Human Papillomavirus, (HPV)

Human papilloma virus (HPV) is the most common sexually transmitted infection (STI) and is highly contagious. HPV infections cause genital warts and cancers to the outlet of the womb (*cervix*), birth canal (*vagina*), opening of the birth canal (*vulva*) and anus. There are over 100 types of HPV. Four types of HPV are responsible for causing 70% of all cervical cancers. Ninety percent of anal cancers and genital warts are caused by HPV. Unless you have wart-like lesions in the throat or genital warts that you can see or feel, HPV usually does not cause symptoms. Therefore, people can be infected for long periods and pass it on to others without knowing it.

HPV in pregnancy usually does not cause a problem for the mother or baby. If the mother has genital warts, the baby rarely gets infected. When the HPV infection is found to be pre-cancerous on the cervix, vagina or vulva, the mother will be followed closely during the pregnancy. Any needed treatment will be done after the baby is born.

CAUSES

- Having unprotected sex. HPV can be spread by oral, vaginal or anal sexual activity.
- Having several sex partners.
- Having a sex partner who has other sex partners.
- Having or having had another sexually transmitted infection.

SYMPTOMS

- More than 90% of people carrying HPV cannot tell anything is wrong.
- Wart-like lesions in the throat (from having oral sex).
- Warts in the infected skin or mucous membranes.
- Genital warts may itch, burn or bleed.
- Genital warts may be painful or bleed during sexual intercourse.

DIAGNOSIS

- Genital warts are easily seen with the naked eye.
- Currently, there is no FDA-approved test to detect HPV in males.
- In females, a Pap smear can show cells which are infected with HPV.
- In females, a scope can be used to view the cervix (*colposcopy*). A colposcopy can be performed if the pelvic exam or Pap smear is abnormal.
- In females, a sample of tissue may be removed (*biopsy*) during the colposcopy.

TREATMENT

- Treatment of genital warts can include:
  - Podophyllin lotion or gel.
  - Bichloroacetic acid (BCA) or trichloroacetic acid (TCA).
  - Podofilox solution or gel.
  - Imiquimod cream.
  - Interferon injections.
  - Use of a probe to apply extreme cold (*cryotherapy*).
  - Application of an intense beam of light (*laser treatment)*.
  - Use of a probe to apply extreme heat (*electrocautery*).
  - Surgery.
- HPV of the cervix, vagina or vulva can be treated with:
  - Cryotherapy.
  - Laser treatment.
  - Electrocautery.
  - Surgery.

Your caregiver will follow you closely after you are treated. This is because the HPV can come back and may need treatment again.

HOME CARE INSTRUCTIONS

- Follow your caregiver's instructions regarding medications, Pap smears and follow-up exams.
- **Do not** touch or scratch the warts.
- **Do not** treat genital warts with medication used for treating hand warts.
- Tell your sex partner about your infection because he or she may also need treatment.
- **Do not** have sex while you are being treated.
- After treatment, use condoms during sex to prevent future infections.
- Have only 1 sex partner.
- Have a sex partner who does not have other sex partners.
- Use over-the-counter creams for itching or irritation as directed by your caregiver.
- Use over-the-counter or prescription medicines for pain, discomfort or fever as directed by your caregiver.
- **Do not** douche or use tampons during treatment of HPV.

PREVENTION

- Talk to your caregiver about getting the HPV vaccines. These vaccines prevent some HPV infections and cancers. It is recommended that the vaccine be given to males and females between the age of 9 and 26 years old. It will not work if you already have HPV and it is not recommended for pregnant women. The vaccines are not recommended for pregnant women.
- Call your caregiver if you think you are pregnant and have the HPV.
- A PAP smear is done to screen for cervical cancer.
  - The first PAP smear should be done at age 21.
  - **Between ages 21 and 29**, **PAP smears are repeated every 2 years**
  - Beginning at age 30, you are advised to have a PAP smear **every 3 years as long as your past 3 PAP smears have been normal.**
  - Some women have medical problems that increase the chance of getting cervical cancer. Talk to your caregiver about these problems. It is especially important to talk to your caregiver if a new problem develops soon after your last PAP smear. **In these cases, your caregiver may recommend more frequent screening and Pap smears.**
  - The above recommendations are the same for women who **have** or **have not** gotten the vaccine for HPV.
  - If you had a hysterectomy for a problem that was **not** a cancer or a condition that could lead to cancer, then you no longer need Pap smears.
  - If you are between ages 65 and 70, and you have had normal Pap smears going back 10 years, you no longer need Pap smears.
  - If you have had past treatment for cervical cancer or a condition that could lead to cancer, you need Pap smears and screening for cancer for at least 20 years after your treatment.
  - If Pap smears have been discontinued, risk factors (such as a new sexual partner) will need to be reassessed to determine if screening should be resumed.

SEEK MEDICAL CARE IF:

- The treated skin becomes red, swollen or painful.
- You have an oral temperature above 102° F (38.9° C).
- You feel generally ill.
- You feel lumps or pimple-like projections in and around your genital area.
- You develop bleeding of the vagina or the treatment area.
- You develop painful sexual intercourse.

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