

# Precision

September 2012




A newsletter from the University of Florida Proton Therapy Institute • [www.floridaproton.org](http://www.floridaproton.org) • Phone: (877) 686-6009

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## IN OTHER NEWS

### Keep In Touch



We have a new website design – same address [www.floridaproton.org](http://www.floridaproton.org) – that makes it easy for you to keep in touch. Look at the top right corner of the homepage for [Facebook](#), [Twitter](#) and [YouTube](#) icons, click and join us in the social media conversation. Also on the right side of the homepage there is a button for [VTOC Patient Portal](#). Click here to open your secure account, view your records, complete clinical trial questionnaires and communicate with your nurse case manager. Knowing how you are feeling during and after treatment is essential to providing you the best care possible and contributes to the care of future patients.

### Community Calendar

Mark your calendar and join us when we are in a town near you.

**September 27, 12 p.m.**  
Kiwans Jax Beach  
The Crab Cake Factory

## Message from Stuart Klein, Executive Director

Welcome to the first issue of our electronic newsletter – *Precision*. We've designed it with you in mind as a way to stay in touch and to send updates about what's happening in the world of proton therapy and here at the UF Proton Therapy Institute. We hope that you will find this monthly email informative. Feel free to share it with your friends and family. If you have a story you'd like to share or a comment about a newsletter article or topic, [please email us](#). We'd love to hear from you.



Sincerely,  
Stuart Klein

## Comparative study of prostate cancer treatment options used questionable data and methods

Stuart L. Klein, Executive Director, University of Florida Proton Therapy Institute

On April 18, 2012, an article appeared in the *Journal of The American Medical Association (JAMA)*<sup>i</sup> that concluded that proton therapy is more toxic and no more effective than IMRT in the treatment of prostate cancer. We strongly disagree with this conclusion since multiple studies following outcomes of more than 1,000 proton therapy patients document a reduced risk of serious toxicity (side effects), at or less than 2 percent.<sup>ii</sup> We question the value of printing such a poorly conducted and ill informed research study. The reasons for our concerns are as follows:

### 1. Single institution bias skews validity of conclusions.

The study utilized a Medicare database of prostate patient bills to compare outcomes for patients treated with conformal radiation therapy (CRT – a very basic form of radiation therapy), IMRT (a more advanced form of radiation therapy) and proton therapy. They included data for 12,000 patients described as representative of treatment outcomes in community cancer centers. Only 700 patients, or 6% of the total, were treated with protons, and all of these patients were treated at a single proton facility, Loma Linda University Medical Center (LLUMC). Utilizing a single institution's data will bias the conclusions. Valid research studies utilize the data from multiple institutions to remove this single institution bias. The authors failed to identify this significant fact and their conclusions did not adequately take this bias into account.

### 2. Proton patients in the data set received higher doses of radiation than their counterparts in CRT or IMRT, a fact not adjusted for in the results leading to faulty conclusions.

At the time the data was collected, LLUMC was treating patients on various clinical studies using higher doses of radiation than was commonly used at the time, a practice later proven to be more effective for prostate cancer. Community cancer centers at that time typically used lower radiation doses to try and avoid toxicity (side effects). In addition, no less than 30% of the LLUMC patients were treated with both protons and conventional radiation therapy.<sup>iii</sup> Both of these significant issues were not taken into account nor mentioned by the authors.

### 3. Authors did not adjust for variables in radiation dose leading to faulty conclusions.

The authors failed to account for differences in the total dose of radiation delivered to each patient. There can be a fairly wide

1396 Beach Blvd.  
Jacksonville Beach, FL  
32250  
Speaker: Stuart Klein

**October 5, 1 p.m.**  
John Knox Village  
101 Northlake Drive  
Orange City, FL 32763  
Speaker: Julie A. Bradley,  
M.D.

**October 17, 5 p.m.**  
Man to Man  
Center for Cancer Care &  
Research  
1730 Lakeland Hills Blvd.  
Lakeland, FL 33805  
Speaker: Randal  
Henderson, M.D.

**October 18, 6 p.m.**  
Us TOO  
Doctors Hospital of  
Sarasota  
5731 Bee Ridge Road  
Sarasota, FL 34233  
Speaker: Randal  
Henderson, M.D.

**October 24, 7 a.m.**  
Rotary Club  
Bonita Bay Clubhouse  
26660 Country Club Drive  
Bonita Springs, FL 34134  
Speaker: R. Charles  
Nichols, Jr., M.D.

**October 25**  
Arlington Kiwanis  
Jacksonville - JU  
Speaker: TBD

**November 7, 7 p.m.**  
Man to Man  
1000 Lake Sumter  
Landing  
The Villages, FL 32162  
Speaker: R. Charles  
Nichols, Jr., M.D.

If you would like a  
speaker to come to a  
group in your area, [click  
here to send us an email.](#)

## Proton Therapy Publications

Our physicians, physicists  
and staff are advancing  
the scientific  
understanding of proton  
therapy in cancer  
treatment. Through the  
study of clinical trial data  
they discover new and  
important results that are  
written into medical  
journal articles and  
submitted for peer  
review. Each month we  
will feature one or two  
recently published works.

[Erectile function,  
incontinence, and other  
quality of life outcomes  
following proton therapy  
for prostate cancer in  
men 60 years old and  
younger.](#) Published in  
*Cancer*, January 17,  
2012. Written by B.S.

range in the radiation dose delivered to each respective patient depending on the physician, extent of tumor and type of treatment used, i.e., CRT vs. IMRT vs. protons. Differences in radiation dose will greatly influence patient outcomes and side effects. Failure to account for this difference greatly skews the data and leads to incorrect conclusions.

**4. Authors assume that all colonoscopies post-proton treatment were a result of negative side effects of treatment. This is not accurate as LLUMC patients had colonoscopies as part of their routine follow-up.**

The authors utilized the same Medicare billing data to determine the supposed negative side effects for each of the various treatments. This type of analysis is not specific and can be very misleading. For example, they concluded that if a Medicare bill was generated for a colonoscopy on a prostate cancer patient, then it was assumed that the colonoscopy was needed to address the negative side effects of their radiation treatment. However, at LLUMC some of the protocols required routine follow-up colonoscopy procedures that had nothing to do with toxicity. The authors did not mention this in the study.

**5. Authors ignore multiple studies based on actual patient data that report serious bladder and rectal complication rates of less than or equal to 2%.**

The authors also fail to mention that published research data from multiple proton institutions exists that documents significant bladder and rectal complication rates of less than or equal to 2%. These reports are based on actual patient data as opposed to assumptions from Medicare billing data.

We at the University of Florida Proton Therapy Institute are fully committed to gaining a better understanding of the impact of utilizing protons to treat prostate cancer. Our published data is based on treatments delivered with well-defined dose levels and toxicity documented by detailed follow-up questions and examinations of our patients. Actual results, as opposed to assumed conclusions based on Medicare billing data, are utilized in our research studies.

We currently offer treatment for a wide range of cancers with CRT, IMRT, brachytherapy (radioactive seeds) and proton therapy. We have both IMRT X-ray therapy and proton therapy available for the treatment of prostate cancer. We likewise have many patients on watchful waiting. Our physicians do not have an ownership stake in our facility nor our equipment. They are salaried faculty members of the University of Florida College of Medicine and have no direct financial incentive that might influence their recommendation regarding any particular treatment alternative. We strongly encourage all prostate patients to become better educated about their disease and the different options for treatment. We likewise encourage patients to take the time and effort to question the data from all sources. We find it very troubling that an article based on Medicare billing data, and containing faulty conclusions, has generated so much confusion among some patients and the physicians who are trying to advise them.

i Sheets NC, Goldin GH, Meyer AM, et al. Intensity-modulated radiation therapy, proton therapy, or conformal radiation therapy and morbidity and disease control in localized prostate cancer. *JAMA*. 2012;307(15):1611-1620.

ii Mendenhall NP, Li Z, Hoppe BS, et al. Early outcomes from three prospective trials of image-guided proton therapy for prostate cancer. *Int J Radiat Oncol Biol Phys*. 2012;82(1):213-221.

iii Slater JD, Rossi CJ Jr, Yonemoto LT, et al. Proton therapy for prostate cancer: the initial Loma Linda University experience. *Int J Radiat Oncol Biol Phys*. 2004; 59(2):348-352.

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JAMA recently published a letter to the editor authored by UFPTI Medical Director Nancy P. Mendenhall, M.D. and other proton therapy center medical directors. To view the letter, [click here.](#)

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**Lights, Camera, Action!**

*Improving the therapeutic ratio in Hodgkin lymphoma through the use of proton therapy.*

Published in *Oncology*, May 2012. Written by B.S. Hoppe, et al.

### About This Newsletter

The *Precision* newsletter is an electronic-only publication that is distributed by email. Each issue is sent monthly to patients, alumni patients and friends of the University of Florida Proton Therapy Institute (UFPTI). As the official newsletter of UFPTI, the content is compiled and prepared by our communications representative and approved by the editor Stuart Klein, executive director of UFPTI. Special bulletin newsletters may occasionally be prepared when timely topics and new developments in proton therapy occur. To opt out of receiving the email newsletter, simply [click here to unsubscribe](#). We will make every effort to remove your name from the list.

If you would like to send a Letter to the Editor, [please click here](#).

Florida has the second highest number of new cancer cases of all the 50 states. To help raise awareness in this vulnerable population about the benefits of proton therapy, last month we launched our first television advertisement featuring Markus Mittermayr and his wife Susan. Markus was treated for prostate cancer at UFPTI in 2010 and chose proton therapy because he didn't want to suffer the potential side effects of surgery. "I felt I was too young to deal with those sorts of things," he said. Maintaining his active lifestyle as a competitive triathlete was important to him. Two years after proton therapy, on August 11, 2012, he competed in the Ironman NYC 2012, finishing 15th in division M55-59 and 961 overall. The television ad is airing through the end of September in select Florida markets. To see the spot, check it out on the [Florida Proton YouTube channel](#).



### Cancer Awareness Spotlight

September is a busy month for cancer awareness activities. Three types of cancers treated at UFPTI are in the spotlight this month: childhood cancer, lymphoma and prostate cancer.

Our pediatric cancer program is the busiest worldwide. Children from all over the United States and the world travel to Jacksonville for proton therapy. On average we treat 10-15 children per day for cancers such as craniopharyngioma that occurs in the brain and sarcoma that occurs in the soft tissues like muscles. Proton therapy is extremely beneficial for children since even small amounts of radiation exposure can create significant damage to growing healthy cells and tissues and have a negative impact on cognition (IQ). With proton therapy we can limit the amount of normal, healthy tissue exposure while at the same time delivering the optimal dose in the cancerous tumor. The aim is to potentially reduce the severity of side effects during and after treatment and the risk of secondary cancers later in life.

Lymphoma, both Hodgkin and non-Hodgkin, is a cancer of the lymph nodes that typically affects children and young adults. The cure rate is 90 percent using a combined standard treatment of chemotherapy and radiation. However, treatment side effects often show up later in life as second cancers and heart disease. With proton therapy we can reduce the amount of healthy breast, lung and heart tissue exposed to radiation and for this reason it is believed that Hodgkin lymphoma patients will have a much lower risk of heart disease and second cancer. We have an ongoing clinical trial using proton therapy for lymphoma patients with involvement of the mediastinum. Early results of the study were recently published and you can read more in the Proton Therapy Publications newsletter feature.

Our largest patient group is being treated for prostate cancer and accounts for approximately 60 percent of patients on treatment today. Since opening our center in August 2006, we have treated more than 2,700 prostate cancer patients. Most are on clinical trials and the collective data has produced benchmark studies for patient treatment and outcomes that is widely used by other proton therapy facilities. Significantly we have found that most patients tolerate the treatment well with fewer than 2 percent of men experiencing serious side effects. We expect to have five-year data to report very soon that will show patient survival and outcomes.

### Play Golf - Fight Cancer® Tournament October 8, 2012



The ninth annual fundraiser for UFPTI, Play Golf - Fight Cancer® Central Florida Golf Classic is being held October 8, 2012, in Orlando at Reunion Resort and Club. You are invited to become a sponsor or participant. To learn more about the tournament and registration, please visit [www.floridaproton.golfreg.com](http://www.floridaproton.golfreg.com).

## In the Community



The Historic Springfield Main Street Cruise has quickly become one of the most happening events in the neighborhood near UFPTI. Located on Main Street at the front doors of the Third and Main apartments where many patients reside during treatment, the classic car meet is a combination of street festival, music concert and block party. It takes place the last Saturday of the month and UFPTI participated on August 25 with the Proton Van on display and giveaways of old-fashioned, fresh-popped popcorn and proton therapy awareness bracelets. Director of Patient Intake Judy Taylor Holland and her husband Mitch along with Director of Patient Services Brad Robbert staffed the booth.