What is Human Papilloma Virus?

Genital **Human Papilloma Virus** infection (HPV) is a sexually transmitted infection (STI) caused by a virus commonly known as 'wart virus'. Most people who get HPV do not have symptoms and will recover from the infection without treatment. In a small number of patients, however, the virus can persist and contribute to the development of cervical and other cancers including oropharyngeal and anal cancers.

About the virus

Human Papilloma Viruses are a group of about 100 different subtypes (genotypes). There are both 'high-risk' and 'low-risk' viruses in this group.

The commonest presentation of HPV is the 'common wart' on the skin and soles of the feet, but HPV can also infect the skin in and around the penis, vulva, anus, and the linings of the vagina, cervix, and rectum.

Some high-risk genotypes of HPV viruses (commonly types 16 and 18) can cause significant abnormalities that are detectable in the Pap smear test. These abnormalities very rarely will progress to cancer.

The low-risk (HPV types 6 and 11) can also cause mild Pap test abnormalities or obvious, visible genital warts.

How do people get genital HPV infection?

Genital HPV infection is common. About 50% of sexually active men and women will aquire an HPV infection sometime during their life. HPV is transmitted through sexual intercourse. Because the majority of infections do not cause symptoms, people who have HPV do not know that they are infected and can pass on the virus to their sexual partners.

It is also possible for a pregnant woman to give the virus to her baby when it passes through the birth canal, although this is very rare. Babies exposed to the virus in this way can develop warts in their throat or voice box later in life.

Diagnosis of genital HPV infection

Until recently, the presence of HPV was detected by an abnormal Pap smear, which is the screening test for cervical cancer. From 1 December 2017, in the National Cervical Screening Program, Pap smear has been replaced with tests to detect high-risk HPV genotypes. Following the detection of a high-risk HPV type, reflex Liquid Based Cytology can be performed on the same specimen, to detect the effects of HPV infection on the cervical epithelium.

Sonic Healthcare laboratories now use Thin Prep® specimens to detect high risk HPV types. It is important to note that the test does not detect the presence or absence of low-risk types of HPV, so it is not able to answer the question: "do I have HPV infection of any type".

Medicare will pay for one HPV test, in a five year period, in asymptomatic woman, as part of the National Cervical Screenig Programme. Screening will start at the age of 24 years and 9 months, and cease for a patient aged between 70-74 years of age. If the test is performed for any other reason, in an asymptomatic individual, there is no Medicare rebate.

Is there a vaccine?

Three vaccines are now licensed to protect against HPV infection. These include:

Name of vaccine	Protects against HPV types	Licenced for
Gardasil	6, 11, 16, 18	Females aged 9 to 45 years and males aged 9 to 26 years
Cervarix	16, 18	Females aged 10 to 45 years
9vHPV Gardasil®9	6, 11, 16, 18, 31, 33, 45, 52, 58	Females and males aged 9 to 26 years

Gardasil®9 dosing schedule is by age and at-risk conditions. Two (2) doses 9 to <15 years, 6 months apart; 3 doses >15 years and/or have certain medical conditions - 0, 2 and 6 month schedule. Only 2 doses are funded in the NIP unless 12-13 years old has certain medical condition.

These vaccines are prophylactic only, and do not treat infection or prevent disease that has been acquired prior to vaccination. It is important that regular screening for cervical cancer is still performed even if vaccinated.