Putting profits before health: Siemens abandons cancer therapy project

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Last year, the Siemens group decided not to commission the particle therapy facility at the University Hospital Schleswig-Holstein in Kiel. The reason given by the company is the unlikelihood that the project would make a profit.

Particle therapy is a technology where protons or carbon ions are accelerated to very high speeds (60 to 70 percent of the speed of light) and are then directed precisely at the diseased tissue. Unlike conventional radiotherapy, the protons and heavy ions bombard the target, destroying the core of the tumor cells, while the surrounding healthy tissue is spared.

High precision particle therapy is suited to treating particularly difficult to reach tumors, such as in the brain and eye, or in children. tumors located near sensitive organs, and cancer cells deep in the body, can be destroyed with this method.

Since being introduced in research centres and a select number of clinical facilities mainly in the US, the technique has helped more than 80,000 patients. By 2010, there were particle therapy facilities in thirteen countries.

The high technical demands of particle therapy is the main reason that such facilities have only been available in a few places. New technical developments in improved imaging and target representation in the course of the 1990s enabled a step forward in the remaining problems in particle therapy. Oncologists have set high hopes in heavy ion therapy, which combines high precision with high biological effectiveness, and is therefore particularly suitable for the treatment of tumors resistant to radiation.

Experts estimate that five to ten percent of radiotherapy patients could be considered for particle therapy; in Germany that is 10,000-20,000 per year.

Currently there are three proton therapy centres operating in Germany. The ion beam laboratory (ISL) at the Helmholtz Centre in Berlin has treated more than 1,600 eye tumor patients from 1998 to 2010. The privately built Rinecker Proton Therapy Centre in Munich is the first clinically-operated facility in Europe, with over 400 patients from 2009 to late 2010.

From 1997 to 2009, 400 patients were treated using carbon ions at the Institute for Heavy Ion Research (GSI) in Darmstadt. The successor to the GSI, the Heidelberg Ion Beam Therapy Centre (HIT) at the University of Heidelberg treated approximately 400 patients with protons and carbon ions, mainly in clinical trials in 2010. Siemens continues to be involved at this research facility in Heidelberg and at a research facility in Shanghai.

The technological advances, good cure rates with particle therapy, and relatively limited treatment options available in the three existing facilities meant companies like Siemens saw the opportunity to profitably enter the business.

Siemens planned to earn money from higher annual patient numbers than in all such plants operating worldwide to date. The Siemens Annual Report 2011 stated, “Our health care sector has set itself the goal of being a pioneer for affordable and personalized health provisions.” The purpose for this goal was explicitly laid out: “We strive to generate high returns by helping our customers to achieve efficiency gains in health care.”

The construction of the cancer treatment centre in Kiel was begun in August 2008 and is nearing completion. The plan was to use the new precision methods of particle therapy in the Kiel centre to treat tumors in 3,000 patients per year, attracting patients from northern Germany and the Scandinavian countries.

It has since been found, however, that the large-scale facility can only treat 1,000 patients per year, and not 3,000. With this number of patients, the operation of the facility is not economically viable for the consortium of bidders including Siemens, Bilfinger Berger and HSG Technical Service, which had set up the particle therapy center as a public private partnership project with an investment of €250 million.

Clearly, the complicated technology calls for higher investments, thus Siemens reported charges in the third quarter of 2011 totaling €381 million for its Healthcare Sector in connection with a revaluation of the commercial feasibility of particle therapy. Because of the “revaluation of the commercial feasibility of particle therapy for general patient care”, the company also expects to see higher charges in its Healthcare division in the coming quarters.

Before pulling out of the facility in Kiel, Siemens had already withdrawn from a project in July 2011 for a similar particle therapy facility in Marburg. Instead of being for patient care, the purpose of the facility was shifted to being one of purely research. A joint press release of the Schleswig-Holstein Ministry of Science, Technology and Transport, and Siemens AG last September stated in relation to Marburg that “this technology is not currently suited for broadly applied medical care.”

The participating university hospitals and state governments at both locations had originally expressed high hopes for the new technology, hailing particle therapy as a beacon project consolidating the relevant science and health facilities. After the withdrawal of Siemens, the University Hospital of Schleswig-Holstein will house only its department for conventional radiotherapy and brachytherapy in the new buildings.

Doubts as to whether the consortium with Siemens and the contract with the University Hospital of Schleswig-Holstein would hold had already surfaced in late 2008. A Schleswig-Holstein parliamentary paper, for example, deals with the question of the impact the decision by Siemens not to implement any other particle therapy projects would have on the construction of the facility in Kiel. At that time, Siemens was still insisting verbally and in writing that it would realize the promising technology and develop it further.

In addition to the now halted Siemens plants in Marburg and Kiel, in the last decade, more facilities were planned and partially built, as in Essen, Dresden, Vienna and Switzerland. The doctors involved in Kiel would like to use the facility even if only for the treatment of 1,000 patients. A scientist involved in the development of therapy at GSI considers it absurd to dismantle the facility for business reasons, as it is almost ready for operation and the medical results are excellent.

The problem is that it is not people's health, but profits that is the decisive question for Siemens. The loss-making operation means closing the facility despite the technology being medically beneficial, and often the last hope for very sick people.

The construction and operation of such treatment facilities is a social necessity that must not be subordinated to the profit interests of capitalist corporations such as Siemens.