Teams are the key to providing high quality geriatric care. They differ from working groups or the classical medical referral system in that they consist of small groups of persons with complementary skills committed to working closely together to improve patient care. Each member of the team is accountable for the work of the whole and therefore for the work of the other individuals. High quality communication and shared decision making are essential to the success of a team. A high-functioning team works synergistically, such that the team’s performance exceeds that of the sum of the input of its individual members. Teams solve problems that individuals cannot solve. As President Lyndon Johnson said, “There are no problems we cannot solve together, and very (continued on page 2)
few problems we can solve by ourselves.”

Teams come in all sizes. They can be small (2 to 5 members), medium (6 to 12 members), or large (greater than 12 members). Large teams often tend to be dysfunctional because they are too large. It is time consuming to allow appropriate input from all members and shared decision-making is very difficult. Nonetheless, large teams can be a useful exercise for educational purposes. For large teams to be successful, they can be set up as virtual teams and can communicate via an intranet. Alternatively, large teams can have a smaller core of team members and incorporate other members only when there is a need for their special expertise to help a patient. It is important to note that teams are not committees.

A cynical definition of “committee” is a group of people brought together for an hour to achieve less than any one of them could achieve by working alone for an hour. Decisions tend to be rubber-stamped, not made, by committees. Highly functional organizations consist of many teams, while poorly functioning organizations consist of many committees.

With the advent of modern communication techniques, more teams are becoming virtual teams. Pertinent information about the patient can be readily communicated through the Internet. Each team member can add comments and all members can read the information at any time. These teams are especially useful when it is time consuming to bring a group together because work requires them to be in different places, e.g., a home care team or specialists working with health care providers in a rural area. The Veteran’s Administration, with its computerized health record, has been a leader in producing functional virtual teams. For virtual teams to truly synergize, it is essential that they have at least 30 minutes a week where all team members can communicate with one another at the same time and make shared decisions.

Virtual Team

The basic members of a health care team are a nurse, social worker, and physician. Commonly, other members are pharmacists, dietitians, physical therapists, recreation therapists, occupational therapists, and pastoral care. Other members of a team can be surprisingly useful. For example, in a nursing home, the maintenance or laundry person often can solve problems that classical team members cannot. In an elder abuse team, a policeman is a key member. We strongly believe that patients, family members, and home caregivers need to be included fully as part of the team for the best outcomes.

Charles Noble pointed out that “you must have a long-range vision to stop being frustrated by short-range failures.” For this reason, all teams need a mission statement that focuses on the long-range goals. However, it must be remembered that teams are not defined by their mission statement. Teams are defined by the actions of all the members all the time. A key to the functioning of the team is for all its members to have

(continued on page 3)
INTEGRITY. Andrew Carnegie, the business tycoon, opined that “A great business is seldom, if ever, built up, except on lines of strictest integrity.” Excellence does not exist without a soul and the soul of a team comes from its members.

Team ROLES represent the production of PRODUCTS which are produced by completion of specific TASKS. Products, most always, will be measurable and can be either hard, e.g., decreased hospitalizations, or soft, e.g., increased customer happiness (subjective, but measurable). Tasks include obtaining a medical history and examination, completing assessment tools such as a depression or cognition screen or a pain score, defining and carrying out appropriate treatments.

A smoothly run meeting is an important component of successful teams. All meetings need to start on time. The “wasted hour rule” points out that if there are 12 members and the meeting starts 5 minutes late, an hour has been spent on nothing. So meetings need to start on time. Surprisingly, if meetings always start on time, people will come on time. Meetings do not need to fill their allotted time slots. Finishing early is always a bonus. Stop wasting time!

Teamwork is about “WE”
The key to a highly functional team is that teamwork is about “we” instead of “me.” The importance of this has been stressed by many persons:

“We should not only use all the brains we have, but all the brains we can borrow.” – Woodrow Wilson

“If a team is to reach its potential, each player must be willing to subordinate his goals to the good of the team.”

– Bud Wilkinson

“We don’t work for each other; we work with each other.”

– Stanley C. Gault

(continued on page 4)
**How Do You Spell TEAM?**

*There is no “I” in TEAM, but there is an “M” and an “E” — Jeff Angies

*Management by Baseball*

Every team needs members to play specific roles. For example, each team needs to have an *officially designated leader*. This person negotiates with institutional leadership for team resources, spreads news of the team’s successes throughout the institution, and assures that the team stays focused on the institutional goals. Within teams, another member often becomes the *true leader*, acting as the facilitator at team meetings. All teams need someone who is the *recorder* of the decisions made at meetings. Finally, *content experts* are essential to help educate the team and introduce new knowledge.

For those of us in teams, more informal roles for team members are often recognized, such as:

**The Coach** – Always encourages team members to overcome obstacles and do better.

**The Innovator** – Always suggests that the team tries new approaches.

**The Curator** – Keeps the team on task using tried and true methods.

**The Conductor** – Facilitates interaction to make sure all team members are heard and that decisions are truly team- rather than individually-derived.

**The Crusader** – Keeps the team motivated towards the greater goal. This person is often so focused on doing good that s/he fails to see all the needs of the group.

**The Slug** – Moves slowly but always completes his/her tasks.

In addition, there are a number of problematic team members, who are often identified by animal names:

**The Lone Wolf** – Prefers to get tasks done alone.

**The Monkeys** – Chatter consistently and fail to listen.

**The Skunk** – Smells like a problem, but no one is ever sure why.

*(continued on page 5)*
The Snapping Turtle – Is always angry and argues with others before thinking.

The Hyena – Takes the credit for the work of others on the team.

Teams are only as good as their weakest members. Therefore, it is essential to emphasize the strengths of all members and work around their weaknesses. Good teams share both success and blame. Finally, good teams laugh together and play together. Good teams enjoy one another. Having some social gatherings is an important part of team building. As Plato said, “You can discover more about a person in an hour of play than in a year of conversation.” Team meetings need to include a modicum of humor for, as Aristotle claimed, “The gods are fond of a joke.”

Within teams, it is key to create good attitudes because bad attitudes are the virus that kills the functionality of a team. As the team guru, John C. Maxwell said, “When you do good, you feel good – when you feel good, you do good.”

At team meetings, it is key to recognize and applaud individual team members’ contributions. As noted by Mark Twain, “I can live for two months on one good compliment.”

The Birth of a Team

There are four components which, if appropriately handled, will lead to team success.

TRUST. Teams meet and greet. Each member writes down his/her skills and these are shared among the other members. Each member tells something personal about him/herself. Each member says why he/she wants to be on the team.

EXPECTATIONS. The expectations of the team are defined by the official leader. These should also be put in writing. Based on this, the team should develop its mission statement.

ASSIGNING. This is the time where tasks and roles are assigned to each member. Members are given an opportunity to express why they may have difficulty with these tasks.

MEASURING. Before performing their tasks, the team members should be clear about how the performance of the team will be measured and how the success of the team should be judged.

Measurements

“It is not necessary to change. Survival is not mandatory.” — W. Edwards Deming

Measuring outcomes is a key to recognizing the success of a team. Results need to be reported in real-time feedback to the team members. Too often, quality assurance data is buried in a file and not shared. Real-time feedback is essential. A team needs to glory in its successes, (continued on page 6)
The Five Dysfunctions of a Team

—Absence of trust—
—Fear of conflict—
—Lack of commitment—
—Avoidance of accountability—
—Inattention to details—

Conflict engagement allows all team members to express their ideas. Conflict allows for lively, interesting meetings in which problems can be solved quickly. When teams cannot openly discuss conflict, they ignore important, but controversial, conflicts and create small groups within the team that lobby for change outside of the meeting.

When teams commit to decisions, it reduces the amount of uncertainty regarding tasks. It allows the team to move swiftly forward with the whole team aiming at a common objective. Most importantly, if the team decision was wrong, it allows a change of direction without individual guilt.

Accountability requires a poor performer to feel pressure to improve. Teams that avoid accountability encourage mediocrity and, eventually, team failure. When all members are held to the same high standards, it creates mutual respect among the team members.

Teams that do not care about results will fail to grow and will provide poor care. Teams that focus on collective results keep success-orientated employees while minimizing individualistic behavior. This focus causes all members to subjugate their own goals slightly to enhance the common good.

(continued on page 7)
The Magic of Teamwork

“It’s you don’t give back to the same people who give to you. Not at all. You give to different people and they in turn give to someone entirely different. Not you. That’s the sloppy economy of gift and love!”

—Lorrie Moore  
Who Will Run the Frog Hospital?

It is a well worn aphorism that if you have seen one team, you have seen one team. Teams are, by nature, different. They are very much a product of the characters of their members and the tasks they perform. Despite this, there is a wonderful wizardry associated with a successful team. The magic of teamwork comes from following these ten incantations:

Know the value of the synergistic strength of numbers.

Develop a trust for the other members on the team and behave in a way that lets them trust you.

Recognize the rotten apple, but work together to improve the weakest link.

Communicate — remembering that positive comments will produce more results than dwelling on the negative.

Keep score. Measure the outcomes of the team and continuously evaluate how you can improve.

Glory in team successes. Celebrate those successes together.

Teams, like families, have both functional and dysfunctional times. They need continuous love and attention. For all of us who work in healthcare teams, it is useful to remember that teams are the glue that hold together the sick older person’s village. It is this ultimate goal that creates the true magic of teams.
Saint Louis University Geriatricians Speak at Great Wall International Congress of Cardiology

During the 17th Annual Great Wall International Congress of Cardiology, held November 2-5, 2006 in Beijing, China, a full day was devoted to geriatric topics. This is China’s largest medical conference and had over 6,000 participants this year. The meeting updates cardiologists and other physicians from around China and other parts of Asia on the latest information in clinic care and technological procedures related to cardiac care.

Approximately 1,000 participants attended Dr. John Morley’s (Saint Louis University and St. Louis VA GRECC) three lectures: “Weight Loss with an Emphasis on Cardiac Cachexia,” “Metabolic Syndrome in Older Persons,” and “Controversies in the Treatment of Cholesterol and Hypertension in Older Persons;” Dr. Leung Wing Chu’s (from Hong Kong University who undertook part of his geriatric training at Saint Louis University) lecture on “Hong Kong’s System of Geriatrics,” and “Testosterone and CAD;” and Dr. Flaherty’s (Saint Louis University and St. Louis VA GRECC) lecture on “United States’ System of Geriatrics.”

Japanese Visiting Scientist “Nose” Her Stuff

Dr. Naoko Nonaka teaches Dentalistry at the prestigious Showa University in downtown Tokyo most of the year. But a couple of times a year she returns to Saint Louis University and the VA to continue the research she started when she was a visiting scientist here a few years ago. Her latest work has been on the delivery of peptides and proteins to the brain via the nasal passages. Peptides and proteins have been suggested as treatments for various brain diseases, including Alzheimer’s disease, alcoholism, stroke, multiple sclerosis, and neuroAIDS. But getting things into the brain is difficult because the blood vessels which feed the brain form a barrier to many potential drugs. Peptides and proteins also do not cross the lining of the stomach and so, like the protein insulin, must be injected by needle to enter the blood stream. Dr. Nonaka is investigating a novel approach for delivering peptides and proteins to the brain that involves administration by way of the nose. Nerves that help us to smell project directly from the brain to the top of the nasal cavities. These nerves can help to ferry substances from the outside world into the brain. Dr. Nonaka’s work has shown that substances capable of protecting the brain from stroke can use this nasal pathway quite well.

Dr. Tariq Promoted to Associate Professor

We are proud to announce that Dr. Syed Tariq has been promoted to Associate Professor of Medicine at Saint Louis University. Dr. Tariq is the Director of the Acute Care for the Elderly (ACE) of the Saint Louis University Hospital.

Dr. Tariq’s research interests include mild neurocognitive disorder, and he and his Saint Louis University and St. Louis VA VISN 15 colleagues have just-published results in a paper on that topic (Am J Geriatr Psychiatry 14:900-910, 2006).
Drs. Morley and Flaherty had a fruitful visit with physicians at Peking University First Hospital in China. This is the leading hospital of five affiliated hospitals of Peking University Health Science Center (PUHSC), and one of the top three hospitals in Beijing, a city with a population of over 15 million people, 12% of whom are over age 60. The city has over 500 hospitals. Beijing Medical University First Hospital has 1,147 inpatient beds, including four geriatric wards and one geriatric ICU, does approximately 1.2 to 1.3 million outpatient visits every year (about 5,000 per day), and has 29 departments.

Professor Qi developed the Geriatrics Department at Beijing Medical University First Hospital in 1990, and the department has been growing ever since.

“A very impressive institution,” Dr. Morley remarked, after visiting two of the geriatric wards, “I can see you have what it takes to be a leading Geriatrics Department, both the high tech component as well as the committed and competent staff that are the backbone of any strong program.”

The history of PUHSC can be traced back to 1903 when the government of Qing Dynasty established the Medical Clinic at the Royal Capital Higher Educational Institute. After the 1911 Revolution overthrew the Qing Dynasty and the Republic of China was founded, western medicine gained more recognition in China. In September 1912, the Ministry of Education summoned Mr. Tang Erhe, a famous professor of histology who was busy preparing for the establishment of Zhejiang Provincial Medical School, to come to Beijing to plan for the establishment of a national medical school. On October 16th, the Ministry of Education appointed Tang Erhe as the President of Peking Medical School. Thus the first national school of western medicine was formally established, having nine staff members with the first admission of 72 students.

In the 1930s and 1940s, it was renamed as Peking University Medical School, and was incorporated into Peking University. In 1952, with the restructuring of the higher education system of new China, Peking University Medical School was separated from Peking University and became an independent college named the Beijing Medical College. Under the new system, the Ministry of Health became the governing body and funding authority of Beijing Medical College. Thereafter, it began to develop rapidly.

In 1959, Beijing Medical College was recognized as one of China’s 16 key universities. In 1984, the State Council approved 10 institutions for priority development. Among them, Beijing Medical College was the only medical institution. In 1985, the college was renamed as Beijing Medical University (BMU). In the mid-1990s, the Chinese government completed its reorientation for higher education and worked out its reform guidelines. In 1996, BMU successfully completed the national assessment process and was accredited as one of the first few institutions qualified for the Higher Education Development Project, which was put forward to advocate priority development of about 100 higher educational institutions. On April 3rd, 2000, (continued on page 20)
Join us for

**Updates in Diabetes and Endocrinology**
March 23-24, 2007

This day-and-a-half conference is jointly sponsored by Saint Louis University and the VISN 15 VA Medical Center and will provide up-to-the-minute information about such topics as:

- Diabetes in Older Persons: The Role of New Drugs
- Insulin Allergy
- Cardiovascular Disease Prevention in Type II Diabetes
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- Current Targets for Lipid Management
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- Androgen Therapy for Preservation of Muscle Mass
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- Leptin and Ghrelin: Regulation of Obesity

Continuing Medical Education credit is available for participants of this conference.

For more information, contact Marge Smith at 314-977-8458 or by email at smithma@slu.edu.

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**Geriatric Teaching CDs Available**

- **Emergency Preparedness**
- **Palliative Care**
- **Geriatric Dermatology**
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This 4-CD set contains multiple PowerPoint presentations on the four topics listed above. Import individual slides into your current lectures or use the talks *in toto*.

Send $30 (includes shipping) to:
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Division of Geriatric Medicine
1402 South Grand Boulevard, Room M238
St. Louis, MO 63104.

Make checks payable to SLU Geriatrics.

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**Updates in Geriatrics**

Emergency Preparedness
Palliative Care
Geriatric Dermatology
Cognitive Impairment

The Division of Geriatric Medicine at Saint Louis University
and the VA VISN 15 GRECC
March 23-24, 2007

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Thyroid disorders are very common in older persons. They occur more commonly in older women. The most common thyroid disorders are hypothyroidism, hyperthyroidism, and thyroid nodules, some of which are cancerous.

Hyperthyroidism is a common thyroid condition in older persons. It presents commonly with the person having a “lack of pep.” Hyperthyroidism presents with a fine tremor, staring eyes, fast pulse, anxiety, and weakness. In some older persons, it can present unusually, a condition known as apathetic thyrotoxicosis. These persons are lethargic, have muscle weakness, atrial fibrillation, heart failure, and hooded eyes. Thyroid cancers present as a lump in the neck.

Thyrotoxicosis is commonly due to sustained hormone overproduction due to Grave’s disease, toxic uninnodular goiter, or toxic multinodular goiter. All of these are associated with an increase in the radioactive iodine uptake. Thyrotoxicosis factitia, subacute thyroiditis, and post-partum thyroiditis are causes of thyrotoxicosis characterized by low radioactive iodine uptake.

The most common thyroid blood tests are TSH (thyroid stimulating hormone), free T4 (thyroxine), free T3 (triiodothyronine), and anti-TPO (anti-thyroid peroxidase). The TSH is first test that should be done. A normal TSH rules out thyroid dysfunction in the vast majority of patients. The exceptions occur in patients who have pituitary or hypothalamic disorders. For these persons, the best first test is a free T4.

If the TSH is elevated then hypothyroidism should be considered and the next test to order is a free T4. If the free T4 is decreased, then the diagnosis of hypothyroidism is completed and therapy initiated.

If the TSH is decreased, then hyperthyroidism is a possible diagnosis.

The follow-up tests for the suppressed TSH are free T4 and free T3. If the latter two tests show increased levels of free T4 and free T3, then the diagnosis of hyperthyroidism is confirmed. Anti-TPO elevations are seen in patients who have autoimmune thyroid disorders.

Aging does not change the serum TSH, free T4, total T4, total T3, and reverse T3. There is both decreased production and degradation of T4 and T3 with aging.

Subclinical thyroid disorders are approximately ten times more prevalent than the clinically evident forms of thyroid dysfunction. Subclinical hypothyroidism is defined as an elevated TSH

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Unfortunately, many Academic Medical Centers still fail to recognize the importance of teaching geriatrics to the physicians of the future. This is despite the demographic imperative as the first wave of baby boomers reaches sixty years of age. In this essay, the origins of the Academic Medical Center and its relationship to geriatric medicine are explored.

The Origins of the Academic Medical Center

In the time of the Civil War, a physician’s training consisted of two 16-week lectures at a proprietary school. It was only in the 1870’s that Harvard, and the Universities of Michigan and Pennsylvania extended the course to three years with science and laboratory work as core components of the coursework. In 1893, Johns Hopkins required a college degree for admission, and created a four-year curriculum with both laboratory and clinical clerkships, thus giving birth to the modern medical school.

In 1910, Abraham Flexner developed a report entitled, “Medical Education in the United States and Canada” for the Carnegie Foundation. This became the blueprint for medical education throughout the 20th Century. Flexner stated that “though medicine can be learned, it cannot be taught.” He strongly believed that medicine needed to be learned by an apprentice system and felt that the hospital was the best place to do this. He also stressed the importance of learning basic medical sciences.

This viewpoint was epitomized by Francis Peabody from Harvard who, in 1927, wrote: “The secret of the care of the patient is in caring for the patient.” He also stressed that medical teaching elevated the standard of care in the hospital where the training took place. Thus, up to World War II, much of medical teaching focused on patient care and humanism.

In the twenty years following World War II, there was an explosion in medical research. This resulted in large amounts of money flowing into medical schools for this purpose. By 1968, medical tuition as a percent of income for medical schools had shrunk to 7%, down from 70% in 1910.

In 1965, Medicare and Medicaid were introduced, allowing medical centers to make money from patient care.
Geriatrics, Education, and the Academic Medical Center

This resulted in an increase in medical schools from 86 in 1960 to 126 in 1980 and more than a doubling of MD graduates. The budget of the Academic Medical Center shifted markedly towards clinical practice income with over a 130-fold increase in the last 40 years of the 20th Century. In addition, there was a move from clinical research to molecular research with a six-fold increase in the NIH budget. All of this led to a disappearance of clinical teachers. The mighty dollar had driven the Academic Medical Centers towards faculty practice and molecular research, away from their primary role of teaching. The American Association of Medical Centers (AAMC) made this explicit by telling its leaders that: “the rules are changing…we’re going to make it explicit that you should be generating money.” The academic mission was diverted with teaching and research taking a back seat to practice.

Unfortunately, while we rightfully glory in the successes of our Academic Medical Centers, we tend to gloss over its problems:

• The United States is the most expensive medical system in the world (16% of GNP).
• Overall, while we offer the highest quality of care to some, our overall health outcomes vie with those of Cuba and many Americans are fleeing to India and Thailand for “medical holidays.”
• 36% of the American public believe our system needs to be rebuilt, compared to 13% of the public in the United Kingdom and 14% of the public in Canada.
• There is a 48% gap between what is known to work and what is delivered.
• Medical errors have become the third highest cause of in-hospital deaths.
• Low volume providers, many of whom are University professors, produce unacceptable outcomes for patients.

In many cases, our modern Academic Medical Centers neither have a soul nor are they providing excellence in teaching or clinical care. Good teaching is time-consuming, labor-intensive, and requires close, personal contact with students. It is most probably best developed by a generalist with some degree of clinical research experience and the ability to synthesize medical and other knowledge into better medical care. This type of physician is the old-fashioned triple threat of academic medicine which is now a dinosaur in the 21st Century.

Geriatrics and Academic Medical Centers

While geriatricians are the most satisfied of physicians (Leigh et al, Arch Int Med 162:1577, 2002), they have not found a central place in modern medical schools. The first geriatric medicine fellowship was started in 1966 by Les Libow in New York and the first full professor in geriatrics was appointed in 1977. The first certifying examination for geriatrics was held in 1988. The length of the geriatric fellowship was reduced to one year in 1995.

Nearly two-thirds of persons in a geriatric fellowship are international medical graduates. The number of certified geriatricians is shrinking because fewer new trainees are replacing those internists who fail to recertify. There is a desperate shortage of geriatricians with adequate research credentials.
Two-thirds of Academic Geriatric Programs have been in existence for less than 20 years and over half have less than 6 faculty. While 68% of residents believe they are very prepared to manage critically ill patients, only 52% are very prepared to manage elderly patients and only 13% feel ready to care for nursing home patients. One-third of graduating medical students nationwide believe that geriatrics was inadequately taught. Less than 8% of geriatric faculty time is spent on teaching medical students.

Despite lip-service to the need for geriatric education, it must be concluded that at most Academic Medical Centers, geriatrics has a long way to go before it can be considered to play a leading role in medical education. In addition, geriatricians are underpaid and thus, it is difficult to recruit geriatricians in a real world where medical students graduate with “mega-debt.”

Medical Education in the Future

Cries for the reform of medical education are beginning to reach a similar level to those that existed when the Flexner Report revolutionized medical education in the 20th Century. Michael Porter and Elizabeth Teisberg in their “Redefining Health Care” created a blueprint for medical education in the future:

Medical education must move from its basic science base to a more clinical base. Geriatrics is ideally based to provide appropriate clinical care for the population of the 21st Century which will be more and more geriatric. Geriatrics needs to develop more geriatricians who can play a role in translational science or we will be left behind as basic science knowledge becomes clinically relevant. Geriatricians need to be leaders in this area, not followers.

Education needs to stress evidence-based rather than experience- and anecdote-based medicine. Students need to be taught how to obtain evidence-based medicine for themselves. Unfortunately, there is still a paucity of evidence-based medicine for older persons. Geriatricians need to lead the charge to having more clinical trials done in older persons and in nursing homes. We need to be aware that studies done predominantly in middle-aged persons with a small percentage of older persons, should not allow claims that this treatment is appropriate for the old. With the rapid growth of the old-old, studies need to be specifically carried out in persons over 80 years of age.

Competency Based Curriculum. The competencies a student needs to obtain before graduation need to be explicitly stated. Geriatricians need to make sure that geriatric issues are an important component of these competencies. Competencies need to be measured by observing performance, not by multiple choice examinations.

Medical schools must demonstrate superior results for each area taught. This needs to include measurement of student outcomes when they go into practice. Geriatricians need to push to see that cognitive screening, management of falls, incontinence, and all the I's of Geriatrics are included in key outcome elements.

Medical education needs to focus on outpatient care (clinic, nursing home, (continued on page 15)
home care), as well as hospital care (FULL CYCLE CARE). Clearly, geriatrics owns two of these four areas and plays a role in the other two.

Medical education needs to focus on prevention and early detection. Geriatricians need to have a focus on early detection of dementia, falls risk, weight loss and anorexia, polypharmacy, and pressure ulcer risk. We also need to teach the ways in which prevention differs as people age.

Medical education must teach students to work on teams. More than any other group, this is the bailiwick of geriatricians.

Education in Results Measurement. Measuring physician performance compared to that of their peers is a norm for professional development and an obligation to patients. These data should be made public. Geriatricians have already had experience with this in nursing homes. We need to be the white knights leading the charge in this area, while at the same time seeing that the measurements are appropriate for older persons.

Education in the Continuous Quality Improvement (CQI) Process. Geriatricians have led in this area in nursing homes.

Education in Practice Management Skills. Educating physicians in the management techniques in nursing homes is a clear geriatric mandate.

Education in Electronic Medical Records. Geriatrics was birthed in the Veterans Administration which has also created the leading electronic medical record.

Whither Geriatrics and Academic Medical Centers?

As can be seen, geriatricians are ideally based to play a central role in medical education in the 21st Century. We need to seize the moment. We need to agitate for these overdue reforms and make sure we are the leaders in their implementation. Finally, we need to remember that medicine is learned from experience, not from books. As Louis Menand pointed out, “People learn socially. They learn as every progressive nursery school teacher will tell you, by doing...The only way to develop curiosity, sympathy, principle, and independence of mind is to practice being curious, sympathetic, principled, and independent...It isn’t what we teach that instills virtue, it’s how we teach it. We are the books that our students read most closely.”
and a normal free T4. Subclinical hyperthyroidism is defined as a suppressed TSH and normal free T4 and free T3. In both subclinical disorders patients might progress to overt thyroid dysfunction, remain unchanged, or return to normal values of thyroid function tests. These patients should have their thyroid function tests monitored periodically.

Thyroid nodules are the most common endocrine neoplasm. Palpable thyroid nodules can be found in 5-7% of the North American population. These nodules are rarely malignant (<5%), occur more often in females, and are associated with normal thyroid function tests in approximately 90% of individuals. Nodules and thyroid nodularity increase with increasing age. The estimated annual incidence of palpable nodules is 0.09% (300,000 new nodules in US in 2005).

Thyroid ultrasound is a painless test used to examine the thyroid gland for abnormalities, such as thyroid nodules. This test increases the likelihood of discovering thyroid nodules to approximately 67%, which is similar to autopsy data from patients with no history of thyroid disease (50%). The size, shape, number, echogenicity, and vascularity of thyroid nodules can be easily, quickly, and painlessly determined with an ultrasound machine.

When a thyroid nodule is discovered, then a TSH and a thyroid ultrasound should be done prior to a fine needle aspiration (FNA) biopsy of the thyroid gland. FNA biopsy of the thyroid gland is the cheapest, most accurate way to determine the exact nature of a thyroid nodule. FNA biopsy is an outpatient procedure that takes less than one hour. After the administration of a local anesthetic, the procedure is painless and has very rare side effects (bruising is the most common side effect).

SLUCare endocrinologists have been doing FNA biopsies of the thyroid gland since 1980. Recently thyroid ultrasound has been added to improve the accuracy of the procedure. Ultrasound-guided FNA biopsy permits the procedure to be done on smaller nodules that may or may not be palpable.

A unique feature of the SLUCare FNA biopsy clinic is the presence of both an endocrinologist and a cytopathologist. Slides from the biopsy are viewed by both physicians and teaching of students, residents, and fellows takes place because the microscope has a teaching head. Adequacy of the cytologic material can be determined before the patient leaves the clinic.

The reason for the FNA biopsy is to determine which patients with nodules will require surgery. The vast majority of nodules are benign and thus would not require surgical excision. FNA biopsies that reveal suspicious or malignant cytopathology require surgical excision.

There are four major types of thyroid cancer: papillary, follicular, medullary, and anaplastic. Papillary thyroid cancer comprises nearly 80% of the thyroid carcinomas, and follicular thyroid cancer comprises only 5-15%. These two tumors comprise the well-differentiated tumors that arise from the thyroid follicular cells. Medullary carcinoma,
SLU Geriatricians Visit Shanghai to Share the SLUMS Exam and SAMP8 with Physicians and Researchers at Shanghai Mental Health Center

Drs. John Morley and Joseph Flaherty were invited by Dr. Xiao and Dr. Li Xia to visit Shanghai Mental Health Center (SMHC), the largest psychiatric hospital in China. Much of the care for older Chinese with cognitive impairment, including dementia and delirium, is done by psychiatrists, especially the geriatric psychiatrists at SMHC. SMHC does 60% of outpatient psychiatric visits and 21% of inpatient admissions for all of Shanghai, which has a population of over 15 million citizens. Shanghai has one of the larger percentages of persons over age 60 in China, over 15% compared to the national average of 10%.

SMHC, formerly known as the Shanghai Psychiatric Hospital, was founded in 1958. Its predecessor, the Mercy Hospital, was set up in 1935. SMHC is made up of five parts: Main Hospital, Branch Hospital, Shanghai Institute of Mental Health (SIMH), Shanghai Psychological Counseling Center (SPCC) and Shanghai Therapeutic Center for Addiction (STCA). With over 1,860 inpatient beds and hundreds of outpatient clinics, SMHC provides a wide range of services. Clinical practice, teaching, research, prevention, rehabilitation, psychological counseling, and international communication are all carried out in this center.

SMHC has teaching affiliations with Jiaotong University, as well as Fudan University and Tongji University. It has over 1,300 full time staff, including 850 professionals, and 12 research departments, including biochemistry, genetics, neurophysiology, child behavior, traditional Chinese medicine, forensic psychiatry, mental rehabilitation, clinical epidemiology, psychiatric nursing, and mental health promotion.

Projects within geriatric psychiatry (started in 1995) and preventive psychiatry (2004) have been designated as leading medical projects in Shanghai. SMHC is one of the WHO cooperative research and training centers on mental health and has been designated the Model Unit several times since 1981 by the Ministry of Health, Shanghai Municipal government and Shanghai Public Health Bureau.

In his talk, “Alzheimer’s Disease,” Dr. Morley discussed research done at Saint Louis University (SLU) and St. Louis VA GRECC showing how the SLUMS exam is more sensitive and specific in screening for Mild Cognitive Impairment (MCI) compared to the Mini-Mental State Examination (MMSE). He also gave an update on basic science research done at SLU and the VA involving the mouse model of Alzheimer’s Disease (AD), called the SAMP8, and the progress towards finding a cure for AD.

The group concluded the visit by making plans for collaboration. First, in order to test the validity of the Chinese version of the SLUMS exam, researchers at SMHC will back translate the SLUMS exam into English. They will also use the Chinese

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Until recently, treatment of multiple sclerosis (MS) did not differentiate between established and putative clinical, immunological and pathological subtypes. Clinicians had to treat patients as if they all had the same likelihood of progression and of a positive response to available drugs. The Federal Drug Administration (FDA) began to approve drugs in 1993. Now, three interferons (IFN) and glatiramer acetate (GA) have changed the treatment of MS for the better. MS is no longer a progressive and often devastating illness for everyone, although some patients still progress relentlessly despite aggressive therapy. However, much confusion remains as to the relative efficacy of the competing products and the relevance of neutralizing antibodies whose presence may or may not be a harbinger of disease progression and exacerbations due to drug inactivation by the antibody.

Over the past 10 years, our understanding of the pathomechanisms of MS has changed. Axonal loss, originally described about 150 years ago, is now recognized as important to disease progression and as a partially preventable feature when MS is treated early. Autopsy and biopsy studies suggest that MS cases may fall into 4 groups which differ in microscopic characteristics of immune cells, antibody deposits, and the state of myelin and oligodendrocytes. While correlation to clinical subtypes is still a work in progress, a response to plasmapheresis, which removes antibodies from the blood, is more likely with a lesion pattern where antibodies are easily identified in the lesions.

Compared with drug treatments, benefits of rehabilitation seem to remain an afterthought in MS research; randomized controlled trials are rare. Clearly though, MS patients with some degree of disability benefit from aerobic exercise several times a week, although the optimal nature, frequency and intensity of the exercise are unknown. Goals include addressing visual impairment (reading machines, video magnifiers, computer assistive technology), improving poor hand function (foot operated faucets, rocker knives, universal cuffs for utensils, feeders), decreasing gait impairment (home adaptation, wheelchairs/ramps, as (continued on page 19)
Monoclonal antibodies with unique targets have been introduced: Natalizumab binds to lymphocyte integrin, thus blocking its binding to and transmigration across the brain vascular endothelium. Because of its dramatic benefits regarding relapse and the progression rate, it was FDA approved in late 2004. It was then withdrawn in early 2005 when two MS patients developed PML, a lethal viral central nervous system infection otherwise restricted to immunosuppressed patients with lymphoproliferative disorders, transplants or AIDS, but has recently been reintroduced under strict prescribing and monitoring guidelines. By contrast, daclizumab targets the interleukin-2 receptor, thus downregulating T cell activity. Already FDA-approved for prevention of renal transplant rejection, a phase II trial of daclizumab for MS treatment is underway. Rituximab binds to the CD20 receptor on B lymphocytes and depletes them fairly selectively. Phase II trials for rituximab are ongoing.

A number of oral agents, many of which target various specific lymphocyte functions, are in phase II trials or starting phase III trials. They have shown impressive effects on relapse rate and MRI inflammatory activity.

In summary, our knowledge of pathomechanisms of MS is increasing and infusing targeted therapeutic strategies, resulting in numerous well-designed clinical trials. So, cautious optimism that the prognosis for MS patients will improve is justified. Most (though not all) of these trials focus on patients with relapsing forms of MS, while primary progressive MS and other rarer subtypes are only beginning to be studied in larger trials. One anticipates similar progress in rehabilitation research.

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BMU was again incorporated into Peking University, and on May 4th, 2000, it was formally renamed Peking University Health Science Center, and Dr. Han Qide, professor of pathology and physiology and academician of the Chinese Academy of Science, was entitled the President of PUHSC.

PUHSC now has an enrollment of 10,112 students, including 927 doctoral students, 1,036 master program students, 3,196 undergraduates, 696 junior college students, 3,994 adult learning program students, and 388 international students. It has one national key laboratory, 10 ministry-level key laboratories, 23 joint research centers, and 20 research institutes at university level.

Under the direction of Professor Meilin Liu, (the current Director of the Geriatrics Department) with the assistance of Professor Qi (who developed the Geriatrics Department in 1990), Professor Xinmin Liu (Director of the hospital), Professor Song (Director of the Geriatric ICU), Professor Wang (Director of medical education) and Drs. Ding and Liu (attendings at Peking University First Hospital), Saint Louis University Geriatrics Division formalized collaboration plans in the areas of research and education. Future research projects include studies about weight loss and congestive heart failure, and formal geriatric assessments to evaluate older Chinese for the presence of geriatric syndromes. Future educational programs include Chinese physicians visiting SLU Geriatrics, and SLU geriatricians participating in geriatric education of PUHSC medical students, of which there are 400 in each year of the six to eight year program. Dr. Morley and Dr. Flaherty were granted privileges as Guest Professors of PUHSC while in Beijing.

Plans are underway now for next year’s “Saint Louis University-Peking University Geriatrics Conference.” Watch for future notices.

(Peking University First Hospital was one of many hospitals Dr. Flaherty visited during his one year sabbatical in China to study the state of health care for older Chinese. For more information about PUHSC, see website http://www1.bjmu.edu.

SLU in Shanghai
(continued from page 17)

version among their patient populations to test it as a screening instrument for MCI among older Chinese. Dr. Syed Tariq et al, of SLU, recently published about the SLUMS exam in the American Journal of Geriatr Psychiatry (Tariq SH, Tumosa N, Perry HM 3rd, Morley JE. Comparison of the Saint Louis University Mental Status Examination and the Mini Mental State Examination for detecting dementia and mild neurocognitive disorders - a pilot study. Am J Geriatr Psychiatry 14(11):900-910, 2006). Researchers at SMHC who are already doing research measuring hippocampal volumes with MRI among older Chinese with and without cognitive impairment, will also start using the SLUMS exam among this population. Secondly, one of the researchers with interest in animal models will visit Saint Louis University and St. Louis VA to study the SAMP8 with potential plans to develop future models in China. Lastly, educational exchange programs will be set up to share knowledge and skills in geriatric care.

(SMHG was one of many hospitals Dr. Flaherty visited during his one year sabbatical in China to study the state of health care for older Chinese. For more information about SMHC, see website http://www.smhc.org.cn)

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The other day, one of my patients died. Not so surprising for a geriatrician. Her grandson phoned my cell phone to tell me. I spoke my usual words of condolence, of how she is now happier and how hard it is for those left behind. Usually, at this stage, I say “God bless” and “Goodbye.” But he was not ready to let me go. He said the wake is tomorrow and the funeral on Friday. I made my usual protestations of how busy I was. Quietly, he repeated his invitation, his voice tinged with sadness and insistence. I asked him where it was to be and said I would try, though deep within me, I knew I was just doing this to give myself a graceful escape. Like many physicians, I am not comfortable with the dead. Although I spend my time preparing people for the good death, my early training leaves me feeling that somehow I failed when they died.

That night, I struggled with the thoughts that I should go to the wake or funeral. She had been one of my first patients when I came to St. Louis. I had never really known her because she was somewhat dim when she first came to me. Most of the time, I did little for her but talked to the grandson and congratulated him on what a magnificent job he did caring for her. Over the years, we got to know each other in a superficial manner. He was always extremely gracious about the care I gave his mother. In order to assuage my conscience about missing the wake, I arranged to have flowers sent to the funeral parlor.

The next day, I began to feel inordinate guilt, so I canceled my 4:00 appointment and drove 30 minutes into a questionable inner-city area. After a few false starts, I found the funeral parlor in an area where my cell phone did not work. I walked through a nondescript door into the foyer and the mortician directed me into a room in which there were a handful of people. I was startled to see how few people were there, but then, I realized she had been old and because of her dementia had had little social interaction over the last 15 years.

I recognized the grandson and walked towards the open casket. In death, she radiated a wonderful aura and for the first time, I realized what a handsome woman she had been. I spoke to the grandson who then introduced me to his father as “momma’s long time doctor.” He was beaming as he said it, obviously having promised his father that I would be there and presumably this promise had been met with some degree of skepticism. Fifteen minutes later, I walked out into the street as darkness started to fall on the city.

I recount this story to remind all of us that families grieve twice; first when their loved ones begin to deteriorate and secondly when they die. Death rites allow closure for the family. When a physician has cared for a person for a long time, there is an expectation that he/she too will play a role in this closure ceremony. There is a need for us to pay our respects and say goodbye. Perhaps, more importantly, I felt blessed to have had the opportunity to share this magical moment with her family. As I left the funeral parlor, I felt as good about my role as a physician as I ever have in my life.

I hope by recounting this simple story, I will encourage other health care professionals to attend the wake or funeral of their patients. In geriatrics, our patients become our teachers and our friends. It is important that we pay the same respect to them in death as we pay to our other teachers and friends. In doing this, we not only make closure easier for the family, but we also reaffirm why caring for older persons makes geriatricians the happiest of all physicians.
Thyroid and Aging
(continued from page 16)

which occurs less than 5% of the time, arises from the thyroid C-cells. Anaplastic carcinoma occurs less than 1% of the time and is a poorly differentiated tumor that arises from the thyroid follicular cells.

Papillary thyroid carcinoma most often occurs in persons between the ages of 30 and 50 years and is more common in women than men. The primary disease is almost always confined to the neck and distant metastases are rare. Survival rates at 20 years are approximately 95%.

Follicular thyroid carcinoma occurs at a mean age of 50 years and is also more common in women. Unlike papillary carcinoma, distant metastases may be present in up to 20% of individuals at initial presentation. The common sites of the distant metastases are lung and bone.

Medullary thyroid cancer is rare, usually occurs after the age of 40, and is slightly more common in women than men. The tumor arises from the thyroid C cells which secrete calcitonin. This tumor might metastasize to other parts of the thyroid gland, regional lymph nodes, lung, bone, and liver. One-fifth of the patients with this tumor have a genetic mutation that predisposes them to develop the malignancy. Mutations are in the RET proto-oncogene. All patients with this tumor should have the blood test to determine the presence or absence of this mutation. If the mutation is found, then family members should be screened for the same mutation. If the mutation is found in an individual, then a prophylactic thyroidectomy should be performed.

Anaplastic carcinomas of the thyroid gland are very rare. They are rapidly growing tumors with both local-regional metastases and distant metastases. This tumor usually occurs in elderly individuals and is slightly more common in females than males. Unfortunately there is no effective therapy for this tumor. Surgery, radiation therapy, chemotherapy, or combination therapy do not significantly prolong life.

Hypothyroidism is more common than hyperthyroidism. The etiology of hypothyroidism is most often due to Hashimoto’s thyroiditis. Other possible causes of hypothyroidism are radioactive iodine therapy for hyperthyroidism, surgical thyroidectomy, endemic iodine deficiency, subacute thyroiditis, and central hypothyroidism due to pituitary or hypothalamic disorders.

The therapy for hypothyroidism is levothyroxine. The patient should take the thyroid medication on an empty stomach, the same time everyday, and with no other medications. It is preferred that patients take brand name medication for thyroid replacement. Any change in the source of levothyroxine may result in a change in the blood level, therefore, each time a change occurs, the patient should have his/her TSH level rechecked. Sticking with one brand of levothyroxine minimizes testing.

Subclinical hypothyroidism occurs in 4-9% of the US population. The prevalence increases with increasing age of the patient. Approximately 2-5% per year will progress to clinical hypothyroidism. Possible indications for treatment of subclinical hypothyroidism are the presence of thyroid autoantibodies, TSH greater than 10, and the presence of a goiter. If no therapy is initiated, then the TSH should be monitored every 6 months.

The four major types of thyroid cancer are papillary, follicular, medullary, and anaplastic.
Upcoming Continuing Education Programs

Updates in Diabetes & Endocrinology
March 23-24, 2007
St. Louis, Missouri
USA

Health & Wholeness
in Body, Mind, and Spirit
June 12-13, 2007
St. Louis, Missouri
USA

Sixth World Congress
The Aging Male
2008
Tampa Bay, Florida
USA

16th Annual Multi-Disciplinary Certificate Program in Geriatrics for Non-Physicians
Mar. 14, 28, Apr. 11, 25, May 9, 23, 2007
Ramada Inn Conference Center
Fairview Heights, Illinois
For more information on this conference, contact 217-265-0876.

4th International Academy
Nutrition and Aging
September 5-6, 2007
Adelaide
Australia

4th International Cachexia Congress
December 6-8, 2007
St. Petersburg, Florida
USA

For more information about these conferences, contact 314-894-6560.

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