Critical Appraisal of the validity of a diagnostic test study

Clinical Question:
P
I
C
O

Search strategy.
Where did you look? What keywords did you use?

1.
2.
3.
4.
5.

Reference of the Study:

Purpose of the study:

Questions of Validity:
  1. Was the question clearly defined? What are the investigators attempting to answer?
  2. Was there a reference standard or gold standard? What was it? Is there evidence provided that this is actually the gold standard?
  3. Was there an independent, blind comparison to the reference standard?
  4. Did the patient sample include an appropriate patient sample for that particular diagnostic test?
  5. Did the results of the test being evaluated influence the decision to perform the reference standard?
  6. Were the diagnostic test and reference standard applied to all patients?
  7. Is the test reproducible?
  8. Other sources of bias?

Will the results help me care for my patient?
  1. Is the test reproducible in my clinical setting?
2. Are the results applicable to my patients?

3. Will the results change my management?

4. Would the patient benefit from the test?

5. Does the patient’s values and preferences allow the test to be done?

Results:

<table>
<thead>
<tr>
<th></th>
<th>Reference Standard Present</th>
<th>Reference Standard Absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Diagnostic Test+</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Negative Diagnostic Test-</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Term</th>
<th>Formula</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>( \frac{a}{a + c} )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specificity</td>
<td>( \frac{d}{b + d} )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Likelihood Ratio</td>
<td>( \frac{\text{Sensitivity}}{100 - \text{Specificity}} )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Likelihood Ratio</td>
<td>( \frac{(100 - \text{sensitivity})}{\text{specificity}} )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Predictive Value</td>
<td>( \frac{a}{a + b} )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Predictive Value</td>
<td>( \frac{d}{c + d} )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary:

Was the article clinically helpful?

Date: 
Reviewer: 
Date to be updated: