Examining the EVIDENCE

Does the current age cutoff for screening miss too many cases of cervical cancer in older women?

Women aged 65 and older were more likely to be diagnosed at a later stage of cervical cancer than younger women (71% vs 48%), and their 5-year relative survival rates were lower (23%-37% vs 42%-52%) in a large retrospective, single-state registry study of 12,442 patients diagnosed with a first primary cervical cancer.

TRACK

When looking at cervical cancer screening rates by age, CDC researchers estimate that the proportion of patients who have not been recently screened goes up as patients get older, with about 845,000 American women aged 61 to 65 not adequately screened in 2015 alone

Cooley JJ, Maguire FB, Morris CR, et al. Cervical cancer stage at diagnosis and survival among women ≥65 years in California. Cancer Epidemiol Biomarkers Prev. 2023;32:91-97. doi:10.1158/1055-9965.EPI-22-0793.

EXPERT COMMENTARY

Sarah Dilley, MD, MPH, is Assistant Professor, Gynecologic Oncology, Department of Gynecology and Obstetrics, Emory University, Atlanta, Georgia.

Warner Huh, MD, is Professor, Gynecologic Oncology, and Chair, Department of Obstetrics and Gynecology, University of Alabama at Birmingham, Birmingham, Alabama.

ervical cancer screening guidelines recommend screening cessation at age 65 once specific exit criteria are met. (According to the American Cancer Society, individuals aged >65 years who have no history of cervical intraepithelial neoplasia [CIN] grade 2 or more severe disease within the past 25 years, and who have documented adequate negative prior screening in the prior 10 years, discontinue all cervical cancer screening.)1 We know, however, that about one-fifth of all cervical cancer cases are diagnosed among individuals aged 65 or older, and for Black women that proportion is even higher when data are appropriately adjusted to account

The authors report no financial relationships relevant to this article.

doi: 10.12788/obam.0277

for the increased rate of hysterectomy among Black versus White women.²⁻⁴

Early-stage cervical cancer is largely a curable disease with very high 5-year overall survival rates. Unfortunately, more than half of all cervical cancer is diagnosed at a more advanced stage, and survival rates are much lower for this population.⁵

Cervical cancer incidence rates plummeted in the United States after the introduction of the Pap test for cervical cancer screening. However, the percentage of women who are not up to date with cervical cancer screening may now be increasing, from 14% in 2005 to 23% in 2019 according to one study from the US Preventive Services Task Force.6 When looking at cervical cancer screening rates by age, researchers from the Centers for Disease Control and Prevention estimate that the proportion of patients who have not been recently screened goes up as patients get older, with approximately 845,000 American women aged 61 to 65 not adequately screened in 2015 alone.7

Details of the study

Cooley and colleagues sought to better characterize the cohort of women diagnosed with cervical cancer at a later age, specifically the stage at diagnosis and survival.8 They used data from the California Cancer Registry (CCR), a large state-mandated,

population-based data repository that is affiliated with the Surveillance, Epidemiology, and End Results (SEER) program.

The researchers identified 12,442 women in the CCR who were newly diagnosed with cervical cancer from 2009 to 2018, 17.4% of whom were age 65 or older. They looked at cancer stage at diagnosis as it relates to relative survival rate ("the ratio of the observed survival rate among those who have cancer divided by the expected survival rate for people of the same sex, race/ethnicity, and age who do not have cancer"), Charlson comorbidity score, socioeconomic status, health insurance status, urbanicity, and race/ethnicity.

Results. In this study, 71% of women aged 65 or older presented with advanced-stage disease (FIGO [International Federation of Gynecology and Obstetrics stage II-IV) as compared with only 48% in those aged 21 to 64. Five-year relative survival rates also were lower in the older cohort—23% to 37%, compared with 42% to 52% in the younger patients. In a sensitivity analysis, late-stage disease was associated with older age, increasing medical comorbidities, and nonadenocarcinoma histology.

Interestingly, older women of Hispanic ethnicity were less likely to be diagnosed with late-stage disease when compared with non-Hispanic White women.

Study strengths and limitations

Although this study's conclusions-that patients with advanced-stage cancer are more likely to do poorly than those with early-stage cancer-may seem obvious to

WHAT THIS EVIDENCE MEANS FOR PRACTICE

Cervical cancer is both common and deadly in older women. Although current cervical cancer screening guidelines recommend screening cessation after age 65, remember that this is based on strict exit criteria. Consider screening older women (especially with human papillomavirus [HPV] testing) for cervical cancer if they have risk factors (such as smoking, multiple sexual partners, inconsistent or infrequent screening, history of abnormal Pap or HPV tests), and keep cervical cancer on your differential diagnosis in women who present with postmenopausal bleeding, vaginal discharge, pelvic pain, recurrent urinary tract infections, or other concerning symptoms.

SARAH DILLEY, MD, MPH, AND WARNER HUH, MD

some even without the proven data, it is still important to highlight what a clinician may intuit with data to support that intuition. It is particularly important to emphasize this risk in older women in light of the aging population in the United States, with adults older than age 65 expected to account for more than 20% of the nation's population by 2030.9

The study by Cooley and colleagues adds value to the existing literature due to its large study population, which included more than 12,000 patients diagnosed with cervical cancer.8 And although its results may not be completely generalizable as the data were gathered from only a California-specific population, the sample was diverse with significant portions of Hispanic and Black patients. This study supports previous data that showed high rates of advanced cervical cancer in women older than age 65, with resultant worse 5-year relative survival in this population of older women specifically.4 •

References

- Fontham ETH, Wolf AMD, Church TR, et al. Cervical cancer screening for individuals at average risk: 2020 guideline update from the American Cancer Society. CA Cancer J Clin. 2020;70:321-346. doi:10.3322/caac.21628.
- Dilley S, Huh W, Blechter B, et al. It's time to re-evaluate cervical cancer screening after age 65. Gynecol Oncol. 2021;162:200-202. doi:10.1016/j.ygyno.2021.04.027.
- 3. Rositch AF, Nowak RG, Gravitt PE, Increased age and racespecific incidence of cervical cancer after correction for hysterectomy prevalence in the United States from 2000 to 2009. Cancer. 2014;120;2032-2038. doi:10.1002/cncr.28548.
- Beavis AL, Gravitt PE, Rositch AF. Hysterectomy-corrected cervical cancer mortality rates reveal a larger racial disparity in the United States. Cancer. 2017;123:1044-1050. doi:10.1002 /cncr.30507.
- Cancer Stat Facts. National Cancer Institute Surveillance, Epidemiology, and End Results Program. https://seer.cancer .gov/statfacts/html/cervix.html
- Suk R, Hong YR, Rajan SS, et al. Assessment of US Preventive Services Task Force guideline-concordant cervical cancer screening rates and reasons for underscreening by age, race and ethnicity, sexual orientation, rurality, and insurance, 2005 to 2019. JAMA Netw Open. 2022;5:e2143582. doi:10.1001 /jamanetworkopen.2021.43582.
- White MC, Shoemaker ML, Benard VB. Cervical cancer screening and incidence by age: unmet needs near and after the stopping age for screening. Am J Prev Med. 2017;53:392-395. doi:10.1016/j.amepre.2017.02.024.
- Cooley JJ, Maguire FB, Morris CR, et al. Cervical cancer stage at diagnosis and survival among women ≥65 years in California. Cancer Epidemiol Biomarkers Prev. 2023;32:91-97. doi:10.1158/1055-9965.EPI-22-0793.
- Ortman JM, Velkoff VA, Hogan H. An aging nation: the older population in the United States. May 2014. United States Census Bureau. Accessed April 12, 2023. https://www.census .gov/library/publications/2014/demo/p25-1140.html