

Discontinuation of Pap Smears at Age 65: A Critical Analysis of the Impact on Women's Health

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Abstract

Purpose: Guidelines for screening for cervical cancer and pelvic exams for women over age 65 have recently changed. Goals of these guidelines have shifted from yearly Pap smears and exams to longer intervals or discontinuation in this age group. This manuscript analyzes the implications for practice as this population of women lives longer without gynecologic care.

Data Sources: Published and peer reviewed guidelines from the American College of Obstetrics and Gynecology, U.S. Preventative Task Force Services, the American Cancer Society, The Centers for Disease Control, and multiple original research articles and reviews were used for this manuscript.

Conclusions: The potential for women to develop later stage diagnoses of cancers, pelvic organ issues, incontinence, and infections is of great concern, especially as women over the age of 65 will be the greatest proportion of the American population in years to come.

Implications for Practice: Practitioners need to be aware of new guidelines and best practices to improve the overall health of women. Practitioners of primary care should include gynecologic health as part of annual exams in all women of all ages.

Keywords: Women's health; Gynecology; Endocervical cells; Papanicolaou smear; Inflammatory dermatosis; American population

Introduction

Over the past several years there have been policy changes and updates to practice guidelines for women's health screenings, namely cervical cancer screening, otherwise known as the Papanicolaou smear (Pap smear) [1]. Women have often identified the Pap smear and pelvic exam as the same, though when in fact they are two related, but separate exams. In the Pap smear a small sample of cervical and endocervical cells is taken with microscopic examination for abnormalities. In the pelvic exam, the provider examines the pelvis and its inner structures manually in order to identify any gross anatomical abnormalities or discomfort. This manuscript provides a critical analysis of gynecologic care in women with a special emphasis on older women, and possible ramifications of new USPTF gynecology care guidelines.

In 2012, the American Congress of Obstetrics and Gynecology (ACOG) and the US Preventative Task Force (USPTF) recommended that women may discontinue having Pap smears at age 65 if, 1) they have no history of moderate to severe cervical dysplasia in the past 10 years, or 2) after a benign hysterectomy with no history of abnormal pap smears in the past 10 years [2,3]. The majority of obstetricians, gynecologists, and women's health nurse practitioners utilize the standards of these two groups and base practice on their guidelines and policy statements. There is little research based evidence to support the cessation of annual Pap smears as recommended by these bodies; and in the research that exists, there is no support for the cessation of pelvic exams. Many health care providers, along with lay people, are confused about the new guideline changes. There is no clear recommendation by ACOG or the USPTF regarding when to stop yearly pelvic exams after age 65 for women who meet the criteria for discontinuing Pap smears. However, these new gynecologic guidelines may well lead health care providers to see fewer older women routinely; and as a result, fewer women will have yearly "routine" pelvic exams, an unforeseen sequela of recommending less frequent Pap smears to women over 65. The "routine" part of the pelvic exam screens for potential vulvar, vaginal, and/or ovarian conditions that can lead to infections and cancer.

If routine pelvic exams are not conducted, these conditions could be missed by the primary care provider (PCP) leading to a missed opportunity for early interventions.

Conditions found among older women with routine gynecologic exams

Common complaints among older postmenopausal women are often related to atrophic vaginitis. Women who are not using hormone replacement therapy or vaginal estrogen have thinning of the vulvar and vaginal tissues leading to dyspareunia, sexual dysfunction, irritation, pelvic floor dysfunction and infection [4]. These complaints however, are of a private matter and older women may be less likely to discuss them. Nevertheless, if health care providers prompt older women to discuss gynecologic and sexual issues, they will be more likely to mention symptoms and complaints. Still, if women are not seen routinely, they may be reluctant to make an appointment specifically to discuss these types of complaints [5].

Lichen sclerosis (LS) is a common autoimmune "inflammatory dermatosis" of the vulvar skin that may occur in males as well as females but usually affects either prepubescent girls or postmenopausal women. The prominent feature is white plaques that can become hypertrophic and extremely itchy, especially at night. Untreated, it can result in fissures and narrowing of the introitus causing dyspareunia. The process causes a scarring like syndrome. To confirm the diagnosis, a biopsy should be

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obtained, since LS is a precursor for malignant changes. The treatment for this disorder is potent topical corticosteroids. These patients must be monitored closely due to the link between LS and potential vulvar malignancy [3].

Routine pelvic exams are also important for the identification of pelvic floor concerns such as cystocele, rectocele, and pelvic organ prolapse (POP). These conditions may lead to socially debilitating functions such as urinary and fecal incontinence, as well as sexual dysfunction. Pelvic organ prolapse is a common condition in older women, especially post-menopausal women, since the lack of hormonal influence can significantly atrophy tissues that support many of the pelvic organs [6]. It has been suggested that 45-76% of patients who seek routine gynecologic care complain of some form of prolapse or incontinence [3].

Many women have symptoms of pelvic pressure and pain that may lead to loss of routine activities of daily living, and social isolation, due to fear of not being able to make it to a bathroom, or discomfort from a prolapse that may deter physical activity [7]. However, as noted earlier, many women are reluctant to openly discuss pelvic floor issues with a PCP unless they are specifically asked about them [8]. Women either go for long periods of time without treatment for these conditions, or seek treatment only after a condition becomes unbearable and early treatments are missed. In fact, women on average wait 6.5 years from the time they first have symptoms to get a diagnosis for bladder issues, and two-thirds of those who leak urine do not use any treatment [9].

Pelvic floor dysfunction has long been a problem referred for surgical correction. However, there are less invasive measures that can be utilized by the PCP as initial management, before referring for surgery. One such method is the use of pessaries. The pessary is an older method of protecting the weak vaginal wall during most daily activities to improve pain, pressure, sexual issues, and incontinence problems. However, pessaries can be used only for mild to moderate forms of pelvic floor dysfunction. Another method of improving pelvic floor dysfunction and incontinence issues is physical therapy, which employs behavioral or physical exercises with the use of biofeedback [9]. However, older women in general have little knowledge of these treatments unless conditions are monitored and regular communication occurs with their PCP. This is frightening considering that there are about 25 million Americans who have some form of urinary incontinence, and that 75-80% of those are women [9].

Risk for sexually transmitted diseases

Older women are at increased risk for sexually transmitted diseases (STD) and infections due to natural physiologic aging and thinning of the vaginal mucosa. Older women who do not protect themselves during sexual encounters are placing themselves at high risk of transmission of STDs. Perhaps older women do not feel a need for protection since they can no longer conceive. Risky sexual behavior in older adult women has recently been identified as more common than once thought. The National Advisory Council on Aging's, 2001 report noted that 92% of adults over the age of 60 considered sex an important part of life [10]. Olivi, Santana, and Mathias assessed knowledge of the risk of STDs in older adults in 165 educated men and women over the age of 50, and 92 agreed that condoms prevented STDs and AIDS [11]. Thus they had some knowledge of the connection between barrier contraception and the prevention of STDs and AIDS, however; only 13.3% always wore condoms with intercourse.

It is currently recognized that older women, especially minority older women account for the highest rates of HIV in the US. Older

adult black women have a 12 times higher risk for developing HIV than their white counterparts [12].

Recently, the rates of the sexually transmitted disease *Trichomoniasis vaginalis* have increased among the older population. *Trichomoniasis* has a strong estrogen receptor affinity, increasing the risk of transmission in women who are on estrogen replacement therapy [13]. Importantly, because, there is no mandate to report *Trichomoniasis*, statistical reports are likely to underrepresent incidence. Gaydos et al. found that among 7,593 women ages 18-89, women 50 and older had the highest *Trichomoniasis* rate, at 13% [13]. Older women, however, have fewer signs and symptoms of *Trichomoniasis* or may even be asymptomatic, making diagnosis difficult. Further, there are not standardly recommended testing intervals (CDC, 2011). In addition, *Trichomoniasis* is a cofactor for transmission of HIV. Studies have shown that *Trichomoniasis* increases susceptibility of contracting HIV in an uninfected partner, and increases infectivity of HIV positive persons. It is thought that *Trichomoniasis* increases the viral shedding of HIV in females, and increases HIV RNA in male semen almost six fold [14]. Many older adults choose not to wear condoms since they do not need barrier methods to prevent pregnancy [10]. There is real concern here that increased older adult unprotected sexual activity that leads to increased STD transmission which, coupled with decreased gynecologic care, could cause poor health outcomes in this population.

Vulvar cancers

According to the American Cancer Society (ACS), age is the single most important risk factor for development of vulvar cancer, since more than half of these cancers are diagnosed after the age of 70 [15]. Although the Human Papilloma Virus (HPV) has been linked to 50% of vulvar cancers, these cancers are most commonly found among younger women (ACS, 2013). Therefore, it is generally assumed that a non-HPV related form of vulvar cancer affects older women. However, the only way to properly diagnose and treat is to have routine examinations including visualization and inspection of the vulva and vagina [3]. There are no clear guideline on how often these examinations should occur [2,3].

HPV is a powerful player in dysplastic changes in cervical and vulvar cells. There are over 70 HPV types, and approximately 10 are high risk types; that is they have the potential to cause dysplastic cellular changes that lead to cancer. The HPV virus can cause transient or persistent infection. A transient infection is most common in younger women with healthy immune systems. This type may cause dysplastic changes that over a period of time return to normal. Persistent HPV infection is less common, but more severe in terms of dysplastic cellular changes. If an older woman has a compromised immune system, this persistent virus has the potential to be more problematic. Aging alone causes a general decrease in cellular and humoral immunity, making older women more susceptible to adverse outcomes to persistent HPV infections [16].

Ueda, et al, have suggested that there are two pathways for the development of vulvar cancers [17]. The first is HPV mediated, and the second is associated with lichen sclerosis, which is usually associated vulvar cancer in the older adult. Grainge, et al. found in a study of 710 women, that women over age 51 who were HPV negative at baseline, had HPV three years later [18]. The incidence was higher in this group than younger age groups, suggesting that older women are engaging in sexual activities that place them at risk for HPV [18]. With increasing HPV infections in women over 65, and the potential for decreased screening, we could see a significant increase in HPV related cervical abnormalities in these women.

Currently, there are about 3,100 new cases of HPV related vulvar cancer annually in the US, as compared to 4,386 total vulvar cancers per year (CDC, 2012). This has the potential to become a problem as the rate of HPV is increasing in older women through unprotected sexual activities. Recent studies have indicated that reflex HPV testing only versus cytology might be a better indicator of risk for subsequent cervical cancers, as well as useful for triage in older women [19]. However, there is little evidence demonstrating the usefulness of this technique with subsequent vulvar cancers. Therefore, there is still a need to visualize the vulva routinely to identify potential cancers.

Research has found that women who smoke have up to a five-fold increase in risk of cervical cancer [20,21] and presently 19.1% of women smoke [22]. In addition, a genetic component identified in some women increases the risk of cervical cancer [23]. This link is likely enhanced by cigarette smoking [24]. Thus, women who smoke should be considered at higher risk for vulvar and vaginal cancers in addition to cervical cancers. These women might be considered a sub-population who should be screened more often and monitored closely.

The USPTF and AGOG recommendations for vulvar and vaginal cancer screenings provide little evidence to support routine examinations. Further, there is no published evidence that supports routine pelvic examinations for cancer screening in asymptomatic older women [16]. With a push toward more HPV focused testing (CDC, 2014), screening protocols for vulvar cancers should be further reviewed and more research conducted to determine the need for screening older women for vulvar, vaginal, and possibly even oral and anal cancers related to HPV infection.

Factors affecting pelvic examinations in older women

As more and more older women live beyond 65 years of age, many are in long term care settings, and must rely on staff in the facilities to perform assessments to identify potential gynecologic concerns and refer to an appropriate health care provider. Women in settings without access to gynecologic care, such as nursing homes and assisted living centers, are at a particular disadvantage since there is no recommended routine examination for screening of vulvar, vaginal, and ovarian cancer. Thus women may not have exams with visual inspection routinely, raising concern that gynecologic problems and cancers might go undiagnosed.

There is a documented need for better assessment skills among staff in nursing homes and assisted living centers to identify vulvar and vaginal issues early. According to Medicare.gov certified nursing assistants are the staff members who provide one on one, hands-on care to residents in these facilities on a daily basis [25]. These assistants have significantly less education regarding assessment technique than registered nurses. The Future of Nursing Report (2010) by The Institute of Medicine pushed for more advanced degree nurses in all areas of nursing as one strategy to improve health care. However, certified nursing assistants are being utilized more in long term settings due to cost saving strategies. Yet, if there are fewer registered nurses in these facilities, and infrequent or less detailed assessments, fewer vulvo-vaginal issues will be identified at an early stage.

Ageism

Ageism is a factor contributing to lack of assessment and examination of gynecologic organs problem in many health care settings. Many health care providers tend to avoid sexual health questions and examinations in older women. According to Hellwig, the older the healthcare providers, the less likely they are to ask about vaginal or vulvar issues and/or sexual dysfunction/function [26]. Older

women themselves also tend to dismiss complaints of this nature and attribute them to normal aging processes [16]. Testing for sexually transmitted diseases (STD) is usually not offered since there is no recommendation for routine testing of STDs in this population [13]. As a result, many STDs, are at later stages when diagnosed. For example, in 2010, the percentage of people who were at stage three (AIDS) at the time of HIV diagnosis increased with age; 42.1% of adults over the age of 55 were in stage three compared to 12.7% of persons 13-24 years [27].

According to the CDC (2012), the percentage of women over age 65 who got routine pap smears was 50.8% in 1987 and 47.1% in 2010, showing no significant difference over this time interval. Women over age 65 who got Pap smears tended to have higher educational levels. Cervical cancer increases with age, lower socioeconomic class, and minority status [28]. Yet many women are not screened or educated adequately, and often are not represented in larger clinical trials on HPV or cervical cancer; yet HPV has been shown to be the cause of most cervical cancers [28,29].

Insurance coverage

Another factor that contributes to inadequate gynecologic care in women over the age of 65 is lack of availability of PCPs who accept new patients with Medicare. Many PCPs have a minimum number of Medicare and Medicaid patients they are required to accept yearly. Once they have met this number some may decline future patients since the reimbursement for a routine annual exam or Pap smear from Medicare reimbursement is much less than private insurance [30]. The Affordable Care Act of 2010 may increase access to care for a small subset of older women, including women who were not previously insured and who do not yet qualify for Medicare. However, exams that no longer are recommended, and thus no longer reimbursed in preventative care, will likely not be performed. This may negate the beneficial effects of increasing the insured population qualifying for preventative care.

Curricular changes in health professional programs

Curricula in medical schools and nurse practitioner programs specializing in family practice are changing in response to health care reform. Currently there is inconsistency in the instruction in many women's health curricula. The American Academy of Family Physicians (2012) is committed to ensuring that women's health and gynecologic needs remain a vital part of training; however, schools have varying methods of gynecologic education, and there is a declining number of family practice physicians.

There is now a trend in nurse practitioner programs toward complying with the American Association of Colleges of Nursing (AACN) Consensus Model (2008) to provide consistency in all nurse practitioner educational curricula, to define the scope of practice. This model is designed to make nurse practitioners' scope of practice consistent with national standards for meeting the growing needs of older adults. However, to meet this goal, many schools of nursing have opted to abandon their specialized programs such as women's health nurse practitioner programs and push for a primary care approach. According to the National Organization of Nurse Practitioner Faculties, the national standards for primary care require a minimum of 500 total practicum hours, which include women's health [31]. This is well below the standards of many women's health nurse practitioner programs, which have 720 practicum hours specific to the specialty. Thus may lack information on gynecological updates, standard changes and medications to the primary care providers and lack the knowledge of early identification and treatment of gynecological conditions that comes with repetition and experience.

Moving forward

Many factors affect the identification and treatment of gynecological conditions in older women. Less routine gynecologic care has the potential to become problematic as the population of older women continues to grow. Identification of these problems and basic interventions are the most effective form of preventative care by the PCP. Early management or referral to appropriate sources can make the difference in quality of life for many older women suffering from gynecologic complications. Many interventions can easily be provided by a well-informed PCP for a variety of gynecologic disorders. For example, urinary incontinence, as noted above, may respond well to conservative management such as pessaries or physical therapy.

Providers seeing patients in nursing homes and assisted living sites should not ignore the effect that discontinuing pap smears could possibly have on women suffering from many of these common gynecologic problems. Simply identifying a problem before it becomes debilitating could improve function, reduce social isolation, and improve quality of life. PCPs seeing these patients need to request that the appropriate equipment be available in the settings in order to perform a thorough evaluation if problems arise.

Education of staff that conducts daily assessments on women should include thorough visualization of the vulvar tissues at regular intervals. Performance of routine assessments to visualize the vulvar and vaginal area might save lives. When women complain of itching, discharge, or pain, providers should assess the area and not immediately dismiss the complaints as atrophic vaginitis or a simple yeast infection. Complete assessment includes performing cultures and/or a biopsy if necessary. Instituting a treatment or referral protocol in long term care facilities might significantly reduce the incidence of pelvic floor cancers and other issues. Eliminating Pap screening for women over 65 is likely to decrease unnecessary examinations. There is concern that this elimination will erroneously indicate that women over 65 no longer require gynecological care, specifically pelvic exams. Many of the common problems that older women experience can be managed effectively allowing them to maintain activities of daily living and reducing risk of subsequent infection and cancer. Simply asking the appropriate questions may be the most important tool for the PCP. Asking in a non-threatening manner about urinary habits, leaking, sexual problems, pain, discomfort, or discharge will allow older women to feel that it is acceptable to talk about these common gynecologic issues. Establishing rapport will permit patients to feel more comfortable and more willing to discuss issues at future visits. Providing adequate information is imperative for women to understand that even though they are older and not at risk for pregnancy, they must take precautions and utilize safe sex methods to decrease their risk of sexually transmitted infections.

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