Guest editorial

Ageing and health - challenges and opportunities

BILKISH CASSIM, ***MB ChB, FCP (SA), MD***
Associate Professor/Chief Specialist, Head: Department of Geriatrics, Nelson Mandela School of Medicine, University of KwaZulu-Natal, Durban

After obtaining the FCP (SA), Professor Cassim trained as a rheumatologist and was a principal specialist in the Rheumatology Department at the University of KwaZulu-Natal and King Edward VIII Hospital. In 2000 she was appointed as the first head of the newly established Department of Geriatrics. In 2001 she spent 2 months as a clinical fellow in the Department of Geratology at Oxford University and John Radcliffe Hospital. In 2006 she was elected as the President of the South African Geriatrics Society. She is also an executive member of the National Osteoporosis Foundation and the Honorary Registrar of the Education Committee of the Colleges of Medicine of South Africa.

'Population ageing is first and foremost a success story for public health policies as well as social and economic development……'
– Gro Harlem Brundtland, Director-General, WHO, 1999[1]

There is a worldwide demographic revolution and the number of older persons is increasing in both the developed and developing worlds.

What is old?

Although traditionally 65 years has been defined as the beginning of old age, with the changing demographic patterns, it has been argued that in countries where life expectancy is now significantly higher, this age cut-off be increased, whereas the reverse holds for countries with lower life expectancy. However, this has many implications for retirement age and pension benefits, and therefore age 65 years remains the definition of old age. It is further sub-divided into the young old (65 - 74 years), middle old (75 - 84 years) and oldest old (> 85 years).

While old age has always been with us, the average life expectancy has increased, with the highest being in Japan at 80.7 years and women living longer than men. This is largely due to the improvement in public health measures, a decrease in infant mortality and advances in health care. In sub-Saharan Africa, the average life expectancy is below 40 years, largely due to the impact of the increased mortality of young adults in the HIV/AIDS epidemic.

In keeping with the worldwide trend, the average life expectancy in South Africa rose to 64 years in 1990. This has subsequently dropped to 49 years for men and 53 years for women as a result of the HIV/AIDS epidemic. However, there are a significant number of older persons in SA. In the 2001 census older persons numbered 3.2 million or 7.3% of the total population. The majority were African (67.7%), lived in rural areas and had no formal education (42.9%).[2] It is projected that the number of older persons will reach 6.5 million by 2050. With the HIV/AIDS epidemic and its related mortality affecting predominantly the 15 - 49-year age group and the increasing numbers of AIDS orphans, it is conceivable that the population pyramid would change dramatically, with larger proportions of young children and older persons.

Challenges

While ageing reflects an achievement, many still perceive ageing as a 'burden'. Despite the rights of the older person being included in our constitution and the Older Persons Act, an ageist attitude still prevails. In a postal survey, the majority of medical practitioners had a negative attitude towards older patients despite the fact that a large majority attended to older patients on a daily basis.[3] This may be a reflection of the lack of adequate undergraduate and postgraduate training in the care of older persons in both medical and other health care curricula.

Ageing is universal – it affects all living organisms and is characterised by a generalised decline in bodily functions, resulting in a loss in the ability to respond to external stressors and to maintain homeostasis. Age-related changes occur at organ and tissue levels and are governed by genetic and environmental factors. With age the spectrum of diseases changes from largely communicable diseases in the young to non-communicable or chronic diseases of lifestyle in older persons. Several studies have confirmed the high prevalence of hypertension, diabetes and other risk factors for cardiovascular and cerebrovascular disease in SA. It is therefore not surprising that these conditions are the commonest causes of hospital admissions in the older age group. This is also reflected in the mortality statistics where cerebrovascular disease, heart disease and diabetes mellitus are the three most common causes of death in persons aged 65 years and older.[4]

Particular to the elderly are the 'geriatric giants' such as falls, urinary incontinence and dementia. These conditions are often not volunteered by the patient, neglected in the history and physical examination undertaken by primary care physicians and inadequately investigated and managed. They consequently have a significant negative impact on the patients' quality of life. They may be the presenting manifestation of another illness and are often multifactorial. Increasing the complexity of care of the older patient is the presence of multiple diseases requiring polypharmacy, and altered presentation, a higher risk of iatrogenesis, physical and cognitive decline and socio-economic and environmental issues, all of which contribute to a higher risk of morbidity and mortality.

Thus the comprehensive geriatric assessment (CGA) which has been described as 'the heart and soul of geriatrics' was developed.[5] Lipschitz discusses the components and indications of this multidisciplinary assessment. Although the CGA may be time consuming, its benefits in reducing hospital admissions and improving survival and function in older patients have been well documented.[6] The CGA should be performed at least annually in high-risk older patients or when there has been a change in the person's medical or social status or a recent unexpected admission.

An important component of the CGA is to uncover the presence of the 'geriatric giants'. Weich highlights the impact of falls, the causes and the need for a detailed assessment. Falls are often multifactorial and numerous causes may exist in a single patient. Besides a thorough physical examination, gait and balance, visual acuity, the medication list and a home assessment are necessary to identify and address risk factors. Older persons who fall are more likely to sustain a significant injury. In a recent study of older patients who presented with falls to the Groote Schuur Hospital, 55% sustained a fracture.[7] Patients were managed acutely for their injuries but not assessed for risk factors for falls or referred for the appropriate assessment. In addition, frequent falls set up a vicious cycle, where due the fear of falling, the person avoids walking. This leads to further physical deconditioning and a further increase in the fall risk.

Prescribing medication to the older patient is a double-edged sword: older patients have multiple diseases that require treatment, but are more likely to develop adverse drug reactions (ADRs). Kalula explores the reasons for the high prevalence of ADRs in older patients. The high risk of ADRs must be balanced with the need for adequate treatment of the risk factors for cardiovascular and other diseases. Despite the fact that a high cholesterol level remains a risk factor for ischaemic heart disease in patients over 75 years of age, many older patients are denied the benefit of cholesterol-lowering drugs. Similarly, simple measures such as low-dose aspirin are infrequently used in high-risk older patients.

One of the myths of old age is that urinary incontinence is a universal condition for which there is no remedy. A urinary catheter is almost always inserted (without a definite indication) when older patients are admitted to hospital with an acute illness and contributes to iatrogenesis by putting the patient at risk of a urinary tract infection, unnecessary antibiotic therapy and functional decline. Bouwens addresses the causes, types, investigation and management of urinary continence and points out the limited indications for catheterisation.

A concern that most people share as they age is that of cognitive decline. The differential diagnosis for apparent confusion in the older person is wide and includes sensory deficits such as blindness and hearing loss, depression, dementia and delirium. Tipping addresses the importance of recognising that delirium is a nonspecific presenting symptom that requires prompt and detailed assessment to identify a cause and institute appropriate management. Empiric treatment should be avoided and care taken to minimise the risk of drug- and procedure-related complications. Laban addresses the role of assessment tools to differentiate between the causes of cognitive impairment and highlights the role of drug therapy.

HIV/AIDS has been called the 'grandmother's disease', as the older person is often the care-giver for affected persons and orphaned children.[8] Dawood highlights the increasing prevalence of HIV/AIDS in older persons and the potential diagnostic and therapeutic challenges.

As outlined by Lipschitz, the goals in geriatric care are to maintain function, independence and quality of life. While the ability to drive confers independence, the safety of the driver (and the public) needs to be considered. Ross addresses the assessment of driving ability in the older person.

Opportunities

While growing old is inevitable, functional and cognitive decline is not. As one plans financially for the retirement years, importance should also be given to an 'active ageing' plan.

The World Health Organization (WHO) defines active ageing is as 'the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age'.[9] In this broad definition is included participation in all activities of life.

To achieve this, a 'life course' approach is advocated from childhood, through adult life and in old age.

Age-related changes are not homogeneous and the rate of decline varies between the different organ systems and in different individuals. Lifestyle factors, such as smoking, excessive alcohol intake, a lack of physical activity and presence of disease, affect the rate of functional and cognitive decline. Correction of lifestyle factors can improve health status not only in the young adult years but also in older individuals.

Besides the general benefits on cardiovascular risk factors, regular exercise in older persons improves function, muscle power, balance and co-ordination and prevents cognitive decline and depression, thus helping to achieve the goals of maintaining independence and quality of life. It is never too late to start an exercise programme. However, this needs to be tailored to the individual's ability and co-morbid status.[10] Simple exercise regimens such as tai chi and regular walking can be undertaken by most.

Regular screening should be performed for the common risk factors for cardiovascular disease and vascular dementia such as hypertension, diabetes and hyperlipidaemia, visual acuity and hearing. In selected individuals at risk for diseases such as osteoporosis and malignancies, appropriate investigation should be requested.[11] Prophylactic measures include annual influenza vaccinations and low-dose aspirin.

South Africa is on the brink of a demographic revolution and the opportunity still exists to institute appropriate training programmes in geriatrics and gerontology for health care workers, but time is running out.

1. Foreword in Global Ageing: A Triumph and Challenge. Active Ageing Policy Framework. World Health Organization. Available on line at: http://www.who.int/hpr/ageing/ActiveAgeingPolicyFrame.pdf. Accessed 21 July 2007.
2. Statistics South Africa. 2002b. Census 2001: Census in brief. Report no. 03-02-03 (2001). Pretoria. Available on line at: http://www.statssa.gov.za accessed 14 July 2007.
3. Ntusi N, Ferreira M. Medical practitioners' attitudes towards older patients. *S Afr Med J* 2004; 94: 600-601.
4. Statistics South Africa. 2005. Mortality and causes of death in South Africa 2005. Statistical release report P0309.3. Available on line at: http://www.statssa.gov.za accessed 14 July 2007.
5. Solomon DH. Foreword. In: Osterwell D, Brummel-Smith K, Beck JC, eds. *Comprehensive Geriatric Assessment*. New York: McGraw-Hill, 2000: 787-799.
6. Stuck AE, Siu AL, Wieland GD, Adams J, Rubinstein LZ. Comprehensive geriatric assessment: a meta-analysis of controlled trials. *Lancet* 1993; 342: 1023-1036.
7. Kalula SZ, De Villiers L, Ross K, Ferreira M. Management of older patients presenting after a fall – an accident and emergency department audit. *S Afr Med J* 2006; 96: 718-722.
8. Wilson AO, Adamchak DJ. The grandmother's disease – the impact of AIDS on Africa's older women. *Age Ageing* 2001; 30: 8-10.
9. Active Ageing: The concept and rationale. In: Active Ageing Policy Framework. World Health Organization. Available on line at: http://www.who.int/hpr/ageing/ActiveAgeingPolicyFrame.pdf. Accessed 21 July 2007.
10. Nied RJ, Franklin B. Promoting and prescribing exercise for the elderly. *Am Fam Physician* 2002; **65**: 419-426.
11. United States Preventive Services Task Force (1996). Guide to Clinical Preventive Services. Available on line at http://www.apchr.gov/clinic/cpsix.htm. Accessed 21 July 2007.