An Inflection Point in the Evolution of Oncologic Emergency Medicine

Knox H. Todd, MD, MPH*; Charles R. Thomas, Jr, MD

*Corresponding Author. E-mail: knox@emline.org, Twitter: @khtodd.

0196-0644/$-see front matter

http://dx.doi.org/10.1016/j.annemergmed.2016.03.008

A **podcast** for this article is available at www.annemergmed.com.

SEE RELATED ARTICLE, P. 706.

[Ann Emerg Med. 2016;68:712-716.]

INTRODUCTION

In what has become a near-weekly ritual, one of us (K.H.T.) receives an emotionally laden call about the plight of a loved one, colleague, or acquaintance with cancer who needs our help to navigate the labyrinth of emergency care. The patient may receive care at our comprehensive cancer center but become "stranded" in an emergency department (ED) outside the often rigid borders between our center and other health care systems. They may be only a few blocks away, or in another town, state, or country. Usually, after a flurry of calls or e-mails, the patient is accepted into one of our clinics. At times, the patient must sign out against medical advice to come directly to our ED. These exercises often end with the caller's tremendous expressions of gratitude, thanking us for being "miracle workers." However, it shouldn't take a miracle to communicate and deliver high-quality patient-centered care in the ED.

Every year, between 1 and 3 million US ED visits are related to cancer.[1] The visits may be the index presentation leading to an eventual cancer diagnosis. More commonly, such visits are prompted by symptoms resulting from cancer progression, treatment toxicities, or complications of surgery. These visits weigh heavy on our patients and often portend a worsening prognosis.

Because cancer is commonly a disease of aging, US EDs should expect to see increasing numbers of cancer patients and survivors as the population ages. Given projected shortages of cancer care providers, it is increasingly important for the emergency care community to better understand and expertly manage cancer emergencies. To fulfill the Triple Aim (improved patient experience, improved population health, and reduced health care costs) and effectively manage limited resources, we must foster transparent communication and collaboration between emergency physicians and the multiple professionals who participate in cancer care and research.[2] It is vital that emergency medicine nurture the next generation of oncologic emergency medicine clinicians, educators, and researchers to meet our patients' needs.

NATIONAL CANCER INSTITUTE/OFFICE OF EMERGENCY CARE RESEARCH WORKSHOP

We applaud Brown et al,[3] who summarize in this issue of *Annals* the National Cancer Institute and Office of Emergency Care Research for their effort to develop an agenda and establish an infrastructure to support oncologic emergency care research. The 1-day National Cancer Institute/Office of Emergency Care Research workshop discussed data needs and targeted specific emergency care topics for study, including neutropenic fever, sepsis, symptom management, and spinal cord compression. Much of the day focused on unmet palliative care needs, an area in which our specialty is primed to make major advances. Rest assured these topics serve only as a starting point.

Although the National Cancer Institute/Office of Emergency Care Research initiative suffers from the usual lack of dedicated federal funding for emergency care research, it is a great first step. We look forward to the continued growth of the Comprehensive Oncologic Emergencies Research Network (CONCERN) consortium and particularly to individual and sustained independent research careers' emerging from the network.

BEYOND CONCERN

Oncologic emergency medicine focuses on the discovery and application of time-critical diagnostics, decisionmaking, and treatments to save lives, reduce disability, and restore health among persons with cancer.

Traditionally, emergency medicine training has focused on a limited number of clinical oncologic emergencies and their varied presentations. As oncologic emergency medicine matures, our specialty has the opportunity to address cancer care more broadly and systematically, ideally within a population-based, comprehensive cancer care

system. Through such efforts, we can recapitulate past successes in systems-based trauma, cardiac, and stroke care, all of which save lives.

To establish oncologic emergency medicine as a more comprehensive force, we must better understand the systems and contextual issues surrounding cancer care. Our goals are more likely to be realized if we pursue broadly based long-term strategies, developing a playbook (macro level) based on the priorities we have discussed that is readily adaptable (similar to calling an audible) to the individual patient or provider (micro level).

EDs have important roles to play throughout the natural history of cancer, involving primary prevention and secondary screening efforts, as well as acute and palliative care. As always, we must also address economic drivers of cancer care while adhering to the Triple Aim to help create and sustain our research programs (Figure).

Prevention

Consider our role in primary and secondary cancer prevention. Emergency medicine investigators have studied exposure to several potential cancer risk factors, including tobacco,[4] obesity,[5] alcohol,[6] air pollution,[7] and human papilloma virus.[8] More than 2 decades ago, we conducted the National Emergency X-Radiography Utilization Study to better define the role of cervical spine radiography in blunt trauma. Indeed, one of the supporting rationales for the study was to prevent iatrogenic thyroid cancers.[9] At the specialty level, emergency medicine initiatives continue to target excessive exposure to cancer-causing ionizing radiation.[10]

In regard to secondary prevention, early emergency medicine cancer-related literature highlighted the poor prognosis for cancer diagnoses made in the ED, terming the phenomenon "a failure of primary care."[11] Given poor access to screening services among patients we serve, a number of investigators have examined the role of emergency medicine in breast, cervical, and colorectal cancer screening.[12,13]

Acute Care

In addition to our traditional focus on acute treatment of cancer emergencies, we should enumerate and examine cancer-related ED visits for opportunities to improve upstream cancer care. Although not all ED visits are avoidable, many result from toxicities of anticancer treatments and complications of surgery that can be prevented. Regional variations in chemotherapy-related ED visits can vary as much as 4-fold, suggesting a particularly promising target for quality improvement and cost reduction.[14,15]

A larger number of ED visits can likely be prevented by the development of oncology-specific, patient-centered medical homes. To aid transitions of care, the medical home model can complement improved discharge planning and patient-centered communication about expectations during the immediate posthospital window. At least 1 patient-centered medical home reported a 68% decrease in

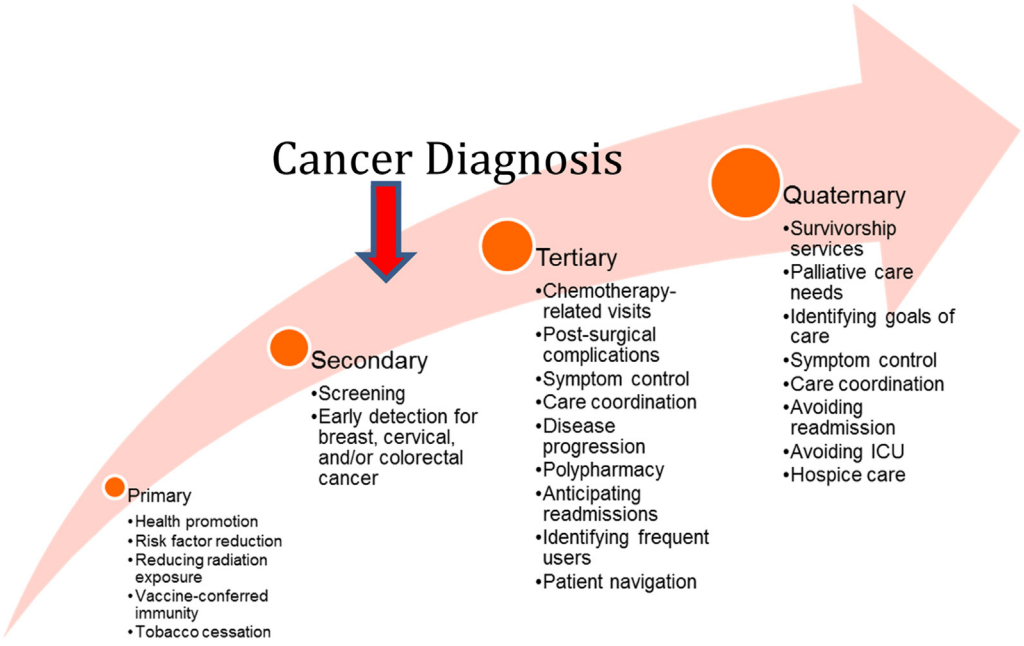

Figure. The scope of oncologic emergency medicine.