PerFRACTION™

3D Pre-Treatment QA and In-Vivo Monitoring

Your Most Valuable QA and Dosimetry Tools
PerFRACTION™ listens for and captures your pre-treatment and in-vivo QA files for each patient, processes and analyzes them, and saves the results to the database. Failed result notifications are automatically emailed to you. Simply log in, view a dashboard of results, and drill down as desired. Trend any piece of data against any other piece of data. It is that simple, and that powerful.
**Patient QA from Pre-Treatment to the Last Fraction**

PerFRACTION is a practical way to make your patient QA more meaningful and efficient. Deliver the treatment plan, either for pre-treatment QA or daily treatment purposes, and PerFRACTION automatically captures all the image and data files needed for analysis.

On an intuitive interface, review multiple analysis methods and quantify the impact of any treatment variation on clinical goals. Because PerFRACTION is a web application, you can access this powerful resource from any browser within your clinical network.

**Fraction 0™ — 3D Pre-Treatment QA**
IMRT QA with the independence and peace of mind of EPID measurements

**Fraction n™ — 3D In-Vivo Monitoring**
QA for every treatment fraction to catch the most common types of errors — those associated with the patient — as well as machine errors

### NEW FEATURES NOW AVAILABLE

**Fraction 0**
- **Absolute Dose** — 2D absolute dose measurements with the EPID
- **Wedge Support** — Support for Varian EDW and Elekta universal wedged beams
- **SDC Dose as a Reference** — Eliminates differences due to 3D dose calculation algorithms

**Fraction n**
- **CBCT Calculation** — Option for 3D dose calculation onto the daily CBCT for treatment delivery QA
- **Log File Mode** — Option for 2D and 3D dose reconstruction using the log file instead of the EPID
- **Wedge Support** — Support for Varian EDW and Elekta universal wedged beams
- **SDC Dose as a Reference** — Eliminates differences due to 3D dose calculation algorithms
PerFRACTION In Action
See a top level summary of your Patient QA, then drill down.

Dashboard and Patient List
The PerFRACTION Dashboard summarizes all fractions for each machine for a given time period. The Patient List provides a complete list of patients, with easy to interpret clinical workflow phases and pass/fail status.

Patient Plan and Event Summary
Selecting a patient presents a summary of all QA results, shown as Events, for that patient, including DoseCHECK, Fraction 0, and Fraction n. Select any Event to view and investigate point dose, 2D and 3D results for that Event.
2D Planar Analysis
Results for a 2D QA task, automatically calculated for each beam and compared to the baseline image using pre-defined analysis settings. Select different beams and results update.

3D Dose Analysis
Results for a 3D QA task, automatically calculated onto patient anatomy and compared to the plan dose using pre-defined analysis settings. Scrutinize results based on 3D gamma per plan or structure.
Clinical Goal Analysis, Including 3D Gamma

Compare 3D dose outcomes to clinical goals with two levels of comparison: Ideal and Acceptable. Use pre-defined clinical goal templates, customize, or create your own. Track clinical goals from secondary dose calculation (using the DoseCHECK™ module) through pre-treatment QA, to each delivered fraction.

Trending

Compare patient QA results across any number of machines. Easy to read graphs display trend lines relative to custom tolerances.

PerFRACTION Clinical Goals and Trending

Create trend graphs from any test result and easily compare trends on a single graph.
More PerFRACTION Highlights

- EPID-based Measurement QA solution maintains independence and catches more errors
- Works with Varian and Elekta linear accelerators and ARIA® and MOSAIQ® oncology information systems
- Billing compliant (US)
- Scalable SunCHECK™ platform allows seamless integration with the DoseCHECK™ and SNC Machine™ applications, as well as future capabilities from the market leader in QA solutions
- Supports 3D, IMRT, VMAT delivery
- Straightforward, accurate pre-treatment verification for multiple target SRS cases
- Dose reconstruction is based on 3D forward projection, which allows for proper representation of the dosimetric impact of the various MLC, patient, and output errors that can occur in a radiotherapy treatment

For background on PerFRACTION’s 3D forward projection technique, please request this free white paper.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meets Reimbursement Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supports all Treatment Modalities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatibility ARIA, MOSAIQ with Varian and Elekta Linacs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Check</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access from Any Computer on Network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detects Patient Setup Errors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detects Patient Anatomy Changes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detects Output Fluctuations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detects Machine MLC, Jaws/Collimator Errors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commissioning Required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>