September 2015
ReCent medical news

Activity leads to higher satisfaction in later life.

Ageing and mild cognitive impairment

Did you know?

47.5 m.

The number of people with dementia worldwide

Around the globe, the proportion of people aged over 60 is growing faster than any other age group. The World Health Organisation (WHO) estimates that for the period 2000 to 2050 the world's population over age 60 will double from around 11% to 22%, with the absolute number of people aged 60 years and over expected to increase from 605 million to 2 billion over the same period. The number of people aged over 80 will almost quadruple over the same period to 395 million.[1] This change in the global population demographic will bring with it both challenges and opportunities for our industry.

In the era of an ageing population we are seeing a rise in conditions associated with senescence. It is expected that there will be a dramatic increase in the number of people with forms of dementia, given that the risk of dementia rises sharply with age. Current estimates suggest that 25-30% of people aged 85 or older have some degree of cognitive decline; worldwide, 47.5 million people have dementia with 7.7 million newly diagnosed cases every year. The total number of people with dementia is projected to be 75.6 million in 2030 and 135.5 million by 2050.[2]

Diagnosing mild cognitive impairment

Older persons display a spectrum of cognitive abilities ranging from normal, to mild impairment, to obvious dementia. This spectrum varies by individual, according to age, sex, education, lifestyle – how active one is – and general health. Mild cognitive impairment (MCI) refers to individuals whose memory or other cognitive abilities are not normal, but which are not yet significant enough to interfere with their daily activities or independent functioning – hence they do not meet the conventional criteria for dementia.

MCI is often thought to be a transitional stage between normal ageing and dementia. The Mayo Clinic defines MCI as "an intermediate stage between the expected cognitive decline of normal ageing and the more serious decline of dementia. It can involve problems with memory, language, thinking and judgment that are greater than normal age-related changes"[3]. Clearly, the potentially subtle cues that MCI is present need to be understood by underwriters in order to be able to accurately assess applicants not only with an MCI diagnosis, but also those showing signs of MCI

[1] World Health Organisation (WHO). Facts about ageing 2014.

[2] WHO. Dementia Fact Sheet No. 362. 2015.

[3] Mayo Clinic. Diseases and Conditions. Mild cognitive impairment (MCI). 2012.

yet with no diagnosis having been made – we need to be attuned to the symptoms in order to pick these signals up in the course of underwriting elder lives. Equally, claims professionals will also need to manage the likely increasing level of claimants carrying the full spectrum of dementia diagnoses.

The potentially subtle cues that MCI is present need to be understood by underwriters.

Diagnosing MCI is currently always a clinical judgment. It is typically diagnosed when there is evidence of memory impairment or complaint of cognitive decline; overall cognitive and functional abilities remain intact, however, and there is, based on the assessment, no dementia. When memory loss is the predominant symptom, it is termed amnestic MCI; when there are impairments in domains other than memory, it is termed nonamnestic single or multiple-domain MCI. In order to diagnose MCI, a comprehensive clinical assessment should occur, including:

- observation
- neuroimaging
- blood tests
- neuropsychological testing

The testing is primarily done in order to rule out an alternate diagnosis; there are currently no specified neuropsychological tests for MCI, recommendations of tests exist but cut-off points for interpretation have not yet been established. Brief cognitive tests such as the Mini Mental State Exam are of limited use in diagnosing MCI as often a score in the normal range is assumed to indicate preserved general cognitive abilities. However, such tests are often insensitive to MCI. Often, what is of most value in diagnosing MCI are the perceptions of a knowledgeable informant (someone close, with good knowledge of the patient, who would recognise changes in behaviour, cognition or overall health status, such as a spouse or child). Knowledgeable informants have been shown to be sensitive and reliable for early MCI detection.[4] From an underwriting point of view, it is important to appreciate the risk of clinician's bias in diagnosing MCI, noting the lack of formal diagnosis criteria.

Ethical challenges

The diagnosing of MCI draws largely on biomedical aspects; however, when looking towards how the diagnosed individual and indeed society copes with MCI, we focus more on the social aspects of MCI. How one copes will of course vary by individual. How will the MCI label affect a person's social functioning, quality of life? Will their relatives also be affected by the diagnosis? If MCI becomes associated more with disease than with normal ageing, stigmatic views may prevent persons with MCI and their family members from seeking the help they need in an effort to hide the problem.[5] There are many social issues to consider – ethical, economic and the development of social programmes and services for both the patient and the family. In addition, there is the risk of anti-selection on the part of the affected individual or their family.

Individuals may increase their level of activity to restore their functioning to prior levels.

[4] Morris J et al. Pages 387-405.
[5] Whitehouse et al. Pages 1417-1422.

Ethically, when should an individual disclose the diagnosis to either their family or peers? The benefits and problems associated with disclosure of MCI to others must be weighed up. Likewise, when is it right to inform the patient themselves of the MCI diagnosis, and when is it right to withhold this information? There are benefits to patient disclosure – respecting the individual's right to autonomy and ability to be involved in the decision-making process regarding their future – as well as pitfalls, such as reducing hope and positive thinking, precipitating fear and distress.[6]

As underwriters and claims managers we must understand the social and economic implications of an MCI diagnosis.

Economic challenges

Economically, it is suspected that the diagnosis of MCI reduces costs, both social and economic, particularly in regard to long-term care services; however, this has not yet been adequately established.[7] Further efforts need to be made to predict the short- and long-term costs specifically associated with the diagnosis. What is recognised from an economic viewpoint is that there is benefit in primary prevention programmes to counter the development of MCI and in the provision of social services catering to the needs of those diagnosed with MCI.[8] We do know that a dementia diagnosis has significant economic implications in terms of medical costs, social costs and the costs of informal care: In 2010 the total global societal costs of dementia were estimated to be USD 604 billion – 1% of the world's GDP, varying from 0.24% of GDP in low-income countries to 1.24% in high-income countries.[9] Clearly, early intervention has the potential to change these staggering numbers.

[6] Maguire CP. Pages 123-126.
[7] Maguire CP. Pages 123-126.
[8] Wimo et al. Pages 94-99.
[9] WHO. Dementia Fact Sheet N.362.

Advances in the diagnosis of MCI have led to an increase in demand for the development of services and social programmes for those with MCI. The use of support groups for those suffering the first stages of Alzheimer's disease, which was pioneered in the mid- to late-1990s, has proven to be very beneficial.[10] In the same way, support groups for persons with MCI should be considered. Such support groups are useful in combatting the effects of stigmatisation and may include the provision of information on MCI and the offer of memory training or enhancement programmes.[11]

Theories

Several theories have been proposed to explain how people adapt as they age. We can look to each of these theories when considering how one copes with an MCI diagnosis. Novak discusses three such theories: disengagement theory, activity theory and continuity theory.[12]

According to disengagement theory, social interactions decrease as people age and this occurs at least in part because society withdraws from the older person. This can certainly hold true with an MCI diagnosis. Often, someone with an MCI diagnosis is looked upon differently, and this label can affect the diagnosed person's social functioning. What can result is a mutual withdrawal on the part of society and the older person. This is especially likely when the MCI label is viewed as a disease.

Activity theory, on the other hand, indicates that activity leads to greater satisfaction in later life. Certainly in response to an MCI diagnosis, the diagnosed individual may increase their level of activity and social involvement as a means of overcoming the diagnosis and attempting to restore their functioning to prior levels.

According to continuity theory, people age and adapt best if they can use strategies from their past to cope with current challenges – such as an MCI diagnosis. In a sense, continuity theory assumes evolution whereby people will integrate new experiences into their history and move forward.

[10] Goldsilver et al. 109-114.
[11] Werner et al. Pages 413-420.
[12] Novak. Pages 132-150.

Conclusion

In concluding, we have considered MCI as a prime example of a diagnosis which is on the rise in the era of an ageing population. In our professional capacity as underwriters and claims managers, we must be attuned to such conditions and their effects on morbidity and mortality so as to be able to manage both our applicants and claimants accordingly. In so doing, we must understand the social and economic implications of an MCI diagnosis.

The presence of MCI does not necessarily prevent an applicant from taking out life insurance; it is, however, the case that if life cover is available ratings will likely apply, and long-term care and income protection will most probably not be available. Before considering offering cover, it is important to be able to verify that the proposed insured and policyholder have the legal capacity to enter into a contract. Once that has been determined, whether or not terms can then be offered will be determined by a number of factors, such as: age of onset, rate of progression, the extent of symptoms such as weight loss, nutritional status, the extent to which cognitive domains (judgment, language, motor skills) remain intact, any available neuroimaging studies and the relevant findings. It is important to also consider sociological factors, such as living arrangements, the level of social support and the overall presentation; for example, does the person appear to have a presentation of activity theory as opposed to disengagement theory?

If you would like any assistance with the development of guidelines in relation to the ageing population, your local experienced Hannover team is perfectly placed to help.

Tracy Peterson
Chief Underwriter
Tel. +1 441 535-0120
tpeterson@hlr.bm

Bibliography

GOLDSILVER PM, GRUNIER, M.R. Early stage dementia group: An innovative model of support for individuals in the early stages of dementia. American Journal of Alzheimer's Disease and other Dementias, 2001; 16(2):109–14.

MAGUIRE CP. Telling the diagnosis of dementia: Consider each patient individually. International Psychogeriatrics, 2002; 14:123–6.

MAYO CLINIC. Diseases and Conditions. Mild Cognitive impairment (MCI). 2012.

MORRIS JC ET AL. Mild cognitive impairment represents early-stage Alzheimer disease. Archives of Neurology, 2001; 58(3):387–405. doi:10.1001/archneur.58.3.397.

NOVAK, M. (2006). Memory and intelligence. Extract from Lifespan development. In
Issues in ageing (pp. 132-150). Boston, USA: Pearson / A&B

WERNER P, KORCZYN, AD. Mild cognitive impairment: Conceptual, assessment, ethical and social issues. Clinical Interventions in Ageing, 2008; 3(3):413-420.

WHITEHOUSE PJ, JUENGST ET. Anti-ageing medicine and mild cognitive impairment: Practice and policy issues for geriatrics. Journal of the American Geriatrics Society, 2005; 53:1417–22.

WIMO A, WINBALD B. Pharmacoeconomics of mild cognitive impairment. Acta Neurologica, 2003; 179:94–9.

WORLD HEALTH ORGANISATION. (WHO). Ageing and Life Course. Facts about ageing, 2014.

WORLD HEALTH ORGANISATION. (WHO). Dementia. Fact sheet No. 362, 2015.