

PreciseBEAM[®] workflow

Elekta offers products and services that cover all elements of the IMRT process to ensure smooth implementation in the clinic.

Patient imaging



Treatment planning



Simulation



Quality Assurance



Immobilization



Image guidance



Treatment delivery



Clinical and technical requirements

An increased use of multi-modality images (CT, MR, PET) for treatment planning requires centralized data storage.

An open systems philosophy enables clinics to maintain investment in the planning system that meets their clinical needs.

Reference images for intensity modulated radiation therapy (IMRT) treatment delivery are required for verification of patient position.

IMRT delivery requires quality assurance of the complete process from planning to delivery, and routine linear accelerator controls to ensure precise and accurate IMRT treatments.

Stable and reproducible patient positioning is essential for IMRT delivery and dose escalation with potential for reduced PTV margins.

IMRT delivery precision is maximized by ensuring target(s) and risk organs are positioned as planned before radiation delivery.

A range of IMRT delivery options to support a wide variety of clinical treatment protocols including: hypo-fractionation, stereotactic techniques, dose escalation, high precision RT.

Workflow considerations

Image data forms part of the image-enabled patient chart and Electronic Medical Record.

Complete support for DICOM RT data exchange in radiation therapy maintains vendor independence.

Portal images may be acquired through conventional fluoroscopic simulation or generated as digitally reconstructed radiographs (DRRs) from treatment planning.

Tools for quality assurance and control form part of the support requirements to ensure safe and reproducible delivery of IMRT plans.

Fast and easy patient set-up and reproducible position confirmation is required for delivery of complex IMRT fields in a regular treatment time slot.

Fast imaging protocols with easy-to-use tools to align reference image data with pre-treatment acquired images of the day.

Safe and efficient IMRT delivery uses the same components as standard practice in the clinic for 3D conformal treatments.

Elekta solutions

The IMPAC MOSAIQ[™] IQ-SERVER DATABASE Supports centralized multi-modality image storage along with image data captured at treatment time for image guidance.

PrecisePLAN[®] offers an aperture-based inverse planning approach as a simple extension of familiar 3D conformal planning.

PrecisePLAN[®] produces high quality DRRs, PreciseSIM[®] offers conventional simulation imaging for MV portal image comparison.

Elekta offers the Scanditronix-Wellhoefer OmniPro l'mRT software for film-in-phantom hybrid plan dose comparison and analysis. AutoCAL uses iViewGT[™] MV portal images for automated MLC calibration and regular control.

Elekta offers a range of both Intra-cranial and Extra-cranial products including the Medical Intelligence line.

Elekta solutions include: 2D iViewGT[™] MV portal images and the Elekta Synergy[®] kV-based MotionView[™] and PlanarView[™] and 3D VolumeView[™] imaging.

Elekta offers a wide range of delivery choices, including the versatile 10mm leaf, a 4mm Beam Modulator[™], and accessory micro-MLC technology.

IMPAC MOSAIQ[™] image enabled oncology electronic medical record (EMR) and image guided treatment management (IGTM)

IMPAC MOSAIQ[™] IQ-SERVER

PRECISEPLAN[®]

OPEN SYSTEMS

PrecisePLAN[®]

PreciseSIM[®]

OmiPro l'mRT

AutoCAL

BodyFIX[™]

Elekta head frames

Stereotactic Body Frame[®]

Elekta Synergy[®]

iViewGT[™]

MLCi

Beam Modulator[™]

Micro MLC