Two-item questionnaire proves to be a valid depression screening tool for radiation therapy patients

Atlanta, September 23, 2013 — Cancer patients receiving radiotherapy (RT) who are potentially suffering from depression can be effectively identified by a two-item questionnaire, according to research presented today at the American Society for Radiation Oncology’s (ASTRO’s) 55th Annual Meeting.

The Radiation Oncology Therapy Group (RTOG) Community Clinical Oncology Program (CCOP)-supported multi-institutional study screened 455 patients receiving radiation treatment at 37 centers around the U.S. Participants in the study were seeking treatment for breast cancer (45 percent); GI cancer (11 percent); lung cancer (10 percent); gynecologic cancer (6 percent); or other cancers (27 percent). Sixty-six percent of the patients in the trial (298) were women.

Depression screenings were performed before or within two weeks of treatment of the initial cancer diagnosis. The screening forms included the single-item National Comprehensive Cancer Network-Distress Thermometer (NCCN-DT); the Hopkins Symptom Checklist (HSCL-25); and the nine-item Patient Health Questionnaire, (PHQ-9), which includes Patient Health Questionnaire-2.
(PHQ-2) as its first two questions. All of the study participants answered the screening questionnaires with 100 percent completion.

Patients received the PHQ-9 and were asked if, within the past two weeks, they had “little interest or pleasure in doing things,” or “if they were feeling down, depressed or hopeless.” It was discovered that patients’ responses to these two questions (the PHQ-2) were as useful in identifying depression as results from the entire PHQ-9, and were more indicative than results from the NCCN-DT.

Within the study, a total of 75 patients (16 percent) screened positively for depressive symptoms. PHQ-9 and PHQ-2 had similar accuracy in detecting depression with an area under the curve (AUC) of approximately 0.83 for each and was superior to the HLSC-25 (.79) and the NCCN-DT (.60).

Of the facilities included in the study, 68 percent offer mental health services. Patients who screened positive for depression symptoms, along with a systematic sample of patients who screened negative, were administered the Structured Clinical Interview for DSM-IV (SCID) Mood Disorder modules by telephone. The study determined that screening in an RT setting was well-received by patients and feasible.

“Detection of depression in cancer patients is an important public health priority, and the ability to screen and treat cancer patients for depression can have a major impact on a patient’s quality of life,” said William Small Jr., MD, FASTRO, presenting author of the study and chairman of the Department of Radiation Oncology at Loyola University Chicago. “This study was designed to test the feasibility of screening for major depression in cancer patients receiving radiation therapy. The ability of a two-question survey to effectively screen for depression will hopefully prompt more centers to screen and to refer patients in need of mental health services,” said Lynn I. Wagner, PhD, principal investigator of the study and an associate professor in the Department of Psychiatry and Behavioral Sciences at the Northwestern University Feinberg School of Medicine and the Robert H. Lurie Comprehensive Cancer Center at Northwestern University in Chicago.
The abstract, “RTOG 0841: Two Item Questionnaire Effectively Screens for Depression in Cancer Patients Receiving Radiotherapy,” will be presented at ASTRO’s Annual Meeting in the Plenary session at 2:00 p.m. Eastern time on Monday, September 23, 2013. To speak with Dr. Small or Dr. Wagner, contact Michelle Kirkwood on September 22 – 25, 2013, in the ASTRO Press Office at the Georgia World Congress Center in Atlanta at 404-222-5303 or 404-222-5304, or email michellek@astro.org.

ASTRO’s 55th Annual Meeting, held in Atlanta, September 22-25, 2013, is the premier scientific meeting in radiation oncology and brings together more than 11,000 attendees including oncologists from all disciplines, medical physicists, dosimetrists, radiation therapists, radiation oncology nurses and nurse practitioners, biologists, physician assistants, practice administrators, industry representatives and other health care professionals from around the world. The theme of the 2013 meeting is “Patients: Hope • Guide • Heal” and focuses on patient-centered care and the importance of the physician’s role in improving patient-reported outcomes and the quality and safety of patient care. The four-day scientific meeting includes presentation of four plenary papers, 363 oral presentations, 1,460 posters and 144 digital posters in 70 educational sessions and scientific panels for 19 disease sites/tracks. Keynote and featured speakers include: William B. Munier, director of the Center for Quality Improvement and Patient Safety at the Agency for Healthcare Research and Quality; Darrell G. Kirch, MD, president and CEO of the Association of American Medical Colleges; James Cosgrove, PhD, director of the U.S. Government Accountability Office; Otis W. Brawley, MD, chief medical officer of the American Cancer Society; and Peter Friedl, MD, PhD, of St. Radboud University Nijmegen Medical Centre at the University of Nijmegen and MD Anderson Cancer Center.

ABOUT ASTRO

ASTRO is the premier radiation oncology society in the world, with more than 10,000 members who are physicians, nurses, biologists, physicists, radiation therapists, dosimetrists and other health care professionals that specialize in treating patients with radiation therapies. As the leading organization in radiation oncology,
the Society is dedicated to improving patient care through professional education and training, support for clinical practice and health policy standards, advancement of science and research, and advocacy. ASTRO publishes two medical journals, International Journal of Radiation Oncology • Biology • Physics (www.redjournal.org) and Practical Radiation Oncology (www.practicalradonc.org); developed and maintains an extensive patient website, www.rtanswers.org; and created the Radiation Oncology Institute (www.roinstitute.org), a non-profit foundation to support research and education efforts around the world that enhance and confirm the critical role of radiation therapy in improving cancer treatment. To learn more about ASTRO, visit www.astro.org.

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2013 American Society for Radiation Oncology (ASTRO) 55th Annual Meeting
News Briefing, Monday, September 23, 2013, 8:30 - 9:15 a.m. Eastern time

Scientific Session: Monday, September 23, 2013, 2:00 – 3:10 pm ET, Georgia World Congress Center

3 RTOG 0841: Two Item Questionnaire Effectively Screens for Depression in Cancer Patients Receiving Radiotherapy

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Purpose/Objective(s): Depression among patients receiving radiotherapy (RT) for cancer has not been well evaluated. The feasibility of a screening procedure to detect major depression in patients receiving RT was assessed in a multi-institutional setting as an institutional care for psychosocial care services.

Materials/Methods: Depression screening was performed before/within 2 weeks of treatment for first diagnosis of any tumor. The screening evaluations included the 9-item Patient Health Questionnaire (PHQ-9 and with embedded PHQ-2), and the single item National Comprehensive Cancer Network-Distress Thermometer (NCCN-DT). Patients who screened positive and a systematic sample of patients who screened negative were administered the Structured Clinical Interview for DSM IV Disorders (SCID) Mood Disorder modules by telephone. Availability of psychosocial care at participating institutions was also collected.

Results: 463 patients were accrued from 37 sites (95% CCOPs) and 9 were ineligible. 298 (66%) were woman and the most common tumor was breast, 205 (45%). All eligible patients completed the screening questionnaires with 100% item completion; 75 (16%) screened positive for depressive symptoms. PHQ-9 screened 41 (9%) of patients positive (cut-off score ≥ 9) while the PHQ-2 screened 36 (7.9%) positive (cut-off score ≥ 3). The PHQ-2 and PHQ-9 demonstrated good psychometric properties for identifying major depressive episode (ROC area under the curve = 0.84 for both). The NCCN-DT (cut-off score ≥ 4) did not adequately detect depression (AUC=0.64). Most participating sites 25/32 (78% of available data) routinely screen patients at RT facility with 15/29 (51%) screening patients at initial visit. There were mental health services at RT facilities at 23/34 (68%) of sites however most sites 24/36 (67%) had only social workers and few had psychologists 6/36 (17%) or psychiatrists 8/36 (22%).

Conclusions: Screening for depression in RT settings was feasible and acceptable to patients. The PHQ-2 demonstrated psychometric properties equivalent to the PHQ-9 and superior to the NCCN-DT. PHQ-2 should be used to identify patients in need of further assessment and treatment for depression. Most sites had RT facilities equipped for psychosocial care. Supported by RTOG grant U10 CA21661 and CCOP grant U10 CA37422 from the National Cancer Institute (NCI)