Prevention and Screening in OB/GYN

Dr. Afriyie-Gray
Clerkship Director OB/GYN
U.S. Preventive Services Task Force

• What/who is it?
• What do they do?
• Who can be members or select topics for review?
USPSTF: Levels of Recommendation

- Describes the strength of recommendation
- Can evolve over time
- Within a category, recommendation may need to be modified for patient
# USPSTF: Levels of Recommendation

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Suggestions for Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is substantial.</td>
<td>Offer or provide this service.</td>
</tr>
<tr>
<td>B</td>
<td>The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.</td>
<td>Offer or provide this service.</td>
</tr>
<tr>
<td>C</td>
<td>The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.</td>
<td>Offer or provide this service for selected patients depending on individual circumstances.</td>
</tr>
<tr>
<td>D</td>
<td>The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.</td>
<td>Discourage the use of this service.</td>
</tr>
<tr>
<td>I</td>
<td>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.</td>
<td>Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.</td>
</tr>
</tbody>
</table>

*Grade A*: Strong recommendation for the service.

*Grade B*: Strong recommendation against the service.

*Grade C*: Conditional recommendation for the service.

*Grade D*: Strong recommendation against the service.

*Grade I*: Evidence insufficient to make a recommendation.
What makes a screening test useful

• Specificity
• Sensitivity
• Positive Predictive Value
• Negative predictive Value
### The Truth

<table>
<thead>
<tr>
<th>Has the disease</th>
<th>Does not have the disease</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>True Positives</strong> (TP)</td>
<td><strong>False Positives</strong> (FP)</td>
</tr>
<tr>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td><strong>False Negatives</strong> (FN)</td>
<td><strong>True Negatives</strong> (TN)</td>
</tr>
<tr>
<td>c</td>
<td>d</td>
</tr>
</tbody>
</table>

#### Test Score:

- **Positive**
- **Negative**

#### Calculations:

- **Positive Predictive Value (PPV):**
  \[
  \text{PPV} = \frac{TP}{TP + FP}
  \]

- **Negative Predictive Value (NPV):**
  \[
  \text{NPV} = \frac{TN}{TN + FN}
  \]

#### Sensitivity

- \[
  \text{Sensitivity} = \frac{TP}{TP + FN}
  \]

- Or, \[
  \frac{a}{a + c}
  \]

#### Specificity

- \[
  \text{Specificity} = \frac{TN}{TN + FP}
  \]

- Or, \[
  \frac{d}{d + b}
  \]
<table>
<thead>
<tr>
<th></th>
<th>Has the disease (true positive)</th>
<th>Doesn't have the disease (true negative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen positive</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Screen negative</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

Positive predictive Value = \[ \frac{A}{A + B} \]

Negative Predictive Value = \[ \frac{D}{C + D} \]
Pregnancy screening

- HIV testing
- Rubella testing
- Blood type/Rh Antibody status
- HSV in labor
- Urine dips? Urine cultures?
Pregnancy screening/counseling

- Flu vaccine recommendations
- HBIG in pregnant women
- Screening for violence in pregnancy
- Genetic screening vs diagnostic testing
- Zika
Screening in Gynecology

• HPV screening and pap smears
• ASCCP guidelines
• ERT and osteoporosis
• Chlamydia screening in asymptomatic women
• Other screening in gyn visit
Screening in Gynecology: controversies

• Ovarian cancer
• Estrogen replacement
• Mammograms