Geriatric Education

One of the greatest opportunities to meet the challenges of the aging population in China is in the area of geriatric education. In a cross-sectional survey of 500 physicians who care for older persons in West China (>70% of their patients were older), 77% of the respondents felt that they lacked geriatric knowledge. Only 16% of the respondents had geriatric curriculum before graduation and 26% had received geriatric training after graduation. Most physicians felt that "language barrier" and "insufficient geriatric education in undergraduate medical school and postgraduate education" were the main challenges in practicing geriatric medicine. A government report showed that no more than 30% of nurses who currently work in LTC welfare institutions had geriatric training, and only one-third of them had nursing licenses.

Currently, only a few medical schools in China offer gerontology and geriatrics in their curricula and medical textbooks seldom cover geriatric syndromes and CGA. In Beijing, where the geriatric education resources are relatively sufficient compared to other cities in mainland China, geriatrics was not a part of the interns' rotations at most university-affiliated hospitals, and although postgraduate (research) education has been initiated, it has not been standardized and integrated into the health education system.

Examples of growth and opportunities for large scale impact exist. A collaboration between Peking Union Medical College (PUMC) and John Hopkins University School of Medicine (JHU) has resulted in faculty member exchange between JHU and PUMC, training of physicians and nurses from the Division of Geriatric Medicine and Gerontology of PUMC at JHU, and the establishment of a geriatric inpatient ward at PUMC. Two continuing medical education geriatrics conferences in 2011 occurred as a result of a collaboration between the International Association of Gerontology and Geriatrics (IAGG) with the Sichuan Association of Geriatrics and the IAGG with the Hong Kong Geriatrics Association.

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GERIATRIC CARE IN SWEDEN

Gunnar Akner, MD, PhD

Sweden has a long tradition in geriatrics and gerontology. During the 1970s and 1980s, geriatric medicine in Sweden had a leading international role because of its developing hospital care, nursing home care, day care/night care, home health care, health monitoring, and prevention. Professor Alvar Svanborg (1921–2009) in Göteborg was the architect and international pioneer for this development. He initiated, and for many years headed, the well-known longitudinal population study of aging called H70 (Health for 70 year olds), by including cohorts of 70-year-old people from the Göteborg area and following them prospectively in 5-year intervals. This pioneering work laid the foundation for the approach to geriatrics in Sweden today.

In December 2011, the Swedish total population was 9,482,855, of which 18.8% was age 65 years and older. According to Statistics Sweden, this part of the population will increase by 50% between the years 2011 and 2040, while the age group 90 years and older is estimated to increase by 125%.

Organization of Health Care for the Elderly

In Sweden, health care is socialized and financed by taxes derived principally from 21 county councils and 290 municipalities, and, to a smaller extent, from the state. The public health care system is complemented by a small private sector with a few private hospitals and a small and declining number of private physician clinics.

Two pieces of legislation regulate care of the elderly in Sweden: the Health and Medical Services Act (Hälsooch sjukvårdslagen) of 1982 and the Social Service Act (Socialtjänstlagen) of 2001. Health care for elderly people is divided by these 2 laws into 2 financial and organizational systems: medical health care through the county councils and social and nursing health care through the municipalities. In 1992, a major political reform ("ÄDEL reform") transferred about 40,000 beds and 55,000 staff, including the formal responsibility for long-term care patients, from the county councils to the municipalities. Physicians could also no longer be employed by the municipalities, but would be contracted on commission by the county councils instead. As a result, physicians have no formal role in the organization, team-building work, or staff education in the municipalities,

which are responsible for long-term, social, and nursing health care needs of many older Swedes.

A. Hospitals

Since 1992, more than 95% of all geriatric hospital beds in Sweden have been closed and geriatric medicine is now only present in some larger hospitals, particularly in Stockholm, with a strong focus on acute geriatric medicine. There is also a small number of geriatric rehabilitation centers.

A study of the organization, staffing, and care production in geriatric medicine in Sweden showed, on average, 1 geriatric bed for every 799 individuals age 65 years and older, with a 10-fold variation between the counties. There were 41 independent Departments of Geriatric Medicine with 85 beds per clinic on average, again with a 10-fold variation between the counties. The report concluded that "there is no overall structural plan for the role of geriatric medicine in Swedish health care, with the desired close connection between content and dimensioning of geriatric specialist training and the practical organization of the activities." Since then, the closing of geriatric units has continued, but no current detailed national data on the number of geriatric beds are available. This closing process has been driven by the independent county councils without any strategic national planning or broader discussion about the role of geriatric medicine in Sweden.

This development should be viewed against the fact that 75% of all hospitals open in 1980 in Sweden have since been closed. According to the OECD, Sweden had 2.8 hospital beds per 1000 population in 2009 (compared to the U.S. rate of 3.1 and the OECD average of 4.9), which was the lowest number of hospital beds in Europe. As a consequence, the average inpatient length of stay has been cut in half and many older patients are discharged too early to home care or municipality care.

B. Primary Care

A previous version of the Health and Medical Services Act stated that physicians serving as "stable physician contacts" in primary care must be specialists in general medicine. In the last revision of 2009, this rule was changed to allow patients to choose any specialist working in primary care as their stable physician contact. However, a number of county councils still require that all physicians serving in primary care must be specialists in general medicine. There are only occasional geriatric medicine units in primary care in Sweden, and these focus on "elderly care," not geriatric medicine.

Medical Specialties

The medical specialty in long-term care medicine was instituted in 1969 and renamed geriatric medicine in 1992. In 2006, the Swedish government made geriatric medicine a "basal medical specialty"; that is, it is possible for physicians to specialize only in geriatric medicine. The medical specialties in Sweden were reorganized in 2012. Geriatric medicine in Sweden has no formal subspecialties, but geropsychiatry became an "additional specialty" to both geriatric medicine and psychiatry. However, on the other side of the age spectrum, there are 3 pediatric basal specialties: pediatric surgery, pediatric psychiatry, and pediatric medicine, and the latter has 5 defined additional specialties: allergology, cardiology, neonatology, neurology/habilitation, and oncology.

Physicians' choice of medical specialty is controlled by the local county councils in how they advertise "specialty training positions," and is not regulated by the Swedish National Board of Health and Welfare (Socialstyrelsen). This lack of national planning has led to a longstanding lack of geriatricians, general physicians, and psychiatrists, and a disproportional increase in, for example, cardiologists. According to statistics from the Swedish Medical Association, in October 2012, there were only 628 (63% female) active specialists in geriatric medicine in Sweden, many of whom have other medical specialties as well, and who frequently work part-time in their role as geriatricians (Table 75–3).

Very few geriatricians serve in primary care in Sweden and there are very few care units designated for older adult care in the primary care setting. Thus, geriatricians in Sweden serve almost entirely in hospitals, mostly in acute geriatric medicine wards or in units specializing in certain "geriatric giants," usually falls/fractures/osteoporosis, stroke, and dementia.

Table 75–3. The number of active working medical specialists in 10 medical specialties in Sweden in October 2012.

Medical Specialty	Total Number	Relation to All 22,179 Medical Specialists	Female
Geriatric medicine	628	3%	63%
General medicine	5467	25%	46%
Internal medicine	3000	14%	37%
Cardiology	742	3%	25%
Neurology	400	2%	38%
Obstetrics/gynecology	1213	5%	67%
Oncology	406	2%	54%
Pediatric medicine (including the 5 "additional specialities")	1809	8%	54%
Psychiatry	1595	7%	53%
Surgery	1537	7%	21%

Education

During the 5.5 years of medical school, medical students get 1–2 weeks of formal education and training in geriatric medicine; that is, less than 1% of the total time in medical school. Different aspects of diagnostics, treatment/care, and evaluation of older adults are taught during many other courses, but not presented as a coherent geriatric theme or curriculum during medical school.

Regarding specialist training, only physicians specializing in geriatric medicine are required to train and serve in geriatric medicine. For all other specialists, including primary care specialists (general physicians) and internists, such education is optional and based on individual interest.

For all other health/nursing care staff groups, there is very limited education and training in geriatric medicine during basal educational programs, and what exists is usually not called geriatric medicine, but rather "care of the elderly." A small number of nurses and physiotherapists have 1 year of formal training in geriatrics/gerontology or "care for the elderly." A recent investigation from the Swedish National Board of Health and Welfare found that only 1.6 % of all 12,316 nurses employed in municipality elderly care in Sweden have formal education in "care for the elderly."

In several medical faculties, there are a limited number of shorter courses in geriatric medicine for different health care staff groups, but there are small incentives for employers to allow members of the staff to attend such courses during working hours.

Patients in the Health/Nursing Care System

In Sweden, older patients (age 65+ years), who often have multiple morbidities requiring multiple treatment methods, dominate in all parts of the health care system. In primary care, these patients represent approximately 50% of physician working time. In hospital departments such as internal medicine and its subspecialties, they account for 60% to 70% of all inpatients. In municipality care dedicated to older adults, 100% of all resources is given to older residents. Thus, there is a significant mismatch between the number of older patients with multimorbidities and the competence in geriatric medicine among physicians and health/nursing care staff across all groups.

Research

All medical faculties have university professors in geriatric medicine and there are units for geriatric medicine in all 7 Swedish medical faculties, except for Örebro. The professors in 3 of the faculties are specialized in dementia (Stockholm, Uppsala, Linköping) and 2 in osteoporosis (Göteborg and Umeå). There are about 10 other professors in geriatric medicine in these faculties with different research focuses. Only a few are devoted to the study of multimorbidity in older adults, with a focus on clinical management in primary care/municipality care.

SUMMARY

Sweden is facing a number of future challenges regarding care for the elderly:

1. **Knowledge area**—Geriatric medicine must be widely accepted as the knowledge area that deals with multiple risk factors, multiple manifest health problems and multiple treatments during the whole span of aging.
2. **Focus**—The focus of health care for older persons must switch from the present single-disease management to multimorbidity management; from national guidelines and standardized care plans to individual, personalized health analysis and management; and from a reactive to a proactive approach focusing on prevention.
3. **Organization**—The health care organization must be much better suited for and adapted to older persons with multiple morbidities and treatments based on geriatric principles. The present hospital in-patient perspective must be completed by a primary care/municipality perspective.
4. **Medical records**—The most important tool to steer the analysis, evaluation, and management of care for older persons is the medical record. Presently, medical records serve as retroactive diaries and constitute a risk factor for multimorbid older people. To enable better care, the electronic medical record should be developed into a prospective "interactive health analysis system" focusing on providing physicians with an overview of the whole health situation, both cross-sectionally and longitudinally. It should stimulate analysis of relations between risk factors, symptoms, manifest diagnoses and various treatments in close cooperation with patients.
5. **Empowerment**—Older patients and their relatives must be empowered to act as codrivers who share responsibility for monitoring their health over time. This includes increased participation in decisions regarding health analysis and treatment towards end of life. In Swedish nursing homes, patient's average 10 medical drug prescriptions per day and it is important that such intensive drug treatment is prescribed in accordance with the patients' wishes and is properly monitored over time.
6. **Education/training**—The basic and continued education and training of physicians and other health care staff groups must have required curricula in geriatric medicine with several separate courses, while also being present in most other courses. There must be incentives to encourage physicians and other health care staff groups to

specialize in geriatric medicine. The designation "care for the elderly" should have a firm base in geriatric medicine.

7. **Living—**There is a strong need to develop a wide range of different types of housing adapted to elderly peoples' needs, particularly intermediate service facilities.
8. **Research—**An extensive study from the Swedish Council on Health Technology Assessment 2003 reported the strong lack of controlled treatment studies for individual diseases and conditions in patients age 65 years and older. For patients age 75 years and older, there are only very few such treatment studies, even though this age group, in particular, is prescribed much treatment, usually multiple treatments. This lack of appropriately targeted research has not been addressed in recent years, suggesting the pressing need for treatment trials in older patients, particularly for those with multimorbidity.

   The present method of choice for treatment studies, the randomized controlled trial, is not suited to study multiple treatment effect(s) in heterogeneous populations. Thus, a new research methodology for treatment studies must be developed and integrated with routine care for the elderly. Research focusing on primary and secondary prevention for older adults using individual multiple risk factor profiles is also needed.

Further reading for a more complete understanding of problems in the present Swedish system of care for the elderly and related challenges for the future is listed below.

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