# cervical cancer screening

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#### **Guideline Participants**

- ACS: American Cancer Society
- ASCCP: American Society of Colposcopy and Cervical Pathology
- ASCP: American Society of Clinical Pathology
- USPSTF: U.S. Preventive Services Task Force

#### **Research Paper**

ORIGINAL RESEARCH ARTICLE: CERVIX AND HPV

#### OPEN

#### 2019 ASCCP Risk-Based Management Consensus Guidelines for Abnormal Cervical Cancer Screening Tests and Cancer Precursors

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**Key Words:** cervical cytology, HPV testing, management of abnormal cervical cancer screening tests, guidelines

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#### Incidence



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Data source: GLOBOCAN 2020 Map production: IARC (http://gco.iarc.fr/today) World Health Organization



#### Incidence

Estimated number of new cases from 2020 to 2040, Females, age [0-85+] Cervix uteri Islamic Republic of Iran



GLOBAL CANCER OBSERVATORY

#### Defining An Average Risk Individual

Patients with a cervix who have all the following:

- 1. Asymptomatic
- 2. Immunocompetent
- 3. Have had all normal cervical cancer screening results in the past **OR**
- Patients age <25 years with HPV-negative ASC-US
- Patients age <25 years with LSIL or HPV-positive ASC-US, followed by two consecutive negative cytology results
- Patients age >25 years with LSIL followed by colposcopy in which CIN 2 or worse was not found and followed by three consecutive negative co-testing results.

#### Defining A High Risk Individual

patients with a history of HIV or immunosuppression.

• These patients may need more frequent testing.

#### **Screening Methods**

- 1. Pap testing alone
- 2. Primary HPV testing
- 3. Co-testing

Organization	Initiate at	Discontinue at	Recommended screening test and frequency			
ACS/ASCCP/ ASCP	21	65	Age 21 to 29	Age ≥30 years		
(2012)			Pap test every	<b>1-</b> Co-testing		
			3 years	every 5 years		
			(preferred)	(preferred)		
				<b>2-</b> Pap test every 3 years		

Organization	Initiate at	Discontinue at	Recommended screening test and frequency			
ASCCP/SGO (2015 interim guidelines)	21	N/A	Age 21 to 29 Can consider primary HPV testing every 3 years for patients age ≥25	Age ≥30 years Can consider primary HPV testing every 3 years		

Organization	Initiate at	Discontinue at	Recommended screening te and frequency		
USPSTF (2018)	21	65	Age 21 to 29	Age ≥30 years	
			Pap test	1- Pap test	
			every 3 years	every 3 years	
				2- Primary HPV	
				testing alone	
				every 5 Years	
				3- Co-testing	
				every 5 years	

Organization	Initiate at	Discontinue at	Recommended screening test and frequency
ACS (2020)	25	65	<ul> <li>1- Primary HPV testing every</li> <li>5 years (preferred)</li> <li>2- Co-testing every 5 years</li> <li>3- Pap test every 3 years</li> </ul>

#### Initiation Age and Vaccintion

- Screening is not suggested in asymptomatic, immunocompetent patients, <21 years, regardless of the age of initiation of sexual activity.
- HPV vaccination of female and male adolescents reduces the risk of developing cervical dysplasia. However, the vaccine does not provide immunity against all HPV types responsible for cervical cancers, and some vaccine recipients may already be infected with high-risk HPV

#### Discontinuation Age of 65

- Having no history of cervical intraepithelial neoplasia (CIN) grade 2+ for the past 25 years.
- Having adequate prior screening, as defined by:
- 1. Two consecutive negative primary HPV tests within the past 10 years, with the most recent test within the previous five years
- 2. Two consecutive negative co-tests within the past 10 years, with the most recent test within the previous five years
- 3. Three consecutive negative Pap tests within the past 10 years, with the most recent test within the previous three years

### Terminology

• Negative for intraepithelial malignancy (NILM): adequate for evaluation and no epithelial abnormality identified.

• Atypical squamous cells of undetermined significance (ASC-US): Cells that display abnormalities more marked than simple reactive changes but do not display a squamous intraepithelial lesion. associated with cervical intraepithelial neoplasia (CIN).

### Terminology

- Atypical squamous cells cannot exclude high-grade squamous intraepithelial lesion (ASC-H): likely consists of a mixture of true high-grade squamous intraepithelial lesion (SIL) and other findings that mimic such lesions.
- Low-grade squamous intraepithelial lesions (LSIL): Lesions associated with HPV infection. These tend to be associated with transient changes that regress over time.

### Terminology

- High-grade squamous intraepithelial lesions (HSIL): Lesions associated with high-risk types of HPV that have a high risk of progression to CIN or cancer.
- Atypical Glandular Cells (AGC): The term used to categorize glandular cells with cytologic features that are too pronounced to be called inflammatory or reactive but cannot be classified as malignant.

#### **Distribution of results**



#### practice-changing consensus: Principles

- Screening has shifted from primarily testing with cervical cytology to primarily HPV-based testing, as HPV is a more sensitive test for predicting cervical precancers.
- Cytology is a marker for current risk of CIN, while oncogenic HPV subtypes are an excellent marker for predicting the presence of current and future risk of CIN.

#### practice-changing consensus: Principles

- Management decisions are based on a patient's risk of developing CIN 3+ (CIN 3, adenocarcinoma in situ, and cancer) as this threshold reflects a reasonable balance between cancer prevention and the potential harms of overtesting and overtreatment.
- A patient's risk of developing CIN 3+ is determined by their current HPV and cytology results as well as past screening and clinical history, if known; this is called the patient's "risk estimate"

#### equal management for equal risks

• The same current screening results may lead to a different management recommendation for one patient versus another patient, depending on past testing results.

#### **Management decisions**



#### Exceptions

- Expedited treatment is contraindicated in patients <25 years and pregnant patients.
- Patients planning future childbearing, and those in whom the concerns about potential adverse pregnancy outcomes (eg, preterm delivery) after an excisional procedure outweigh concerns about cancer, may reasonably choose colposcopy rather than expedited treatment.

#### Expedited treatment or colposcopy: Immediate risk 25 to 59 percent

- expedited treatment is contraindicated in patients <25 years old and pregnant patients and may be avoided in patients whose concerns about potential adverse pregnancy outcomes (eg, preterm delivery) after an excisional procedure outweigh their concerns about cancer.
- expedited treatment may be a preferred option for patients who are at risk for loss to follow-up or who have completed childbearing.

TABLE 1A. Immediate and 5-Year Risks of CIN 3+ for Abnormal Screening Results, When There Are No Known Prior HPV Test Results

History	Current HPV result	Current cytology result	n	%	CIN 3+ cases	CIN 3+ immediate risk, %	CIN 3+ 5-year risk, %	Recommended Management	Recommendation confidence score, %
Unknown	HPV-negative	NILM	1,388,153	90	1,246	0.00	0.12	5-y follow-up	100
Unknown	HPV-negative	ASC-US	25,331	1.6	83	0.04	0.40	3-y follow-up	100
Unknown	HPV-negative	LSIL	3,300	0.21	47	1.1	2.0	1-y follow-up	100
Unknown	HPV-negative	ASC-H	791	0.05	26	3.4	3.8	Colposcopy <sup>a</sup>	Special situation
Unknown	HPV-negative	AGC	2,275	0.15	27	1.1	1.5	Colposcopy <sup>a</sup>	Special situation
Unknown	HPV-negative	HSIL+	183	0.01	43	25	27	Colposcopy/treatment	53
Unknown	HPV-negative	$ALL^b$	1,420,033	92	1,472	0.01	0.14	5-y follow-up	95
Unknown	HPV-positive	NILM	63,541	4.1	1,798	2.1	4.8	1-y follow-up	100
Unknown	HPV-positive	ASC-US	30,506	2.0	1,378	4.4	7.3	Colposcopy	100
Unknown	HPV-positive	LSIL	23,659	1.5	1,008	4.3	6.9	Colposcopy	96
Unknown	HPV-positive	ASC-H	3,766	0.24	863	26	33	Colposcopy/treatment	82
Unknown	HPV-positive	AGC	977	0.06	254	26	35	Colposcopy/treatment <sup>a</sup>	80
Unknown	HPV-positive	HSIL+	3,980	0.26	1,700	49	53	Colposcopy/treatment	100
Unknown	HPV-positive	$ALL^b$	126,429	8	7,001				
		Total <sup>c</sup>	1,546,462	100	8,473				

TABLE 1B. Immediate and 5-Year Risks of CIN 3+ After a Prior HPV-Negative Screen Documented in the Medical Record

History	Current HPV result	Current cytology result	n	%	CIN 3+ cases	CIN 3+ immediate risk, %	CIN 3+ 5-year risk, %	Recommended management	Recommendation confidence score, %
HPV-negative	HPV-negative	NILM	769,908	94	410	0.00	0.09	5-y follow-up	100
HPV-negative	HPV-negative	ASC-US	14,372	1.8	43	0.01	0.36	3-y follow-up	100
HPV-negative	HPV-negative	LSIL	1,553	0.19	9	0.44	0.79	1-y follow-up	82
HPV-negative	HPV-negative	ASC-H	558	0.07	16	2.8	3.3	Colposcopy	Special situation
HPV-negative	HPV-negative	AGC	1,518	0.19	11	0.78	0.88	Colposcopy	Special situation
HPV-negative	HPV-negative	HSIL+	64	0.01	8	14	14	Colposcopy	98
HPV-negative	HPV-negative	$ALL^a$	787,973	96	497	0.01	0.10	5-y follow-up	100
HPV-negative	HPV-positive	NILM	16,552	2.0	225	0.74	2.3	1-y follow-up	100
HPV-negative	HPV-positive	ASC-US	7,794	0.95	189	2.0	3.8	1-y follow-up	100
HPV-negative	HPV-positive	LSIL	5,990	0.73	143	2.1	3.8	1-y follow-up	100
HPV-negative	HPV-positive	ASC-H	633	0.08	77	14	18	Colposcopy	100
HPV-negative	HPV-positive	AGC	180	0.02	28	14	21	Colposcopy <sup>b</sup>	100
HPV-negative	HPV-positive	HSIL+	411	0.05	117	32	34	Colposcopy/treatment	100
		Total <sup>c</sup>	819,533	100	1,276				

TABLE 2A. Immediate and 5-Year Risks of CIN 3+ for Results Obtained in Follow-up of HPV-Negative ASC-US

History	Current HPV result	Current cytology result	n	%	CIN 3+ cases	CIN 3+ immediate risk, %	CIN 3+ 5-y risk (%)	Recommended management	Recommendation confidence score, %
HPV-negative ASC-US	HPV-negative	NILM	13,918	82	14	0.00	0.14	5-y follow-up	58
HPV-negative ASC-US	HPV-negative	ASC-US	1,701	10	11	0.06	0.78	1-y follow-up	82
HPV-negative ASC-US	HPV-negative	LSIL	193	1.1	5	2.4	3.1	1-y follow-up	80
HPV-negative ASC-US	HPV-negative	ASC-H	57	0.34	3	5.7	5.7	Colposcopy <sup>a</sup>	65
HPV-negative ASC-US	HPV-negative	AGC	59	0.35	0	0.00	0.00	Colposcopy <sup>a</sup>	Special situation
HPV-negative ASC-US	HPV-negative	HSIL+	11	0.07	1	11	11	Colposcopy	36
HPV-negative ASC-US	HPV-negative	$\mathrm{ALL}^d$	15,939	94	34	0.06	0.27	b	Special situation
HPV-negative ASC-US	HPV-positive	NILM	392	2.3	6	0.96	2.4	1-y follow-up	97
HPV-negative ASC-US	HPV-positive	ASC-US	288	1.7	13	2.1	6.6	1-y follow-up	97
HPV-negative ASC-US	HPV-positive	LSIL	228	1.4	5	2.6	2.6	1-y follow-up	85
HPV-negative ASC-US	HPV-positive	ASC-H	25	0.15	5	24	24	Colposcopy <sup>a</sup>	53
HPV-negative ASC-US	HPV-positive	AGC	5	0.03	0	0.00	0.00	Colposcopy <sup>a</sup>	Special situation
HPV-negative ASC-US	HPV-positive	HSIL+	26	0.15	8	36	36	Colposcopy/treatment	86
		Total <sup>c</sup>	16,903	100	71			1.867	

TABLE 2B. Immediate and 5-Year Risks of CIN 3+ for Results Obtained in Follow-up of HPV-Negative LSIL

history	Current HPV result	Current cytology result	n	%	CIN 3+ cases	CIN 3+ immediate risk, %	CIN 3+ 5-y risk, %	Recommended management	Recommendation confidence score, %
HPV-negative LSIL	HPV-negative	NILM	1,547	70	3	0.00	0.40	3-y follow-up	57
HPV-negative LSIL	HPV-negative	ASC-US	258	12	5	0.00	4.0	1-y follow-up	100
HPV-negative LSIL	HPV-negative	LSIL	133	6.0	2	0.00	4.4	1-y follow-up	96
HPV-negative LSIL	HPV-negative	ASC-H	6	0.27	0	0.00	0.00	Colposcopy <sup>a</sup>	Special situation
HPV-negative LSIL	HPV-negative	AGC	5	0.23	0	0.00	0.00	Colposcopy <sup>a</sup>	Special situation
HPV-negative LSIL	HPV-negative	HSIL+	4	0.18	0	0.00	0.00	Colposcopy	Special situation
HPV-negative LSIL	HPV-negative	$ALL^d$	1,953	88	10	0.00	1.1	Ь	Special situation
HPV-negative LSIL	HPV-positive	NILM	71	3.2	4	0.00	8.6	1-y follow-up	97
HPV-negative LSIL	HPV-positive	ASC-US	88	4.0	5	5.3	6.9	Colposcopy	69
HPV-negative LSIL	HPV-positive	LSIL	87	3.9	5	7.9	7.9	Colposcopy	88
HPV-negative LSIL	HPV-positive	ASC-H	8	0.36	3	50	50	Colposcopy <sup>a</sup>	Special situation
HPV-negative LSIL	HPV-positive	AGC	1	0.05	0	0.00	0.00	Colposcopy <sup>a</sup>	Special situation
HPV-negative LSIL	HPV-positive	HSIL+	3	0.14	1	33	33	Colposcopy/treatment	Special situation
HPV-negative LSIL	Cotest nega	tive $\times 2$ Total <sup>c</sup>	693 2,211	100	1 28	0.00	0.27	3-y follow-up	52

Total<sup>c</sup>

TABLE 2C. Immediate and 5-year risks of CIN 3+ for results obtained in follow-up of HPV-positive NILM Current **CIN 3+** Recommendation immediate CIN 3+ 5-y Current cytology **CIN 3+** Recommended confidence **HPV** result % risk, % risk, % score, % History result n cases management HPV-positive NILM HPV-negative NILM 22,625 51 113 0.01 0.90 1-y follow-up 100 HPV-positive NILM HPV-negative ASC-US 1.3 11 0.35 2.6 1-y follow-up 100 585 HPV-positive NILM HPV-negative LSIL 114 0.26 2.3 2.3 1-y follow-up 71 2 HPV-positive NILM HPV-negative ASC-H 0.04 NA NA Special situation 17 0 Colposcopy HPV-positive NILM HPV-negative 8.3 Colposcopy<sup>a</sup> AGC 41 0.09 3 8.3 83 HPV-positive NILM HPV-negative HSIL+ 9 0.02 4 44 44 Colposcopy/treatment 71 HPV-positive NILM HPV-negative  $ALL^{b}$ 23,391 53 133 0.06 0.99 1-y follow-up 100 HPV-positive NILM HPV-positive Colposcopy NILM 11,990 27 608 4.1 7.2 60 HPV-positive NILM **HPV-positive** ASC-US 4,953 310 5.4 9.5 Colposcopy 100 11 HPV-positive NILM LSIL 8.5 Colposcopy **HPV-positive** 2,733 6.2 153 5.0 98 HPV-positive NILM ASC-H 29 **HPV-positive** 654 1.5 134 22 Colposcopy 95 HPV-positive NILM HPV-positive AGC 204 0.46 67 33 40 Colposcopy<sup>a</sup> 99 HPV-positive NILM HPV-positive HSIL+ 44 50 Colposcopy/treatment 100 466 1.0 185 HPV-positive NILM Cotest negative  $\times 2$ 10,522 0.00.29 3-y follow-up 84 16 HPV-positive NILM Cotest negative  $\times 3$ 5,457 5 0.00.17 3-y follow-up 56

1,590

100

44,391

History: Precolposcopy test result	Colposcopic biopsy diagnosis	n	%	CIN 3+ cases	CIN 3+ 1-y risk, %	CIN 3+ 5-y risk, %	Recommended management
HPV-positive NILM $\times 2$	<cin 1<="" td=""><td>7,082</td><td>6.9</td><td>120</td><td>0.56</td><td>2.7</td><td>1-y follow-up</td></cin>	7,082	6.9	120	0.56	2.7	1-y follow-up
HPV-positive ASC-US	<cin 1<="" td=""><td>15,601</td><td>15</td><td>251</td><td>0.49</td><td>3.2</td><td>1-y follow-up</td></cin>	15,601	15	251	0.49	3.2	1-y follow-up
HPV-positive LSIL	<cin 1<="" td=""><td>7,129</td><td>6.9</td><td>94</td><td>0.59</td><td>2.1</td><td>1-y follow-up<sup>a</sup> (special situation)</td></cin>	7,129	6.9	94	0.59	2.1	1-y follow-up <sup>a</sup> (special situation)
ASC-H	<cin 1<="" td=""><td>1,644</td><td>1.6</td><td>51</td><td>2.4</td><td>4.4</td><td>1-y follow-up<sup>a</sup> (special situation)</td></cin>	1,644	1.6	51	2.4	4.4	1-y follow-up <sup>a</sup> (special situation)
AGC	<cin 1<="" td=""><td>3,213</td><td>3.1</td><td>55</td><td>1.2</td><td>1.6</td><td>1-y follow-up<sup>a</sup> (special situation)</td></cin>	3,213	3.1	55	1.2	1.6	1-y follow-up <sup>a</sup> (special situation)
HSIL+	<cin 1<="" td=""><td>338</td><td>0.33</td><td>16</td><td>2.9</td><td>4.8</td><td>1-y follow-up<sup>a</sup> (special situation)</td></cin>	338	0.33	16	2.9	4.8	1-y follow-up <sup>a</sup> (special situation)
HPV-positive NILM $\times 2$	CIN 1	5,732	5.6	102	0.74	2.8	1-y follow-up
HPV-positive ASC-US	CIN 1	20,131	20	296	0.53	2.6	1-y follow-up
HPV-positive LSIL	CIN 1	18,254	18	242	0.74	2.3	1-y follow-up
ASC-H	CIN 1	2,131	2.1	70	1.4	5.6	1-y follow-up <sup>a</sup> (special situation)
AGC	CIN 1	947	0.92	22	1.3	3.8	1-y follow-up <sup>a</sup> (special situation)
HSIL+	CIN 1	809	0.78	33	3.9	6.5	1-y follow-up <sup>a</sup> (special situation)
	CIN 2	12,094	12		NA	NA	Treatment
	CIN 3	6,836	6.6		NA	NA	Treatment
	AIS	531	0.51		NA	NA	Treatment
	Cancer	656	0.64		NA	NA	Treatment
	Total	103,128	100	1,352			

TABLE 4A. Immediate and 5-Year Risks of CIN 3+ Postcolposcopy at Which CIN 2+ Was Not Found, After Referral for Low-Grade Results

History: precolposcopy test result	History: colposcopy result	Current HPV result	Current cytology result	n	<sup>0</sup> ⁄0	CIN 3+ cases	CIN 3+ immediate risk, %	CIN 3 + 5-y risk, %	Recommended management	Recommendation confidence score, %
Low grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-negative</td><td>NILM</td><td>32,361</td><td>55</td><td>56</td><td>0.00</td><td>0.42</td><td>3-y follow-up</td><td>99</td></cin>	HPV-negative	NILM	32,361	55	56	0.00	0.42	3-y follow-up	99
Low grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-negative</td><td>ASC-US/LSIL</td><td>2,937</td><td>5.0</td><td>14</td><td>0.05</td><td>0.92</td><td>1-y follow-up</td><td>93</td></cin>	HPV-negative	ASC-US/LSIL	2,937	5.0	14	0.05	0.92	1-y follow-up	93
Low grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-negative</td><td>High grade<sup>b</sup></td><td>149</td><td>0.25</td><td>4</td><td>1.6</td><td>4.1</td><td>Colposcopy</td><td>Special situation</td></cin>	HPV-negative	High grade <sup>b</sup>	149	0.25	4	1.6	4.1	Colposcopy	Special situation
Low grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-negative</td><td><math>ALL^{c}</math></td><td>35,603</td><td>60</td><td>74</td><td>0.01</td><td>0.51</td><td>3-y follow-up</td><td>73</td></cin>	HPV-negative	$ALL^{c}$	35,603	60	74	0.01	0.51	3-y follow-up	73
Low grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-positive</td><td>NILM</td><td>9,352</td><td>16</td><td>272</td><td>2.1</td><td>5.2</td><td>1-y follow-up</td><td>100</td></cin>	HPV-positive	NILM	9,352	16	272	2.1	5.2	1-y follow-up	100
Low grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-positive</td><td>ASC-US/LSIL</td><td>12,843</td><td>22</td><td>445</td><td>3.1</td><td>6.0</td><td>1-y follow-up</td><td>100</td></cin>	HPV-positive	ASC-US/LSIL	12,843	22	445	3.1	6.0	1-y follow-up	100
Low grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-positive</td><td>High grade<sup>b</sup></td><td>1,294</td><td>2.2</td><td>276</td><td>23</td><td>31</td><td>Colposcopy</td><td>94</td></cin>	HPV-positive	High grade <sup>b</sup>	1,294	2.2	276	23	31	Colposcopy	94
			Total <sup>d</sup>	58,936	100	1,067				

History: precolposcopy test result	History: colposcopy result	Current HPV result	Current cytology result	n	%	CIN 3+ cases	CIN 3+ immediate risk, %	CIN 3+ 5-y risk, %	Recommended management	Recommendation confidence score, %
High grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-negative</td><td>NILM</td><td>4,650</td><td>70</td><td>12</td><td>0.02</td><td>0.48</td><td>1-y follow-up<sup>b</sup></td><td>Special situation</td></cin>	HPV-negative	NILM	4,650	70	12	0.02	0.48	1-y follow-up <sup>b</sup>	Special situation
High grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-negative</td><td>ASC-US/LSIL</td><td>379</td><td>5.7</td><td>3</td><td>0.28</td><td>1.3</td><td>1-y follow-up</td><td>84</td></cin>	HPV-negative	ASC-US/LSIL	379	5.7	3	0.28	1.3	1-y follow-up	84
High grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-negative</td><td>High grade<sup>a</sup></td><td>109</td><td>1.6</td><td>9</td><td>5.6</td><td>14</td><td>Look at footnote<sup>c</sup></td><td>75</td></cin>	HPV-negative	High grade <sup>a</sup>	109	1.6	9	5.6	14	Look at footnote <sup>c</sup>	75
High grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-negative</td><td><math>ALL^d</math></td><td>5,161</td><td>77</td><td>24</td><td>0.14</td><td>0.80</td><td>1-y follow-up</td><td>93</td></cin>	HPV-negative	$ALL^d$	5,161	77	24	0.14	0.80	1-y follow-up	93
High grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-positive</td><td>NILM</td><td>510</td><td>7.6</td><td>36</td><td>5.0</td><td>12</td><td>Colposcopy</td><td>80</td></cin>	HPV-positive	NILM	510	7.6	36	5.0	12	Colposcopy	80
High grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-positive</td><td>ASC-US/LSIL</td><td>689</td><td>10</td><td>61</td><td>6.6</td><td>17</td><td>Colposcopy</td><td>99</td></cin>	HPV-positive	ASC-US/LSIL	689	10	61	6.6	17	Colposcopy	99
High grade <sup>a</sup>	<cin 2<="" td=""><td>HPV-positive</td><td>High grade<sup>a</sup></td><td>346</td><td>5.2</td><td>95</td><td>28</td><td>38</td><td>Look at footnote<sup><math>c</math></sup></td><td>Special situation</td></cin>	HPV-positive	High grade <sup>a</sup>	346	5.2	95	28	38	Look at footnote <sup><math>c</math></sup>	Special situation
			Total <sup>e</sup>	6,683	100	216				

TABLE 5A. Imi	ABLE 5A. Immediate and 5-Year Risks After Treatment for CIN 2 or CIN 3												
History: CIN 2 or 3 (treated)	Current HPV result	Current cytology result	n	%	CIN 3+ cases	CIN 3+ immediate risk, %	CIN 3+ 5-y risk, %	Recommended management	Recommendation confidence score, %				
CIN 2 or 3	HPV-negative	NILM	3,525	75	29	0.03	1.7	1-y follow-up	100				
CIN 2 or 3	HPV-negative	ASC-US/LSIL	280	6	6	0.75	3.8	1-y follow-up	98				
CIN 2 or 3	HPV-negative	High grade <sup>a</sup>	59	1.3	10	18	18	Colposcopy	93				
CIN 2 or 3	HPV-negative	$\mathrm{ALL}^b$	3,876		45	0.34	2.0	1-y follow-up	100				
CIN 2 or 3	HPV-positive	NILM	290	6.2	21	5.8	12	Colposcopy	86				
CIN 2 or 3	HPV-positive	ASC-US/LSIL	342	7.3	41	10	21	Colposcopy	100				
CIN 2 or 3	HPV-positive	High grade <sup>a</sup>	199	4.2	98	53	63	Colposcopy/treatment	97				
		Total <sup>c</sup>	4,695	100	205			1999 (1975-1981)					

TABLE 5B.       Long-Term Follow-up When There Are 2 or 3 Negative Follow-up Test Results After Treatment of CIN 2 or CIN 3											
History: CIN 2 or 3 (treated)	History: cotest or HPV test negative	Current test result	n n	CIN 3+ cases	CIN 3+ immediate risk, %	CIN 3 5-y risk, %	Recommended management	Recommendation confidence score, %			
CIN 2 or 3	Cotest negative $\times 1$	Cotest negative	2,087	7	0.00	0.68	1-y follow-up	68			
CIN 2 or 3	HPV-negative $\times 1$	HPV-negative	2,379	12	0.05	0.91	1-y follow-up	91			
CIN 2 or 3	Cotest negative $\times 2$	Cotest negative	1,099	2	0.00	0.35	3-y follow-up	58			
CIN 2 or 3	HPV-negative $\times 2$	HPV-negative	1,314	4	0.15	0.44	3-y follow-up	59			

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	1	2	3		
	Clinical Situation	Testing	Recommendation		
Current testing					
HPV					
None     None					
<ul> <li>Negative</li> <li>Positive (untyped)</li> </ul>					
O Positive (genotyped)					
Cytology					
LSIL					~
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#### SPECIAL POPULATIONS

Treatment varies with pregnancy: Endocervical curettage, endometrial biopsy, and treatment without biopsy are unacceptable during pregnancy. A diagnostic excisional procedure or repeat biopsy is recommended only if cancer is suspected based on cytology, colposcopy, or histology.

#### REFERENCES

1. Massad SL, Einstein MH, Huh WK, et al. 2012 updated consensus guidelines for the management of abnormal cervical cancer screening tests and cancer precursors. J Low Genit Tract Dis 2013; 17: S1–S27.

## Thank you