



# The Pharmacist Activist

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Editorial

## Pharmacy as a Career Choice?

# YES!

Congratulations  
to the  
Pharmacy Class  
of 2013!

Choosing pharmacy as a career was the fourth best decision I ever made. Now before you wonder why this decision wasn't higher than fourth best, you need to know my other best decisions – my faith as a Christian, marrying my wife Suzanne (also a pharmacist), and our opportunity to have children. It is in this context that I also consider my choice of pharmacy as a career to be an excellent decision.

During most of my experience in pharmacy, employment opportunities for pharmacists and student pharmacists have been readily available. However, the “job market” for pharmacists has tightened considerably during the last several years in many parts of the country. Many 2013 pharmacy graduates have not yet identified a full-time employment opportunity. Some

within the profession of pharmacy are pessimistic about the factors that have caused this situation and anticipate that circumstances will not improve and could worsen in the foreseeable future. I recognize the validity of certain of these concerns and have or will address them in other editorials. However, I believe that the potential exists for pharmacists to assume expanded responsibilities for the provision of medications and related services, and wish to be optimistic that our profession will be successful in developing these opportunities, notwithstanding the challenges that exist.

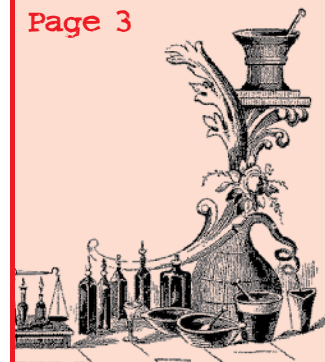
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## Career choice

There have been occasions in which I have heard pharmacists remark that they would not encourage their children to study pharmacy. I am saddened by such comments that usually result from a stressful and unfulfilling employment experience. I would have been very pleased if all three of our sons would have studied pharmacy. One did, but I am also thankful that the other two made career choices that were a better match for their abilities and interests.

With the current and future uncertainties regarding employment opportunities for pharmacists, I am asked with increasing frequency whether I still highly recommend pharmacy as a career choice to young people who are making these decisions. My response is an emphatic YES!

The profession of pharmacy provides a wide range of opportunities in practice, scientific, and administrative responsibilities. A pharmacy education provides a strong foundation that prepares one to assume diverse responsibilities not only within pharmacy, but also blended with other disciplines such as public health, medicine, law, and management.

## Improving drug-therapy outcomes

In my long-term experience, there has never been a greater need than exists now for the expertise and services that pharmacists are in a position to provide. The elderly are the fastest growing segment of the population and it is the elderly who use more medications than anyone else. These medications are increasingly complex, and greater expertise and time are needed to assure that patients understand how to use their medications as effectively and safely as possible.

## Drug-related problems

The frequency of drug-related problems such as medication errors, adverse events, drug interactions, and nonadherence, and their resultant harm and costs, must be greatly reduced. Pharmacists have the expertise and strategic position in providing medications and the appropriate counseling and monitoring to assume a leadership role in preventing drug-related problems. While important questions exist regarding the roles of pharmacists and other health professionals and the strategies to be developed, there is no question regarding the magnitude and importance of the need to effectively address the unacceptable situation that currently exists.

## Opportunity

Opportunity surrounds us as individual pharmacists and as a profession. Yes, there are formidable challenges in developing a “system” in which our expertise and commitment are utilized most effectively on behalf of individual patients and society, in attaining recognition of the value of our services and appropriate compensation, and in increasing the availability of positions that are fulfilling and motivating professional experiences. The overarching challenge is to turn the opportunity into reality. This requires the progressive involvement of our professional associations on behalf of the profession of pharmacy. However, it also requires the commitment of pharmacists as individuals to be members and active participants in our professional associations, to maintain their professionalism and motivation, to be dissatisfied with the *status quo*, to embrace opportunity, innovation, and entrepreneurship, and to volunteer some of our time for the benefit of others.

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# New Drug Review

## Apixaban (Eliquis – Bristol-Myers Squibb)

### Anticoagulant

**New Drug Comparison  
Rating (NDCR) = 4**

*(significant advantage[s])  
in a scale of 1 to 5 with 5  
being the highest rating*

#### Indication:

To reduce the risk of stroke and systemic embolism in patients with nonvalvular atrial fibrillation.

#### Comparable drugs:

Warfarin, dabigatran (Pradaxa), rivaroxaban (Xarelto).

#### Advantages:

- Is more effective (compared with warfarin; has not been directly compared with dabigatran and rivaroxaban in clinical studies);
- Less risk of bleeding reactions;
- Interacts with fewer medications (compared with warfarin);
- Less need for monitoring and dosage adjustment (compared with warfarin).

#### Disadvantages:

- Is administered more frequently (twice a day compared with once a day with warfarin and rivaroxaban);
- Labeled indications are more limited (warfarin is also indicated for prophylaxis and/or treatment of thromboembolic complications associated with cardiac valve replacement, the reduction of the risk of death, recurrent myocardial infarction [MI], and thromboembolic events after an MI, and the prophylaxis and/or treatment of venous thrombosis and its extension, and pulmonary embolism; rivaroxaban is also indicated for prophylaxis of deep vein thrombosis which may lead to pulmonary embolism in patients

- undergoing knee or hip replacement surgery);
- Antidote is not available (whereas vitamin K is the antidote for an excessive response to warfarin).

#### Most important risks/adverse events:

Contraindicated in patients with active pathological bleeding; risk of bleeding (risk factors include the concomitant use of other medications that may be associated with bleeding events [e.g., aspirin, nonsteroidal anti-inflammatory agents, antiplatelet agents, selective serotonin reuptake inhibitors]); discontinuation of treatment may increase the risk of stroke (boxed warning; coverage with another anticoagulant should be strongly considered); is a substrate of CYP3A4 and P-glycoprotein (action may be reduced by strong inducers of CYP3A4 and P-gp [e.g., carbamazepine, St. John's wort] and concomitant use should be avoided; action may be increased by strong inhibitors of CYP3A4 and P-gp [e.g., clarithromycin, itraconazole] and dosage of apixaban should be reduced).

#### Most common adverse events:

Major bleeding events (2%; compared with 3% with warfarin), clinically relevant nonmajor bleeding events (2%; compared with 3% with warfarin).

#### Usual dosage:

5 mg twice a day; a lower dosage of 2.5 mg twice a day is recommended in patients with any two of the following characteristics: age 80 years or older, body weight of 60 kg or less, and serum creatinine of 1.5

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If I was making the decision today, would Pharmacy be my career choice again? Absolutely, without hesitation! And I would enthusiastically recommend this choice for the young people who are making career decisions now. The opportunities transcend the challenges!

### The class of 2013

I have the privilege of serving as a teacher at the Philadelphia College of Pharmacy. I prefer the term “teacher” to “faculty member” as I feel that it better captures what I hope has been the experience of my students in learning not only from the course information I share with them but also from my experiences, perspectives, and enthusiasm. I am grateful for what I learn from them.

As we approach the celebration of the graduation of the Class of 2013, I pay tribute to the accomplishments of our new graduates. I have full confidence that they will provide the commitment and leadership that will serve our profession and society well. I know that my colleagues in all of our colleges of pharmacy share my pride and enthusiasm in anticipating how our new graduates will move our profession forward.

## Congratulations to the Pharmacy Class of 2013!

Daniel A. Hussar

## New Drug Review (cont.)

mg/dL or greater; the lower dosage of 2.5 mg twice a day is also recommended in patients also taking a strong dual inhibitor of CYP3A4 and P-gp (in patients already being treated with a dosage of 2.5 mg twice a day, concurrent use of a dual inhibitor should be avoided); if treatment must be discontinued for a reason other than pathological bleeding, coverage with another anticoagulant should be considered (treatment with both a parenteral anticoagulant and warfarin should be initiated at the time the next dose of apixaban would have been administered; the parenteral anticoagulant should be discontinued when the international normalized ratio [INR] reaches an acceptable range).

### Products:

Tablets – 2.5 mg, 5 mg.

### Comments:

Like rivaroxaban, apixaban is a factor Xa inhibitor anticoagulant, whereas dabigatran is a direct thrombin inhibitor and warfarin is a vitamin K antagonist. Apixaban was determined to be superior to warfarin for the primary study endpoint of reducing the risk of stroke and systemic embolism, that was primarily attributable to a reduction in hemorrhagic stroke and ischemic strokes with hemorrhagic conversion. Apixaban treatment also resulted in a significantly lower rate of all-cause death.

Daniel A. Hussar

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