LETTERS

The Fungal Meningitis Tragedy: Implications for Pharmacy Education and the Profession

To the Editor. The fungal meningitis tragedy ¹ has brought to light quality control issues surrounding the compounding of medicines. While the aftermath of this tragedy is bound to have serious ramifications, our thoughts and prayers first go out to the patients and families who were affected.

Trust has been the cornerstone of the pharmacy profession as we are responsible to the public to provide safe medicines and accurate information. We take an oath to act in the public's best interest and put their needs and safety first. The foremost question that arises is to what extent that trust has been violated and the covenantal relationship between pharmacists and the public been strained? Unfortunately, if the powers that be do not think that we can keep our house in order, it will be put in order by external forces.

We must now turn our attention toward preventing a recurrence of this tragedy. Multiple approaches are necessary to minimize the risk of recurrence. The immediate need is to improve the quality control and technical aspects of bulk compounding. If pharmacists want to remain in control of this aspect of compounding, they will need to adhere to higher technical standards that may be mandated by the Food and Drug Administration (FDA) and encouraged by internal controls of the profession. This segues into the need to reassess our educational programs to make sure we are providing an all-around education that ensures that our graduates are effective in their roles as citizens and practicing pharmacists.

Historically, pharmacists have been regarded by consumers as one of the most trusted professions. We need to live up to that reputation by making sure that pharmacy education is creating well rounded graduates. With compounding training being eliminated in all but a handful of schools, it raises the question of whether there should be a separate compounding examination for pharmacists who would like to practice in that area. New York is one of the few states that requires a compounding examination for all new pharmacists, but it can still be circumvented by completing a year of practice in a neighboring state.

We need to also reassess some the elements of pharmacy education. The covenantal relationship that we take an oath to uphold depends upon our self-regulation and has helped to make our profession one of the most trusted. We need to make sure that we are incorporating the appropriate elements in our curriculum in terms of the humanities and social sciences. A survey of the pharmacy curricula will

indicate whether we are educating pharmacy students about the importance of ethics and professionalism. We also need to consider whether we are providing appropriate role models for students and exposing them to the humanistic principles that shape a professional practitioner.

We constantly have to look at where we are in pharmacy education. Have we streamlined our curriculum to the point that, in order to provide the best possible clinical and biomedical education, we have jeopardized the focus on the social and humanistic disciplines? A cursory review of the *American Journal of Pharmacy Education* revealed few articles discussing the social science aspects of the modern pharmacy curriculum. We cannot afford to lose ground in educating students on the aspects of ethics, professionalism, and standards of practice. We are making remarkable strides in incorporating new information such as pharmacogenomics, translational medicine, and nanopharmaceuticals, and newer practice paradigms like medication therapy management and collaborative drug therapy management. However, we cannot lose sight of the basics that teach self-regulation of the profession.

Compounding pharmacy has some legal gray areas. Providing professional guidelines helps practitioners work in these areas. A special problem may be that a number of colleges and schools of pharmacy do not provide a laboratory education focusing on compounding prescriptions. Pharmacy, however, has done a commendable job in developing self-regulation guidelines. A good example of this is the pharmacy profession's effectiveness in identifying and rehabilitating impaired pharmacists.

Perhaps a way forward is to have an accreditation procedure for compounding pharmacists that demonstrates a high level of competence. State boards may also require a certification for pharmacies who do bulk compounding. Whether we want it or not, increased FDA control of compounding will be imposed in the near future. We, however, are in control of the pharmacy education process and we need to reemphasize important elements of professionalism that define our covenantal relationship with those that we serve.

Patrick Miederhoff, PharmD, PhD

Arjun Dutta, PhD

Ajoy Koomer, PhD

Patient First Medical Center, Richmond VA

Touro College of Pharmacy, New York

Sullivan University

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