LETTERS

Comment on “Educating Our Students About Pharmaceutical Care for Those Living With Cancer”

To the Editor. We read with great interest the recent Viewpoint entitled “Educating Our Students About Pharmaceutical Care for Those Living With Cancer.”¹ In the commentary, Anderson and colleagues highlight the importance of properly preparing student pharmacists for involvement in the long-term care of cancer patients. In the United States, 1 in 3 women and 1 in 2 men will develop cancer in their lifetime.² In 2008, there were an estimated 13 million newly diagnosed cases of cancer worldwide.³ We agree that pharmacists play a vital and rapidly increasing role in the management of patients with malignancy. Although oncology practice in pharmacy has traditionally been the realm of specialists, the increasing ability to manage many cancers as chronic diseases (often by using oral oncolytic agents and concomitant supportive care therapies) has moved anticancer treatment into mainstream pharmacy practice. Given these advances, it is no longer sufficient to leave oncology pharmacy practice to the specialists; pharmacists in all practice settings must be adequately prepared to care for cancer patients across the care continuum from initial diagnosis to end-of-life care.

Anderson and colleagues ask whether academic pharmacy is adequately educating students to communicate with cancer patients and to deliver pharmaceutical care for those living in the community. Unfortunately, little guidance has been provided to colleges and schools of pharmacy regarding the optimal approach to teaching the complex topics of oncology pathophysiology, immunology, pharmacology, pharmacogenomics, and pharmacotherapy. In the United States, the Standards and Guidelines of the Accreditation Council for Pharmacy Education provide no direction on cancer/oncology as curricular content for the science foundation of the curriculum.⁴ In 2009, the American College of Clinical Pharmacy published a “didactic curriculum toolkit” to provide guidance for classroom lecture-based pharmacotherapy content.⁵ Although the toolkit advocates inclusion of broad cancer topics in the curriculum (eg, solid tumors, hematologic malignancies), no other recommendations are provided.

We surveyed US colleges and schools of pharmacy to examine current approaches to teaching oncology pathophysiology and pharmacotherapy.⁶ Seventy-two (62%) of the 116 institutions we contacted provided responses. The results indicated wide variability in the emphasis that

schools place on teaching this content: a median of 28 contact hours were reported (range 8 to 108 hours). Two-thirds of respondents who reported fewer than the median number of hours expressed no need to dedicate more time to this content area. Although the optimal number of contact hours should be determined by individual schools, it seems unlikely that graduates who receive less than the equivalent of 1 credit hour of oncology coursework will be adequately prepared to provide complex care to cancer patients in the community.

In addition to measuring quantity of exposure to oncology subjects in classroom lecture curricula, we examined the background of individuals responsible for teaching oncology content and the availability of oncology advanced pharmacy practice experiences (APPEs). Sixty percent of colleges and schools reported using board-certified oncology specialists as instructors for oncology topics; however, 15% reported using pharmacy faculty members who did not practice in oncology or physicians to teach oncology subjects. More than 20% of respondents did not employ any faculty member specializing in oncology. In our survey, most responding schools reported offering 1 or more APPEs in oncology, but these opportunities were not available to every student because of the limited number of oncology practice sites and preceptors.

The rapid pace of scientific advancements related to outpatient oncology patient care and oral medications make it mandatory that pharmacy graduates are competent to manage cancer as a chronic disease in community settings. The curricula of colleges and schools of pharmacy should include an appropriate balance of classroom courses and practice experiences, taught by faculty members with practice expertise and credentials in oncology, to provide students with the requisite knowledge, skills, and abilities.

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REFERENCES

1. Anderson C, Plevin D, McKinnon R. Educating our students about pharmaceutical care for those living with cancer. *Am J Pharm Educ.* 2012;76(7):Article 119.

2. Siegel R, DeSantis C, Virgo K, et al. Cancer treatment and survivorship statistics, 2012. *CA Cancer J Clin.* 2012;62(4):220-241.
3. Jemal A, Bray F, Center MM, et al. Global cancer statistics. *CA Cancer J Clin.* 2011;61(2):69-90.
4. Accreditation Council for Pharmacy Education. Accreditation standards and guidelines for the professional program in pharmacy leading to the doctor of pharmacy degree. <https://www.acpe-accredit.org/standards/default.asp>. Accessed September 16, 2012.
5. Slain D, Wong-Berringer A, Blake B, et al. Pharmacotherapy didactic curriculum toolkit 2009. <http://www.accp.com/docs/positions/misc/PharmacotherapyToolkit.pdf>. Accessed September 16, 2012.
6. Newton MD, Green MR, Campen CJ, Schwinghammer TL. Teaching oncology pharmacotherapy: focus on cancer as a chronic disease. *Curr Pharm Teach Learn.* 2012;4(1): 52-59.