The role of DNA amplification technology in the diagnosis of infectious diseases

Table 4: Potential advantages and limitations of PCR in the diagnosis of infectious diseases

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>High sensitivity</td>
<td>Potential for false-positive test results (e.g., by amplification of &quot;contaminating&quot; DNA)</td>
</tr>
<tr>
<td>High specificity</td>
<td>Potential for false-negative test results (e.g., because of presence of PCR inhibitors interfering with nucleic acid amplification)</td>
</tr>
<tr>
<td>Good reproducibility</td>
<td>Interpretation of positive PCR test results not yet validated for all infectious diseases (e.g., latent v. active infection)</td>
</tr>
<tr>
<td>Ability to detect the presence of infecting microorganisms that may not be identified by conventional methods</td>
<td>Technically complex procedures</td>
</tr>
<tr>
<td>Rapidity, able to provide same-day results</td>
<td>Expensive equipment and reagents</td>
</tr>
</tbody>
</table>

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