Elekta Overview Webinar (7-7-2020)

# Presenters

Presenters were Nick Callea, Healthcare Accounts Director for TN, and Nick Brusca, linac specialist salesman who is also an ex-therapist.

# iView Images from Service Mode to MOSAIQ

Zach asked how to transfer images from iView to either a USB drive or MOSAIQ. In Treatment Mode, images are automatically sent to MOSAIQ, but not in Service Mode. Zach tried to use a USB drive to transfer images from Service Mode but did not see a USB port. Elekta said that there is not a USB port on the *front* of the XVI computer, but to check the back. The USB port may be hard to reach, so consider an extension cord. Contact Elekta support if needed. Support should be able to show us how to transfer images over the network.

# Elekta Linacs

* **Unity** is an MR linac. With continuous monitoring, it’s great for adaptive treatment. Unity also has Agility MLCs.

Agility has 160 leaves, which, combined with the dynamic leaf guide (a near-UV field light) can travel 6.5 cm/s. Intra- and interleaf leakage is very low. Y jaws fly in and out of the machine at 9 cm/s. This allows for smaller virtual MLCs (1 mm).

* **Versa HD** has lots of bells and whistles and is thus great for treatments with few fractions, such as SBRT and SRS. These bells and whistles include HexaPOD, a couch with six degrees of freedom, and HDR mode (FFF) (for 6X at 1400 MU/min and 10X at 2200 MU/min). Versa has Agility MLCs.
* **Infinity:** This is a multifunctional linac that can be upgraded to a Versa.

# HPL Linac

A high-productivity linac (HPL) is set to be released before the end of the year. (It was going to be presented at ASTRO.) This linac does not have bells and whistles does not support couch kicks or electrons, but, to the best of the presenters’ knowledge, does have FFF and Agility MLC. It has a consolidated console, a single mouse, and a single keyboard. If we want more information on the HPL, we must sign an NDA.

# MOSAIQ 3.0

MOSAIQ 3.0 will come out with the HPL. This version features a new 2D imaging workspace, including a new localization point trend review and three more 2D image filters (Enhance, Extract, and MLOG).

# XVI

XVI, which stands for *X-ray Volume Imaging*, is Elekta’s kV imaging system for managing internal motion (it provides a true ITV). It supports 2-, 3-, and 4D imaging with the largest FOV on the market. The default settings deliver very low dose for CBCT. XVI includes numerous presets. XVI allows separate registration of bony and soft tissue areas, enabling better critical structure avoidance.

XVI’s 4DCT is called *Symmetry*. Symmetry generates images for each of 10 phases of the breathing cycle, no surrogates necessary. 4DCT is especially useful for treatments with few fractions, such as SBRT.

We have a 4DCT license on one of our linacs. We think it’s E-2, but we can check our XVI licenses by going to About > Info on XVI. Contact Nick Brusca or Dan for assistance if necessary. The presenters will look into day or on-site training for 4DCT but can at least do a remote training at some point.

VXI can be used for intrafraction imaging—taking a CBCT during treatment, or MV and kV simultaneously. This is great for arc treatment; you can take a CBCT between arcs.

# Response

This is the gating interface software, which allows connection with third-party technologies that Elekta partners with. These include active breathing coordinators (ABCs) and C-RAD’s three-camera system for markerless surface tracking.

# Monaco

This TPS allows you to work with Agility MLCs. RayStation, Pinnacle, and Eclipse have a single fixed control point while Monaco supports up to 1,024 dynamic control points. Monaco’s Monte Carlo uses continuous arcs.

# QA Solutions

* **AQUA** is for machine QA. Corey from Elekta is working with Mike Federico to set up our AQUA server. Nick Brusca will follow up with Linda at Elekta to make sure Elekta is holding up their end, but we may need to rush our IT.
* **MU2net**, **EPIbeam**, and **EPIgray** are for phantomless patient QA.
* **Integral Quality Monitor (IQM)** is for real-time QA. It stops treatment if it detects an anomaly.
* **RTSafe** is for end-to-end QA.

# ProKnow DS

ProKnow is a cloud-based service that centralizes data and provides bug data analytics tools, including automatic metrics and outcomes analysis. We’ve had a ProKnow demo, and Zach’s previous facility was a beta tester.

# Intellimax

This software provides remote monitoring and service. It was originally only for linacs but now supports other Elekta products including MOSAIQ and Monaco.

# Network Analysis

Hernando from Elekta IT is coming sometime soon to do a full network analysis. He will need a main IT point of contact at CRMC but no extensive involvement from physics for the two to three days he is here. His lengthy report will include findings and recommendations. The network analysis is necessary because imaging is quite slow.

# SmartClinic

We are planning to purchase SmartClinic by the end of the year. The presenters were not able to provide an estimate for the time from purchase to use but said that at a similar facility, this time was only a month or two because SmartClinic comes preloaded with some forms and templates.

# Further Questions

We have a webinar scheduled with Elekta’s physics department to ask some more advanced questions.