November 2024 Provincial Colposcopy Community of Practice (CoP)

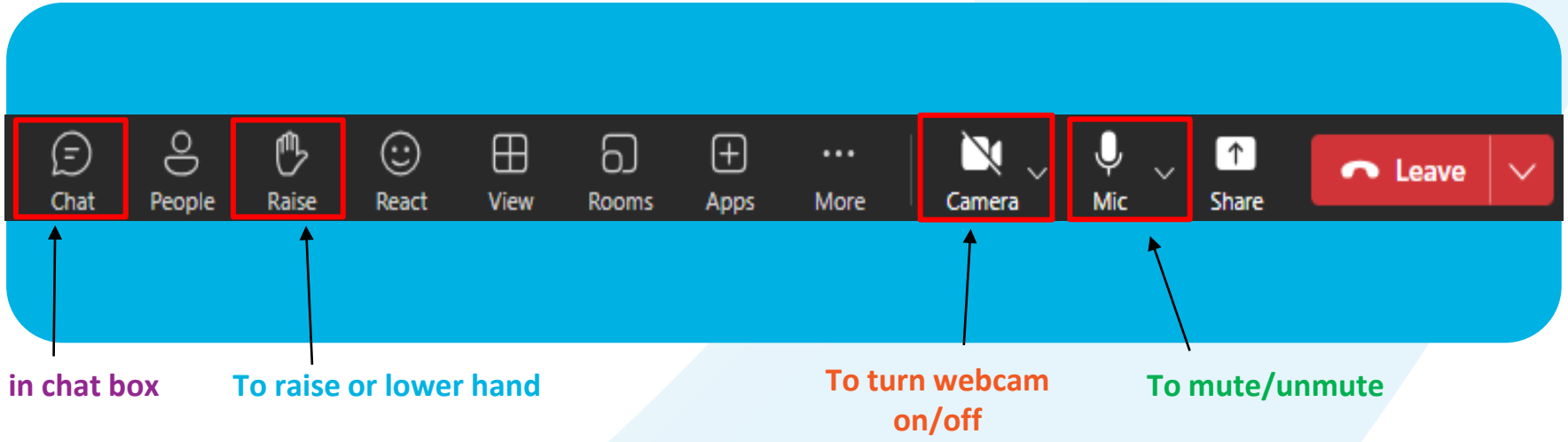
Webinar option 1
November 14, 2024

Ontario Health
Cancer Care Ontario

Land acknowledgement

Housekeeping items

- Please mute yourself when you are not speaking
- Please use the chat box or raise hand option to ask questions or share comments



Recording of webinar is underway

Please note that this session will be recorded and will be available on the Colposcopy CoP Resources Hub in the coming weeks. You can access the hub here:
cancercareontario.ca/ColposcopyHub

Learning objectives

- After this webinar, participants will better understand:
  1. How to access the physician-level cervical screening and colposcopy quality reports
  2. What to expect leading up to the launch of human papillomavirus (HPV) testing implementation
  3. The new future state colposcopy pathways

Agenda

TIME	TOPIC	PRESENTER
5:30 - 5:35 pm	Introductions	Riley Crotta
5:35 - 5:40 pm	Colposcopy quality reports	Dr. Rachel Kupets
5:40 - 5:45 pm	HPV testing implementation update	Dr. Dustin Costescu
5:45 - 6:40 pm	New colposcopy pathways	Dr Dustin Costescu Dr. Rachel Kupets
6:40 - 6:55 pm	Colposcopy scenarios	Dr. Dustin Costescu
6:55 - 7:00 pm	Final remarks	Dr. Rachel Kupets

Colposcopy quality reports

5:35 - 5:40 pm

Dr. Rachel Kupets

Colposcopy physician quality reports

Colposcopy physician reports were disseminated via eReport on September 25

How to access your report: ONE ID self-registration:

1: Physicians can self-register for ONE ID via the CPSO website using your account credentials.

2: Once signed up, a ONE ID username (first.last@oneid.on.ca) and password will be generated (ONE ID credentials).

How to access your report: eReport portal

3:

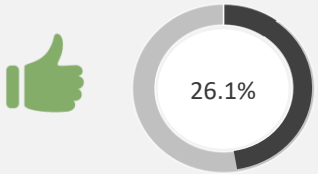
a. Navigate to eReport portal: https://ereport.ontariohealth.ca/
b. Select ONE ID and login using your ONE ID account credentials

Colposcopy Quality Physician Report (Release Year 2024)

CPSO number: Dr.

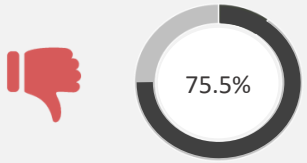
Ontario Health
Cancer Care Ontario

Total colposcopy volume, 2023
(target: ≥100 total colposcopies (for any indication) and ≥ 25% are initial colposcopies)



Your total colposcopy volume: 269
Your initial colposcopy volume: 169
Your follow-up colposcopy (with biopsy) volume: 40
Your follow-up colposcopy (without biopsy) volume: 60

Participation in the Ontario Colposcopy Community of Practice (CoP), 2023

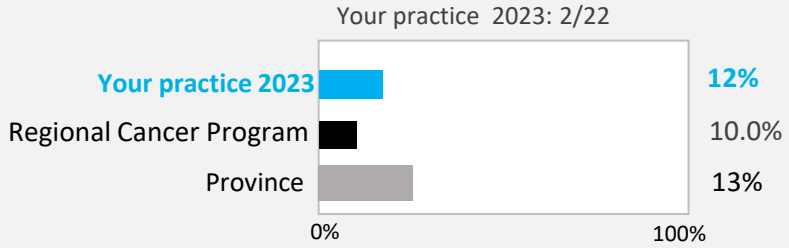


of colposcopists in Ontario attended at least 1 CoP Webinar

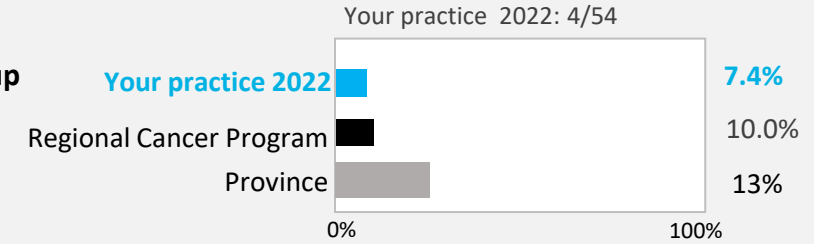
Your participation: 0 of 2 webinars
Your Regional Cancer Program 2023: 30

To join the CoP, please email:
ColposcopyCoP@ontariohealth.ca

Proportion of people seen for colposcopy following a first-time ASCUS cytology test result†∫, 2023



Proportion of people who were not seen for follow-up within 12 months post-treatment for cervical pre-cancer or cancer, 2022



Number of procedures performed for cervical pre-cancer or cancer, July 1, 2022 - June 30, 2023

Procedure type	Your practice
Total	**11**
Cryotherapy	0
Electrocautery	0
Electrosurgical Excision Procedure (LEEP)	8
Cone biopsy	1
Cryoconization, electroconization or CO2 laser therapy	2

Legend: N/A – Not applicable n.d. – No data
Performance rankings:

Thumbs up Keep up the good work

Thumbs down There is an opportunity for improvement

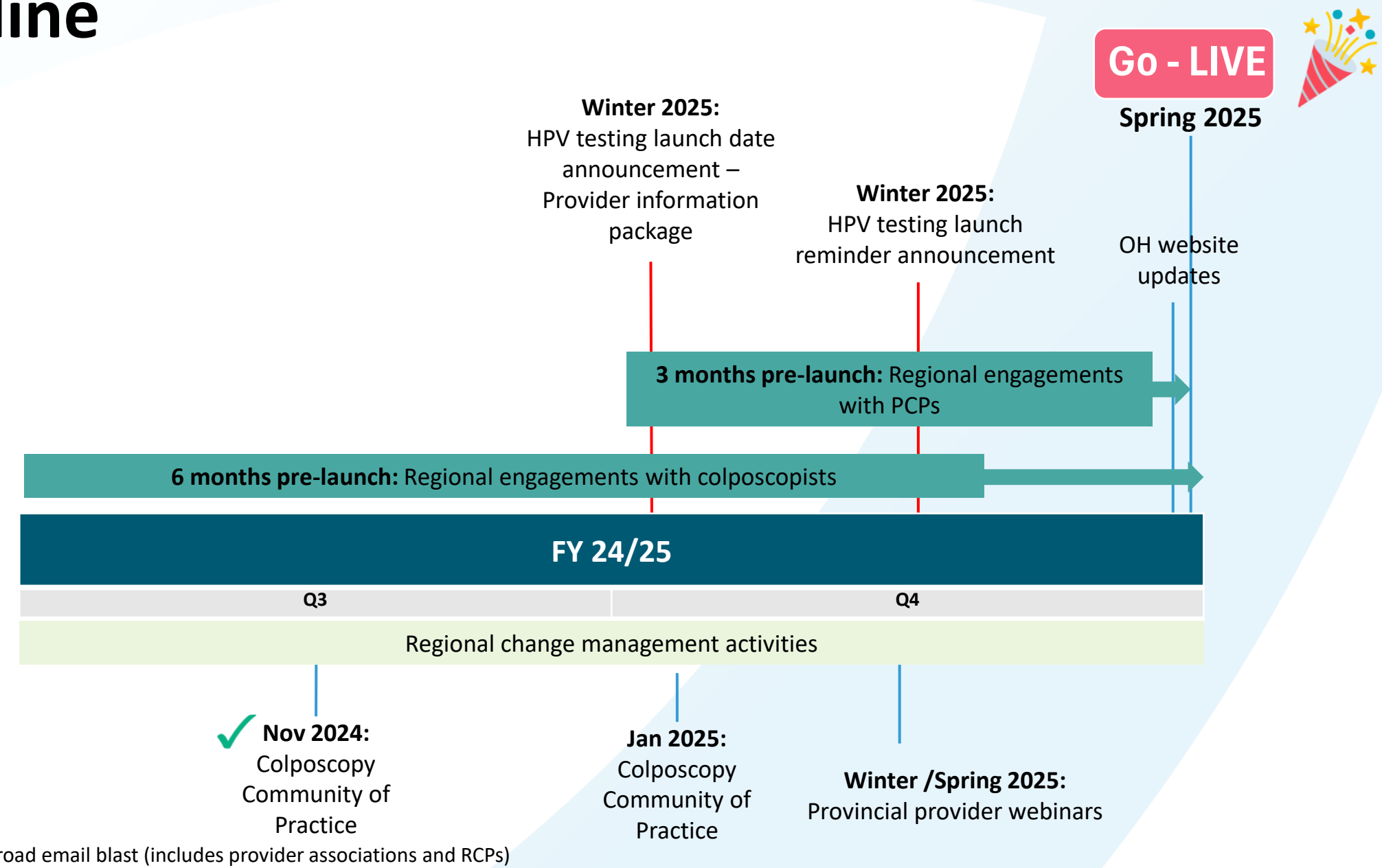
See definitions and technical notes on the next page. For more detailed definitions and methodology of indicators used in this report, please review the supplementary information package on the eReport portal.

HPV testing implementation update

5:40 - 5:45 pm

Dr. Dustin Costescu

Timeline


Go - LIVE
Spring 2025
Winter 2025:
HPV testing launch date announcement – Provider information package
Winter 2025:
HPV testing launch reminder announcement
OH website updates
3 months pre-launch: Regional engagements with PCPs
6 months pre-launch: Regional engagements with colposcopists
FY 24/25
Q3
Q4
Regional change management activities
Nov 2024:
Colposcopy Community of Practice
Jan 2025:
Colposcopy Community of Practice
Winter /Spring 2025:
Provincial provider webinars
Legend:
Broad email blast (includes provider associations and RCPs)

Resources for providers

Resource	Availability of resources
• Program guide: Ontario cervical screening and colposcopy recommendations • Guide to cervical screening • Guide to colposcopy • Guide to resuming cervical screening post-discharge from colposcopy • How to collect a cervical sample • HPV and cytology tests requisition form and instructions • Templates for colposcopists to support clear communication to primary care providers (i.e., discharge letter templates and declined referral letter template)	• HPV testing resource hub in winter 2025
• Frequently asked questions for providers	• Currently available on HPV testing resource hub • Additional FAQs on HPV testing resource hub in winter 2025

HPV testing resource hub: Available in English and French:
ontariohealth.ca/hpvhub
santeontario.ca/pole-vph

Working with Laboratory Services Providers (LSPs)

- Ontario Cervical Screening Program (OCSP)-related testing **(in both cervical screening and colposcopy)** will be completed through one of the following procured LSPs
  - Dynacare
  - LifeLabs
  - North Bay Regional Health Centre
- Providers and clinics that have existing agreements with one of the procured LSPs will continue to follow standard practices for ordering supplies and transporting samples
- Procured LSPs will connect with providers and clinics that do not have existing agreements to support onboarding

Ontario Health recently shared a list with Regional Cancer Programs of which LSP will support which hospital site for OCSP testing. The list has contact information for each LSP so that hospitals can proactively reach out

New colposcopy pathways

5:45 - 6:40 pm

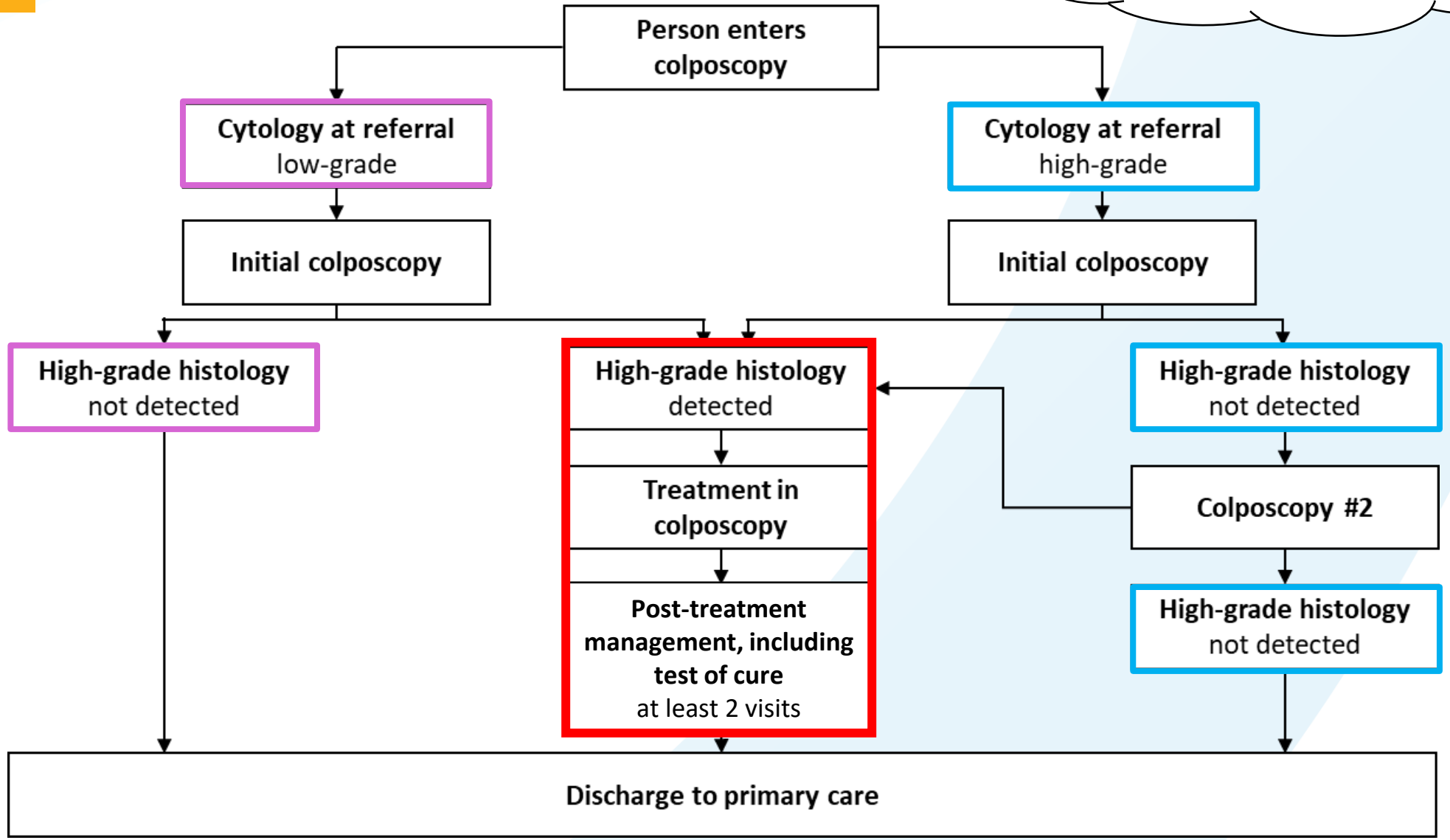
Dr. Dustin Costescu
Dr. Rachel Kupets

Overview

Dr. Dustin Costescu

Episode of care

Reminder: Pathway is based on CYTOLOGY



For all pathways: Initial colposcopy visit

- A cytology test should **not** be performed at the initial colposcopy visit if the referral cytology test was done within 6 months
- A cytology test should only be performed if someone is:
  - Referred with 2 consecutive unsatisfactory cytology test results
  - Referred with HPV-positive (types 16 and 18/45) and unsatisfactory cytology test result

Colposcopy pathway 1:

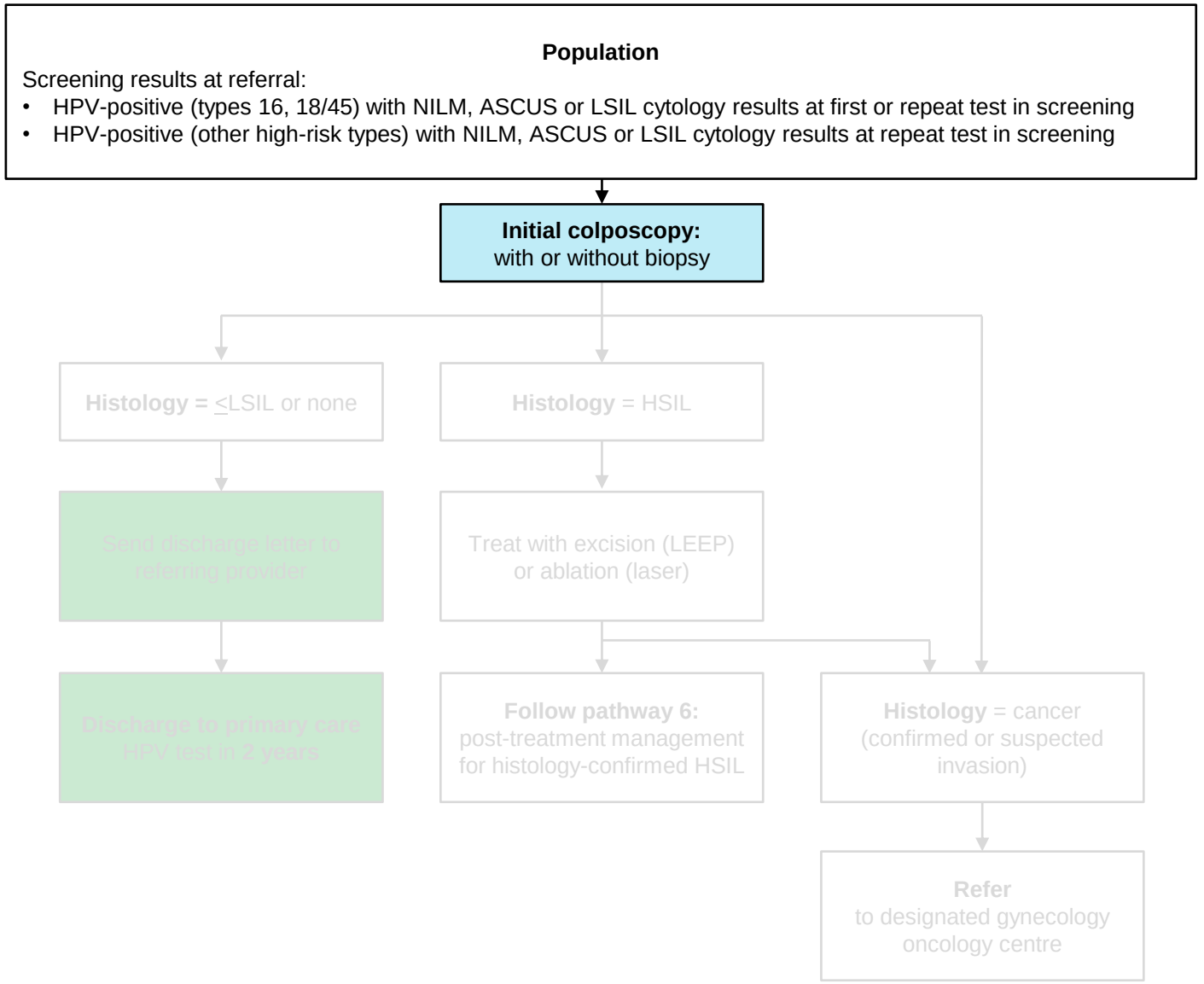
People referred with HPV-positive and normal (NILM) or low-grade cytology (ASCUS, LSIL) results

Dr. Dustin Costescu

Legend

Colposcopy visit

Discharge activity



ASCUS = atypical squamous cells of undetermined significance; HPV = human papillomavirus;
LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion;
HSIL = high-grade squamous intraepithelial lesion; NILM = negative for intraepithelial lesion or malignancy

Legend

Colposcopy visit

Discharge activity

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with NILM, ASCUS or LSIL cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with NILM, ASCUS or LSIL cytology results at repeat test in screening

Initial colposcopy:
with or without biopsy

Histology = ≤LSIL or none

Send discharge letter to referring provider

Discharge to primary care
HPV test in **2 years**

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6:
post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Refer
to designated gynecology oncology centre

Note

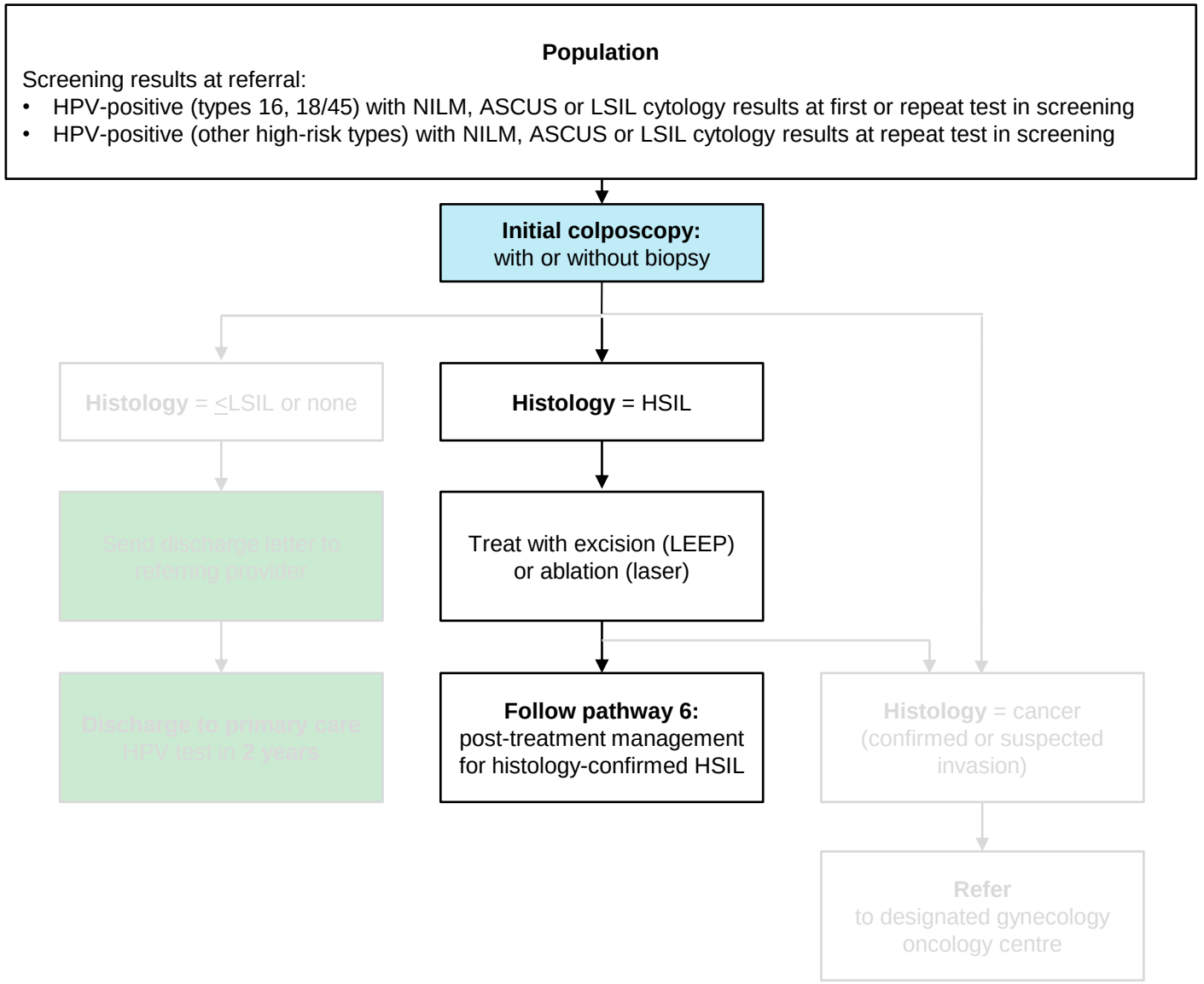
- If someone is age 70 and over, they can be discharged from colposcopy and stop screening

ASCUS = atypical squamous cells of undetermined significance; HPV = human papillomavirus;
LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion;
HSIL = high-grade squamous intraepithelial lesion; NILM = negative for intraepithelial lesion or malignancy

Legend

Colposcopy visit

Discharge activity



Note

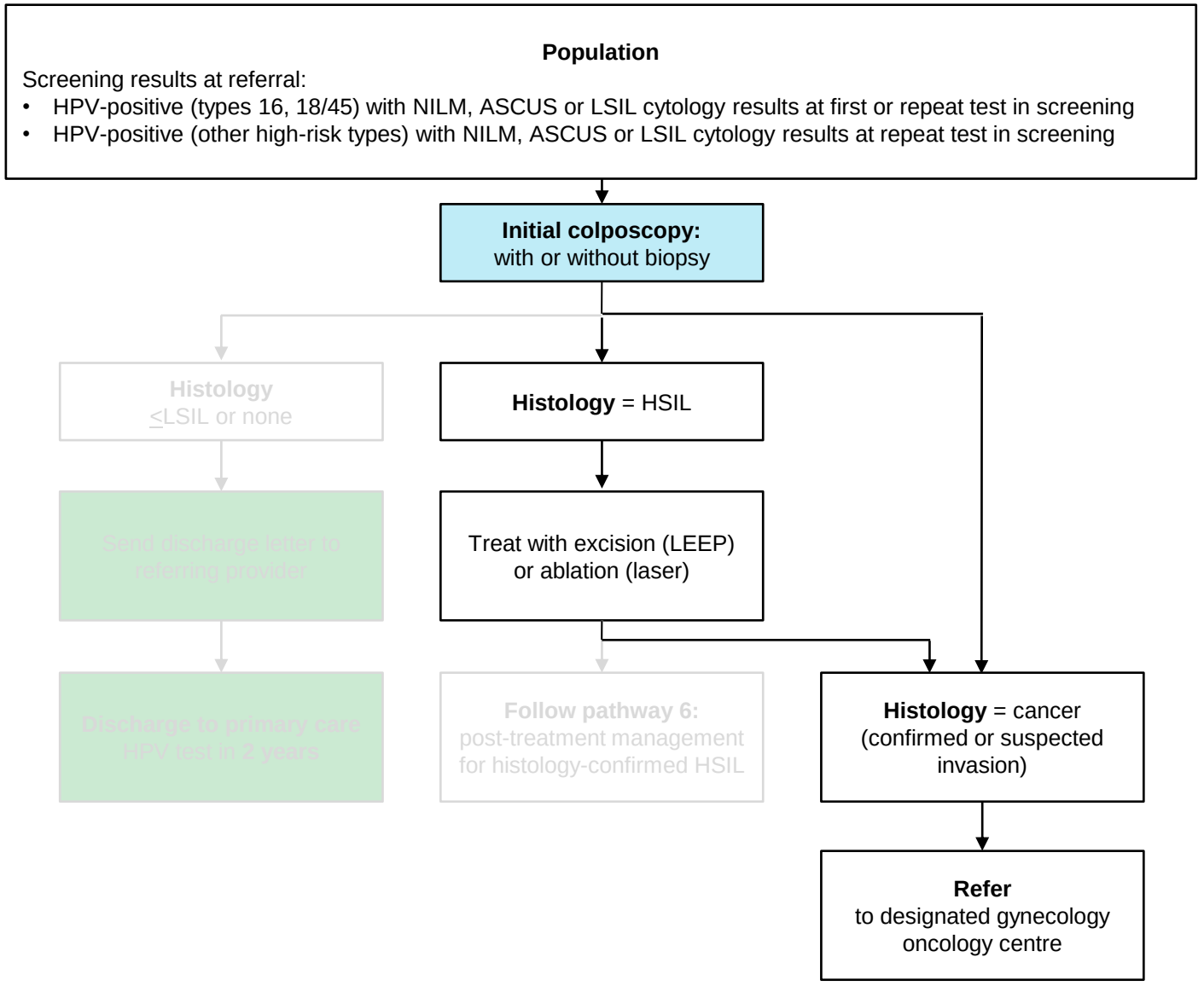
- Cryotherapy is not recommended for the treatment of HSIL
- Tissue sampling is preferred
- However, the mode of treatment is at the discretion of the colposcopist

ASCUS = atypical squamous cells of undetermined significance; HPV = human papillomavirus;
LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion;
HSIL = high-grade squamous intraepithelial lesion; NILM = negative for intraepithelial lesion or malignancy

Legend

Colposcopy visit

Discharge activity



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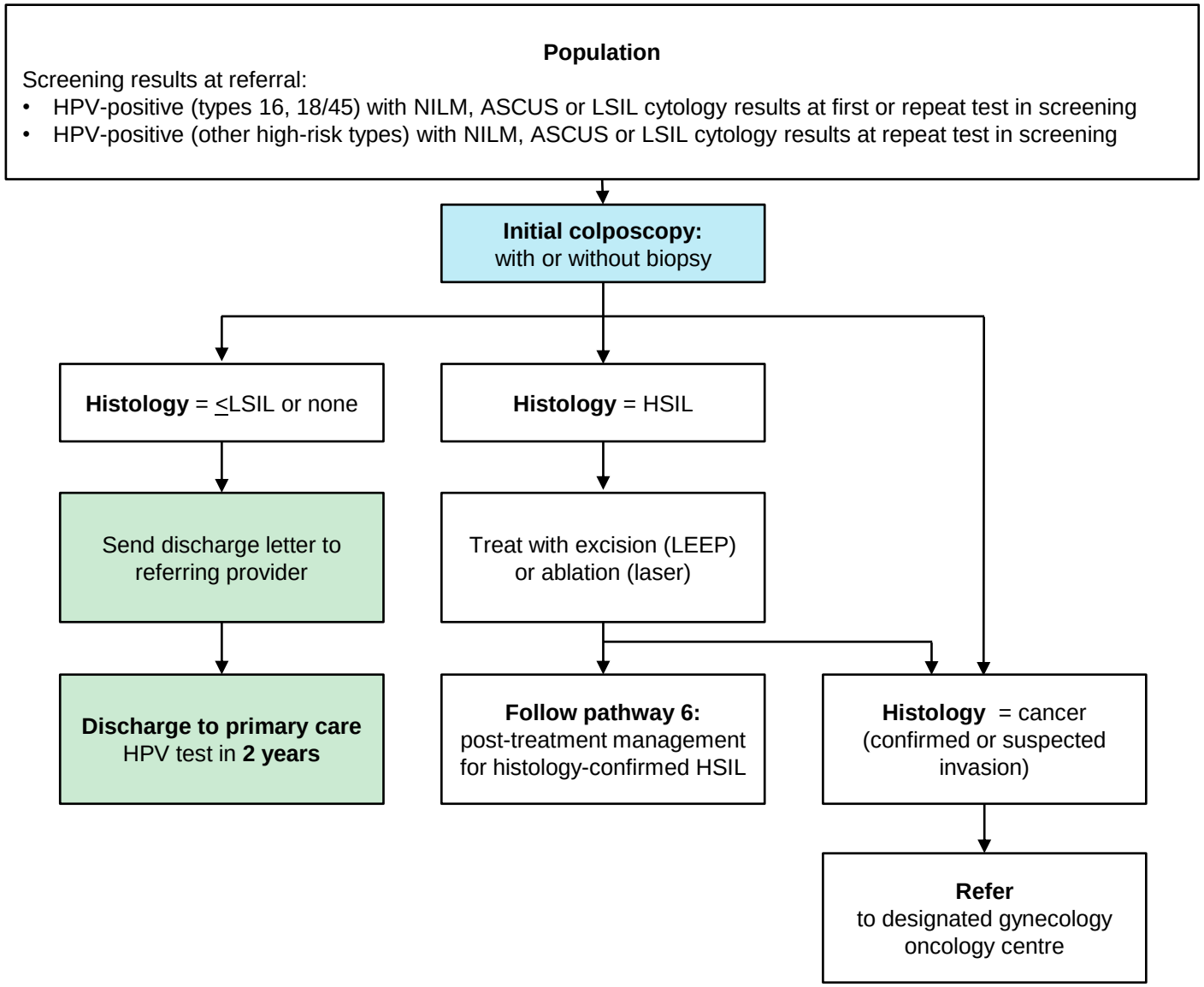
HSIL = high-grade squamous intraepithelial lesion; NILM = negative for intraepithelial lesion or malignancy

Legend

Colposcopy visit

Discharge activity



ASCUS = atypical squamous cells of undetermined significance; HPV = human papillomavirus;
LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion;
HSIL = high-grade squamous intraepithelial lesion; NILM = negative for intraepithelial lesion or malignancy

Evidence: Risk for people referred with normal or low-grade cytology

- 2 studies examined risk after a negative colposcopy:
  - Risk of developing HSIL* after a negative colposcopy** was low after 1 year and the risk only increased slightly at 3 years (1.1-2.2% CIN3+)[1]
  - Risk of developing HSIL*** and cervical cancer after a single negative colposcopy was low after 5 years (1.2-3.8% CIN2+; <0.2% cancer)[2]

Sources:

1. Demarco M, Cheung LC, Kinney WK, Wentzensen N, Lorey TS, Fetterman B, et al. Low Risk of Cervical Cancer/Precancer among Most Women under Surveillance Postcolposcopy. J Low Genit Tract Dis. Lippincott Williams and Wilkins; 2018 Apr;22(2):97–103.
2. Katki HA, Schiffman M, Castle PE, Fetterman B, Poitras NE, Lorey T, et al. Five-Year Risks of CIN 3+ and Cervical Cancer Among Women With HPV Testing of ASC-US Pap Results. J Low Genit Tract Dis. 2013 Apr;17(Supplement 1):S36–42.

Specifications:

*defined as CIN3+
** defined as colposcopy histology results <CIN2
***defined as CIN2+

Ontario data

	Colposcopy finding	HSIL histology incidence rate (%)		Cervical cancer incidence rate (%)	
		3-year	5-year	3-year	5-year
Biopsy result	No biopsy	4.11	5.20	0.05	0.08
	Negative	2.85	3.81	0	0.05
	LSIL	7.09	8.32	0	0

Key takeaway:

Ontario data and published literature show that risk of developing HSIL and cervical cancer for people referred with high-grade cytology is low after a single, negative colposcopy

Source: Ontario Health (Cancer Care Ontario). Internal Data Analysis: Risk of CIN3 and cervical cancer for people with <CIN1 colposcopy. 2020.

Colposcopy pathway 2:

People referred with HPV-positive and high-grade cytology (ASC-H, LSIL-H, HSIL) results, excluding AIS

Dr. Dustin Costescu

Recommendations

- A **minimum of 2 colposcopy visits** are required
- People will be managed based on whether HSIL histology is detected
  - HSIL not detected → 2 colposcopy visits are required before discharge
  - HSIL detected → treatment is recommended, and person moves to post-treatment pathway for HSIL

Legend

Colposcopy visit

Discharge activity

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening

Initial colposcopy:
with or without biopsy

Histology = ≤LSIL or none

1 year after initial colposcopy:
Colposcopy #2
with or without biopsy
HPV-cytology co-test

Histology = HSIL

Histology = ≤LSIL or none
Cytology = normal, low-grade

HPV-negative

HPV-positive

Send discharge letter to referring provider

Send discharge letter to referring provider

Discharge to primary care
HPV test in **5 years**

Discharge to primary care
HPV test in **2 years**

Histology = ≤LSIL or none
Cytology = high-grade

Consider expert pathology review; DEP may be required to resolve discordance between cytology and histology (and/or as treatment)

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6:
post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Refer
to designated gynecology oncology centre

ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion; DEP = diagnostic excisional procedure; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion; LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL;

Legend

Colposcopy visit

Discharge activity

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening

Initial colposcopy:
with or without biopsy

Histology = ≤LSIL or none

1 year after initial colposcopy:
Colposcopy #2
with or without biopsy
HPV-cytology co-test

Histology = HSIL

Histology = ≤LSIL or none
Cytology = normal, low-grade

HPV-negative

HPV-positive

Send discharge letter to referring provider

Send discharge letter to referring provider

Discharge to primary care
HPV test in **5 years**

Discharge to primary care
HPV test in **2 years**

Histology = ≤LSIL or none
Cytology = high-grade

Consider expert pathology review; DEP may be required to resolve discordance between cytology and histology (and/or as treatment)

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6:
post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Refer
to designated gynecology oncology centre

ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion; DEP = diagnostic excisional procedure; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion; LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL;

Legend

Colposcopy visit

Discharge activity

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening

Initial colposcopy:
with or without biopsy

Histology = ≤LSIL or none

1 year after initial colposcopy:
Colposcopy #2
with or without biopsy
HPV-cytology co-test

Histology = HSIL

Histology = ≤LSIL or none
Cytology = normal, low-grade

HPV-negative

HPV-positive

Send discharge letter to referring provider

Send discharge letter to referring provider

Discharge to primary care
HPV test in 5 years

Discharge to primary care
HPV test in 2 years

Histology = ≤LSIL or none
Cytology = high-grade

Consider expert pathology review; DEP may be required to resolve discordance between cytology and histology (and/or as treatment)

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6:
post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Refer
to designated gynecology oncology centre

ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion; DEP = diagnostic excisional procedure; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion; LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL;

Legend

Colposcopy visit

Discharge activity

Note:

- Treat histology-confirmed HSIL regardless of cytology result

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening

Initial colposcopy:
with or without biopsy

Histology = ≤LSIL or none

1 year after initial colposcopy:
Colposcopy #2
with or without biopsy
HPV-cytology co-test

Histology = ≤LSIL or none
Cytology = normal, low-grade

HPV-negative

Send discharge letter to referring provider

Discharge to primary care
HPV test in 5 years

HPV-positive

Send discharge letter to referring provider

Discharge to primary care
HPV test in 2 years

Histology = ≤LSIL or none
Cytology = high-grade

Consider expert pathology review; DEP may be required to resolve discordance between cytology and histology (and/or as treatment)

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Histology = HSIL

Follow pathway 6:
post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Refer
to designated gynecology oncology centre

ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion; DEP = diagnostic excisional procedure; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion; LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL;

Legend

Colposcopy visit

Discharge activity

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with ASC-H, LSIL-H or HSIL cytology results at first or repeat test in screening

Initial colposcopy:
with or without biopsy

Histology = ≤LSIL or none

1 year after initial colposcopy:
Colposcopy #2
with or without biopsy
HPV-cytology co-test

Histology = HSIL

Histology = ≤LSIL or none
Cytology = normal, low-grade

HPV-negative

HPV-positive

Send discharge letter to referring provider

Send discharge letter to referring provider

Discharge to primary care
HPV test in 5 years

Discharge to primary care
HPV test in 2 years

Histology = ≤LSIL or none
Cytology = high-grade

Consider expert pathology review; DEP may be required to resolve discordance between cytology and histology (and/or as treatment)

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6:
post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

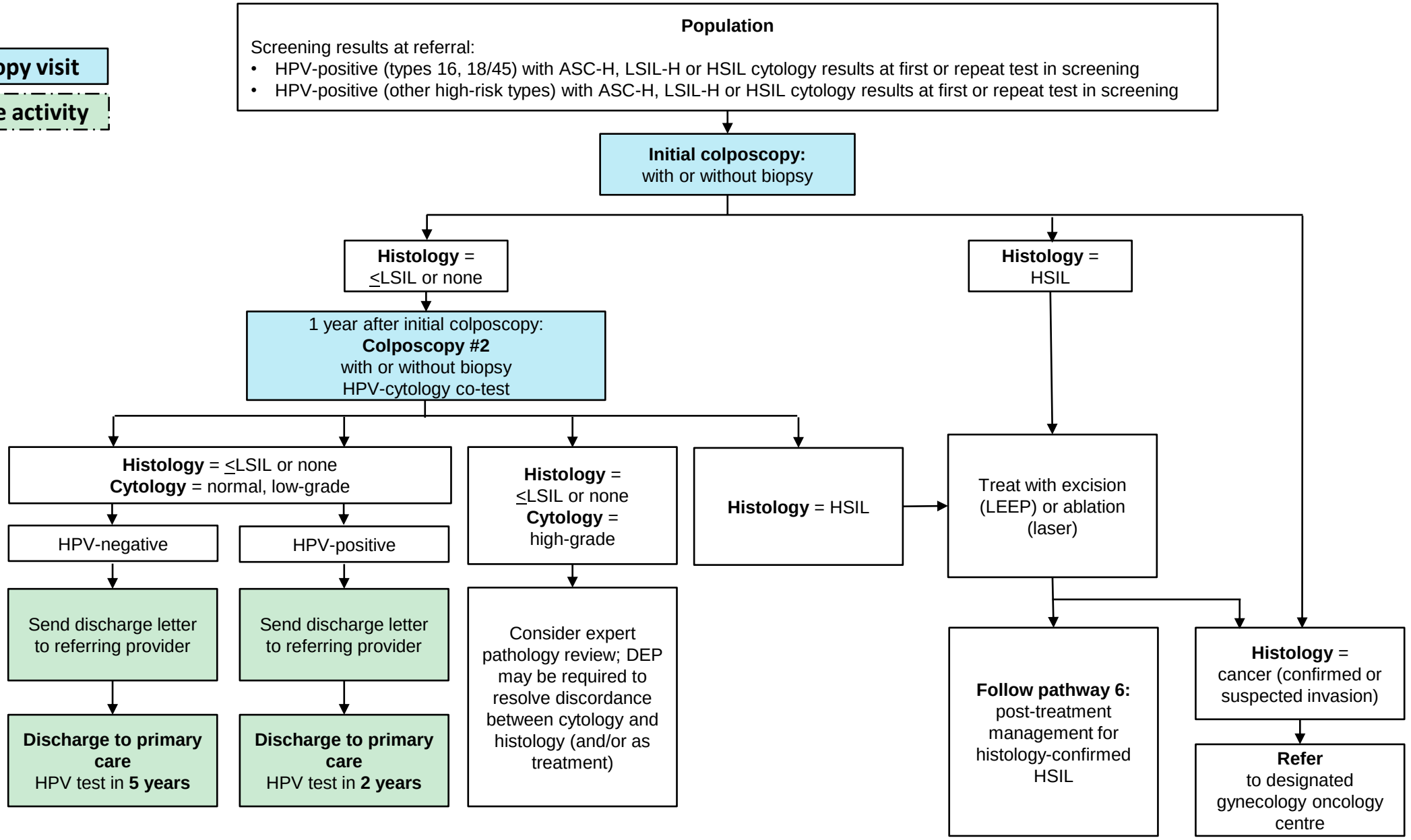
Refer
to designated gynecology oncology centre

ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion; DEP = diagnostic excisional procedure; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion; LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL;

Legend

Colposcopy visit

Discharge activity



ASC-H = atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion; DEP = diagnostic excisional procedure; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LSIL = low-grade squamous intraepithelial lesion; LSIL-H = low-grade squamous intraepithelial lesion, cannot exclude HSIL;

Evidence: Risk for people referred with high-grade cytology

- 2 studies examined risk after a negative colposcopy:
  - The risk of developing HSIL* was moderate after 1 year and the risk increased at 3 years[1]
  - The 5-year risk of developing HSIL** ranged from 3.8% to 15% and the study reported a low 5-year risk of developing cervical cancer (0.72 to 2.1%)[2]
- Second study also showed that a negative HPV-cytology co-test provides more reassurance against developing HSIL compared to cytology or HPV testing alone[2]

Sources:

1. Demarco M, Cheung LC, Kinney WK, Wentzensen N, Lorey TS, Fetterman B, et al. Low Risk of Cervical Cancer/Precancer among Most Women under Surveillance Postcolposcopy. J Low Genit Tract Dis. Lippincott Williams and Wilkins; 2018 Apr;22(2):97–103.
2. Katki HA, Schiffman M, Castle PE, Fetterman B, Poitras NE, Lorey T, et al. Five-Year Risks of CIN 3+ and Cervical Cancer Among Women With HPV Testing of ASC-US Pap Results. J Low Genit Tract Dis. 2013 Apr;17(Supplement 1):S36–42.

Specifications:

*defined as CIN3+
**defined as CIN2+

Ontario data

	Colposcopy finding	HSIL histology incidence rate (%)		Cervical cancer incidence rate (%)	
		3-year rate	5-year rate	3-year rate	5-year rate
Biopsy result	No biopsy	17.7	20.0	1.25	1.68
	Negative	13.0	15.1	0.78	1.04
	LSIL	18.9	20.0	0	0

Key takeaway:
Ontario data and published literature show that risk of developing HSIL and cervical cancer for people referred with high-grade cytology remains moderate after a single negative colposcopy

Source: Ontario Health (Cancer Care Ontario). Internal Data Analysis: Risk of CIN3 and cervical cancer for people with <CIN1 colposcopy. 2020.

Discharge from colposcopy pathways 1 and 2

Dr. Dustin Costescu

Summary of discharge from colposcopy pathways 1 and 2

Colposcopy pathway 1 (referred with normal or low-grade cytology):

- Safe to discharge after **1 negative** colposcopy → Discharge to screening in 2 years

Colposcopy pathway 2 (referred with high-grade cytology):

- Safe to discharge after **2 negative** colposcopies
  - HPV-negative → discharge to screening in 5 years
  - HPV-positive → discharge to screening in 2 years

Colposcopy pathway 3:

People referred with HPV-positive and AGC or AEC cytology results (AGC-NOS, AGC-N, AEC-NOS, AEC-N)

Dr. Dustin Costescu

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at repeat test in screening

Initial colposcopy:
with or without biopsy, ECC or endometrial sampling

Histology = ≤LSIL or none

If referral cytology = AGC-NOS or AEC-NOS

If re
up

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Notes:

1. If separate endocervical sampling is desired and ECC is not possible, consider vigorous sampling with endocervical brush.
2. Endometrial sampling may be required in appropriate clinical circumstances (e.g., endometrial cells in someone who is post-menopausal). In the Ontario Cervical Screening Program, people with AGC-N cytology will have HPV-positive results, so the risk of cervical malignancy is high. However, in circumstances where HPV status is negative or unknown, refer to Ontario Health's Endometrial Cancer Diagnosis Pathway for guidance on endometrial sampling.

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

Legend

Colposcopy visit

Legend

Colposcopy visit

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at first or repeat test in screening

Initial colposcopy:
with or without biopsy, ECC or endometrial sampling

Histology = ≤LSIL or none

If referral cytology = AGC-NOS or AEC-NOS

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

If referral cytology = AGC-N or AEC-N, upper genital tract abnormalities not detected

Consider expert pathology review

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Histology = AIS

Follow pathway 4: people referred with HPV-positive and AIS cytology results

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

AIS = adenocarcinoma in situ; AEC = atypical endocervical cells; AEC-N = atypical endocervical cells, favour neoplastic;
AEC-NOS = AEC, not otherwise specified; AGC = atypical glandular cells; AGC-N = atypical glandular cells, favour neoplastic;
AGC-NOS = AGC, not otherwise specified; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Note:
Refer to designated gynecology oncology centre as appropriate if upper genital tract lesion is suspected.

Population
Screening results at referral:
- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at first or repeat test in screening

Initial colposcopy:
with or without biopsy, ECC or endometrial sampling

Histology = ≤LSIL or none

If referral cytology = AGC-NOS or AEC-NOS

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

If referral cytology = AGC-N or AEC-N, upper genital tract abnormalities not detected

Consider expert pathology review

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = AIS

Follow pathway 4: people referred with HPV-positive and AIS cytology results

Histology = cancer (confirmed or suspected invasion)

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

AIS = adenocarcinoma in situ; AEC = atypical endocervical cells; AEC-N = atypical endocervical cells, favour neoplastic;
AEC-NOS = AEC, not otherwise specified; AGC = atypical glandular cells; AGC-N = atypical glandular cells, favour neoplastic;
AGC-NOS = AGC, not otherwise specified; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at first or repeat test in screening

Initial colposcopy: with or without biopsy, ECC or endometrial sampling

Histology = ≤LSIL or none

If referral cytology = AGC-NOS or AEC-NOS

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

If referral cytology = AGC-N or AEC-N, upper genital tract abnormalities not detected

Consider expert pathology review

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = AIS

Follow pathway 4: people referred with HPV-positive and AIS cytology results

Histology = cancer (confirmed or suspected invasion)

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

AIS = adenocarcinoma in situ; AEC = atypical endocervical cells; AEC-N = atypical endocervical cells, favour neoplastic;
AEC-NOS = AEC, not otherwise specified; AGC = atypical glandular cells; AGC-N = atypical glandular cells, favour neoplastic;
AGC-NOS = AGC, not otherwise specified; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at first or repeat test in screening

Initial colposcopy: with or without biopsy, ECC or endometrial sampling

Histology = ≤LSIL or none

If referral cytology = AGC-NOS or AEC-NOS

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

If referral cytology = AGC-N or AEC-N, upper genital tract abnormalities not detected

Consider expert pathology review

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = AIS

Follow pathway 4: people referred with HPV-positive and AIS cytology results

Histology = cancer (confirmed or suspected invasion)

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

AIS = adenocarcinoma in situ; AEC = atypical endocervical cells; AEC-N = atypical endocervical cells, favour neoplastic; AEC-NOS = AEC, not otherwise specified; AGC = atypical glandular cells; AGC-N = atypical glandular cells, favour neoplastic; AGC-NOS = AGC, not otherwise specified; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at first or repeat test in screening

Initial colposcopy: with or without biopsy, ECC or endometrial sampling

Histology = ≤LSIL or none

If referral cytology = AGC-NOS or AEC-NOS

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

If referral cytology = AGC-N or AEC-N, upper genital tract abnormalities not detected

Consider expert pathology review

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Histology = AIS

Follow pathway 4: people referred with HPV-positive and AIS cytology results

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

AIS = adenocarcinoma in situ; AEC = atypical endocervical cells; AEC-N = atypical endocervical cells, favour neoplastic; AEC-NOS = AEC, not otherwise specified; AGC = atypical glandular cells; AGC-N = atypical glandular cells, favour neoplastic; AGC-NOS = AGC, not otherwise specified; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at first or repeat test in screening

Initial colposcopy:
with or without biopsy, ECC or endometrial sampling

Histology = HSIL

Histology = AIS

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Note:

- Grade 1, stage 1 endometrial cancers can be managed by a general gynecologist
- Stage 2 disease should be excluded before hysterectomy

Treat with excision (LEEP) or ablation (laser)

Follow pathway 4: people referred with HPV-positive and AIS cytology results

If referral cytology = AGC-NOS or AEC-NOS

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

AIS = adenocarcinoma in situ; AEC = atypical endocervical cells; AEC-N = atypical endocervical cells, favour neoplastic;
AEC-NOS = AEC, not otherwise specified; AGC = atypical glandular cells; AGC-N = atypical glandular cells, favour neoplastic;
AGC-NOS = AGC, not otherwise specified; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at first or repeat test in screening

Initial colposcopy: with or without biopsy, ECC or endometrial sampling

Histology = ≤LSIL or none

If referral cytology = AGC-NOS or AEC-NOS

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

If referral cytology = AGC-N or AEC-N, upper genital tract abnormalities not detected

Consider expert pathology review

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Histology = AIS

Follow pathway 4: people referred with HPV-positive and AIS cytology results

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

AIS = adenocarcinoma in situ; AEC = atypical endocervical cells; AEC-N = atypical endocervical cells, favour neoplastic; AEC-NOS = AEC, not otherwise specified; AGC = atypical glandular cells; AGC-N = atypical glandular cells, favour neoplastic; AGC-NOS = AGC, not otherwise specified; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Population

Screening results at referral:

- HPV-positive (types 16, 18/45) with AGC-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-N or AEC-N cytology results at first or repeat test in screening
- HPV-positive (types 16, 18/45) with AGC-NOS or AEC-NOS cytology results at first or repeat test in screening
- HPV-positive (other high-risk types) with AGN-NOS or AEC-NOS cytology results at first or repeat test in screening

Initial colposcopy: with or without biopsy, ECC or endometrial sampling

Histology = ≤LSIL or none

If referral cytology = AGC-NOS or AEC-NOS

1 year after initial colposcopy, **follow pathway 2, colposcopy visit #2**

If referral cytology = AGC-N or AEC-N, upper genital tract abnormalities not detected

Consider expert pathology review

1 year after initial colposcopy, if discordance is resolved, **follow pathway 2, colposcopy visit #2**

If review confirms AGC-N or AEC-N, proceed to DEP

Follow up as per histologic diagnosis

Histology = HSIL

Treat with excision (LEEP) or ablation (laser)

Follow pathway 6: post-treatment management for histology-confirmed HSIL

Histology = cancer (confirmed or suspected invasion)

Histology = AIS

Follow pathway 4: people referred with HPV-positive and AIS cytology results

Histology = cancer of cervix or in upper genital track (confirmed or suspected invasion)

Refer to designated gynecology oncology centre

AIS = adenocarcinoma in situ; AEC = atypical endocervical cells; AEC-N = atypical endocervical cells, favour neoplastic; AEC-NOS = AEC, not otherwise specified; AGC = atypical glandular cells; AGC-N = atypical glandular cells, favour neoplastic; AGC-NOS = AGC, not otherwise specified; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; HSIL = high-grade squamous intraepithelial lesion; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Evidence: Investigation at first colposcopy visit

- A study reported that the immediate risk of HSIL*, AIS histology and cervical cancer is high for **people referred with AGC cytology**[1]
  - Risk for AGC-NOS cytology ranged from 9% to 41% (95% confidence interval [CI]: not reported)
  - Risk for AGC-N cytology ranged from 27% to 96% (95% CI: not reported)
- According to an Ontario study, there is also a risk of developing other gynecological malignancies[2]:
  - 1.05% of people with index AGC cytology were diagnosed with cervical cancer
  - 1.8% were diagnosed with endometrial cancer
  - 0.14% were diagnosed with ovarian cancer

Sources:

1. Wright TC, Cox JT, Massad LS, Twiggs LB, Wilkinson EJ. 2001 Consensus Guidelines. 2002;287(16).
2. Kupets R, Paszat L. How are women with high grade Pap smear abnormalities managed? A population based study. Gynecol Oncol. 2011;121(3):499–504.

Specifications:

*defined as CIN2/3

Evidence: Management in colposcopy

- 2 studies showed the risk of HSIL histology and cervical cancer* for people referred with AGC cytology who have LSIL histology detected at first colposcopy
  - Cumulative risk at 5 years was 1.2% to 3.8% (95% CI: not reported)[1]
  - 1-year risk was 5.6% (95% CI: 1.3 to 9.9%) and 3-year risk was 8.0% (95% CI: 1.5 to 14.5%)[2]

Key takeaway:

Risk of HSIL histology and cervical cancer is too high to discharge people after 1 negative colposcopy visit

Sources:

1. Demarco M, Cheung LC, Kinney WK, Wentzensen N, Lorey TS, Fetterman B, et al. Low Risk of Cervical Cancer/Precancer among Most Women under Surveillance Postcolposcopy. J Low Genit Tract Dis. Lippincott Williams and Wilkins; 2018 Apr;22(2):97–103.
2. Katki HA, Schiffman M, Castle PE, Fetterman B, Poitras NE, Lorey T, et al. Five-Year Risks of CIN 3+ and Cervical Cancer Among Women With HPV Testing of ASC-US Pap Results. J Low Genit Tract Dis. 2013 Apr;17(Supplement 1):S36–42.

Specifications:

*defined as CIN3+

Evidence: AGC and AEC

- AEC-N and AEC-NOS cytology are types of AGC cytology
- A study reported that the positive predictive value (PPV)* of AEC is 81.1%, so there is a significant risk of cervical pre-cancer or cancer**
  - People with AEC-NOS cytology (regardless of HPV type) should be managed the same as AGC-NOS
  - People with AEC-N cytology should be managed the same as AGC-N

Source:

Ullal A, Roberts M, Bulmer JN, Mathers ME, Wadehra V. The role of cervical cytology and colposcopy in detecting cervical glandular neoplasia. Cytopathology. England; 2009 Dec;20(6):359–66.

Specifications:

*The likelihood that positive results will correctly identify people who have a pre-cancer or cancer
**Defined as CIN2+

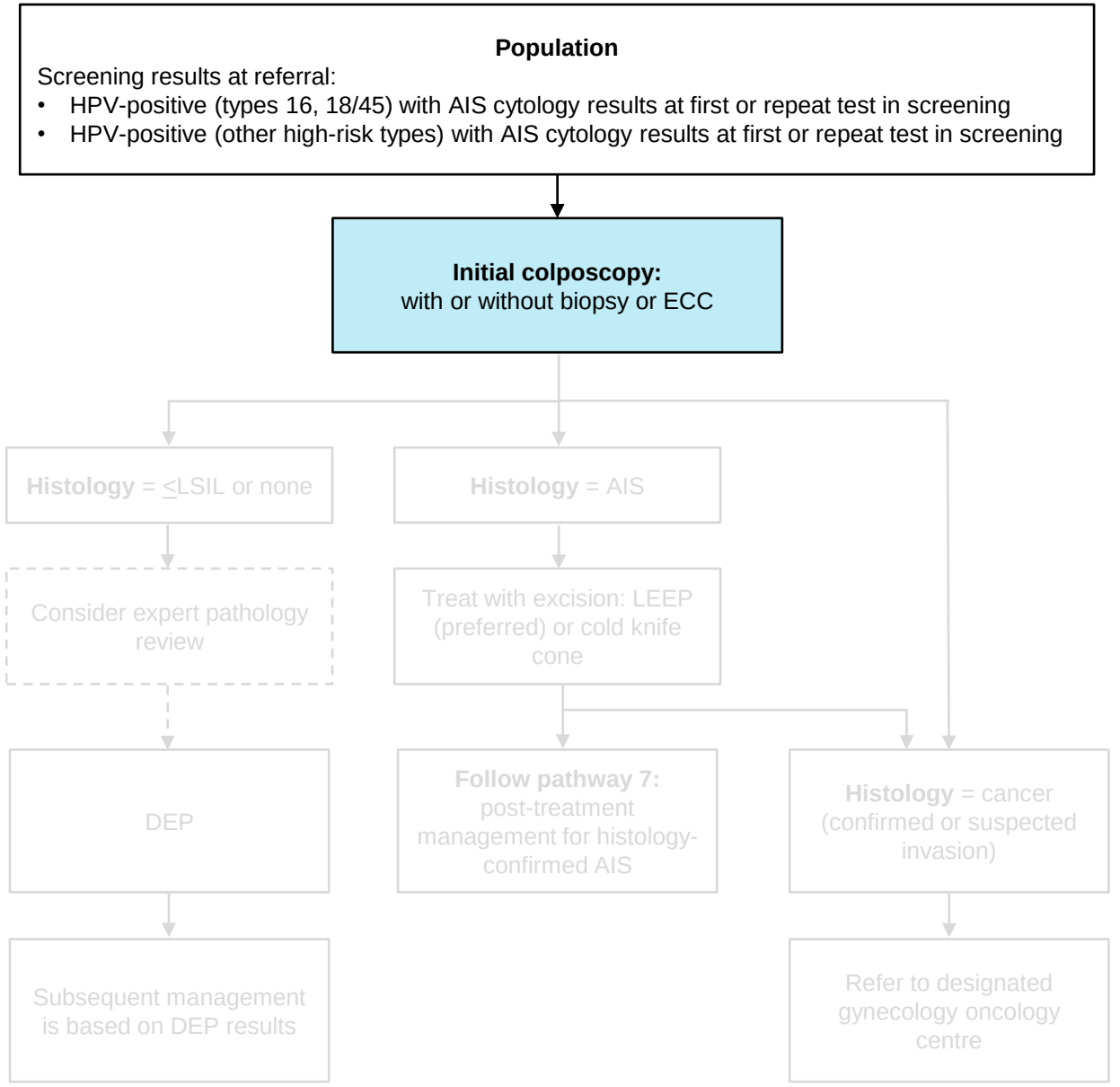
Colposcopy pathway 4:

People referred with HPV-positive and AIS cytology results

Dr. Rachel Kupets

Legend

- **Colposcopy visit**
- **Required**
- **Optional**



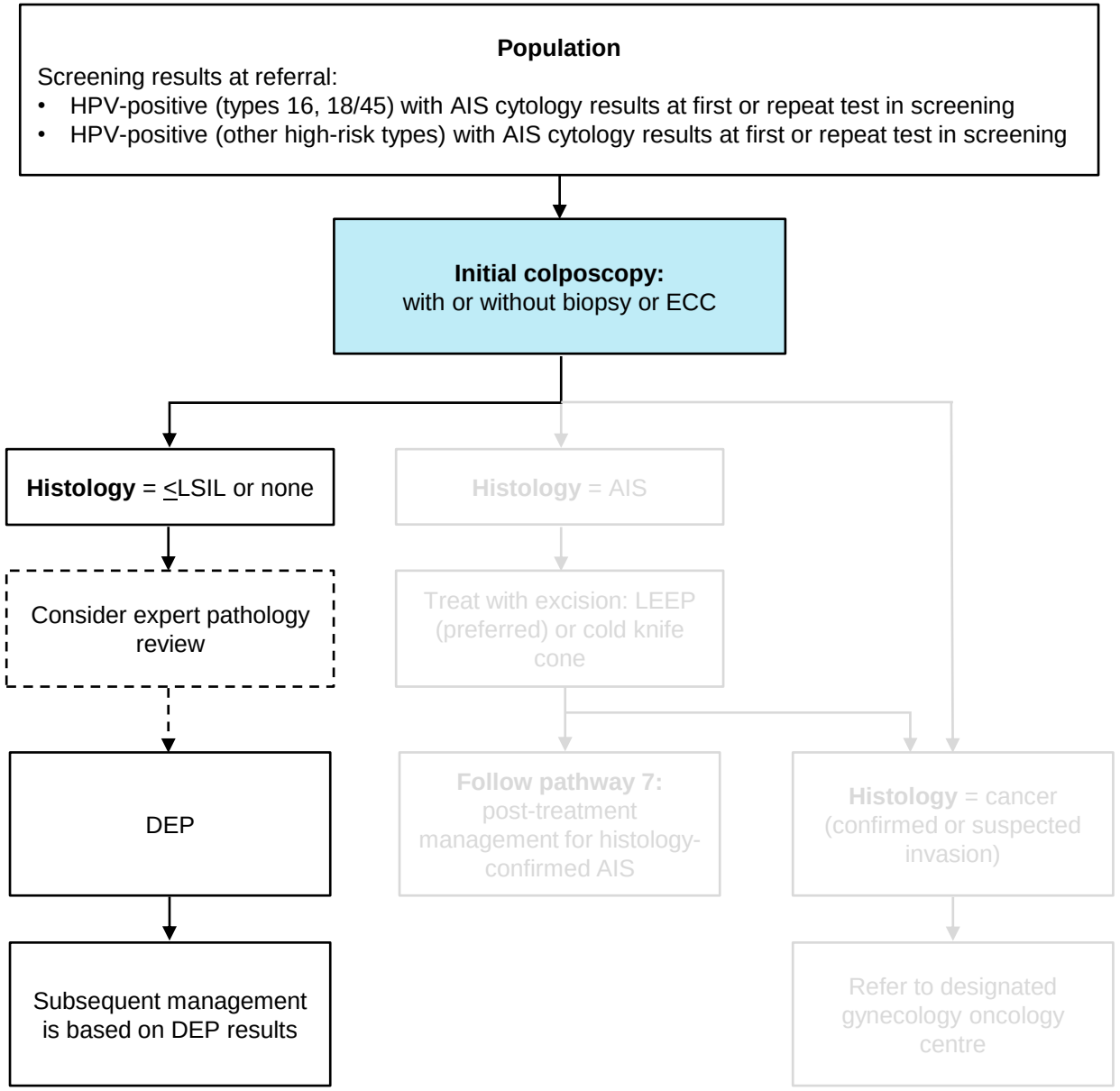
AIS = adenocarcinoma in situ; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

- **Colposcopy visit**
- **Required**
- **Optional**

Note:

- Due to the high PPV of AIS cytology, DEP is almost always required



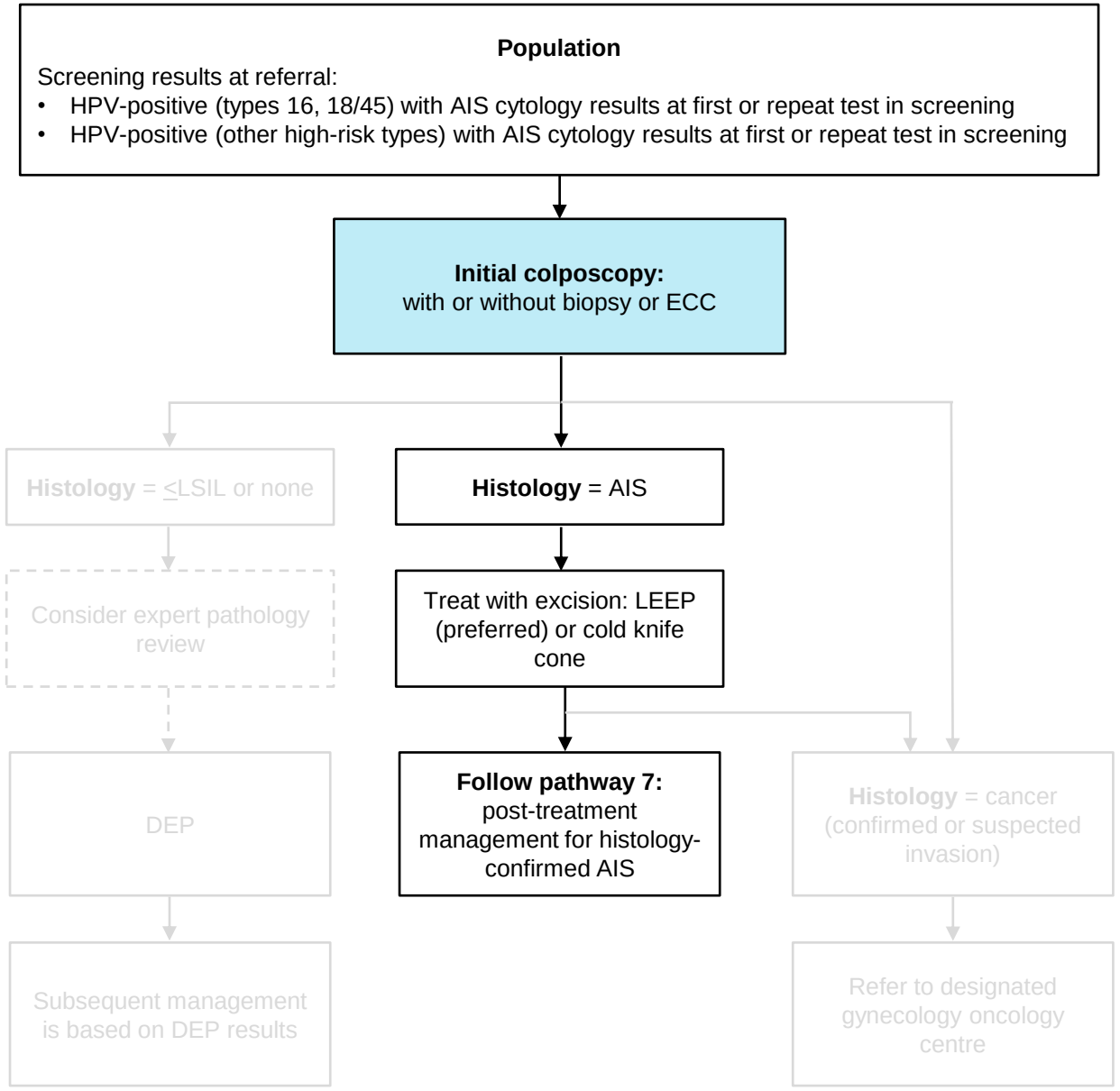
AIS = adenocarcinoma in situ; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

- **Colposcopy visit**
- **Required**
- **Optional**

Notes:

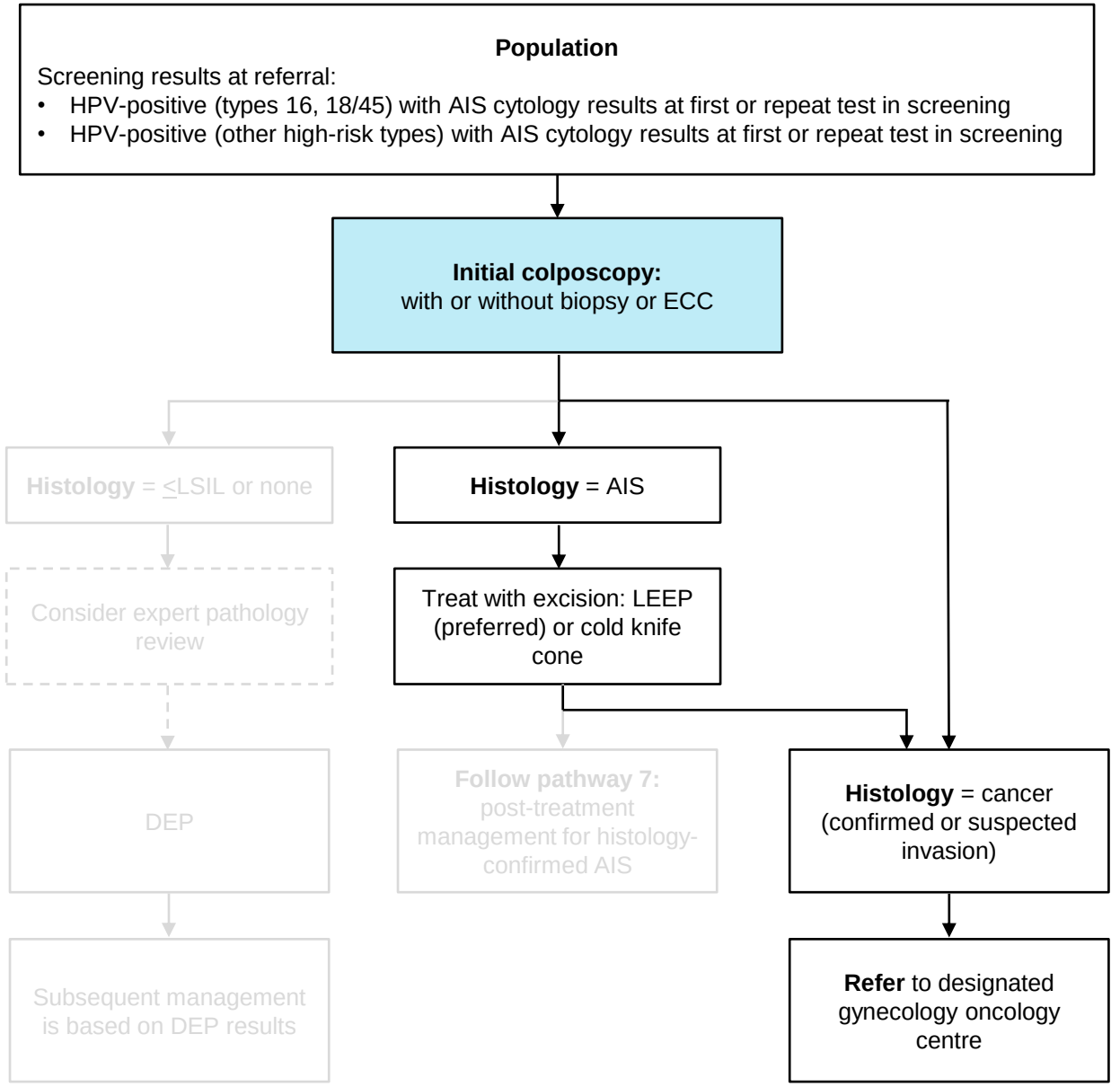
- To treat people with histology-confirmed AIS, LEEP is acceptable in most cases
- The decision to perform a cone biopsy for AIS should be based on the topography of the cervix, the diagnosis and the purpose of intervention (i.e., to confirm histologic diagnosis and ideally achieve negative margins)



AIS = adenocarcinoma in situ; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

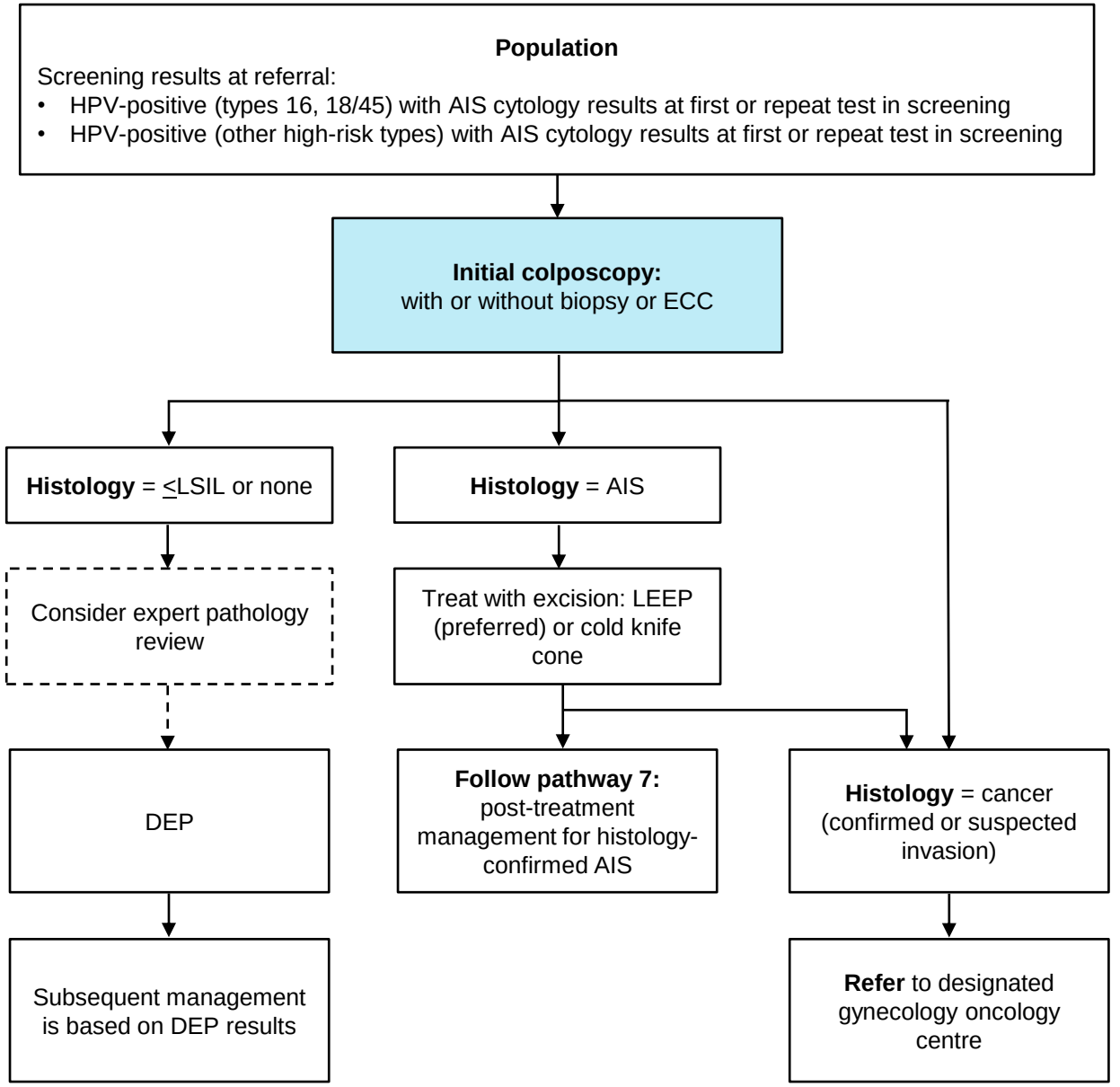
- **Colposcopy visit**
- **Required**
- **Optional**



AIS = adenocarcinoma in situ; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Legend

- **Colposcopy visit**
- **Required**
- **Optional**



AIS = adenocarcinoma in situ; DEP = diagnostic excisional procedure; ECC = endocervical curettage; HPV = human papillomavirus; LEEP = loop electrosurgical excision procedure; LSIL = low-grade squamous intraepithelial lesion

Evidence: PPV of AIS cytology

- 1 study identified a high PPV of AIS cytology for HSIL and AIS histology and cervical cancer* at 91%
- When AIS histology is not found, a DEP is still recommended, and subsequent management depends on histology results
    - Aligns with recommendations in Australia, British Columbia, Italy and England

Source:

Roberts JM, Thurloe JK, Biro C, Hyne SG, Williams KE, Bowditch RC. Follow-up of cytologic predictions of endocervical glandular abnormalities: histologic outcomes in 123 cases. J Low Genit Tract Dis. 2005; 9(2): 71-7.

Specifications:

*Defined as high-grade cervical disease

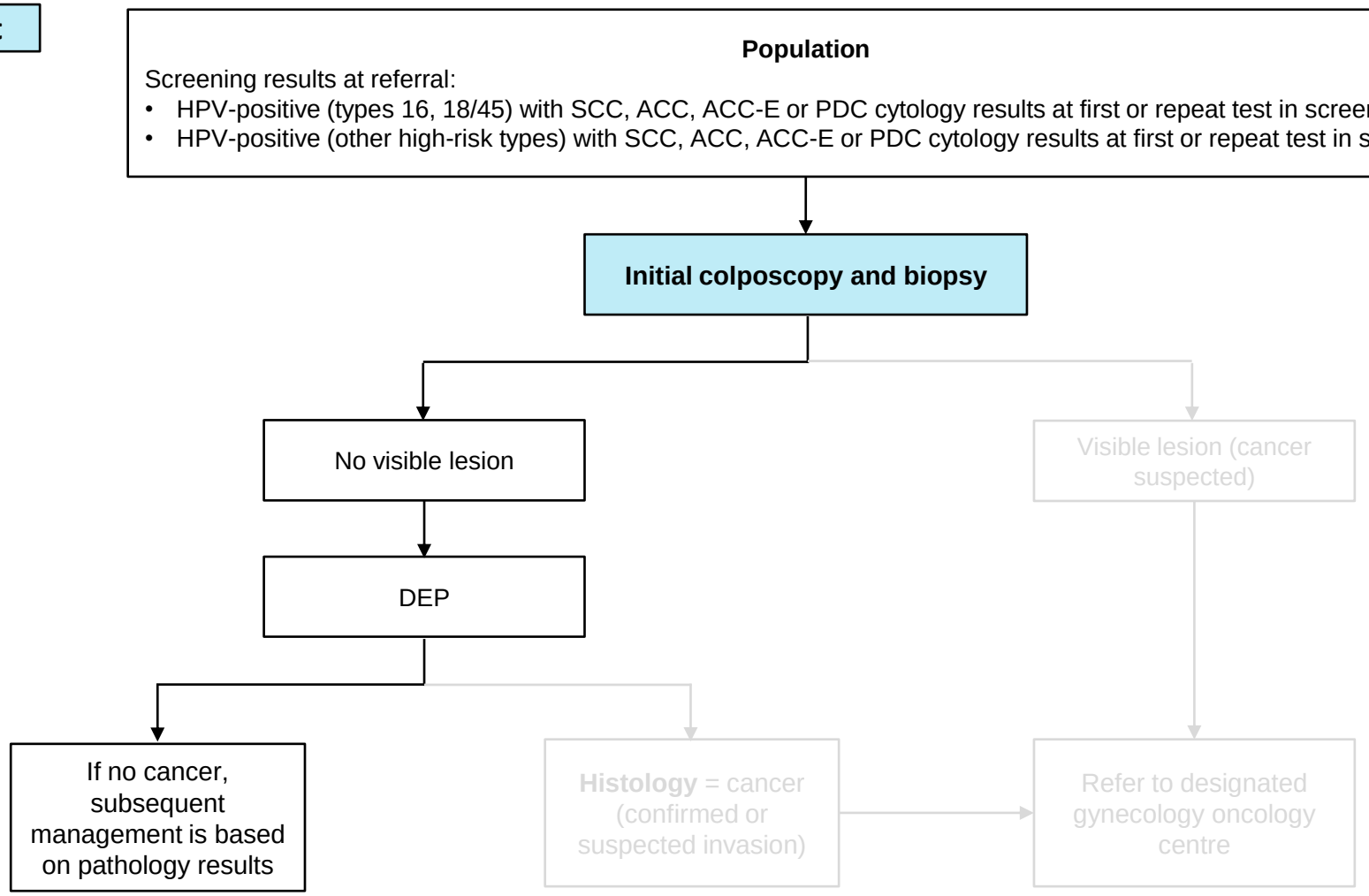
Colposcopy pathway 5:

People referred with HPV-positive and SCC, ACC, ACC-E or PDC cytology results

Dr. Rachel Kupets

Legend

Colposcopy visit



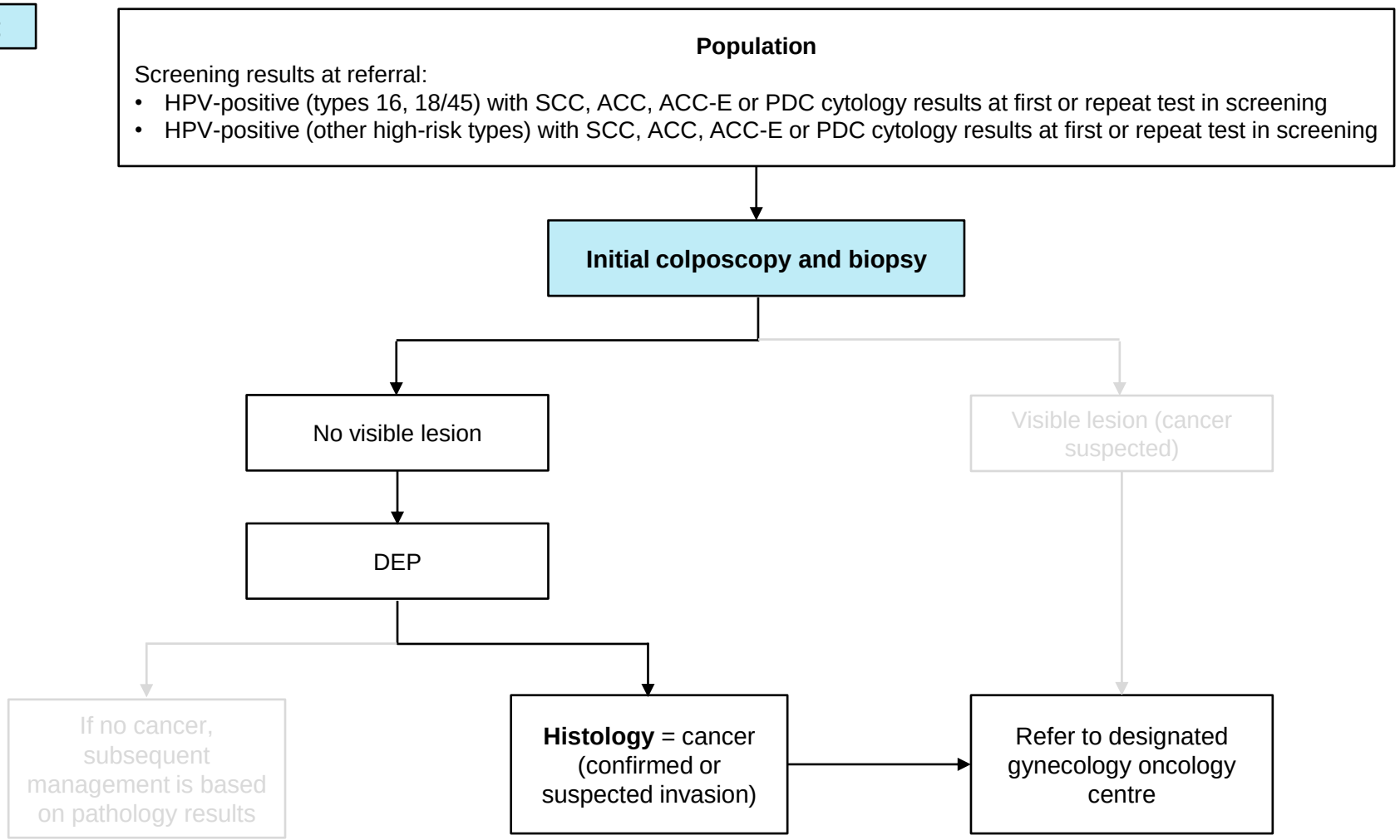
Note:

- When someone's cytology is suggestive of cancer and they have a negative DEP, the risk of a non-cervical malignancy remains
- Consider further investigation in colposcopy or expert consultation (e.g., Regional Cancer Centre)

ACC = adenocarcinoma; ACC-E = endocervical adenocarcinoma; DEP = diagnostic excisional procedure; HPV = human papillomavirus; PDC = poorly differentiated carcinoma; SCC = squamous cell carcinoma

Legend

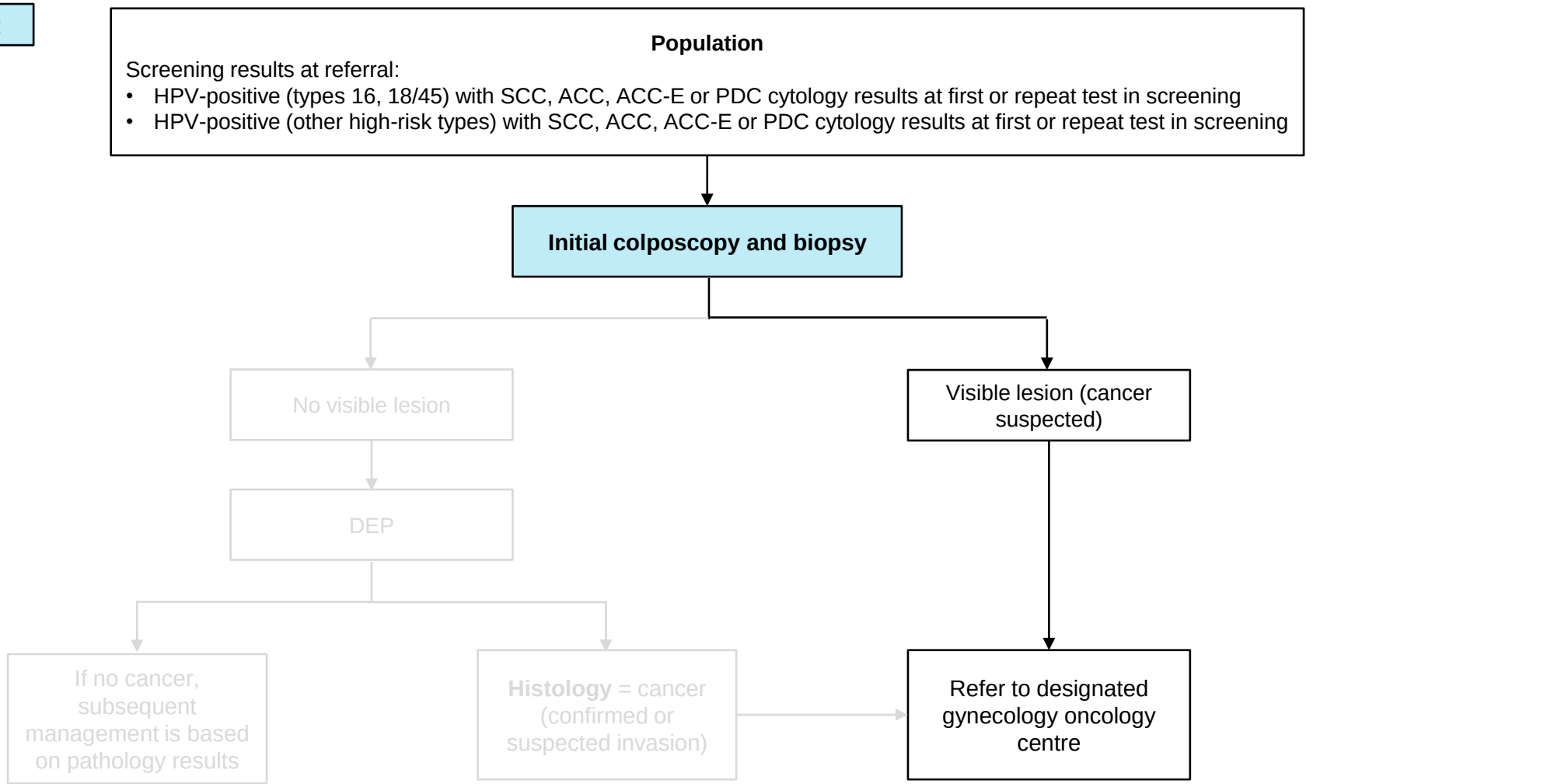
Colposcopy visit



ACC = adenocarcinoma; ACC-E = endocervical adenocarcinoma; DEP = diagnostic excisional procedure; HPV = human papillomavirus; PDC = poorly differentiated carcinoma; SCC = squamous cell carcinoma

Legend

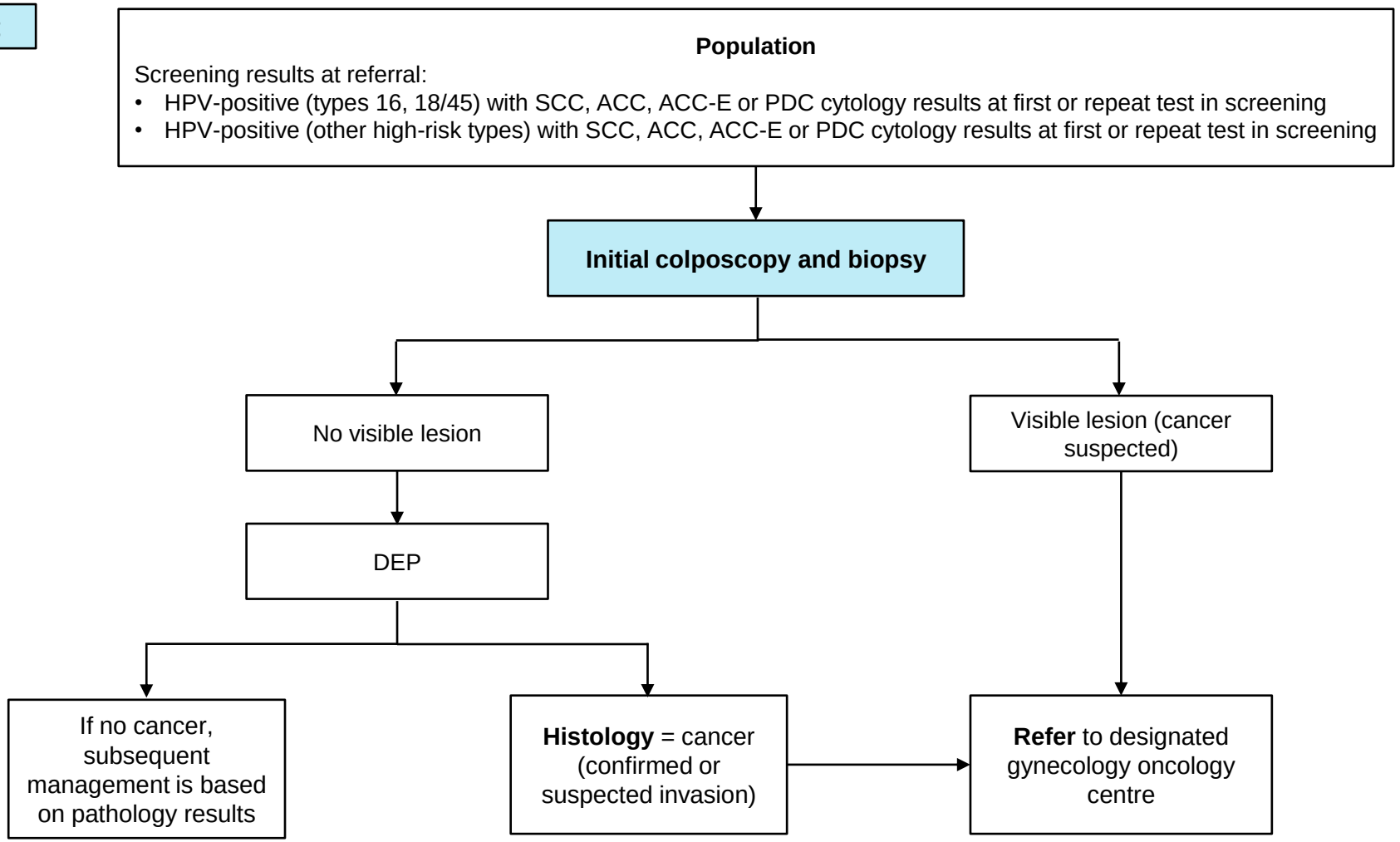
Colposcopy visit



ACC = adenocarcinoma; ACC-E = endocervical adenocarcinoma; DEP = diagnostic excisional procedure; HPV = human papillomavirus; PDC = poorly differentiated carcinoma; SCC = squamous cell carcinoma

Legend

Colposcopy visit



ACC = adenocarcinoma; ACC-E = endocervical adenocarcinoma; DEP = diagnostic excisional procedure; HPV = human papillomavirus; PDC = poorly differentiated carcinoma; SCC = squamous cell carcinoma

Colposcopy pathway 6:

Post-treatment management for histology-confirmed HSIL

Dr. Rachel Kupets

Legend

Colposcopy visit

Discharge activity

Population
- People treated in colposcopy for HSIL

6 months after treatment:
Post-treatment colposcopy #1
with or without biopsy or ECC
HPV-cytology co-test

Note:
- Follow post-treatment pathway regardless of margin status at treatment

Histology = ≤LSIL or none
HPV = negative
Cytology = normal or low-grade

Histology = ≤LSIL or none
HPV = positive
Cytology = normal or low-grade

HSIL suspected or detected
Histology = HSIL
OR
Cytology = high-grade

1 year after post-treatment colposcopy #1:
Post-treatment colposcopy #2
with or without biopsy or ECC
HPV-cytology co-test

Histology = ≤LSIL or none
Cytology = normal or low-grade

Histology = ≤LSIL or none
Cytology = normal or low-grade

Re-assess in colposcopy and consider re-treatment

HPV-negative

HPV-positive

HPV-negative

Send discharge letter to referring provider

Send discharge letter to referring provider

If re-treated, re-start post-treatment management pathway

Discharge to primary care
HPV test in 5 years

Discharge to primary care
HPV test in 2 years

ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion;
LSIL = low-grade squamous intraepithelial lesion;

Legend

Colposcopy visit

Discharge activity

Population
- People treated in colposcopy for HSIL

6 months after treatment:
Post-treatment colposcopy #1
with or without biopsy or ECC
HPV-cytology co-test

Histology = ≤LSIL or none
HPV = negative
Cytology = normal or low-grade

Histology = ≤LSIL or none
HPV = positive
Cytology = normal or low-grade

HSIL suspected or detected
Histology = HSIL
OR
Cytology = high-grade

1 year after post-treatment colposcopy #1:
Post-treatment colposcopy #2
with or without biopsy or ECC
HPV-cytology co-test

Histology = ≤LSIL or none
Cytology = normal or low-grade

Histology = ≤LSIL or none
Cytology = normal or low-grade

Re-assess in colposcopy and consider re-treatment[4]

HPV-negative

HPV-positive

HPV-negative

Send discharge letter to referring provider

Send discharge letter to referring provider

If re-treated, re-start post-treatment management pathway

Discharge to primary care
HPV test in **5 years**

Discharge to primary care
HPV test in 2 years

ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion;
LSIL = low-grade squamous intraepithelial lesion;

Legend

Colposcopy visit

Discharge activity

Population
- People treated in colposcopy for HSIL

6 months after treatment:
Post-treatment colposcopy #1
with or without biopsy or ECC
HPV-cytology co-test

Histology = ≤LSIL or none
HPV = negative
Cytology = normal or low-grade

Histology = ≤LSIL or none
HPV = positive
Cytology = normal or low-grade

HSIL suspected or detected
Histology = HSIL
OR
Cytology = high-grade

1 year after post-treatment colposcopy #1:
Post-treatment colposcopy #2
with or without biopsy or ECC
HPV-cytology co-test

Histology = ≤LSIL or none
Cytology = normal or low-grade

Histology = ≤LSIL or none
Cytology = normal or low-grade

Re-assess in colposcopy and consider re-treatment

HPV-negative

HPV-positive

HPV-negative

Send discharge letter to referring provider

Send discharge letter to referring provider

If re-treated, re-start post-treatment management pathway

Discharge to primary care
HPV test in 5 years

Discharge to primary care
HPV test in **2 years**

ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion;
LSIL = low-grade squamous intraepithelial lesion;

Legend

Notes:

- Regardless of HPV result
- Repeat excision required if persistent disease is identified during post-treatment visits in colposcopy

Population
- People treated in colposcopy for HSIL

6 months after treatment:
Post-treatment colposcopy #1
with or without biopsy or ECC
HPV-cytology co-test

Histology = ≤LSIL or none
HPV = negative
Cytology = normal or low-grade

Histology = ≤LSIL or none
HPV = positive
Cytology = normal or low-grade

HSIL suspected or detected
Histology = HSIL
OR
Cytology = high-grade

1 year after post-treatment colposcopy #1:
Post-treatment colposcopy #2
with or without biopsy or ECC
HPV-cytology co-test

Histology = ≤LSIL or none
Cytology = normal or low-grade

Histology = ≤LSIL or none
Cytology = normal or low-grade

HPV-negative

HPV-positive

HPV-negative

Send discharge letter to referring provider

Send discharge letter to referring provider

Discharge to primary care
HPV test in 5 years

Discharge to primary care
HPV test in 2 years

Re-assess in colposcopy and consider re-treatment

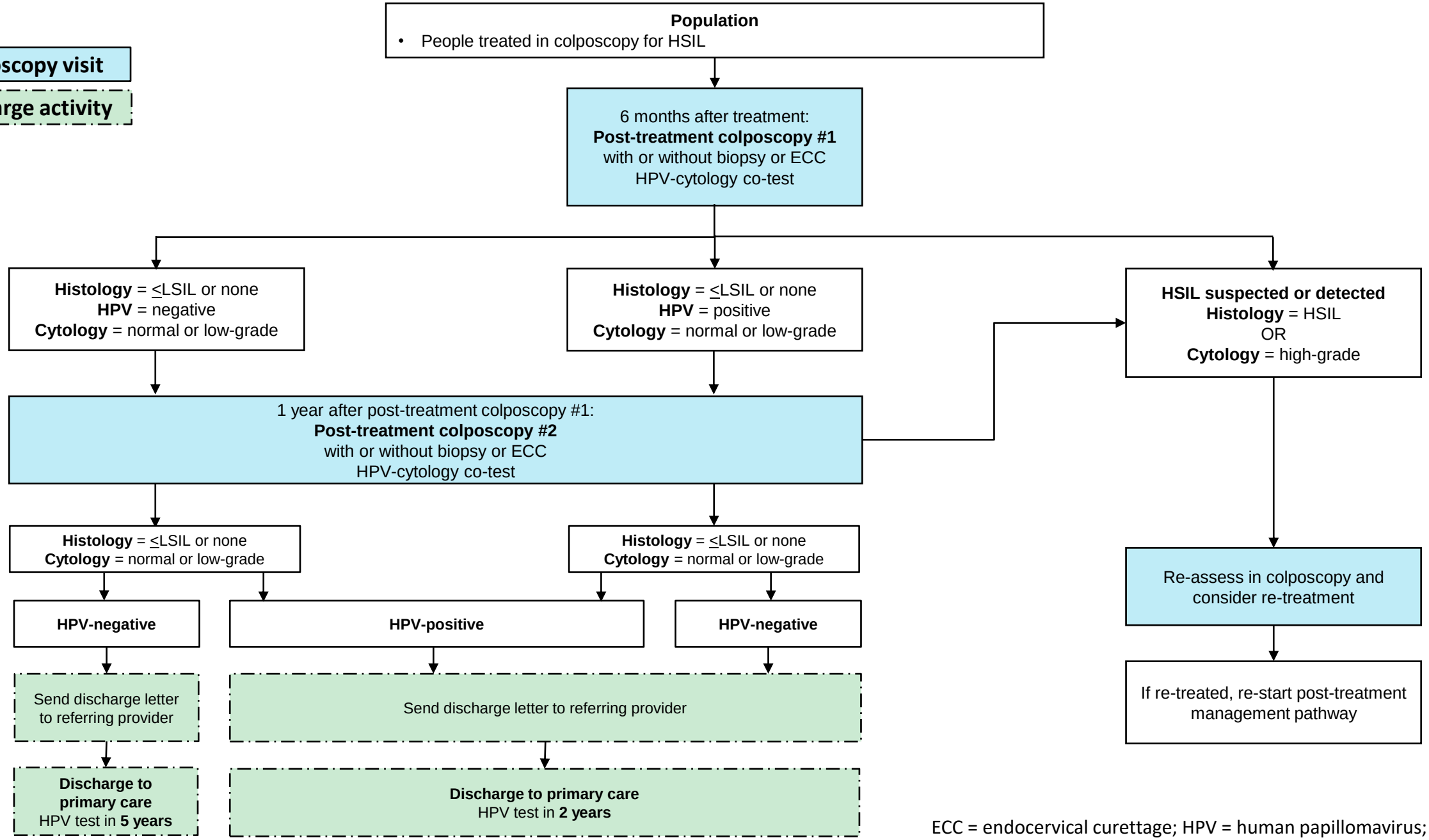
If re-treated, re-start post-treatment management pathway

ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion;
LSIL = low-grade squamous intraepithelial lesion;

Legend

Colposcopy visit

Discharge activity



ECC = endocervical curettage; HPV = human papillomavirus;
HSIL = high-grade squamous intraepithelial lesion;
LSIL = low-grade squamous intraepithelial lesion;

Ontario data: Risk of recurrence

- Ontario data assessed the risk of recurring HSIL and cervical cancer* after treatment of HSIL
- Risk of recurrence at 5 years post-treatment was 6.1%

Key takeaway:

Risk of recurrence of HSIL and cervical cancer after treatment of HSIL is **not** sufficiently low to discharge people from colposcopy immediately after treatment

Source:

Swift BE, Wang L, Jembere N, Kupets R. Risk of recurrence after treatment for cervical intraepithelial neoplasia 3 and adenocarcinoma in situ of the cervix: Recurrence of CIN 3 and AIS of cervix. J Low Genit Tract Dis. 2020 Jul 1; 24(3): 252-8.

Specifications:

*Defined as CIN3+

Evidence: Post-treatment strategy for risk assessment

- 1 study assessed the risk of developing HSIL* over 5 years post-treatment by test strategy (i.e., cytology alone, HPV testing alone or HPV-cytology co-testing)
  - 5-year risk was lowest for people with 2 negative HPV-cytology co-tests (1.5%; 95% CI: 0.3 to 7.2)
  - 5-year risk was lower for people with 2 negative HPV-cytology co-tests than 2 negative HPV tests (1.5% vs. 2.7%, p=0.6) or 2 negative cytology tests (1.5% vs. 2.7%, p=0.7)

Source:

Katki HA, Schiffman M, Castle PE, Fetterman B, Poitras NE, Lorey T, et al. Five-year risk of recurrence after treatment of CIN 2, CIN 3, or AIS: Performance of HPV and pap cotesting in posttreatment management. J Low Genit Tract Dis. 2013 Apr;17(5 SUPPL.1).

Specifications:

*Defined as CIN2+

Evidence: Post-treatment strategy for risk assessment (continued)

- Another study assessed the risk of HSIL* recurrence after 2 negative HPV-cytology co-tests 12 months apart
  - People with 2 negative HPV-cytology co-tests had a lower risk of HSIL recurrence at 5 years (0.08%) than people with 2 negative HPV tests (0.26%) (p=0.2)

Source:

Tan JHJ, Malloy MJ, Brotherton JML, Saville M. Compliance with follow-up Test of Cure and outcomes after treatment for high-grade cervical intraepithelial neoplasia in Victoria, Australia. Aust New Zeal J Obstet Gynaecol. 2020 Jun 1;60(3):433–7.

Specifications:

*Defined as CIN2/3 and high-grade CIN not otherwise specified

Colposcopy pathway 7:

Post-treatment management for histology-confirmed AIS

Dr. Rachel Kupets

Legend

Colposcopy visit

Discharge activity

Population
People with histology-confirmed AIS and negative margins after treatment

6 months after treatment:
Post-treatment colposcopy #1b
with or without biopsy or ECC
HPV-cytology co-test

ECC (if taken) = negative
Histology (if taken) = negative
HPV = positive or negative
Cytology = normal or low-grade

1 year after post-treatment colposcopy #1b:
Post-treatment colposcopy #2
with or without biopsy or ECC
HPV-cytology co-test

Repeat post-treatment colposcopy annually until **3** consecutive negative colposcopies:
Histology = ≤LSIL or none
HPV = negative
Cytology = normal or low-grade

Send discharge letter to referring provider

Discharge to primary care
HPV test in **2 years**

Population
People with histology-confirmed AIS and positive margins after initial treatment or re-treatment

3 months after treatment:
Post-treatment colposcopy #1a
with or without biopsy or ECC
HPV-cytology co-test

No evidence of persistent disease

Evidence of persistent disease

Any evidence of AIS (cytology or histology)

Re-excision (LEEP)
with or without ECC

Negative margins

Positive margins

Return to post-treatment colposcopy #1b

Return to post-treatment colposcopy #1a

AIS = adenocarcinoma in situ; ECC = endocervical curettage;
HPV = human papillomavirus;
LEEP = loop electrosurgical excision procedure;
LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Discharge activity

Population
People with histology-confirmed AIS and negative margins after treatment

6 months after treatment:
Post-treatment colposcopy #1b
with or without biopsy or ECC
HPV-cytology co-test

ECC (if taken) = negative
Histology (if taken) = negative
HPV = positive or negative
Cytology = normal or low-grade

1 year after post-treatment colposcopy #1b:
Post-treatment colposcopy #2
with or without biopsy or ECC
HPV-cytology co-test

Repeat post-treatment colposcopy annually until **3** consecutive negative colposcopies:
Histology = ≤LSIL or none
HPV = negative
Cytology = normal or low-grade

Send discharge letter to referring provider

Discharge to primary care
HPV test in **2 years**

Any evidence of AIS (cytology or histology)

Population
People with histology-confirmed AIS and positive margins after initial treatment or re-treatment

3 months after treatment:
Post-treatment colposcopy #1a
with or without biopsy or ECC
HPV-cytology co-test

No evidence of persistent disease

Evidence of persistent disease

Re-excision (LEEP)
with or without ECC

Negative margins

Return to **post-treatment colposcopy #1b**

Positive margins

Return to **post-treatment colposcopy #1a**

AIS = adenocarcinoma in situ; ECC = endocervical curettage;
HPV = human papillomavirus;
LEEP = loop electrosurgical excision procedure;
LSIL = low-grade squamous intraepithelial lesion

Legend

Colposcopy visit

Discharge activity

Note:

- Wait approximately three months to reevaluate the cervix for adequate healing and to improve the accuracy of colposcopic evaluation

Population
People with histology-confirmed AIS and positive margins after initial treatment or re-treatment

3 months after treatment:
Post-treatment colposcopy #1a
with or without biopsy or ECC
HPV-cytology co-test

No evidence of persistent disease

Evidence of persistent disease

Re-excision (LEEP)
with or without ECC

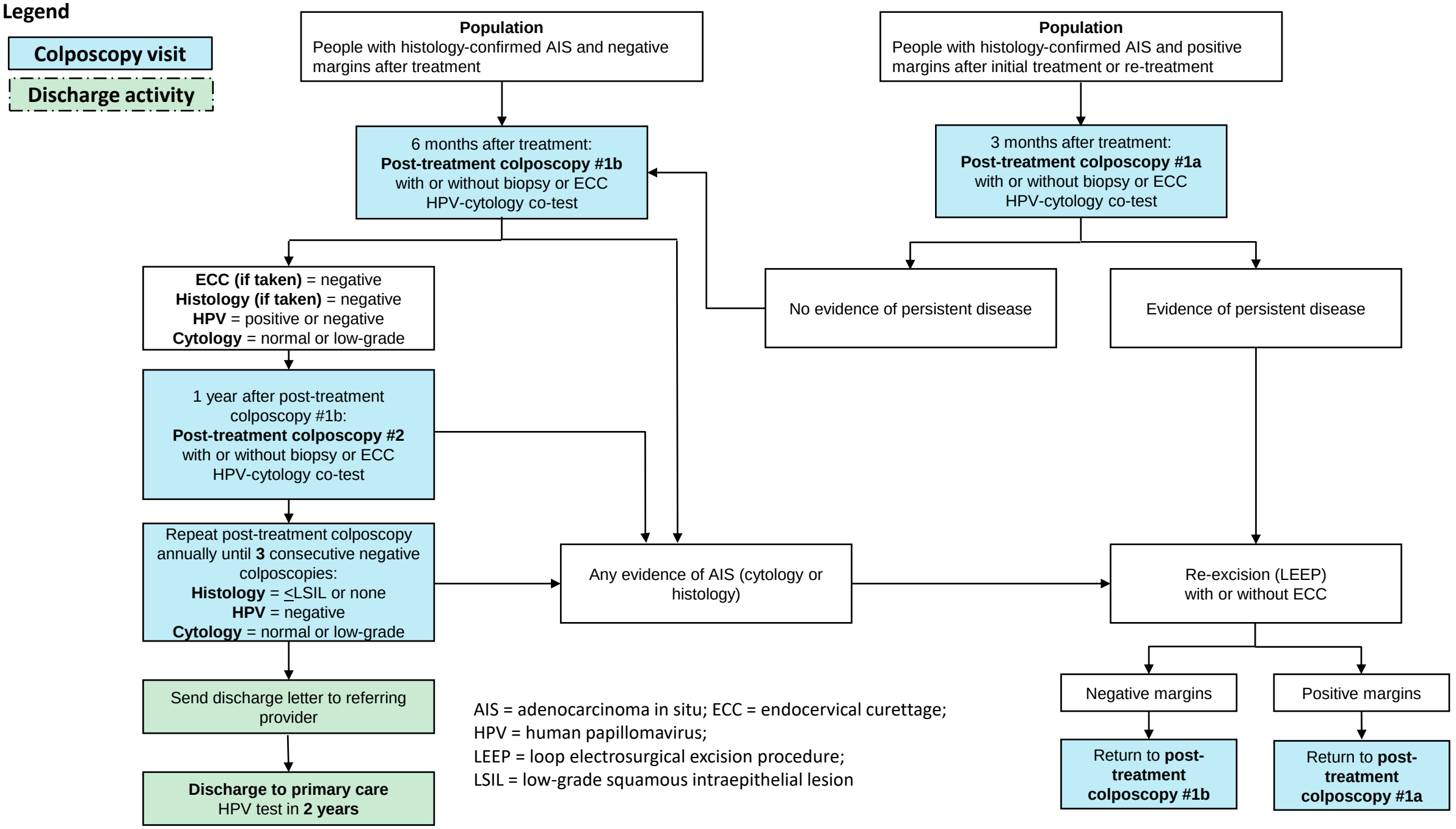
Negative margins

Positive margins

Return to **post-treatment colposcopy #1b**

Return to **post-treatment colposcopy #1a**

AIS = adenocarcinoma in situ; ECC = endocervical curettage;
HPV = human papillomavirus;
LEEP = loop electrosurgical excision procedure;
LSIL = low-grade squamous intraepithelial lesion


Legend
Colposcopy visit
Discharge activity
Population
People with histology-confirmed AIS and negative margins after treatment
Population
People with histology-confirmed AIS and positive margins after initial treatment or re-treatment
6 months after treatment:
Post-treatment colposcopy #1b
with or without biopsy or ECC
HPV-cytology co-test
3 months after treatment:
Post-treatment colposcopy #1a
with or without biopsy or ECC
HPV-cytology co-test
ECC (if taken) = negative
Histology (if taken) = negative
HPV = positive or negative
Cytology = normal or low-grade
No evidence of persistent disease
Evidence of persistent disease
1 year after post-treatment colposcopy #1b:
Post-treatment colposcopy #2
with or without biopsy or ECC
HPV-cytology co-test
Repeat post-treatment colposcopy annually until 3 consecutive negative colposcopies:
Histology = ≤LSIL or none
HPV = negative
Cytology = normal or low-grade
Any evidence of AIS (cytology or histology)
Re-excision (LEEP)
with or without ECC
Send discharge letter to referring provider
Negative margins
Positive margins
Discharge to primary care
HPV test in 2 years
Return to post-treatment colposcopy #1b
Return to post-treatment colposcopy #1a
AIS = adenocarcinoma in situ; ECC = endocervical curettage;
HPV = human papillomavirus;
LEEP = loop electrosurgical excision procedure;
LSIL = low-grade squamous intraepithelial lesion

Evidence: Margin status

- A rapid review on the risk of high-grade histology and cervical cancer among people conservatively treated for AIS found:
  - The cumulative risk of recurrence and progression to cervical cancer was higher in those with positive margins at treatment and post-treatment than in those with negative margins
  - The 1- to 10-year risk for progression to cervical cancer for people with:
    - Positive margins ranged from 0.0% to 33.3%
    - Negative margins ranged from 0.0% to 14.3%

Key takeaway:

Positive margins are a risk factor for AIS recurrence and progression to cervical cancer

Source: Ontario Health (Cancer Care Ontario). Internal Rapid Review: Risk of high-grade cervical dysplasia and invasive cervical cancer among individuals conservatively treated for adenocarcinoma in situ. Toronto; 2021.

Evidence: Duration of follow-up

- Evidence suggests that follow-up of at least 35 to 36 months after treatment for AIS is needed before discharge
- An Ontario study found[1]:
  - Risk of recurrence at 5 years post-treatment for AIS was 9%
  - People treated for AIS were more likely to develop cervical cancer within 5-years of treatment (2 cases or 0.39%; n = 509) than people treated for HSIL (29 cases or 0.20%; n = 14,668)
  - Median time from treatment for AIS to cervical cancer diagnosis was 35 months
- Another study examined 69 people undergoing follow-up in colposcopy after treatment for AIS[2]
  - 8 cervical cancers were detected during follow up (100% detected during first 36 months of follow-up)

Key takeaway:

People treated for AIS are at higher risk of developing cervical cancer than people treated for HSIL, so should remain in colposcopy longer

Sources:
1. Swift BE, Wang L, Jembere N, Kupets R. Risk of Recurrence after Treatment for Cervical Intraepithelial Neoplasia 3 and Adenocarcinoma in Situ of the Cervix: Recurrence of CIN 3 and AIS of Cervix. J Low Genit Tract Dis. 2020 Jul 1;24(3):252–8.
2. Jiang Y, Chen C, Li L. Comparison of cold-knife conization versus loop electrosurgical excision for cervical adenocarcinoma in situ (ACIS): a systematic review and meta-analysis. PLoS One. 2017;12(1):e0170587.

Evidence: HPV-cytology co-testing informs discharge

- A study examined the sensitivity of HPV-cytology co-testing for the detection of AIS persistence at 2 post-treatment colposcopy visits:
  - 90% at the first post-treatment colposcopy follow-up visit
  - 100% at the second post-treatment colposcopy follow-up visit

Key takeaway:

Co-testing is more sensitive for the detection of AIS recurrence compared to HPV testing or cytology testing alone

Source: Costa S, Venturoli S, Origoni M, Preti M, Mariani L, Cristoforoni P, et al. Performance of HPV DNA testing in the follow-up after treatment of high-grade cervical lesions, adenocarcinoma in situ (AIS) and microinvasive carcinoma. Ecancermedicalscience. 2015;9:1–7.

Hysterectomy for patients treated for AIS

Dr. Rachel Kupets

Hysterectomy for patients treated for AIS

- Consider hysterectomy in the following circumstances when childbearing is complete:
  - Negative margins cannot be achieved despite adequate DEP excision
  - Cervix cannot be assessed adequately (e.g., post-treatment stenosis)
  - Persistently HPV-positive
  - Unable to follow post-treatment recommendations
- When childbearing is not complete or there is a desire to preserve fertility, decisions must be individualized

Discharge from colposcopy pathways 6 and 7

Dr. Rachel Kupets

Summary of discharge from colposcopy pathways 6 and 7

Colposcopy pathway 6 (Post-treatment for HSIL):

- Safe to discharge after **2 negative** post-treatment colposcopies
- 2 HPV-negative → discharge to screening in 5 years
- At least 1 HPV-positive → discharge to screening in 2 years

Colposcopy pathway 7 (Post-treatment for AIS):

- Safe to discharge after **5 negative** post-treatment colposcopies
- Discharge to screening in 2 years

Colposcopy scenarios

6:40 - 6:55 pm

Dr. Dustin Costescu

Scenario #1 – referred with low-grade cytology

Blake (they/them) is 31 years old and was due for cervical screening. In primary care, their screening test result was HPV-positive (other high-risk types) with normal reflex cytology. They then returned for a repeat screening test in 2 years and the result was HPV-positive (other high-risk types) and ASCUS reflex cytology. They were referred to colposcopy

At initial colposcopy visit:

- A cytology and HPV test are not repeated
- A biopsy is performed
- Histology = LSIL

Next steps:

- Discharge Blake to screening in 2 years
- Send discharge letter to referring provider

- Only 1 visit is needed for patients referred with low-grade cytology
- Patients can be discharged if histology is ≤LSIL or none

Scenario #2 – referred with high-grade cytology

Laura is 45 years old and is referred to colposcopy with HPV-positive (types 16, 18/45) and ASC-H reflex cytology

At initial colposcopy visit:

- A cytology and HPV test are not repeated
- A biopsy is performed
- Histology = LSIL

Next steps:

- See Laura in colposcopy in 1 year

Scenario #2 – second colposcopy visit

Laura is seen in colposcopy in 1 year. An HPV and cytology co-test is performed. An area of abnormality is seen and is biopsied.

Results from second colposcopy visit:

- Cytology = ASCUS
- HPV = negative
- Histology = normal

Next steps:

- Discharge Laura to screening in 5 years
- Send discharge letter to referring provider

2 colposcopy visits are needed for patients referred with high-grade cytology and histology is ≤LSIL or none

Scenario #3 – referred with AGC-N cytology

Amanda is 31 years old and is referred to colposcopy with HPV-positive (types 16, 18/45) and AGC-N reflex cytology

At initial colposcopy visit:

- A cytology and HPV test are not repeated
- An area of abnormality is seen, and a biopsy is performed
- Histology = Invasive squamous cell carcinoma

Next steps:

- Refer Amanda to a gynecology oncology centre

Scenario #4 – HSIL histology detected

Alex is 28 years old and is referred to colposcopy with HPV-positive (types 16, 18/45) and HSIL reflex cytology

At initial colposcopy visit:

- A cytology and HPV test are not repeated
- An area of abnormality is seen, and a biopsy is performed
- Histology = HSIL

Next steps:

- Provide treatment with a LEEP at the second colposcopy visit
- After treatment, see Alex again in 6 months

Scenario #4 – HSIL histology treated

Alex is treated with a LEEP at the second colposcopy visit. LEEP showed HSIL histology with positive ectocervical margins. At the first post-treatment colposcopy visit in 6 months, a cytology and HPV co-test is performed.

Results from first post-treatment visit:

- Cytology = normal
- HPV = negative
- Histology = none

Next step:

- See Alex for another post-treatment visit in 1 year

Patients treated for HSIL histology should remain in colposcopy for 2 post-treatment visits

Scenario #4 – discharge from colposcopy

At the second post-treatment colposcopy visit in 1 year, a cytology and HPV co-test is performed.

If results from second post-treatment visit are:

- Cytology = normal
- HPV = negative
- Histology = none

Next steps:

- Discharge Alex to screening in 5 years
- Send discharge letter to referring provider

Patients treated for HSIL histology who are HPV-negative at both post-treatment visits can be discharged to screening in 5 years

If results from second post-treatment visit are:

- Cytology = normal
- HPV = positive
- Histology = none

Next steps:

- Discharge Alex to screening in 2 years
- Send discharge letter to referring provider

Patients treated for HSIL histology who are HPV-positive at either the first or second post-treatment visit can be discharged to screening in 2 years

Scenario #5 – AIS histology detected

Sara is 34 years old and is referred to colposcopy with HPV-positive (types 16, 18/45) and AIS reflex cytology

At initial colposcopy visit:

- A cytology and HPV test are not repeated
- An area of abnormality is seen, and a biopsy is performed
- Histology = AIS

Next step:

- Provide treatment with a LEEP at the second colposcopy visit

Scenario #5 – AIS histology treated

At the second colposcopy visit, Sara is treated with a LEEP and margins are positive for AIS. Sara is then seen in colposcopy in 3 months

At the post-treatment visit in 3 months:

- A cytology and HPV co-test is performed
  - Cytology = AIS
  - HPV = positive (types 16, 18/45)
- ECC is performed
  - ECC shows AIS

Next steps:

- See Sara for another treatment visit

Patients with positive margins should remain in colposcopy until negative margins are achieved

Scenario #5 – AIS histology re-treated

Sara returns in 6 weeks and is re-treated with a LEEP followed by an ECC

Results from re-treatment visit:

- ECC is normal and margins are negative

Next steps:

- See Sara for a post-treatment visit in 6 months

- Patients with positive margins should remain in colposcopy until negative margins are achieved
- Once patients achieve negative margins, they can follow the negative margins pathway

Scenario #5 – AIS histology post-treatment management

Sara returns for a post-treatment visit in 6 months. A cytology and HPV co-test and an ECC are performed

Results from post-treatment visit:

- Cytology = normal
- HPV = negative
- ECC histology = normal

Patients with negative margins after treatment for AIS histology should remain in colposcopy for 5 visits before discharge

Next steps:

- Repeat 4 more post-treatment colposcopy visits, each 1 year apart
- Perform a co-test at all post-treatment visits
- If all post-treatment colposcopies are negative, discharge Sara for screening in 2 years and send discharge letter

Final remarks

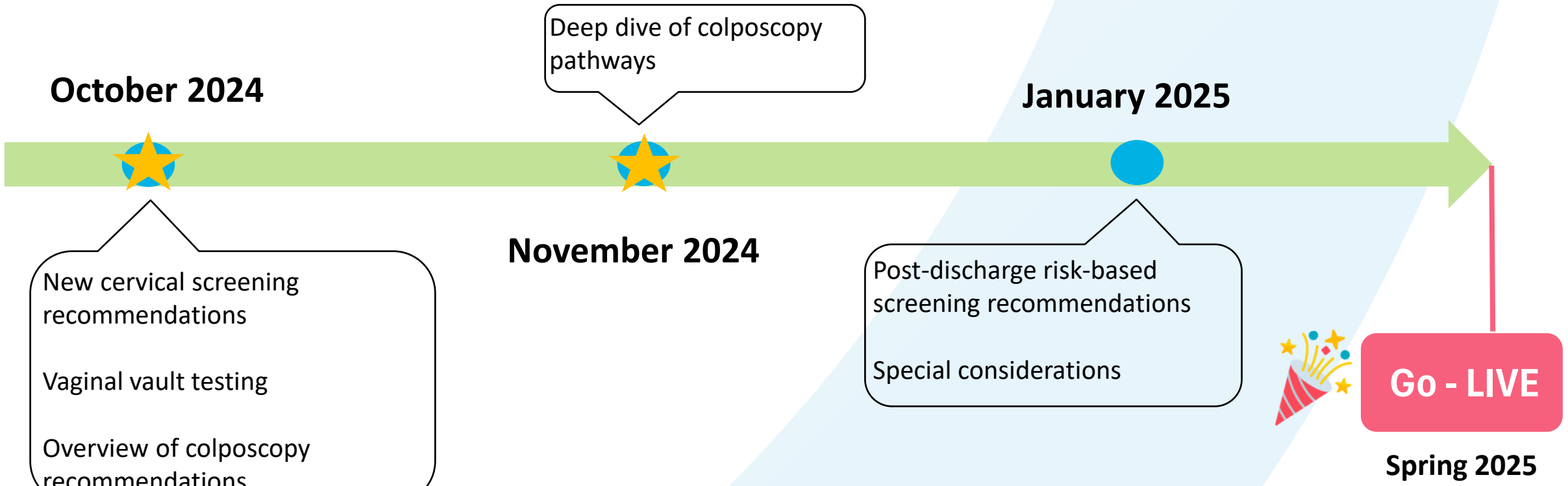
6:55 - 7:00 pm

Dr. Rachel Kupets

Next steps

- Kindly complete post-webinar survey
- Next CoP webinars:
  - Webinar option 1: January 16 (5:30 – 7:00 p.m.)
  - Webinar option 2: January 24 (7:30 – 9:00 a.m.)
- Agenda:
  - Post-discharge risk-based screening recommendations
  - Special considerations

Timeline of Colposcopy CoP webinars



Thank you!