15th EFORT Congress: 4 – 6 June 2014, London

Fractures in the elderly: a major challenge for health systems in the future

Epidemiological trends indicate that annual cases of hip fracture in Europe will double by 2050, experts told the EFORT Congress in London. Better data on fractures in elderly people are needed in order to plan the resources required and to optimise prevention strategies. Recent studies show that the number of trauma admissions related to road accidents has fallen while age associated injuries have increased, and that hip fractures in the elderly are very often the result of a fall at home.

London, 6 June 2014 – Bone fractures in the elderly represent one of the main challenges facing the European health system, due to demographic trends and changes in social structures. Even minor social changes among the population and shifts in the age structure can have significant impacts on the demand for medical care, explained Dr Björn E. Rosengren of Lund University, Sweden, at the 15th EFORT Congress in London. "Developing effective and economical prevention strategies and treatments for fractures has to be an urgent priority if we want to ensure that high quality care can be provided in the future," Dr Rosengren said.

The Congress is organised by the European Federation of National Associations of Orthopaedics and Traumatology (EFORT) together with the British Orthopaedic Association (BOA). Patient safety is the main topic of this major scientific event which gathers more than 7,000 participants from around the globe.

Lack of current data

"Quantitative data on common diseases are essential for decision-makers and health care systems in the context of a population that is growing and ageing. Up-to-date epidemiological data, including current trends, are available for most other major diseases such as cancer, diabetes or coronary heart disease, but not for fractures," Dr Rosengren added. The lack of data on the occurrence of fractures means that forecasts as well as medical and health economics planning are based on shaky foundations.

Hip fractures to double by 2050 due to ageing population

The latest reports on the epidemiology of fractures in adults focus mainly on hip fractures in older patients, where increasing rates of frequency have recently given way to a decline in incidences of this injury. Since no changes in the prevalence of osteoporosis have been observed, the downturn in rates of hip fracture could be due to other factors, most likely in connection with long-term changes in society. As Dr Rosengren pointed out, "The latest data indicating a decline in age-standardised hip fracture rates cannot be extrapolated to other types of fractures or to fracture rates overall. On the contrary – fracture rates as a whole appear to be increasing. And even if the percentage rates of hip fractures remain stable, the actual number of cases is set to almost double by 2050 in light of the growing, ageing population."

If real planning certainty is to be achieved for resource management for medical care of fractures in the future, regional and supraregional changes in fracture epidemiology over the last 30 years must be more precisely determined, taking account of factors such as medication, demographics, migration and urbanisation. Effective prevention strategies depend on the development of algorithms to identify individuals who are at high risk of



fractures, according to Dr Rosengren. "Ideally, more data are needed to support the classification of current trends in fracture severity, as well as for development of treatment protocols for the most common types of fracture, and of cost-benefit analyses of pharmacological treatments and other interventions for different fracture types," he emphasised.

Bedroom the most common place for falls

Almost three quarters of falls that cause hip fractures in elderly people take place in patients' own homes – most commonly in the bedroom (35 percent), living room (23 percent) or bathroom (12 percent), according to a study presented at the EFORT Congress in London by researchers from Bangkok's Mahidol University. The research identified previous falls, cerebrovascular disease, poor vision and hearing, cognitive impairment and dependency on a caregiver as significant factors in causing fall-related hip fractures. "Wearing shoes is also a significant environmental factor in connection with falls that cause hip fractures in the elderly," reported the author of the study, Dr Panjapol Vitidvarodom.

Road accident trauma cases down, age related injuries up

The rising demand for orthopaedic treatment of age associated injuries is demonstrated by a recent study at Addenbrooke's Hospital, Cambridge, UK, also presented at the EFORT Congress. It shows a reduction in trauma admissions related to road traffic accidents between 2002 and 2012, while admissions for age associated injuries rose in the same period. Of the 300 trauma admissions in 2002, close to 60 percent were associated with road accidents, and 20 percent resulted from a fall from standing height. In comparison, there were 735 admissions in 2012, of which 42 percent were due to a fall from a standing height and only 36 percent were related to a road traffic accident. "These results may reflect social and demographic changes, as well as technological advances," commented study author Dr Aonghus Ansari.

About EFORT

The European Federation of National Associations of Orthopaedics and Traumatology (EFORT) is the umbrella organisation linking Europe's national orthopaedic societies. EFORT was founded in 1991 in the Italian Marentino. Today it has 45 national member societies from 42 member countries and eleven associate scientific members.

EFORT is a non-profit organisation. The participating societies aim at promoting the exchange of scientific knowledge and experience in the prevention and treatment of diseases and injuries of the musculoskeletal system. EFORT organises an annual congress, seminars, courses, forums and conferences within Europe. It also initiates and supports basic and clinical research.

Sources:

EFORT Abstract Vitidvarodom et al. The Environmental Factors Of Fall Related To Hip Fractures In The Elderly EFORT Abstract Ansari et al. Epidemiological Changes Of Trauma Related Admissions To A Major Trauma Centre Over A Ten Year Period; EFORT Symposium How To Reduce Fracture Risk In Frail Elderly, 6 June 2014