evaluation of clinical effectiveness and national vaccine programs

Author: Nataša Lekić

Research Advisor: PharmDr. Lenka Práznovcová, Ph.D.

Department of Social and Clinical Pharmacy, Faculty of Pharmacy in Hradec Králové, Charles University in Prague.

SUMMARY

QUADRIVALENT HPV VACCINE- EVALUATION OF CLINICAL EFFECTIVENESS AND NATIONAL VACCINE PROGRAMS

Background: Human papillomavirus types 6, 11,16 and 18 cause majority of genital warts and cervical cancer. Recent manufacture of quadrivalent HPV vaccine is an intent to prevent and reduce morbidity and mortality.

Aim of Study: The aim of this summarized study is the evaluation of effectiveness, safety and the economical value of quadrivalent HPV 6/11/16/18 vaccine (Gardasil/Silgard) manufactured by Merck co. Recommendations for successful national vaccination programs.

Methods: The study was performed using bibliographical investigation of various scientific databases, government publications and manufacturer's publications.

Results: Current quadrivalent HPV vaccine has been shown to be efficient and safe in clinical trials. Several components are needed to be assessed for successful vaccination programs including: government will and financial support, education of the public, vaccination cost and supply, need of booster dose, identification of the target group, cost benefit and cost-effectiveness analyses. Countries with existing national vaccination programs will be a model for those who have not implemented vaccination programs at the national level.

Conclusion: Quadrivalent HPV vaccine is still in its early stages of implementation at the national level, currently providing added prevention benefits. However, future studies on effectiveness of the vaccination programs will be a focus in aim of maximizing benefits.