Pap smear guidelines and Controversy
New Cases, Deaths and 5-Year Relative Survival

Cervical Cancer by age of Diagnosis

<table>
<thead>
<tr>
<th>Age</th>
<th>Percent of New Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>0.1%</td>
</tr>
<tr>
<td>20-34</td>
<td>13.8%</td>
</tr>
<tr>
<td>35-44</td>
<td>24.9%</td>
</tr>
<tr>
<td>45-54</td>
<td>24.2%</td>
</tr>
<tr>
<td>55-64</td>
<td>17.6%</td>
</tr>
<tr>
<td>65-74</td>
<td>10.7%</td>
</tr>
<tr>
<td>75-84</td>
<td>5.9%</td>
</tr>
<tr>
<td>&gt;84</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

SEER 18 2007-2011, All Races, Females
Median age at diagnosis of cervical cancer

49 years old
Percent of Deaths by Age Group: Cervix Uteri Cancer

U.S. 2007-2011, All Races, Females
• Half of women with invasive cervical cancer have never had a pap smear

• 10% have not had a pap smear in 10 years.
Harm of Pap smear testing

• Colposcopy

• Leep procedures for lesions that would spontaneously resolve.

• Cervical incompetence
• Pap app

• Pap guide
ASCCP/SGO (2015 interim guidelines)
USPSTF (2012)
ACOG (2012)
• 30 year old G1P1 in for infertility.
• Last pap 6 months ago, but never received results.
• ASCUS with HPV + for 16/18
• Colposcopy with CIN 3
• In ATHENA, approximately 30% of CIN3+ cases were found in women between 25 and 29 years of age and 37% of cases were found in women 30–39 years of age.

• More than half of women 25–29 years of age with CIN3+ were found to have normal cytology.
"Our review of the data indicates that primary [hr]HPV testing misses less pre-cancer and cancer than cytology [Pap smears] alone. The guidance panel felt that primary [hr]HPV screening can be considered as an option for women being screened for cervical cancer," Birmingham in a press release.

Warner K. Huh, MD, Division Director and Professor in the Division of Gynecologic Oncology at the University of Alabama,
Primary HPV screening

- Type 16/18 Positive
  - Colposcopy

- 12 other hrHPV positive
  - Cytology
    - ≥ ASCUS
    - NILM
      - Follow up 12 months

- Negative
  - Routine Screening
“The authors see no reason why the transition to the age of molecular detection of cancer should be associated with a decrement in cancer protection.”

–Kinney et al
• Cost of Cobas HPV Test
  • $80 - $100

• Cost of Pap smear
  • $40
“The code is more what you'd call "guidelines" than actual rules.”

–Captain Hector Barbossa
• 74% of women expect yearly pap smear testing
• 68% of women would extend to 3 years if physician recommends
• Lifetime Cervical Cancer risk

• Lifetime cancer risk with yearly pap smear \( .27\% \)

• Lifetime cancer risk with every 3 year pap smear and co-testing \( .47\% \)

• Lifetime cancer risk with every 5 year pap smear and co-testing \( .74\% \)
• HPV testing
• The rates of cancer detection, not CIN3 detection

• Changing screening benchmark from one to three years increases risk. The question is magnitude

• Changing co-testing interval from 3 to 5 years means an additional 1 in 369 women being diagnosed with cancer and additional 1 in 1639 women dying of cervical cancer

• Colposcopy is not a suitable endpoint for different screening strategies

• LEEP may not be as harmful to pregnancy as thought.
Management of Women with Atypical Squamous Cells of Undetermined Significance (ASC-US) on Cytology*

- **Repeat Cytology**
  - @ 1 year
  - Acceptable
  - Negative
  - ≥ ASC
    - Routine Screening*
  - ≥ ASC
    - Colposcopy
      - Endocervical sampling preferred in women with no lesions, and those with inadequate colposcopy; it is acceptable for others
      - Manage per ASCCP Guideline
    - HPV Positive (managed the same as women with LSIL)
    - HPV Negative
      - Repeat Cotesting @ 3 years

*Management options may vary if the woman is pregnant or ages 21-24.
*Cytology at 3 year intervals

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