

HPV-UNIT

Multidisciplinary Team
on papillomavirus
(prevention, diagnosis, treatment)

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...to who is it intended

This booklet is aimed to all those people, men and women, seeking further information about the HPV-UNIT. This Unit is conformed from a multidisciplinary synergic collaboration of various specialized professionals working at The Regina Elena National Cancer Institute and The San Gallicano Dermatological Institute.

Throughout the following pages, the reader will find summarized information about HPV infection, from the several diseases it causes to how to prevent, diagnose and treat the infection.

The HPV-UNIT aims to be a point reference: both for the patients (often misguided by non scientific rumours), as for professional figures not fully involved or informed about papillomaviruses.

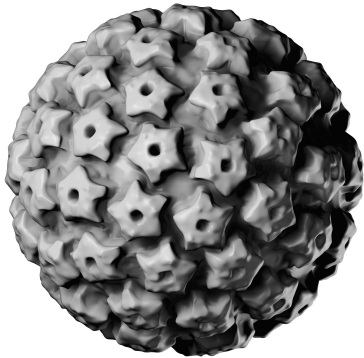
The services provided by each clinical area involved on the unit and how to obtain them is further described on the following pages.

We have placed all our professional experience, supported by our passion, in providing the best service in order to offer a Unit capable of providing updated services, such as anti-HPV vaccination, not only to females but also to men in the fight against HPV infection.

As always in these type of initiatives the bilateral relationship between patients and doctors, will in time, contribute to improve and optimize the offered services; improving quality and efficiency in accordance to eventual future feedbacks.

The HPV-UNIT team

HUMAN PAPILOMAVIRUS (HPV): preliminary remarks



Human papillomavirus (HPV) is:

1. Responsible of the most diffuse sexually transmitted infection
2. One of the most important carcinogenetic virus.

Until the late 70s the infection with human papillomavirus (HPV) was considered of little clinical significance, being mostly linked exclusively to the genesis of anogenital warts alone.

The pathogenesis hypothesis of greater importance, that related with cervical cancer caused from HPV, involved at the time as a possible cause infection with herpes simplex virus (HSV), while little or no significance was attributed to HPV. Through the 80's the development of new diagnostic methods of molecular biology have totally turned this theory, placing at the centre of cervical carcinogenesis HPV infection.

In fact, what seemed an innocuous infection of the skin and mucosal membranes, has proven to be a responsible cause of carcinogenesis.

Nowadays, HPV is undoubtedly considered one, if not the main virus involved in neoplastic transformations in different anatomical regions. The scientific community has long recognized that infection with high-risk genotypes of HPV is the necessary cause (though not sufficient) of cervical cancer. This means that HPV is a necessary prerequisite to the development of invasive cancer in this anatomical site, but other co-factors are needed.

The transforming potentiality of HPV can be also expressed (although to a lesser extent than the cervix) in other anatomical regions such as: the vulva, vagina, anus, penis and oropharynx.

And nevertheless, only a fraction of HPV infections evolves towards cancer, while most of them undergo a true spontaneous regression without any harm to the individual.

In the understanding of HPV infection and its natural history, an innovative concept is presented: Risk stratification. Being understood that HPV is the most common sexually transmitted disease, mostly transient; having the infection is not necessarily having

cervical cancer or a pre-neoplastic lesion. HPV infection, in other words, is only a risk factor whose role must be analyzed with a proper strategy. From the 90's, we are witnessing a true explosion of clinical and scientific studies about the virus and diseases to it related.

In many laboratories around the world, biologists and virologists investigate the many interactions of HPV in various human tissues, trying to clarify the mechanisms underlying malignant transformation.

More recently, one wonders about the emerging role of the virus in the male and the consequences in terms of infection, cancer, and according to some studies also possible infertility. The worldwide application of new diagnostic strategies and preventive procedures are the result of the development (part also the Laboratory of Virology of Regina Elena Institute) of innovative tests for the identification of high-risk viral types and the innovative vaccines such as the anti-HPV vaccines.

The Regina Elena National Cancer Institute was also involved in the initial scientific developing studies of the quadrivalent vaccine, nowadays widely used. Since 2007 approval of the vaccine, it is possible to have access to anti-HPV vaccination throughout the health system.

The continuing clinical and scientific research efforts has produced a huge amount of information, which is constantly evolving. So fast since 2007, that it is even difficult for specialists to keep up to date with new available data.

Each week, new data is published about studies focused on HPV and its various aspects, redesigning constantly management and prevention of the disease.

Regina Elena Cancer Institute and San Gallicano Dermatologic Institute are constantly keeping up with this updates and are capable of providing clinical excellence, in line with the new findings of scientific literature.

In addition, our Institutes take special care on the communications related to HPV infection: both for the users (which should be given full information, correct, and not speculative) and for medical specialist, providing a periodic and complete training.

From all of this, the enormous impact of HPV infection comes to light: in terms of benign, precancerous and invasive lesions in both males and females

HPV is one of the major oncogenic viruses for humans, causing (by the high-risk genotypes) cancer of the cervix, vulva, vagina, anus, penis, ENT. The infection, mostly asymptomatic, may take effect without causing damage, or manifests as genital warts, which are benign disease, due to the low-risk genotypes.

HPV-UNIT: the reasons for its establishment

The Regina Elena National Cancer Institute and the San Gallicano Dermatological Institute have for years been engaged in the study, diagnosis and treatment of HPV-related diseases. This manifold activity was carried out initially against the ano-genital area in both sexes.

The synergistic collaboration between Gynecology, Sexually Transmitted Infections (STIs) office with the Cytopathology and Microbiology departments, has resulted in the offer of diagnostic tools to users.

Upon the emerging new scientific knowledge, the diagnosis and therapy strategies have been expanded to also include more than one anatomical regions investigation in order to determine HPV presence or not also in the oro-pharyngeal and anal regions apart from the previously exclusive genital area.

Indeed, the increasing evidence of HPV infection being a "couple-disease", permitted new areas of investigation around the sphere of sexual behaviour.

However, it is important to note that the role of HPV test in sites other than the cervix is not intended as a clinical routine praxis, mainly because it has not yet been validated and standardized. Moreover, there is no consensus on the clinical and therapeutic management of only "positive" cases with no apparent clinical manifestation.

For obvious reasons, the psycho-emotional impact of infection is very important, and the impact on dynamic of the couple (as well as on the sexual habits) are viewed with the utmost care, in a privileged psychological path.

The Multidisciplinary Team was established, to bind more single activities and initiatives aimed at this issue.

The purpose is to provide users of rational paths of diagnosis and therapy, providing clinical management in line with evidence-based medicine.



GYNECOLOGIC ONCOLOGY

1. Counseling on HPV (second-opinion) for female/couple population.
2. Primary prevention office (HPV vaccine: female 18-45 yrs)
3. Secondary prevention office (cytology, viral tests, colposcopy, guided biopsy)
4. Lasertherapy, DTC
5. LEEP - conization

SEXUALLY TRANSMITTED DISEASE

1. Counseling on HPV (second-opinion) for male population.
2. Primary prevention office (HPV vaccine: male <26 yrs)
3. Secondary prevention office (cytology, viral tests, colposcopy, guided biopsy)
4. Criotherapy, DTC

OTOLARINGOLOGY

1. Counseling on HPV (second-opinion) for male population.
2. Primary prevention office (HPV vaccine: male <26 yrs)
3. Secondary prevention office
4. Criotherapy, DTC

PROCTOLOGY

- 1- Counseling on HPV (second-opinion) for both sexes.
- 2- Proctoscopy
- 3- laser resection of anal lesions

PSICOLOGY

- 1- specific counselling
- 2- couple psychosexual therapy

DERMATOLOGY

HPV-UNIT: organization chart

Chief *Luciano Mariani e Aldo Venuti*

Clinical experts

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Epidemiology: V. Ramazzotti, C. Cercato

San Gallicano Dermatologic Institute

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