ICSI Institute for Clinical Systems Improvement

Health Care Guideline

Preventive Services for Adults

4. Cervical Cancer Screening (Level I)

Recommendations:

- Screening must not be recommended for women before the age of 21 regardless of age of onset of sexual activity.
- Women age 21-65 must be screened by Pap smears every three years. In women older than 30, the interval can be extended to five years by co-testing with a combination of Pap smear and human papillomavirus (HPV) testing. Screening should usually be stopped at age 65 if adequate screening was carried out in the preceding 10 years.
- Annual Pap smear screening must still be recommended to women known to have a higher risk for cervical cancer. This would include women who have had previous cervical dysplasia (CIN 2 or 3), were exposed in utero to diethylstilbestrol, or are immunocompromised (e.g., HIV positive).
- Screening is not recommended for women who have had a total hysterectomy (with complete removal of the cervix) for benign disease, and who do not have a history of CIN 2 or 3.
- Routine HPV screening is not recommended for women under the age of 30.

(Moyer, 2012 [Systematic Review]; Whitlock, 2011 [Systematic Review]; Strong Recommendations; High Quality Evidence)

Efficacy

Pap smear screening programs have been shown to be very effective in detecting and preventing cervical cancer. This screening can be performed with either conventional Pap smears or liquid-based cytology; both have been shown to be equivalent in testing *(Siebers, 2009 Moderate Quality Evidence).*

Screening with both Pap tests and human papillomavirus (HPV) testing is the most sensitive and specific testing, but due to the low incidence of cervical cancer in the U.S., there is no benefit in doing both *(Leinonen, 2009 [High Quality Evidence]; Kotaniemi-Talonen, 2008 [Low Quality Evidence])*. The addition of HPV testing does increase the likelihood of positive screening results, which in turn increases the likelihood of prolonged surveillance and over treatment. This

is especially true in women under the age of 30, where HPV infection is typically transitory and self-resolving. Therefore, HPV testing in this young age group should be used only to triage management of atypical squamous cells of undetermined significance (ASCUS) on cytology.

Any cervical cancer screening program risks harm from over diagnosis and unnecessary treatments of lesions that would otherwise naturally regress or remain insignificant. Over diagnosis risks patient anxiety, discomfort and increased frequency of future testing. Treatment of cervical lesions can risk adverse pregnancy outcomes, such as preterm delivery and low-birth-weight infants. Because of this, over treatment is especially significant in young women. Decreasing the frequency of screening reduces these risks, without risking any significant increase in cervical cancer or cancer treatment outcomes *(Moyer, 2012 [Systematic Review], High Quality Evidence).*

There are no studies that support or deny the benefit of the bimanual pelvic exam screening for an asymptomatic female for any condition of the female genital tract *(Westhoff, 2011 [Low Quality Evidence]; Padilla, 2005 [Low Quality Evidence]).*

Several studies have shown that human papillomavirus screening is more sensitive than Pap tests for detection of CIN-2/3+ (significant disease) but that it is less specific *(Sankaranarayanan, 2009 [High Quality Evidence]).* New studies are looking at screening with human papillomavirus testing with a reflex to cytology (Pap) if positive, with colposcopy only for cytology of low-grade squamous intraepithelial lesion (LGSIL) or greater. This modality shows promise for the future as more studies are done *(Kitchener, 2009 [High Quality Evidence]; Arbyn, 2008 [Low Quality Evidence]).*

Related guideline
ICSI Initial Management of Abnormal Cervical Cytology (Pap Test) and HPV Test in Adult and Adolescent Females guideline.