The Komen Foundation: ACS Outreach Collaboration—Sentinel Lymph Node Biopsy Training for Practicing Surgeons in Remote or Underserved Communities

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Lymphatic mapping and sentinel lymph node biopsy (SLNBx) represents one of the most important advances in breast cancer surgery during the 20th century. First introduced in the 1990s,^{1,2} it has since been enthusiastically adopted by the surgical oncology community as a safe and accurate strategy for staging of the axilla, with less morbidity compared with conventional axillary lymph node

dissection (ALND).^{3,4} Unfortunately, minority-ethnicity women and those residing in medically underserved communities within the United States are known to face increased risks of advanced-stage disease and cancer mortality.⁵ It has also become clear that these women are less likely to have access to the most advanced surgical techniques for breast cancer, including lymphatic mapping. These disparities were demonstrated in a recent analysis of data from the Surveillance, Epidemiology and End Results (SEER) program,⁶ stating that African Americans, Hispanic and Latina Americans, and Asian Americans were significantly less likely to undergo sentinel lymph node biopsy compared with white Americans (odds ratios, 0.64, 0.58, and 0.80, respectively; $P < .0001$).

Disparities in access to lymphatic mapping became patently evident to the clinical trialists of the American College of Surgeons Oncology Group (ACOSOG). ACOSOG initiated a prospective study evaluating the long-term results of SLNBx in 1999; Protocol Z0010 was, “a prognostic study of sentinel node and bone marrow micrometastases in women with clinical T1 or T2 N0 M0 breast cancer.”⁷ The ACOSOG Special Populations Committee monitors accrual patterns onto ACOSOG trials, with a primary goal of optimizing study quality by insuring diversity among participants as well as clinical trial investigators. Within a couple of years after the Z0010 trial opened, concerns arose regarding inadequate representation among breast cancer patients treated in public hospitals (the “safety net” health care institutions) and in geographically remote regions. ACOSOG Special Populations Committee co-chair Anthony Lucci, MD, associate professor of surgery at The University of Texas M.D. Anderson Cancer Center in Houston, Texas, conducted an informal telephone survey of various public, private, and academic surgical

programs in the country. Lucci and colleagues found that lymphatic mapping programs were simply not available in many of the public hospitals that they contacted. “In comparison to the public hospitals, cancer centers and university-affiliated hospitals were approximately three times more likely to have a surgical staff that was skilled in SLNBx and able to offer this technology to their breast cancer patients,” reported Dr Lucci. Minority-ethnicity cancer patients tend to be more concentrated among patient populations of these safety-net facilities as a consequence of socioeconomic disadvantages, and they therefore are likely to be disproportionately affected by these access disparities.

The Special Populations Committee identified several explanations for these differences in access to lymphatic mapping. One contributing factor was related to the academic focus for many surgeons that staff large urban hospitals. These facilities are often most renowned for their critical care and trauma programs, and they therefore attract surgeons with a primary interest in this subspecialty. Since neither surgical oncology nor surgical critical care is a board-certified specialty, fully-trained general surgeons from the safety-net institutions are frequently expected to oversee the surgical management of the breast cancer patient population. The success of SLNBx for breast cancer is associated with a definite learning curve,⁸⁻¹¹ and there are a variety of different strategies for coordinating the various services (nuclear medicine; surgical staff; breast imaging) that are involved with an institutionally standardized lymphatic mapping program.¹² The Special Populations Committee hypothesized that public hospital general surgeons may be likely to invest their time and resources into developing a lymphatic mapping program for breast cancer if their primary expertise was focused on trauma surgery and critical care. The committee therefore obtained support through ACOSOG to develop and implement a program that would provide full sponsorship to surgeons from public hospitals for participation in a training course on sentinel lymph node biopsy for breast cancer and also on clinical trials participation.

The first course was supported by ACOSOG and was held at The University of Texas M.D. Anderson Cancer Center during the fall of 2002. Kelly K. Hunt, MD, Chief of the Surgical Breast Section at M.D. Anderson and ACOSOG Breast Committee chair, commented on the value of interacting with the surgeons participating in the initial course: “We were honored to work with these surgeons, who traveled from great distances to participate in this training program, and we look forward to welcoming other surgeons from diverse practices into ACOSOG membership. This type

of outreach definitely strengthens the overall effectiveness of the clinical trial mechanism.” This early success motivated the Special Populations Committee to formalize the course contents and to seek funding for a series of offerings. The Susan G. Komen Breast Cancer Foundation has generously provided financial support for this project during the past several years, during which time the courses have been held at the University of Michigan Comprehensive Cancer Center, where I chair the Special Populations Committee, and serve as the program director.

The Komen-sponsored course is designed as a 2-day program for four participating surgeons, and includes four basic components: (1) a series of formal lectures on the practice and the theory of lymphatic mapping; (2) didactic sessions on the conduct of human subjects research, clinical trials, and ACOSOG; (3) observation of the nuclear medicine components of mapping, including the isotope injections and lymphoscintigraphy; and (4) extensive intraoperative exposures to a variety of mapping surgical procedures. Rebecca Garcia, Vice President of Health Sciences for The Susan G. Komen Breast Cancer Foundation and member of the American Society of Clinical Oncology (ASCO) Disparities Task Force, commented on Komen’s commitment to supporting programs that overcome barriers to highest-quality breast cancer treatment: “The Komen Foundation has acknowledged disparities in access to breast cancer screening and treatment for many years, and we are proud to support this innovative program that improves breast cancer surgery as well as clinical trial opportunities among medically underserved communities.”

Thus far, the training program has hosted a total of 22 surgeons visiting from Anchorage, Alaska; Iowa; Mobile, Alabama; Houston, Texas; Brooklyn, New York; the Bronx, New York; Atlanta, Georgia; Detroit, Michigan; and Baltimore, Maryland. These surgeons have been identified via work with the National Association of Public Hospitals and via referrals from previous course participants. Participants have been generally pleased with their training course experiences, and they maintain contact with course leaders as well as more experienced ACOSOG members through a clinical trials “mentoring” type of relationship. All participants begin the ACOSOG membership application process during the training course. Course participants complete an evaluation form upon completion of the program, and 95% have expressed confidence in their ability to launch a lymphatic mapping program at their respective hospitals. Participants have been exuberant in their expressions of satisfaction with the course structure and content: “outstanding didactics”; “extremely well-organized”; and “very comprehensive” are a few of the comments that they have shared.

Benefits of the lymphatic mapping/clinical trials training program have been experienced by course lecturers as well. Alfred E. Chang, MD, Professor of Surgery and Chief of the Surgical Oncology Division at the University of Michigan,

For More Information

Course participation includes full sponsorship for travel, hotel, and meals. Course dates are arranged in conjunction with participant availability. For more information about participation in one of the upcoming training courses, please contact the office of the Program Director:

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Information about ACOSOG membership, which is based upon individual surgeon application, is available at www.acosog.org. ACOSOG is dedicated to the conduct of clinical trials designed to evaluate and improve the surgical management of patients with solid organ malignancies. ACOSOG conducts studies of breast, thoracic, gastrointestinal, sarcomatous, and neurosurgical tumors. Compensation for participation is provided on a per-patient-accrued basis.

For more information about The Susan G. Komen Breast Cancer Foundation and its outreach programs or funding opportunities, please visit the Foundation website, www.komen.org.

delivers the course lecture on “Fundamental Concepts of Human Subjects Research,” and interacts with participants through the operative experiences as well. Dr Chang has described the advantages of working with these visiting surgeons, stating that, “The opportunity to participate in this training program has been an eye-opening experience for all us, as we learn about the obstacles faced by our surgical colleagues in delivering optimal care to complex patient populations that are characterized by financial limitations, geographic constraints, and cultural differences that affect access to health care.”

A recurring theme among course participants in discussions of clinical trial participation within safety-net hospitals is concern regarding insufficient infrastructure to support the data management and regulatory demands. Many of the public hospitals struggle with borderline workforce volume to meet the basic needs of surgical scheduling, perioperative care, and follow-up within communities that are already

overburdened with economic limitations that preclude compliance and optimal long-term management. The leadership of ACOSOG, the Komen Foundation, and the lymphatic mapping training course all recognize that this program will not overcome all barriers to clinical trial participation among the medically underserved. However, opening up the channels of communication and establishing the collaborative ties between these facilities and the clinical trial cooperative groups is a critical first step. Furthermore, the provision of training in an exciting technology that

improves breast cancer survivorship has been a rewarding achievement in itself. All professionals involved in the training course look forward to the development of other projects that will advance clinical trial opportunities and improve cancer care in medically underserved and geographically remote communities.

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Maximizing Physician Efficiency: Reaching a Balance Between Inpatient Hospital Rounds and an Office-Based Practice

Many oncologists are rethinking their traditional practice of caring for both inpatients and seeing patients in a busy office. Medical oncology has long been a predominantly office-based specialty. Relentless increases in the personnel and the overhead expenses of office practice, and recent changes in reimbursement for chemotherapy and its administration, make it imperative for oncologists to maximize their productive office time. This often means less time available for traveling to the hospital and making inpatient rounds.

At the same time, the new hospitalist specialty has emerged. Hospitalist physicians devote their time to managing inpatients, and are often employed by a hospital or a hospital-based practice. They generally don't have ongoing relationships with patients or have oncology training, but are usually quite skilled at managing acute complications that patients with cancer may develop. As a consequence of these two trends, medical oncology practices are developing strategies to maintain quality patient care and financial viability.

New Hampshire Oncology-Hematology (NHOH), with nine physicians and five locations, admits patients to three hospitals and consults at three others. During their primary rounding day, physicians spend 3 to 4 hours in the hospital,

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with no clinical office responsibility. Denis Hammond, MD, practices at the Hooksett, New Hampshire, office. "If one of my patients is admitted with an unanticipated progression of the cancer, I want to see that patient even if it's not my rounding day," he says. "Therefore, on any one day, our [hospital rounding] model is a product of volume and acuity."

Oncologists, including some at NHOH, who have admitted to a hospitalist service, report uneven results. "Some problems require an oncological outlook," Hammond says. "The way we [as oncologists] respond to a medical problem in a person with cancer is different from the way we respond in general."

To overcome that obstacle and maximize practice efficiency, NHOH is contemplating hiring a physician to assume primary rounding duties. "An internist with special interest and training in oncology would serve us well because cancer