Introduction

ccreening guideline for clinicians, public health authorities, policymakers, and laypersons in all resource settings.

ifferent regions of the world, both among and within countries,iffer with respect to access to prevention and, also, treatment.

imary goal: the accurate detection and timely treatment of intraepithelial precursor lesions of the cervix at a population level or the purpose of cervical cancer prevention, rather than cancer control as for many other cancers.
ASCO Guideline
Development Methodology

ASCO Clinical Practice Guidelines Committee (CPGC) guideline process includes:

- Systematic literature review by ASCO guidelines staff
- International expert panel provides critical review and evidence interpretation to inform guideline recommendations
- Final guideline approval by ASCO CPGC

Full ASCO Guideline methodology supplement can be found at: asco.org/rs-cervical-cancer-secondary-prev-guideline
Clinical Questions

A clinical practice guideline addresses four overarching clinical questions:

- Best method(s)?
- Best triage strategy?
- Best management strategies?
- What screening strategy should be recommended for women who have received HPV vaccination?
Target Population and Audience

**Target Population**

Men who are asymptomatic for cervical cancer precursors or invasive cervical cancer.

**Target Audience**

Public health authorities, cancer control professionals, policymakers, obstetricians/gynecologists, primary care providers, lay public.
HPV Testing

HPV Positive - options

Basic
- Treatment \{All\}
- VAT^1
- Cryotherapy Eligible?
  - Yes
    - Ablation
  - No
    - LEEP

Limited
- Triage to Treatment
- VIA, HPV16/18, cytology
- Triage+
  - 12-Mo Follow-Up
- Triage-
  - LEEP or Re-screen at ablative if LEEP contraindicated

Enhanced
- Colposcopy \{All\}
- ≥CIN2
  - 12 Mos
- <CIN2
  - Re-screen at 12 Mos

Maximal
- Triage to Colposcopy
- HPV16/18 and/or cytology, Biomarker^*
- Triage+
- Triage-
Maximal resource setting

PV DNA testing should be offered every 5 years from 25 to 65 (70) years.

Women who are ≥ 65 years of age who have had consistently negative screening results during past ≥ 15 years may cease screening. Women who are 65 years of age and have a positive result after age 60 should be invited to undergo screening 2, 5, and 10 years after last positive result.
Maximal resource setting

If the results of the HPV DNA test are positive, clinicians should then perform triage with reflex genotyping for HPV 6/18 (with or without HPV 45) and/or cytology as soon as HPV test results are known.

If triage results are abnormal (ie, ≥ ASC-US or positive for HPV 16/18 [with or without HPV 45]), women should be referred to colposcopy.

Negative at any consecutive HPV test 12 months apart, then women should return to routine screening.
Maximal resource setting

If biopsy ≥CIN2, then clinicians should offer loop electrosurgical excision procedure (LEEP) or, where LEEP is contraindicated, ablative treatments may be offered.

After women receive treatment for precursor lesions, follow-up should consist of HPV DNA testing at 12 months. If 12-month results are positive, continue annual screening; if not, return to routine screening.
**Enhanced Resource Setting**

Screening: women 30 to 65 years of age, every 5 years (second screen five years from the first).

If there are two consecutive negative screening test results, subsequent screening should be extended to every 10 years.

Women who are ≥ 65 years of age: similar recommendation.
Limited Resource Setting

Screened for women 30 to 49 years of age every 10 years, responding to two to three times per lifetime.

HPV DNA test are positive: triage with reflex cytology (quality assured) and/or HPV genotyping for HPV 16/18 (with or without V45) or with visual assessment for treatment (VAT).

Cytology triage results are abnormal (i.e. ≥ASC-US): colposcopy and biopsy.

If colposcopy is not available: VAT.
Limited Resource Setting

If HPV genotyping or VAT triage results are positive: treated

If the results from both of these forms of triage are negative:
repeat HPV testing at the 12-month follow-up

If test results are positive at the repeat 12 month follow-up:
treated

For treatment, clinicians should offer ablation if the criteria are satisfied; if not and resources available, then offer LEEP

Follow-up should consist of the same testing at 12 months
Basic Resource Setting

HPV DNA testing for cervical cancer screening is not available: screening should be offered with the goal of developing health systems moving to population-based screening with HPV testing at earliest opportunity.

Screening should be offered to women 30 to 49 years of age, at least once per lifetime, but not more than three times per time.
If primary screening is VIA and results are positive: cryotherapy and/or LEEP, depending on the size and location of the lesion.

After women receive treatment for precursor lesions, then follow up with the available test at 12 months. If the result is negative, then women return to routine screening.
Women who are HIV positive

in screening with HPV testing, every 2 to 3 years, as soon as they receive an HIV diagnosis.

would be twice as many times in a lifetime as in the general population

Recommended frequencies, according to resource setting, are below:

viral: every 2 to 3 years.

vaccinated: every 2 to 3 years, then, if negative, every 5 years (approximately eight screenings per lifetime).

vaccinated: every 2 to 3 years, and twice as many times in a lifetime as in the general population (approximately four to six screenings per lifetime).

starting at age 25, every 3 years if the test results are negative initially; approximately twice per year. If HPV testing is not available, use VIA at the same intervals.
management of abnormal results for screening for women in HIV and positive results of triage is the same as in the general population.

Women who are **immunosuppressed** – All settings. Women who are immunosuppressed for any reason other than HIV should be offered the same screening as women who are HIV positive.

Women who are **pregnant** – All settings. Pregnant women should not receive screening.
Postpartum/Post-hysterectomy

Postpartum – All Settings. Women who are postpartum should be screened with VIA 6 weeks after delivery in basic settings. In higher settings, HPV testing is recommended 6 months after delivery.

Women who have had hysterectomies (with no history of ≥CIN2). In all settings, screening may be discontinued in women who have received a total hysterectomy for benign causes with no history of cervical dysplasia or HPV
Women who have received HPV Vaccination?

Men who have received bivalent or quadrivalent HPV vaccines -

anced and Maximal Settings - Screening with HPV test at 30, and 60 years.

Men who have received nonavalent HPV vaccines - ?
Cost and Policy Implications

A cost-effective strategy to reduce the incidence and mortality of cervical cancer.

There are specific implementation issues regarding providing screening and treatment in limited and basic settings in primary care, outside of research studies.

Targeting screening to women in their 30s reduces the number of women needing screening, thereby reducing burden on the health care system and costs, and decreases the number of screen-detected cancers.

Additional strategies to further implementation of mass screening include buy-in from policymakers, which affects the provision of resources, including physical infrastructure; prioritizing cancer prevention; sponsorship of screening; and quality control.
Future Directions

Research limitation, self-collection, biomarkers, needs and preferences of women, low cost technology, and the impact of vaccination on screening.

Addressing policy/health system barriers may include:

- Participation of medical and public health communities to change practices and incorporate new technologies
- Participation and sponsorship from policymakers
- Partnerships with institutions/regions/countries with treatment facilities
- Coordinated, volume purchasing and procurement of HPV testing
- Movement of health information systems in order to have better follow-up and treatment of women positive screening results
- Quality control
- Monitoring and evaluation
Additional Resources

Additional information, including a Data Supplement, a Methodology Supplement, slide sets, and clinical tools and resources, is available at www.asco.org/rs-cervical-cancer-secondary-prev-deline

Patient information is available at www.cancer.net
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References


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