

# Statement on Human Papillomavirus DNA Test Utilization<sup>\*,†</sup>

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**Testing** for carcinogenic or high-risk human papillomavirus (HPV) DNA has proven usefulness in cervical cancer screening and in many aspects of the clinical management of cervical cancer prevention. However, inappropriate testing increases costs without benefit and potentially results in the overtreatment of women. This statement was developed by the Cytopathology Education and Technology Consortium (CETC) and has been endorsed by additional professional medical societies. It is intended as a concise, convenient summary of clinical indications for HPV DNA test utilization based on the 2002 American Cancer Society screening recommendations<sup>1</sup> and interim guidance,<sup>2</sup> and the 2006 American Society for Colposcopy and Cervical Pathology (ASCCP) consensus management guidelines.<sup>3,4</sup> Circumstances in which HPV DNA testing is considered appropriate and those in which such testing is generally not appropriate are outlined below. This statement and Figure 1 are intended to serve as educational tools and references with which to improve the management of women and reduce the inappropriate use of HPV tests.

## 1. High-risk (oncogenic) HPV DNA testing is appropriate in the following circumstances:

- 1.1. Routine cervical cancer screening in conjunction with cervical cytology (dual testing or co-testing) for women aged  $\geq 30$  years:
  - 1.1.1. For women who are cytology negative but HPV positive, repeat both tests in 12 months (As of March 2009, the US Food and Drug Administration approved an HPV type 16/18 genotyping test; as per ASCCP guidelines,<sup>3,4</sup> HPV 16/18-positive women aged  $\geq 30$  years are referred directly for colposcopy.)

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Age	Routine Screening	Initial Triage				
		ASC-US	LSIL	ASC-H	AGC*	HSIL
≤20	2.1	2.3	2.3	2.3	2.3	2.3
21-29	2.1	1.2	2.4	2.5	2.5	2.5
30+	1.1*	1.2	2.4	2.5	2.5	2.5
Post-Menopausal	1.1*	1.2	1.3	2.5	2.5	2.5

Cell color indicates if HPV testing is appropriate (green) or not appropriate (red). Numbers in table cells refer to text outline.

#For women 30 and older who are both cytology and HPV negative, repeat both tests only after a 3-year interval.

\*Note that for AGC results, HPV testing is not to be used for triage to decide whether to refer to colposcopy; however HPV testing may be done at the time of colposcopy to guide post-colposcopy management.

**FIGURE 1.** Appropriate uses of human papillomavirus (HPV) testing in screening and triage. ASC-US indicates atypical squamous cells of undetermined significance; LSIL, low-grade squamous intraepithelial lesion; ASC-H, atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion; AGC, atypical glandular cells; HSIL, high-grade squamous intraepithelial lesion.

- 1.1.2. For women who are both cytology and HPV negative, repeat both tests only after a 3-year interval.
- 1.2. Initial triage management of women aged  $\geq 21$  years with a cytologic result of atypical squamous cells of undetermined significance (ASC-US).
- 1.3. Initial triage management of postmenopausal women with a cytologic result of low-grade squamous intraepithelial lesion (LSIL).
- 1.4. Postcolposcopy management of women of any age with an initial cytologic result of atypical glandular cells (AGC)\* or atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion (ASC-H) (when the initial workup does not identify a high-grade lesion).
- 1.5. Postcolposcopy management of women aged  $\geq 21$  years with initial cytologic results of ASC-US or LSIL (when the initial colposcopy does not identify a high-grade lesion).
- 1.6. Post-treatment surveillance.

\*Note that for a finding of AGC, HPV testing is not to be used for triage to decide whether to refer for colposcopy; however, HPV testing may be performed at the time of colposcopy to guide postcolposcopy management.

## 2. High-risk (oncogenic) HPV DNA testing is generally not appropriate in the following situations:

- 2.1. Routine cervical cancer screening in women aged  $< 30$  years.
- 2.2. Routine screening with HPV testing and cervical cytology more often than every 3 years for women aged  $\geq 30$  years whose tests were negative at the time of last screening (see 1.1.2 above).
- 2.3. Initial triage or management of adolescents (aged  $\leq 20$  years) with any abnormal cytologic result. Furthermore, if HPV testing is inadvertently performed, the results should not be used to influence patient management.
- 2.4. Initial triage of LSIL (except for postmenopausal women; see 1.3 above).
- 2.5. Initial triage of ASC-H, high-grade squamous intraepithelial lesion (HSIL), or AGC\*/adenocarcinoma in situ (AIS) in women of any age.

## 3. Repeat high-risk (oncogenic) HPV DNA testing should generally not be performed within <12 months:

- 3.1. Exceptions include as a follow-up to AGC, not otherwise specified (AGC NOS) when no pathology is found at the time of the initial workup and as follow-up after treatment for cervical intraepithelial neoplasia grades 2 and 3 (CIN 2,3). See the ASCCP guidelines for specific recommendations concerning testing intervals.<sup>3,4</sup>

## 4. Testing for low-risk (nononcogenic) HPV types has no role in routine cervical cancer screening or for the evaluation of women with abnormal cervical cytology.

Endorsed by the  
 American Cancer Society  
 American Society for Clinical Pathology#  
 ASCCP  
 American Society of Cytopathology#  
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#Indicates a member of the CETC.

The intent of this summary is to facilitate provider education and to encourage the appropriate utilization of HPV testing. Clinical judgment should always be used when applying a guideline to an individual patient because it is impossible to develop guidelines that will apply to all situations. Links to the 2006 ASCCP Consensus Guidelines, as well as management algorithms, are available on the ASCCP website at <http://www.asccp.org/consensus/cytological.shtml> accessed on April 22, 2009.

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