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**FOR IMMEDIATE RELEASE**

**Benefits of TomoTherapy® Radiation Therapy Highlighted in 82 Studies  
to be Presented at ESTRO 29 in Barcelona**

***Researchers Explore Use for Head, Neck, Prostate, Breast and Lung Tumors,  
as Well as More Complex Blood Cancer and Mesothelioma Treatments***

MADISON, Wis. – September 8, 2010 – TomoTherapy Incorporated (NASDAQ: TOMO), maker of advanced radiation therapy solutions for cancer care, today announced that 82 studies examining the use of the TomoTherapy® treatment system to treat common, complex and rare tumors throughout the body will be showcased at ESTRO 29, September 12-16, 2010, in Barcelona. The studies examine use of the *TomoTherapy* system on head and neck, prostate, breast and lung tumors, as well as for treating blood cancers, mesothelioma and pediatric patients.

In one of the most promising papers, researchers from San Raffaele Scientific Institute in Milan, Italy compared *TomoTherapy* to other radiation therapy solutions using Pareto front analysis to explore the ability of these treatment methods to improve target coverage without sacrificing organs at risk (OAR) or other constraints. Researchers reported that “for all simulations RapidArc® met less of the optimization criteria, while *TomoTherapy* was able to produce the most homogeneous dose and have the capability to conform dose distributions better than RapidArc®.”

**Head and Neck Cancers**

Among the numerous studies on head and neck tumors, two studies compare arc therapy to helical *TomoTherapy* radiation delivery. Exploring the treatment of patients with oropharyngeal cancer, researchers in Belgium and the Netherlands concluded that in the treatment of head and neck cancer, helical *TomoTherapy* treatment times are less than both Smart Arc and step and shoot techniques. In fact, TomoTherapy treatment was fastest of all techniques examined, at 6.6 minutes, compared to 7.5 minutes for Smart Arc and longer times for other intensity-modulated radiation therapy (IMRT) techniques, while delivering the best homogeneity and equivalent or better OAR sparing.

Similarly researchers in Austria and Germany compared four different technologies for a parotid gland sparing head and neck treatment technique with simultaneous integrated boost (SIB). Their research showed that the *TomoTherapy* platform delivered the lowest doses to the parotids and spinal cord and achieved the shortest treatment time – eight minutes versus nine to 24 minutes for the other solutions examined.

**Prostate Cancer**

Eight studies focused on the use of *TomoTherapy* technology to treat prostate cancer in more than 280 patients. The studies showed excellent outcome for these patient groups, extending up to more than four years post-treatment. TomoTherapy<sup>SM</sup> treatments resulted in very low toxicities and side effects, even with delivery of escalated doses.

### **Breast Cancer**

In a study of 30 stage III breast cancer patients, researchers at The Ottawa Hospital Regional Cancer Centre in Canada examined early results of loco regional breast radiation using IMRT delivery by the *TomoTherapy* system. The treatment area included the breast and chest wall, as well as supraclavicular, axillary and internal mammary nodal regions. The *TomoTherapy* system enabled conformal treatment that limited dosage to healthy surrounding tissue, including the heart, lungs, esophagus and thyroid. Researchers concluded that IMRT with the *TomoTherapy* system “for loco regional breast radiation is feasible and well tolerated with minimal acute and moderate-late skin effects.”

### **Lung Cancer**

Research done at San Raffaele Scientific Institute was designed to assess the feasibility of the *TomoTherapy* platform to deliver hypofractionated treatments in 15 patients with inoperable locally advanced non-small cell lung cancer (NSCLC). After re-evaluating 12 patients in the study five months post-treatment, 42 percent of the patients had a complete metabolic response and 33 percent a partial response. The study also showed that these patients experienced less toxicity and were able to complete treatment in 13 treatment sessions rather than 20, as is the norm. The study concluded that hypofractionation in radical treatments for locally advanced NSCLC by means of helical *TomoTherapy* delivery is feasible and shortens the overall treatment time, and that the treatment allows an excellent toxicity profile.

### **Complex Cases**

Highlighting the effectiveness of *TomoTherapy* radiation therapy in complex cases, a study of *TomoTherapy* use for one-and-a-half years at Greater Poland Cancer Centre in Poznan, Poland noted, “*TomoTherapy* is a method by which we can often achieve the treatment impossible to obtain on the conventional linacs or the treatment with a significantly better dose distribution than for conventional linacs.”

The ability of *TomoTherapy* technology to treat complex cases was also outlined in a number of studies, including:

- **Mesothelioma** – This is a disease that is difficult to treat because of the size and complex shape of the tumor, which involves the outer lining of the lungs and internal chest wall. In a study at San Raffaele Scientific Institute, researchers compared two groups of patients treated with the *TomoTherapy* platform, with one receiving a simultaneous integrated boost (SIB). Those patients receiving the SIB experienced significant benefits, with a one-year survival rate increasing to 72 percent, compared to 43 percent for the other group. Additionally, patients receiving a SIB did not experience a relapse for an average of 16 months versus six months for the non-SIB group.
- **Re-irradiation of head and neck tumors** – Researchers in Korea investigated the efficacy and toxicity of using the *TomoTherapy* system to reirradiate head and neck tumors in patients who were inoperable. Nine patients were treated in this study, with median follow up of nine months. Study results showed that there was a treatment response rate of 66.7 percent. Additionally, patients experienced extremely low acute toxicities with only grade 2 skin reactions noted, and no sign of late toxicity.
- **Total Marrow Irradiation (TMI)** – Researchers at City of Hope in Los Angeles conducted a dosimetric analysis of 51 patients treated with TMI or total marrow and lymphatic irradiation (TMLI). The results showed that no patient experienced greater than grade 2 toxicity, with half the patients experiencing no nausea, which is a common side effect in other similar treatments. Additionally, researchers noted that dosimetric analysis demonstrated that TMI and TMLI with *TomoTherapy* technology may have potential advantages over other forms of targeted systemic radiation therapy.
- **Pediatric** – Four studies focused on treatment of pediatric patients, with three of those looking at treatments for medulloblastoma. The fourth study recounted the experiences of 62 patients,

ranging in age from one to 14, at Grupo Instituto Madrileño de Oncología (IMO) in Spain, which examined how the *TomoTherapy* system could be used in young patients to deliver high doses of radiation while preserving healthy organs. The study showed that the *TomoTherapy* approach allowed manageable levels of toxicity, and was effective in treating the majority of the patients – upon post-treatment evaluation, 58 percent did not have any evidence of illness, 7 percent showed a partial response and another 14 percent remained stable.

To learn more about the *TomoTherapy* treatment system, visit TomoTherapy at [ESTRO 29 in booth 60](#), September 12-16 in Barcelona.

### **About TomoTherapy Incorporated**

TomoTherapy Incorporated develops, markets and sells advanced radiation therapy solutions that can be used to treat a wide variety of cancers, from the most common to the most complex. The ring gantry-based TomoTherapy® platform combines integrated CT imaging with conformal radiation therapy to deliver sophisticated radiation treatments with speed and precision while reducing radiation exposure to surrounding healthy tissue. TomoTherapy's suite of solutions include its flagship Hi·Art® treatment system, which has been used to deliver more than three million CT-guided, helical intensity-modulated radiation therapy (IMRT) treatment fractions; the TomoHD™ treatment system, designed to enable cancer centers to treat a broader patient population with a single device; and the TomoMobile™ relocatable radiation therapy solution, designed to improve access and availability of state-of-the-art cancer care. TomoTherapy's stock is traded on the NASDAQ Global Select Market under the symbol TOMO. To learn more about TomoTherapy, please visit [TomoTherapy.com](#).

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