IBA'S STATE OF ART PROTON THERAPY SYSTEM

In recent years, IBA has developed a state-of-the-art Proton Therapy System that is currently being implemented at the Northeast Proton Therapy Center in Boston. First patient treatment is predicted for the fourth quarter of 2001.

The IBA Proton Therapy System consists of a 230 MeV accelerator (a fixed energy isochronous cyclotron), an Energy Selection System that can decrease the energy down to 70 MeV and up to five treatment rooms. There are two types of treatment rooms. A gantry treatment room in which a patient can be treated from virtually any angle or a fixed horizontal beam line aimed at treatments of the of the head and neck.

The system is equipped with a Therapy Control System and a Global Safety Management System. The Integrated Therapy Control System is an integrated system ensuring the control of the treatment sessions through independent but networked therapy control units and, therefore, the control of each equipment subsystem. The integrated safety management system, independent of the Therapy Control System, includes a set of hard-wired safety devices, ensuring the safety of the patient and personnel.

The system will be capable of delivering proton treatments in four-treatment modes: Double Scattering, Single Scattering, Wobbling and Pencil Beam Scanning.

The presentation will show the most important subsystems and treatment modes capabilities as well as the most recent advances in the technology."

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