



# The Pharmacist Activist

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Editorial

## We Have **TOO MANY** Colleges of Pharmacy!

**T**wo years ago I wrote an editorial in which I predicted that the shortage of pharmacists would become a surplus in 2015 unless major changes (that would enable much greater utilization of the knowledge and skills of pharmacists) occurred in the practice of pharmacy very soon. Well, if major changes in practice can be said to be occurring as more than isolated examples, they are occurring at far too slow a pace. And, in 2010, a surplus of pharmacists exists in many parts of the country. My prediction of 2015 badly missed the mark – I thought we would have more time to address the extremely important issues that are intertwined with the balance between the number of pharmacists and the number of available positions.

We can identify the rapid emergence of the economic challenges of the last two years as the primary factor in accelerating the occurrence of a surplus of pharmacists. However, this is too convenient an excuse for the failure of our profession to effectively address in a timely manner the important issues that have been evolving right in front of us and with our full knowledge. Notwithstanding some predictions of a shortage of pharmacists for many years to come, many of us have recognized that a

surplus of pharmacists was coming. We just did not anticipate how soon it would arrive. And now addressing the important related issues assumes much greater urgency.

### New colleges of pharmacy

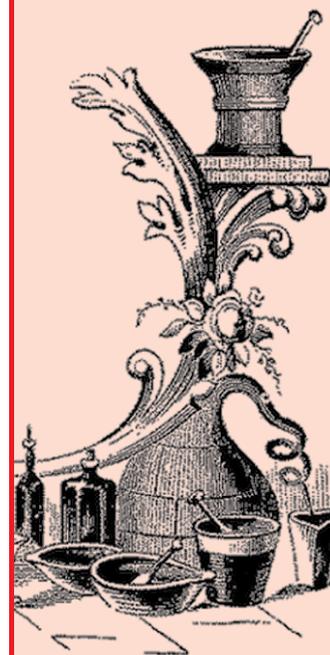
The rapid increases in the number of new colleges of pharmacy and the number of pharmacy graduates provide the most quantifiable parameters in the complex equation of the shortage/surplus balance. It has become a tradition at the annual meetings of the American Association of Colleges of Pharmacy (AACCP) to introduce the representatives of a handful of new colleges of pharmacy. They are applauded – they are good people at good institutions. However, at the risk of violating the courtesy that the academic community strives to maintain, I must raise the question that is never asked. Is there a need or unique opportunity for that new college of pharmacy? In some situations, the answer is clearly “yes.” In some other situations, the answer is just as clearly “no.” For some new colleges of pharmacy, a large chain pharmacy has been a primary source of initial financial support and a message that there is a serious shortage of pharmacists in the region. The claim of a shortage is often undocumented or supported with statistics that are no longer valid.

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These observations should not be interpreted as opposition to the establishment of any new colleges of pharmacy. Indeed, for certain of the new colleges, the need and supporting justification are well documented. I also anticipate that there will continue to be additional selected situations in which it will be highly desirable to start a new college of pharmacy (e.g., in large geographic areas without a college of pharmacy, colleges that provide innovative and/or distinctive programs or experiences [e.g., based on culture, faith, language]). However, I have great concerns that the profession will soon reach the point at which it can not effectively assimilate the number of pharmacists who are graduating, with the additional realization that some of the new colleges have not yet graduated their first class.

It was not a magic or ideal number but the figure that is etched in my memory is 72 colleges of pharmacy. This number remained constant for the several decades prior to the late 1980s but since then the number has grown to more than 120. In my opinion we now have too many colleges of pharmacy, but the number is still growing!

It is not just the new colleges of pharmacy that are responsible for the significant increase in the number of pharmacists entering the workforce. Many of the previously established colleges of pharmacy have significantly increased their pharmacy enrollments, and some have established additional campuses within their states.

## Implications of a surplus

If a large surplus of pharmacists occurs, unemployment and lower salaries will result. Chain pharmacies are the largest employers of pharmacists. When they have multiple applications for each position, they will be even less willing than they are now to consider concerns voiced by their pharmacists about prescription volumes, staffing levels, and the workplace environment. Their response will be, "If you don't like it here, ..."

Not as many young people will consider pharmacy as a career opportunity, the number of applications to colleges of pharmacy will drop, enrollment shortfalls will be experienced, admission standards will be lowered at some colleges, and some colleges will close. These challenges will be experienced not just by the new schools (some of which have innovative programs that make them very competitive), but also by the older schools (some of which have not implemented progressive changes).

There may actually be some benefits associated with a surplus of pharmacists. Even though there are formidable challenges in owning independent pharmacies, I anticipate that there will be a larger number of pharmacists who will seek entrepreneurial opportunities and provide comprehensive and personalized services in their own pharmacies. In a tighter job market, a larger number of pharmacists will make a strong commitment to their personal, professional growth for the purpose of having a competitive edge in being considered for employment opportunities. Some have suggested that the high starting salaries that pharmacists currently enjoy has resulted in a high level of acceptance of the *status quo* and little motivation to pursue change for the betterment of individual pharmacists and the profession as a whole.

## Who should be addressing these issues?

Many would immediately respond to this question by identifying the Accreditation Council for Pharmacy Education (ACPE) and suggesting that it should not accredit as many programs. However, if a university wishes to start a new college of pharmacy, meets the pertinent accreditation and other requirements and standards, and follows the designated procedures, the ACPE must respond and act in a manner that is consistent with the standards and policies it has used in accrediting existing programs. To do otherwise invites allegations that it is exercising different standards and is selectively restricting new programs.

What about the AACP? The options for the AACP are also limited but not to the same degree that limit the ACPE. If the AACP was to actively discourage a university from starting a new college of pharmacy, it could be viewed as a conflict of interest designed to protect the interests and programs of its current members. However, what the AACP should do, in my opinion, is to develop a comprehensive document that identifies the pertinent information, issues, and concerns that should be thoroughly evaluated by any university that is considering starting a new college of pharmacy.

## Even more important issues

This discussion has had a primary focus on numbers – of colleges, of pharmacists, and of employment opportunities. However, numerous related issues must be considered concurrently. The quality and outcomes of the pharmacy educational programs are very important determinants of the scope and depth of the services that pharmacists will be able to provide, and this will drive patients' and payers'

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# New Drug Review

## Denosumab (Prolia – Amgen)

### Agent for Osteoporosis

**New Drug Comparison Rating (NDCR) = 4**  
*(significant advantages in a scale of 1 to 5, with 5 being the highest rating)*

#### Indication:

Administered subcutaneously for the treatment of postmenopausal women with osteoporosis at high risk of fracture (defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or patients who have failed or are intolerant to other therapies for osteoporosis).

#### Comparable drugs:

Alendronate (e.g., Fosamax), ibandronate (Boniva), risedronate (Actonel), zoledronic acid (Reclast).

#### Advantages:

- Has a unique mechanism of action (prevents a protein [RANKL] from activating its receptor on osteoclasts);
- May be effective and/or better tolerated in some patients who have failed or can't tolerate other therapies;
- Has been demonstrated to reduce the incidence of nonvertebral and hip fractures, as well as vertebral fractures (compared with ibandronate for which effectiveness has been demonstrated in reducing vertebral fractures);
- Is administered less frequently (compared with alendronate, ibandronate, and risedronate);
- Is administered subcutaneously (compared with zoledronic acid that is administered intravenously).

#### Disadvantages:

- Labeled indication is more limited (i.e., for patients at high risk of fracture; not indicated for prevention of osteoporosis);

- Has fewer labeled indications (compared with alendronate, risedronate, and zoledronic acid that are also indicated for the treatment of osteoporosis in men, glucocorticoid-induced osteoporosis, and Paget's disease);
- Has not been directly compared with other agents in clinical studies;
- Has a greater risk of being associated with the occurrence of serious infections;
- Must be administered parenterally (compared with alendronate, ibandronate, and risedronate);
- Must be administered by a health professional (compared with alendronate, ibandronate, and risedronate).

#### Most important risks/adverse events:

Contraindicated in patients with hypocalcemia (pre-existing hypocalcemia should be corrected before initiating treatment; supplementation with calcium and vitamin D should be provided); serious infections may occur (e.g., skin, abdominal, urinary tract, ear, endocarditis); dermatologic reactions (e.g., dermatitis, eczema); osteonecrosis of the jaw (ONJ); oral exam should be performed prior to initiating treatment with a dental exam considered for patients with risk factors for ONJ; patients should be advised to inform their dentist about their treatment before having dental work done).

#### Most common adverse events:

Back pain (35%), pain in extremity (12%), musculoskeletal pain (8%), cystitis (6%), hypercholesterolemia (7%).

recognition of the value of these services and their willingness to provide compensation. Our educational programs must not only provide knowledge and skills, but must also instill the motivation and determination in graduates to apply what has been learned and extend their opportunities.

The highest priority must be given to having a much larger number of pharmacists providing comprehensive services to patients, and being paid for it. We have been talking about this for many years, but the need for bold and comprehensive action on the part of our entire profession is now more urgent. A strong case can be made that a larger financial commitment for services of pharmacists will not only improve the effectiveness and safety of drug therapy for patients, but also will be effective in reducing overall health care costs, because the number of drug-related problems and the associated costs of managing them will be greatly reduced. And what we now anticipate as a surplus of pharmacists will be well utilized.

A great need for effective medication therapy management is well recognized. Pharmacists are well prepared and strategically positioned to effectively address this need. If we don't, someone else will have to. We have observed the increase in the roles and numbers of physician assistants and nurse practitioners. There is concern about a shortage of family practice physicians. The profession of medicine is responding, in part, by opening new medical schools (a story with a familiar ring – two new medical schools in my area alone). What are the implications for the great opportunity that exists for pharmacy now?

Daniel A. Hussar

## New Drug Review (cont.)

### Usual dosage:

Should be administered by a health professional and is administered subcutaneously in the upper arm, upper thigh, or abdomen; 60 mg once every 6 months; calcium (1000 mg) and vitamin D (at least 400 IU) should be taken daily.

### Products:

Single-use prefilled syringes and single-use vials – 60 mg/mL in a volume of 1 mL (should be stored in a refrigerator).

### Comments:

Denosumab is a human monoclonal antibody that binds to receptor activator of nuclear factor kappa-B ligand (RANKL) and prevents it from activating its receptor on the surface of osteoclasts, with a resultant decrease in bone resorption and increase in bone mass and strength. Its effectiveness was demonstrated in placebo-controlled studies, in which it reduced the incidence (denosumab and placebo groups, respectively) of new fractures at year 3 of vertebral (2.3%; 7.2%), nonvertebral (6.5%; 8%), and hip (0.7%; 1.2%) fractures.

Daniel A. Hussar

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