Appendix – Features of TrueBeam system

Faster Treatments

TrueBeam is designed to treat tumors with speed and accuracy, including tumors that move during treatment as the patient breathes in and out. The system features a multitude of technical innovations that dynamically synchronises imaging, patient positioning, motion management and treatment delivery during sophisticated treatments for cancer.

With its high intensity mode, TrueBeam can deliver high doses quickly and accurately, more than twice as fast as earlier generations of technology. This makes it possible to significantly shorten treatments, potentially enabling clinics to treat more patients each day and to improve precision by leaving less time for tumor motion during dose delivery.

The "intelligent" automation of TrueBeam further speeds treatments with an up to five-fold reduction in the number of steps needed for image guidance and dose delivery. Simple treatments that once took 15 minutes or more can be completed in less than two minutes once the patient is in position. Reducing treatment times also increases treatment accuracy, since patient movement is reduced.

Enhanced Precision

TrueBeam's precision is measured in increments of less than a millimeter. This accuracy is made possible by the system's sophisticated architecture that synchronises imaging, patient positioning, motion management, beam shaping and dose delivery, performing accuracy checks every 10 milliseconds throughout the entire treatment. Critical data points are measured continually as a treatment progresses, ensuring that the system maintains a "true isocenter" or focal point of treatment.

Faster Imaging at Lower Doses

TrueBeam's imaging technology can produce three-dimensional images to fine tune tumor targeting in 60 per cent less time. Additional functionality makes it possible to create images with 25 per cent less X-ray dose. TrueBeam can be used for radiotherapy treatments, including image-guided radiotherapy and radiosurgery treatments.