QCI Precision Insights for North America

Provide patient-specific reports to your oncologists in a fraction of the time and with greater confidence

1. Identify clinically significant variants with respect to potential treatments.
2. Highlight variants with evidence of prognostic and diagnostic value.
3. Include variants with potential clinical significance and associated therapies.
4. Ensure a consistent report format that clearly conveys the degree of professional guideline level of evidence for variant classification (NCCN, AMP/ASCO/CAP, etc.).
5. Help minimize risk by identifying biomarkers with potential interactions, such as drug sensitivity, resistance, or other implications.

**1.1 CLINICALLY RELEVANT ALTERATIONS**

**TIER 1: VARIANTS OF STRONG CLINICAL SIGNIFICANCE**

<table>
<thead>
<tr>
<th>Tumor Mutational Burden</th>
<th>Phenotype</th>
<th>Gene</th>
<th>Variant</th>
<th>Level of Evidence</th>
<th>Gene Impact</th>
<th>Clinical Impact</th>
<th>Therapeutic Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Abnormal</td>
<td>BRCA1</td>
<td>c.895G&gt;A</td>
<td>4</td>
<td>2-3</td>
<td>1-2</td>
<td>NA</td>
</tr>
</tbody>
</table>

**TIER 2: VARIANTS OF POTENTIAL CLINICAL SIGNIFICANCE**

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Gene</th>
<th>Variant</th>
<th>Level of Evidence</th>
<th>Gene Impact</th>
<th>Clinical Impact</th>
<th>Therapeutic Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI3K/AKT</td>
<td>PTEN</td>
<td>p.135delinsG</td>
<td>2-3</td>
<td>2-3</td>
<td>2-3</td>
<td>2-3</td>
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</tbody>
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**PROGNOSTIC AND DIAGNOSTIC VARIANTS**

- Identify clinically significant variants with respect to potential treatments.
- Highlight variants with evidence of prognostic and diagnostic value.
- Include variants with potential clinical significance and associated therapies.
- Ensure a consistent report format that clearly conveys the degree of professional guideline level of evidence for variant classification (NCCN, AMP/ASCO/CAP, etc.).
- Help minimize risk by identifying biomarkers with potential interactions, such as drug sensitivity, resistance, or other implications.

**Therapies targeting PD1/PD-L1**

- Anti-PD1 (e.g., nivolumab, pembrolizumab)
- Anti-PD-L1 (e.g., atezolizumab)
- Checkpoint inhibitors (anti-CTLA-4, anti-OX40)

**Therapies targeting EGFR**

- Tyrosine kinase inhibitors (e.g., gefitinib, erlotinib)
- PI3K/Akt inhibitors (e.g., alpelisib, copanlisib)

**Therapies targeting HER2**

- Monoclonal antibodies (e.g., trastuzumab, pertuzumab)
- Tyrosine kinase inhibitors (e.g., lapatinib, everolimus)

**Therapies targeting BRAF**

- Small molecule inhibitors (e.g., vemurafenib, dabrafenib)
- Monoclonal antibodies (e.g., ipilimumab, nivolumab)

**Therapies targeting MLH1**

- Anti-CD20 antibodies (e.g., rituximab, obinutuzumab)
- Anti-HER2 antibodies (e.g., trastuzumab, pertuzumab)

**Therapies targeting KRAS**

- Small molecule inhibitors (e.g., cobimetinib, trametinib)
- Monoclonal antibodies (e.g., cetuximab, panitumumab)

**Therapies targeting MET**

- Small molecule inhibitors (e.g., crizotinib, brigavetinib)
- Monoclonal antibodies (e.g., trastuzumab, pertuzumab)

**Therapies targeting FGFR**

- Small molecule inhibitors (e.g., dasatinib, crizotinib)
- Monoclonal antibodies (e.g., tofacitinib, rituximab)

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