The Treatment of Men With Low-Risk Prostate Cancer Using a Shortened Radiotherapy Schedule Has Similar Efficacy as Treatment With the Longer Conventional Radiotherapy Schedule

SAN ANTONIO—Of the more than 220,000 patients expected to be newly diagnosed with prostate cancer in 2015, the vast majority will have early-stage disease at low risk for recurrence. Clinical trial results presented today at the plenary session of the 57th Annual Meeting of the American Society for Radiation Oncology (ASTRO) confirm that these patients can be treated with a shortened (or hypofractionated) course of radiotherapy (70 Gy of radiation delivered in 28 fractions over 5.6 weeks) and experience the same level of cancer control as those treated with a conventional course of radiotherapy (73.8 Gy of radiation delivered in 41 fractions over 8.2 weeks). Conducted by the Radiation Therapy Oncology Group (RTOG), now conducting research as NRG Oncology, RTOG 0415 analyzed data from 1,092 patients diagnosed with low-risk prostate cancer who were randomized to either the hypofractionated schedule arm (550 patients) or the conventional schedule arm (542 patients).

“Given the potential to increase patient convenience and reduce treatment resource utilization significantly using a hypofractionated treatment schedule, we set out to determine if the efficacy of this approach is no worse than that of a conventional schedule in men with low-risk prostate cancer,” says the trial’s principle investigator, W. Robert Lee, M.D., M.Ed., M.S., a radiation oncologist at Duke University, who presented the trial results. Lee points out that from a curative perspective the study results should make practitioners feel comfortable that the shorter radiotherapy course is as effective as a conventional course. “The study results are directly analogous to the breast cancer story in which shorter courses of radiotherapy work as well,” says Lee.

At a median patient follow-up of 5.8 years, 185 disease-free survival events (the primary end point) had occurred (86 in the hypofractionated schedule arm; 99 in the conventional schedule arm). Mild side effects (grade 2) were slightly higher in patients assigned to the hypofractionated arm, but more severe, late grade 3 gastrointestinal (GI) and genitourinary (GU) events were no different (GI, 4.1 percent [70 Gy] vs. 2.4 percent [73.8 Gy]; GU, 3.5 percent [70 Gy] vs. 2.1 percent [73.8 Gy], respectively). Lee emphasizes that these toxicities are physician-reported results, which do not always reflect the patients’ experiences accurately. To answer the important question regarding what patients thought about their treatment, in the future, the investigators will analyze patient-reported quality of life data collected during the study. Next steps also include the evaluation of economic data to assess resource savings.

“These results are another example of NRG Oncology’s exemplary work in advancing the treatment of men with prostate cancer,” says Walter J. Curran Jr., M.D., an NRG Oncology Group Chairman and Executive Director of the Winship Cancer Institute of Emory University in Atlanta. “Congratulations to the research team and participating sites for enrolling patients and concluding the study ahead of schedule. This
performance demonstrates the importance that the radiation oncology community places on learning whether a hypofractionated radiation schedule can both increase patient convenience and save health care resources."

This project was supported by National Cancer Institute grants U10CA21661, U10CA180868, U10CA180822, and U10CA37422. Support was also provided by AstraZeneca.

www.nrgoncology.org

NRG Oncology conducts practice-changing, multi-institutional clinical and translational research to improve the lives of patients with cancer. Founded in 2012, NRG Oncology is a Pennsylvania-based nonprofit corporation that integrates the research strengths of the National Adjuvant Breast and Bowel Project, the Radiation Therapy Oncology Group, and the Gynecologic Oncology Group. The research organization seeks to carry out clinical trials with emphases on gender-specific malignancies, including gynecologic, breast, and prostate cancers, and on localized or locally advanced cancers of all types. NRG Oncology's extensive research organization comprises multidisciplinary investigators, including medical oncologists, radiation oncologists, surgeons, physicists, pathologists, and statisticians, and encompasses more than 1300 research sites located world-wide with predominance in the United States and Canada. NRG Oncology is supported primarily through grants from the National Cancer Institute (NCI) and is one of five research groups in the NCI’s National Clinical Trials Network.