Particle Therapy
Optimized business operations

Solutions working in concert to create efficient workflows
Establishing or growing a particle therapy practice requires as much attention to the components forming the integrated whole as it does in selecting an appropriate treatment machine. Beyond technology, there’s efficiency. It’s how the treatment planning system and its components, patient positioning and immobilization devices, and information management technology work together to create the best possible workflow that operates securely in a multi-vendor, multi-modality environment. Elekta, a leader in particle therapy from the modality’s beginning, helps the customer put it all together. From XiO® planning, MOSAIQ® information management and Clarity™ soft tissue visualization to patient-friendly support equipment and expert consultative services, Elekta works with the center to build a world-class particle therapy service.

“The Elekta team brings significant expertise in proton therapy and radiation oncology with their software solution and, more importantly, the associated service. Elekta shares our vision of making the OIS the central hub for the entire therapy workflow, and together we can make this happen. This will provide significant benefits to our physician partners, hospital partners and their patients.”

Niek Schreuder
Senior Vice President of Medical Physics & Technology
ProCure Treatment Centers
“The shared vision and effort of a group of vendors, including Elekta, made the process of creating a proton therapy center manageable and the outcome a reality. Elekta professionals integrated proton support into our existing IT implementation, allowing us to extend our current chartless radiation therapy environment to the new proton center.”

James D. Cox, MD
Professor and Head, Division of Radiation Oncology
M. D. Anderson Cancer Center

**Oncology Information System (OIS)**
The key to achieving patient care objectives is consolidation of all aspects of the oncology service through a single OIS. MOSAIQ® is used in over 3,000 oncology centers globally and more oncology patients’ records are managed using MOSAIQ than any other commercial OIS—making it the most comprehensive and widely used system. MOSAIQ delivers quality software solutions that are designed to meet the continually evolving needs of oncology departments. This dynamic and pragmatic development approach has led to the adaptation of MOSAIQ for particle therapy—now in clinical use. In fact, MOSAIQ is the principal image-enabled chart of the particle therapy clinic.

**Respiratory Motion Management**
Active Breathing Coordinator is a simple, vendor-independent solution for pausing a patient’s breath at inhalation for a short period, during radiation delivery. This breath hold technique has helped clinicians dramatically reduce margins for tumors impacted by respiratory motion.

**Patient Positioning and Immobilization**
A requirement for the success of rigorous particle therapy treatment modalities is precise patient positioning and immobilization, from planning to treatment. BodyFIX® and Fraxion, non-invasive immobilization and positioning systems, provide accurate and reproducible patient positioning for particle therapy.

**Treatment Planning**
Elekta has worked to enhance particle therapy planning solutions since 1998. Today, XiO®, Focal 4D® and Atlas-based Autosegmentation (ABAS) deliver comprehensive planning functionalities that address a range of clinical needs. In addition, the integrated planning capability supports several treatment modalities, including broad beam, pencil beam scanning and continuous scanning together with conventional radiation therapy. XiO, in particular, provides you with a comprehensive 3D IMRT planning platform. It includes automated tools to reduce planning time and robust dose calculation algorithms for highly precise plans.

**Service and Support**
To maximize the clinical and financial potential of oncology management solutions requires centers to have or gain an in depth understanding of the technology they use and how they use it. STRATEGIQ® consultative services provide a comprehensive, accelerated approach to help facilities fully utilize their Elekta IT solutions—improving the facility’s operational and clinical function. Fundamentally, STRATEGIQ services are designed to help facilities adapt rapidly to change and sustain value in the prevention, diagnosis, treatment, research and follow-up of cancer patients.

**Image Guidance**
Clarity™ takes soft tissue visualization to entirely new levels for PT treatments. Easy to learn and use, Clarity is capable of integrating with any PT workflow and treatment delivery platform. Clarity’s hybrid imaging technology delivers superior soft tissue visualization for CT-Sim, assisting with contouring during PT simulation and planning. In addition, Clarity provides high spatial accuracy and speed for daily setup and positioning as well as a path to intra-fractional, non-invasive anatomy-based real-time tracking. Based on patented medical imaging technology, Clarity is a safe and gentle approach to providing enhanced soft tissue image guidance for PT.

**Data Visualization and Analysis**
ANALYTIQ™ is a data visualization and analysis tool, which creates an interactive, graphical environment to explore, segment and analyze large volumes of practice management related data. Direct data visualization enables quick discovery of trends, anomalies and relations and immediate exploration of their root causes. Upon completion of an analysis, a perspective can be exported to other types of programs – spreadsheets, statistical packages and word processors – for additional analysis, electronic distribution or data archiving.
Clarity real time tracking is a work in progress.

SEQUENCER is MOSAIQ’s verify & record module.

MOSAIQ/SEQUENCER support of carbon ion therapy is a work in progress.

MOSAIQ RTP is a work in progress.
End-to-end solution
Connectivity
Multi-modality
Enhanced patient experience
Reduced clinical risk
Maximized return on investment (ROI)
A human care company, Elekta pioneers significant innovations and clinical solutions for treating cancer and brain disorders. Elekta provides intelligent and resource-efficient technologies that improve, prolong and save patient lives. We go beyond collaboration seeking long-term relationships built on trust with a shared vision, offering confidence to healthcare providers and their patients.