



## Practice sting Switching of HPV-vaccine

**this practice sting is particularly interesting for pharmacists ('s assistants), prescribers and software suppliers**

Papillomavirus vaccines (HPV-vaccines) should not be switched as the following notification shows.

### Notification

A young patient is about to undergo a kidney transplant and hands in a by hand written prescription for the HPV-vaccine at the pharmacy. Only the active ingredient is mentioned on the recipe, the brand name is missing. The pharmacist's assistant has the choice between Cervarix<sup>®</sup>, Gardasil<sup>®</sup> and Gardasil<sup>®</sup>9. The pharmacist's assistant does not realize that the medicines differ in composition and indication, and delivers Cervarix<sup>®</sup>. After administration, the patient finds out that the wrong medicine has been delivered.

### Analysis

After a kidney transplant, the risk of HPV-related malignancies and genital warts is two to three times higher than in the general population. This is partly due to the use of immunosuppressants. The risk of HPV infection is greater at a younger age (<26 years). Therefore, vaccination is recommended in this group of patients. There are three types of HPV vaccine injections on the market, Cervarix<sup>®</sup>, Gardasil<sup>®</sup> and Gardasil<sup>®</sup>9. The three vaccines protect against HPV types 16 and 18, which are responsible for approximately 70 percent of all HPV-related malignancies. The effectiveness of Cervarix<sup>®</sup>, Gardasil<sup>®</sup> and Gardasil<sup>®</sup>9 against HPV types 16 and 18 is the same. Gardasil<sup>®</sup> also protects against HPV types 6 and 11 and genital warts. Gardasil<sup>®</sup>9 also protects against 6 and 11 and five other HPV types and genital warts. The Dutch Transplantation Association therefore advises in the Vaccination Guideline *Pre-Kidney Transplantation for Adults* (2022) to vaccinate young patients with Gardasil<sup>®</sup>9.

If the prescriber prescribes the correct HPV vaccine and the pharmacist's assistant processes it manually, confusion about the intended brand may arise. This happens because the brand name is not always mentioned on the prescription, the Prescription Codes in the pharmacy information system (AIS) of the HPV vaccines are very similar and sometimes only part of the Prescription Code is visible on the printed prescription or computer screen. Especially when the pharmacist's assistant does not realize that the preparations differ in composition and indication, the risk of confusion is high. If the pharmacy information system can automatically read the prescription, there will be no problem.

### Recommendations

#### For pharmacists

- Make sure that the AIS software is set to Prescription Code level, so that manual approach takes place at Prescription Code level.
- In the pharmacy team, discuss the differences between Cervarix<sup>®</sup>, Gardasil<sup>®</sup> and Gardasil<sup>®</sup>9. Emphasize that the vaccines differ in composition and indication.
- When checking prescriptions, be alert to see if the correct HPV vaccine has been delivered.

#### For pharmacist's assistants

- When manually processing prescriptions for HPV vaccines, be alert to choosing the right brand. Pay attention to the prescribed composition and indication, if known.

**For prescribers**

- When prescribing the HPV vaccine, make sure that the brand name is listed on the prescription in addition to the generic name. Does the brand name not automatically appear on the recipe? Then it can be included as free text.
- State the reason for prescription on the prescription if technically possible.

**For software suppliers**

- Ensure that the entire Prescription Code of the medicine is visible on the computer screen and is stated on the printed prescription.