Realizing the promise of precision oncology for all patients

Someday, the promise of precision oncology will be fully realized with access to timely and comprehensive cancer profiles for all patients. What’s required? How might that look?

Fast and comprehensive results from local laboratories
Clinicians need earlier and more comprehensive insight about all relevant genomic cancer drivers to make the most fully informed and appropriate first-line treatment decisions.

Maximized use of every patient sample
Small and sometimes low-quality samples are the reality in a routine clinical setting. It’s necessary to use tests that do not require large sample amounts and can yield maximum information.

Next-generation sequencing (NGS) in-house
A fast, automated, and cost-efficient NGS workflow is required to enable local pathology laboratories to deliver a...

...complete cancer profile
This will enable clinicians to receive comprehensive information about the genomic cancer profile and choose the most appropriate treatment from all available options and...

...speed up consultation
Reduce the clinical deterioration risk, an issue observed in up to 20% of advanced-stage cancers within the first weeks.

NGS instead of single-gene method triage
Only NGS can deliver multiple results at once, saving sample and time. NGS should be employed at the time of diagnosis to...

...increase testing success rate
But not all NGS methods are the same, and some require large amounts of sample, leading to 1 in 4 patient samples not producing a genomic profile. Choosing a test requiring less sample input will...

...reduce the risk of rebiopsy
and save patient suffering and resources by decreasing side effects, clinical operations, and hospitalization, as well as time to initialization of the most optimal treatment.

Changing the diagnostic and treatment paradigm
Having all relevant genetic insights quickly available at once will enable clinicians to choose among more therapeutic options for first-line treatment, helping to improve outcomes. Let’s explore what that world could look like.

Current diagnostic and treatment paradigm

<table>
<thead>
<tr>
<th>Week 1*</th>
<th>Week 2</th>
<th>Week 6+</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGFR (-) PD-L1 (-)</td>
<td>Non targeted, first-line therapy cycle is started</td>
<td>First-line treatment cycle is completed</td>
</tr>
<tr>
<td>Histological and limited single-gene test results are available</td>
<td>Remaining sample is submitted to reference lab for NGS</td>
<td>Second-line targeted therapy is considered</td>
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Potential in-house NGS diagnostic and treatment paradigm

<table>
<thead>
<tr>
<th>Week 1*</th>
<th>Week 2</th>
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</thead>
<tbody>
<tr>
<td>EGFR (-) BRAF (-) PD-L1 (-) RET (+)</td>
<td>First-line therapy cycle, potentially targeted, is started</td>
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<tr>
<td>Histological and genomic profile results are available</td>
<td>Targeted therapies can lead to better clinical outcomes, with patients potentially put on the right course of treatment much earlier based on their specific genomic makeup</td>
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<tr>
<td>The best therapy from a full spectrum of options can be chosen</td>
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