Burden of blindness and visual impairment rises with growth of the greying population

Cheryl Guttman in Vienna

A CONfluence of simultaneously occurring factors suggests the burdens imposed by people living with sight-threatening conditions are likely to increase in Europe in coming years, said Timothy Ffytche, MD, at the 2007 Joint Congress of the Society of European Ophthalmology and the American Academy of Ophthalmology.

Future planning to address blindness and visual impairment across Europe will require robust data on its prevalence, and the availability of such information is limited at present. However, it also appears that the opportunities to reduce blindness through eye care will vary between countries because of international differences in the estimated prevalence of avoidable blindness as well as in socioeconomic conditions, national healthcare policies, and cultural attitudes about ageing and disease intervention.

“The prevalence of blindness in Europe is estimated to be about 0.3 per cent, which represents only seven per cent of total world blindness. However, most sight-threatening eye diseases among Europeans are age related, and the number of affected people will increase as a result of the effects of population ageing and a continued rise in life expectancy,” said Dr Ffytche, who is chairman of the International Agency for the Prevention of Blindness, Europe.

To illustrate his points, Dr Ffytche defined the elderly population as persons over the age of 50, and he provided economic and epidemiologic statistics from four countries selected specifically to represent the varying stages of economic development among European nations: The Netherlands, a modern industrialised country; Bulgaria, a semi-industrialised country; Armenia, an agricultural/industrial republic; and Turkmenistan, an undeveloped Central Asian Republic.

“Europe has a total population of nearly 900 million people, and it comprises an enormous area covering 15 time zones and including 54 countries, from Greenland in the west to the most eastern part of Siberia as well as the five Central Asian Republics,” noted Dr Ffytche.

“Available statistics indicate the prevalence of avoidable blindness generally increases going from west to east. This information suggests a potential to improve the visual status of the elderly in Eastern European countries. However, poor economic status, measured by gross domestic product (GDP) and personal wealth levels, the presence of poorer eye care services, and prevailing attitudes about ageing and health in those areas pose challenges for achieving that goal. Even a lower life expectancy for residents of Eastern European countries plays a role since it means there are fewer older people available who can benefit from intervention.”

Snapshots from across the continent

In The Netherlands, age-related macular degeneration (AMD) ranks as the major cause of blindness and visual impairment in the elderly, and it is followed in descending order by glaucoma, cataract, and diabetic eye disease. Dutch eye care services are sophisticated, the cataract surgical rate (CSR) per million population per year exceeds 4000, and there is a compulsory health insurance that covers the care of most common ophthalmic diseases, although the new intravitreal pharmacotherapies for AMD stand out as a notable exception, said Dr Ffytche.

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“GDP per capita in The Netherlands exceeds $23,000, and we can safely say Holland, as a representative of other Western European countries, can look after its own population and does not need outside help. Nevertheless, success in addressing the most common causes of failing eyesight among the elderly in Western Europe would involve very expensive therapy and rarely provides a permanent cure,” said Dr Ffytche.

In contrast to the circumstances in Western Europe, cataract ranks as the leading cause of blindness and visual impairment among the elderly in Bulgaria, Armenia, and Turkmenistan, and in the latter two countries, uncorrected refractive error represents one of the four most common causes.

“A simple refraction or cataract surgery can provide a permanent and affordable solution for addressing the leading causes of vision loss in these eastern portions of the continent. Sadly, however, blindness is often accepted as an inevitable consequence of ageing in these regions, particularly among women who tend to live longer than men and are more likely to decline surgery. Furthermore, in these countries, the threat to sight and blindness itself is not a priority, and healthcare for the older population is often neglected. Indeed, the concept of prevention of blindness and visual impairment has yet to be wholly accepted in eye care services throughout the eastern regions of Europe,” Dr Ffytche says.

Economic considerations pose another obstacle to addressing sight-threatening diseases in Eastern Europe. In those countries, the governments generally do not support long-term eye care services or even the cost of an IOL. In Bulgaria, cataract surgery is covered by a National Health Insurance Fund, but patients are responsible for the cost of IOLs. Glaucoma and AMD rank second and third as the leading causes of blindness in those countries and individuals must pay out of pocket for treatments for those diseases. In Armenia, health insurance systems are not yet completely in place, although eye care is covered by the government for the poorest in the population. In Turkmenistan, the government provides ophthalmic services, but does not allow doctors to practice who originate from or obtained their degree from a foreign country.

“Persons living in Eastern Europe are more likely than their western dwelling counterparts to have to pay out of pocket for eye care services, and yet they are probably less able to afford it. However, a paradox exists in many Eastern European countries, such as in Armenia. There, the wealthy can afford to pay for their treatment, but poverty may not be a total barrier to treatment because healthcare for the very poor may be subsidised. Left in between are the members of the middle class who have no aid and must pay for eye care service and medications themselves,” Dr Ffytche says.

Lower availability of eye care services also hampers adequate delivery in the Eastern countries. For example, in Armenia, most eye care services are available in the capital city and only about 25 per cent of ophthalmologists in the country perform surgery. In both Armenia and Turkmenistan, the CSR is only about 1000, and the availability of refractionists is also much lower in Eastern versus Western Europe. These data help to explain the role of cataract and uncorrected refractive error as leading causes of blindness and visual impairment among older persons in those countries.

Dr Ffytche observed that as more Eastern European countries join the European Union or plan to join and become westernised, life expectancy and standards of living for their residents may be expected to increase. For example, among the countries he discussed, there is currently a 16-year disparity in average male and female life expectancies comparing Turkmenistan, the country with the lowest levels (57 years for males and 65 years for females) and The Netherlands, where people live the longest (75 years for males and 81 years for females). However, another paradox is likely to accompany the anticipated improvements in longevity and lifestyles in Eastern Europe, and that is an increase in the prevalence of diabetes and in the numbers of persons living with diabetic-related eye disease and AMD.

“Unless public education can prevent an epidemic of diabetes and less expensive therapies become available for preventing vision loss from AMD, socioeconomic improvements in the Eastern European countries are unlikely to have a positive effect on improving outcomes of these ophthalmic problems for the elderly. Moreover since the concepts of preventive medicine diminish from west to east, the management of conditions such as diabetic retinopathy and AMD will continue to require costly treatment and expertise,” Dr Ffytche said.

Further compounding the challenges to the success of VISION 2020, the joint global initiative of the World Health Organization and the International Agency for the Prevention of Blindness, is the reluctance of governments in some underdeveloped countries to allow outside intervention for delivering eye care, and currently only a few non-governmental eye care organisations are responding to these challenges,” Dr Ffytche said.