EDITORIAL

When is Age More Than Just a Number?

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Adults living in industrialized societies tend to live and work longer, marry later, and start their childbearing at older ages. This shift in the distribution of traditionally “youthful” personal and professional responsibilities to the shoulders of chronologically more mature adults has prompted dissemination of the adage “age is just a number.” The underlying message, of course, is that one can reap the benefits of “the good life” for as long as one exhibits the desire and energy expenditure to do so.

However, when it comes to health and delivery of health care, age very clearly becomes a critical factor in assessing medical risks and outcomes. Furthermore, in an environment of economic turmoil and frailty, age (at both the younger and older ends of the spectrum) becomes an easy target for rationing of services in order to limit costs. These issues are particularly apparent in the area of oncology, as evidenced by two articles appearing in this month’s *Annals of Surgical Oncology*, and they have also surfaced in the highly publicized debate regarding screening mammography.

Population-based statistics clearly demonstrate that the incidence rates for most solid organ malignancies rise with increasing age. Intuition and common sense suggest two widely accepted medical precepts: (1) that aggressive multimodality cancer treatment will exact a higher toll on the eldest of patients and (2) that younger cancer patients are afflicted with the most biologically aggressive tumors that have managed to escape our normal immunologically based cancer surveillance and sterilization systems. It therefore seems logical that the youngest cancer patients would have the strongest risk-to-benefit ratios favoring aggressive combinations of surgery, chemotherapy, and radiation therapies. On the other hand, we would not want to arbitrarily deny curative-intent treatment from the elder

patients who are physically fit on the basis of age alone. Cancer treatment does not necessarily force every individual to look and act their age from a medical perspective. Many older patients will not only tolerate aggressive therapy, but they will thrive as a productive subset of society, making valuable contributions as elder statesmen, senior professionals and academicians, mentors, and grandparents or great-grandparents. Can we replace or supplement age as “just a number” with a descriptor of medical status as a function of comorbidities, as suggested by Zhang et al.¹

Two manuscripts from this issue of *Annals of Surgical Oncology* support the importance of looking beyond age as number that might dogmatically preclude curative-intent surgery for either a common malignancy such as breast cancer or a less common tumor such as esophageal cancer. Laki et al. compared outcomes following breast cancer surgery for patients ≥ 80 years, 75–80 years, and 70–75 years, finding results that were similar between these age categories and comparable to those reported in the medical literature for younger patients.² Pultram et al. evaluated extended transthoracic esophagectomy in patients < 70 years compared with those ≥ 70 years and found that outcomes were comparable even for this challenging and technically demanding operation, as long as the elder patients were appropriately selected on the basis of overall medical fitness.³

Interestingly (and somewhat paradoxically), at the same time that we are amassing data in support of turning a blind eye to older age as an automatic contraindication to cancer treatment, we are also witnessing a movement toward using younger age as a rationale for limiting cancer screening efforts. The US Preventive Services Task Force recently convened a panel of “experts” (an accomplished group of outcome researchers, biostatisticians, and primary care physicians, but a panel notably devoid of dedicated clinical breast oncologists) to review the evidence regarding the risks and benefits of screening mammography.^{4–7} This group proceeded to publish a document that gained immediate

notoriety because of its recommendation that the “harms” (defined by the USPSTF as psychological harms, unnecessary imaging tests, and the potential for false positive results) of routine annual mammography outweighed the documented mortality reduction benefits of mammographic screening in women aged 40–49 years. While the expert panel of the USPSTF never specifically stated that their updated recommendations were motivated by efforts to decrease or ration health care, speculation regarding this association abounds.

Reaction to the USPSTF has ranged from acceptance to outrage, with many oncology and advocacy organizations issuing press releases advocating in favor of continuing annual mammography for women in their forties. The American Cancer Society summarized the debate: “With its new recommendations, the USPSTF is essentially telling women that mammography at age 40 to 49 saves lives; just not enough of them. The task force says screening women in their 40s would reduce their risk of death from breast cancer by 15 percent, just as it does for women in their 50s. But because women in their 40s are at lower risk of the disease than women 50 and above, the USPSTF says the actual number of lives saved is not enough to recommend widespread screening. The most recent data show us that approximately 17 percent of breast cancer deaths occurred in women who were diagnosed in their 40s, and 22 percent occurred in women diagnosed in their 50s. Breast cancer is a serious health problem facing adult women, and mammography is part of our solution beginning at age 40 for average risk women.”⁸

At the level of health care providers and patients alike, confusion and complexity reign supreme: what to do with age? Do we use older age as a reason to limit cancer care? Do we use younger age as a reason to limit screening? We want our patients to survive their cancer diagnoses and treatment with a satisfying and high quality of life. It makes sense to analyze the evidence regarding the impact of our therapeutic oncologic interventions on not only quantity of survival time but also quality of survivorship gained by those interventions for the older patient. These analyses satisfy our Hippocratic oath to “First do no

harm.” On the other hand, is it sensible or even reasonable to question the appropriateness of mammography with its well-documented and widely accepted (even by the USPSTF) breast cancer early detection benefits in young women because of a poorly defined balance between risks of false positive studies and adequacy of number of young lives saved? Surgical complication rates, survival rates, and false positivity rates can all be quantified and compared, but how do we set thresholds for when a screening modality saves “enough” lives? For better or worse, age will continue to be interjected into controversial arguments regarding both indications and contraindications for cancer care screening as well as treatment.

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