

### ABSTRACT

## Responding to cancer prevention and early detection needs amidst-and-post COVID-19 pandemic

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### BACKGROUND

- The global and national preventive measures deployed against COVID-19 pandemic led to the health services adjustments.
- This might have compromised other diseases management, including cancer control.
- For example, studies estimated that up to 67% of expected cervical cancer screenings were missed in 2020 in the US due to COVID-19.
- Also, in many countries, HPV vaccination is provided in schools, which had their activities interrupted during this pandemic.
- Moreover, social restrictions could have also impacted negatively on lifestyle / behavioral related cancer risk factors such as physical inactivity, diet, stress, and smoking.
- Despite implementation of many safety precautions, delivering cancer prevention and early detections services may vary by country, and facility type during COVID-19 pandemic.

### OBJECTIVES

- This article explored how to respond to cancer prevention and early detection needs amidst-and-post COVID-19 pandemic.

### METHODS

- Emerging studies on cancer control during the COVID-19 pandemic and the recommended safety measures for healthcare facilities to operate effectively during and post COVID 19 pandemic were reviewed.

### RESULTS

Ten recommendations in five thematic areas (US CDC) for healthcare facilities to operate effectively during COVID 19 pandemic

- Worker Safety and Support (3):** infection prevention and control, monitoring, and additional support.
- Patient Service Delivery (3):** evidence-based care, guidance for discharging COVID 19 suspect/patient, and telehealth.
- Data Streams for Situational Awareness (2):** awareness of the COVID-19 situation, report hospital capacity and patient impact data.
- Facility Practices (1):**Strengthen your facility's response mechanisms by becoming familiar with pandemic.
- Communications (1):**Develop and maintain a communication plan for your health workers, patients, and the community.

Suggested key messages to the public & clients seeking cancer early detection services (ACS, US CDC, ASCCP)

- Cancer information and early detection centers are available to answer questions from the public, clients /patients via phone, organizational social media or web portal.
- Follow/practice the cancer prevention advice: avoid smoking and alcohol,, eat variety of healthy food, keep physically active, maintain health weight, etc.
- Getting screened for cancer during this COVID 19 pandemic may be very urgent for those who have never had the test or had it more than five years ago – those who screened recently within less than five years could wait.
- Clients need to be pre-screened for COVID 19-related symptoms before cancer early detection consultation and tests.
- Scheduling of appointments is encouraged to allow for physical distancing and avoid crowding in waiting room.
- Everyone, including staff and patients, are advised to wear a face mask to provide or access services.
- Everyone, including staff and patients are advised to frequent wash their hands or use hand sanitizer.
- If you have signs or symptoms of cancer, or if you have additional risk factors that increase your risk for cancer, you should visit your nearby health facilities / hospitals right away for guidance, check-up / tests or appropriate referral to higher level hospital to rule out if it is cancer or not.
- Your health care provider can help you determine what screening tests and schedule are appropriate for during and post COVID 19 pandemic.

### Clinical actions before and during the COVID-19 pandemic to minimize patient return visits (Sawaya et al. 2021)

Recommended clinical actions before and during the COVID-19 pandemic to minimize patient return visits.

Clinical scenario	Clinical action before the pandemic	Clinical action during the pandemic
Initial post-treatment follow-up visit in patients with negative margins on excisional specimens	Cytology plus HPV testing <sup>a</sup>	Colposcopy <sup>a</sup>
Cytology interpreted as high-grade squamous intraepithelial lesion	Colposcopy or treatment	Treatment

Abbreviations: HPV, human papillomavirus; CIN, cervical intraepithelial neoplasia; CIN3+, CIN3, adenocarcinoma in situ and/or cancer.

<sup>a</sup> 2020 ASCCP management guidelines state that HPV-based testing is preferred 6 months after treatment and that colposcopy with endocervical curettage is acceptable. (Perkins et al., 2020).

### RESULTS

#### Guiding principles for prioritizing cervical cancer screening services during the COVID-19 pandemic (Sawaya et al. 2021)

- The balance of benefits and harms of a dysplasia clinic visit during the COVID-19 pandemic is dynamic.
- The benefits are incurred predominately at the level of the individual patient.
- The harms are incurred not only by the individual patient, but also the healthcare providers and staff and those in the community with whom they may be in close contact after the visit.
- On the basis of underlying risk of high-grade precancerous lesions and early asymptomatic cancers, some patients should be encouraged to keep appointments and others should delay appointments.
- Because the course of the pandemic is unknown, delaying patients may push their visit into a time frame in which the pandemic is substantially worse.
- Some patients may be at risk of both adverse consequences of exposure to severe acute respiratory coronavirus and the progression of cervical precancerous to cancers (e.g., immunocompromised after lung transplantation).
- Guidelines were not meant to be an absolute substitution for clinical judgment.

#### Guidelines for management of individuals with abnormal cervical cancer screening test results during the COVID-19 pandemic (Sawaya et al. 2021)

Guidelines for management of individuals with abnormal cervical cancer screening test results during the COVID-19 pandemic.

Tier	Delay/Action	Step in the cervical cancer screening process approximating - to - lowest to highest -> risk of CIN3+	Surveillance: 6-month return (e.g., CIN2 with adequate colposcopy, ages 21-24)	Post-treatment: 6-month return	Diagnostic excisional procedures (e.g., HSIL with inadequate colposcopy)	Treatment (biopsy-proven CIN2, CIN3, AIS)
1	6-week delay	Surveillance: 12-month return (e.g., prior colposcopy with no CIN2+ found)	Do not delay colposcopy for high-grade test results. <sup>a</sup> Delay colposcopy 1.5 months for low-grade test results. <sup>a</sup>	Delay follow-up from 6 to 7.5 months	Do not delay.	
2	6-week to 6-month delay; revised to treatment threshold	Delay HPV-based testing from 12 to 16 months	Do not delay colposcopy for high-grade test results. <sup>a</sup> Delay colposcopy 6 months for low-grade test results. <sup>a</sup>	Delay follow-up from 6 to 10 months	Delay from 6 to 7.5 months	Delay those with ASC-H/HPV negative from 'next available' to 4 months after diagnosis. <sup>b</sup> Do not delay others.
3	4- to 6-month delay; raised colposcopy threshold	Delay HPV-based testing from 12 to 18 months	Do not delay colposcopy for high-grade test results. <sup>a</sup> Delay colposcopy 12 months for low-grade test results. <sup>a</sup>	Delay follow-up from 6 to 12 months	Delay from 6 to 10 months	For CIN2, do colposcopy 6 months after diagnosis if criteria for surveillance met.
4	6-month delay; further raised colposcopy and treatment threshold	Delay colposcopy 6 months for high-grade test results. <sup>a</sup> Delay colposcopy 12 months for low-grade test results. <sup>a</sup>		Delay from 6 to 12 months	Delay from 'next available' to 6 months after diagnosis. <sup>b</sup>	Delay all from 'next available' to 6 months after diagnosis. <sup>b</sup>

Abbreviations: CIN, cervical intraepithelial neoplasia; HPV, human papillomavirus; AIS, adenocarcinoma in situ; HSIL, high grade squamous intraepithelial lesion  
ASC-H, atypical squamous cells, cannot exclude HSIL; CIN3+, CIN3, AIS and/or cancer; CIN2+, CIN2, CIN3+.  
<sup>a</sup> excisional procedures for patients with inadequate colposcopy and ASC-H/HPV+ or HSIL cytology recommended to minimize returns, unless cancer suspected.  
<sup>b</sup> HSIL, ASC-H, atypical glandular cells; AIS and/or cancer.  
<sup>c</sup> normal cytology with an HPV-positive test; atypical squamous cells of undetermined significance; low-grade squamous intraepithelial lesion.

### CONCLUSIONS

- COVID-19 pandemic should be viewed as one of the diseases / health events that the health system deals with without compromising the other diseases' prevention and control efforts.
- Therefore, with adherence to the health facility infection prevention and control measures, healthcare facilities and community health outreaches may operate effectively during COVID 19 pandemic and other similar future infectious disease outbreak.
- Keywords:** COVID-19, Pandemic, cancer prevention, cancer early detection, cancer control