

Approved: 2009

Due for review: 2012

Chronic Disease and Physiotherapy

Background

In 2005 the Australian Health Ministers' Conference published its National Chronic Disease Strategy (NCDS). The NCDS identifies the national health priority areas as:

- Asthma;
- Cancer;
- Diabetes;
- Heart, stroke and vascular disease; and
- Osteoarthritis, rheumatoid arthritis and osteoporosis.¹

The NCDS provides a framework for the delivery of services focused on prevention, early intervention, case management and multidisciplinary team co-ordination which encourages people with chronic disease to self-manage. These measures are aimed at preventing hospital admissions and improving quality of life. These types of interventions are not well managed by the current health and hospital system, which to date, has focused on short term care for acute conditions and injury.¹

The Australian Institute of Health and Welfare reports that chronic disease accounts for more than 80% of the burden of disease and injury in Australia. In addition, half of all adults do not get enough physical activity – a significant risk factor for the development of chronic diseases such as type 2 diabetes, cardiovascular diseases, some cancers and musculoskeletal conditions.²

Defining chronic disease and chronic condition

The terms 'chronic disease' and 'chronic condition' are often used interchangeably, however they have discrete definitions. This position statement uses the term 'chronic disease' to describe the national health priority areas.

The term 'chronic condition' covers a significantly broader range of conditions than does chronic disease.

It includes such conditions as acquired chronic lower back pain, brain injury, cerebral palsy, chronic pain, mental disorders and other disabilities. People with many chronic conditions benefit from physiotherapy to manage their conditions and prevent the onset of the national health priority diseases, but these conditions are not the focus of this document.

There has been some discussion about the inclusion of back pain in the national health priority areas, as this condition has extensive consequences for Australians. It affects up to 80% of the population and 10% of people report significant disability as a result.³

Physiotherapy and chronic disease

Physiotherapists assist people who are at risk of developing or have a chronic disease to safely optimise

their level of physical activity. They also help people with chronic diseases to safely and effectively manage their own care.

Being primary contact professionals with excellent communication skills, physiotherapists are accessible to members of their local community. They are well placed to promote physical activity guidelines and healthy lifestyle. The potential for physiotherapy to impact on chronic disease prevention and management is currently restricted by financial barriers.

There are a number of distinct ways in which physiotherapists can actively contribute to decreasing the burden of chronic disease in Australia.

Health promotion

Physiotherapists work at public events, within hospitals and community health clinics and as first contact professionals within primary care settings such as ambulatory services and private practices. They work with clients across the age spectrum from infants and children through to aged populations. This places physiotherapists in an ideal position to provide information and advice to people suffering from or at risk of developing all forms of chronic disease.

Physical activity is recommended for the prevention or treatment of many chronic diseases.⁴

Physiotherapists can prescribe and implement therapeutic exercise at an individual or group level, and lead exercise and education classes for people who have been diagnosed with or are at risk of developing chronic diseases such as type 2 diabetes, cardiorespiratory, vascular and musculoskeletal conditions.

The role of the physiotherapist in chronic disease management

General practitioners have perhaps the most well recognised role in the management of chronic disease and are vital to the care of people with or at risk of developing these diseases. However it is less well recognised that other health professionals have a significant part to play in the management of chronic disease.

Physiotherapists are primary contact practitioners, and have the expertise to manage the care of clients at various stages of the chronic disease continuum. There are many examples of physiotherapy interventions in the NCDS areas. Physiotherapists manage people with chronic lung diseases including asthma through exercise prescription and cardio-pulmonary rehabilitation.⁵ People with complications from cancer surgery such as lymphoedema are treated by physiotherapists using complex physical therapy (CPT)⁶, and physiotherapists prescribe exercise therapy to improve glucose control in people with or at risk of developing diabetes⁷. Other examples include physiotherapy management of cardiac rehabilitation programs for people with various forms of heart disease⁸ and the rehabilitation of elderly people after a stroke.⁹ Physiotherapists also provide interventions including therapeutic exercise to reduce the risk of osteoporotic fracture.^{10 & 11}

Enabling people to self manage their condition

Person-centred health care entails the building of partnerships with people to enable them to maintain optimal function and independence.¹² Self-management is part of this process and strategies to facilitate self care have a focus on providing information to people with chronic diseases on lifestyle modification, support mechanisms in the healthcare systems, and how and when to access services. The aim is to work in partnership with people to empower them to set goals, take a greater role in the management of their own condition, and to be able to source reliable information on their disease. Physiotherapists can provide education that takes place in a variety of settings, ranging from one on one consultations to formal group education sessions including disease specific self-management classes.

Access to a greater range of health providers has been linked to the capacity to build more effective self management techniques and accountability in people with chronic disease.¹³ For example there is evidence that people with heart failure enrolled in programs that feature multidisciplinary team care have shorter inpatient stays and lower rates of re-hospitalisation.¹⁴ Physiotherapists have the appropriate skills to empower people to participate in their own healthcare, thus are well placed to assist people to self manage chronic diseases. They are experienced in pain management techniques and have a thorough understanding of the biopsychosocial influences that are important in long-term diseases - all factors important to enable self-care for chronic disease.^{15 & 16}

Managing the impact of co-morbidities

Co-morbidities and complications are common in chronic diseases such as type 2 diabetes and cardiovascular disease.¹⁷ This can complicate self-management and the provision of therapy. Physiotherapists have the expertise, including a broad skill base and an excellent knowledge of pathology and its impact on exercise prescription, to effectively manage many aspects of care for people with chronic disease.

For example, a person with osteoarthritis of the knee in combination with impaired glucose tolerance may benefit from an exercise program to manage the risk of developing type 2 diabetes, but knee pain may prevent participation in a standard program. Physiotherapists can address this barrier by initially treating the primary symptoms of the osteoarthritis, then modifying and supervising an exercise program to optimise opportunities for participation, thus improving the individual's wellbeing and quality of life.

Physiotherapy services can be provided on an individual basis or within group sessions. These offer a supervised environment for people with chronic disease and associated co-morbidities to exercise safely and effectively. Services can include advice and education on physical activity levels and, in combination with other members of the multidisciplinary team, on lifestyle modifications such as smoking cessation, reduction of alcohol intake, pain and fatigue management strategies or dietary advice.^{18 & 19}

Physiotherapy interventions for the symptoms associated with chronic disease

The role of physiotherapy interventions to treat the symptoms associated with chronic disease is well recognised. Some examples include the use of physiotherapy interventions to provide relief from pain resulting from osteoarthritis²⁰ as well as improving functional range of movement and strength, or help to improve exercise capacity and reduce shortness of breath in people with chronic obstructive pulmonary disease (COPD) or heart disease²¹.

The APA position

Physiotherapists are able to positively impact on Australia's burden of chronic disease through health promotion, providing assistance with disease management and facilitating self-management, dealing with the co-morbidities associated with chronic disease and addressing the symptoms of chronic disease. The position of the Australian Physiotherapy Association is that:

- Physiotherapists offer a wide variety of services to people at risk of developing or who have chronic disease. These services occur in a variety of highly accessible community and inpatient settings, in both private and public sectors
- Optimal treatment for people with chronic disease is person-centred, promotes self-management, and involves multidisciplinary team care which includes physiotherapy
- Physiotherapists have the necessary expert knowledge to prevent and manage the co-morbidities and complications of chronic disease
- Where there is evidence for the efficacy of physiotherapy interventions, such interventions should be funded through the MBS

- The current funding mechanisms that support multidisciplinary team care limit the ability of people with or at risk of developing chronic diseases to pay for adequate levels of physiotherapy service, particularly where co-morbidities exist. Supervised group programs are a cost effective way of preventing and managing many chronic diseases, yet funding restricts the affordability of group sessions for people who would benefit most from these services
- Current Medicare funding mechanisms do not support health professionals to use their clinical judgement to assess the number and type of interventions required to provide person-centred team care. Instead, they are rigid and prescriptive. This severely limits attendance and thus the opportunity for physiotherapy to improve wellness and quality of life
- Private health insurers should support chronic disease prevention and management programs through rebates to their members for suitable physiotherapy programs
- Funding must be flexible enough to ensure that people with chronic disease are not denied access to innovative and cost effective treatments, including classes and self-management education sessions run by skilled health professionals such as physiotherapists
- Mechanisms to assess the clinical efficacy and cost effectiveness of treatments for chronic diseases currently listed on the Medicare Benefits Schedule (MBS) are limited. The APA believes that emphasis should be placed on the development of these mechanisms.

References

1. National Health Priority Action Council (NHPAC) (2006). National Chronic Disease Strategy, Australian Government Department of Health and Ageing.
2. Australian Institute of Health and Welfare (2006). Chronic diseases and associated risk factors Australia, 2006 Cat. No. PHE 81. Canberra: AIHW.
3. Briggs, A. M. & Buchbinder, R. (2009). Back pain: a National Health Priority Area in Australia? *The Medical Journal of Australia*. May; 190(9):499-502
4. Armstrong, T., Bauman, A. & Davies, J. (2000). Physical activity patterns of Australian adults. Results of the 1999 National Physical Activity Survey. Canberra: AIHW.
5. Cambach, W., Wagenaar, R. C., Koelman, T. W. & van Keimpema, A. R., Kemper, H. C. (1999). The long-term effects of pulmonary rehabilitation in patients with asthma and chronic obstructive pulmonary disease: a research synthesis. *Physical Medicine and Rehabilitation*, 80:1, 103-111
6. McCallin, M., Johnston, J. & Bassett, S. (2005). How effective are physiotherapy techniques to treat established secondary lymphoedema following surgery for cancer? A critical analysis of the literature. *New Zealand Journal of Physiotherapy*. 33(3), 101-112
7. Yassine, H., Marchetti, C., Krishnan, R., Vrobel, T., Gonzalez, F., & Kirwan, J. (2009). Effects of Exercise and Caloric Restriction on Insulin Resistance and Cardiometabolic Risk Factors in Older Obese Adults-A Randomized Clinical Trial. *The Journals of Gerontology: Series A Biological sciences and medical sciences*, 64A(1), 90-5
8. Jolliffe, J., Taylor, R. & Ebrihaim, S. (2000). A report on the clinical and cost effectiveness of physiotherapy in cardiac rehabilitation. London: Chartered Society of Physiotherapy.
9. Forster, A. & Young, J. (2002). The clinical and cost effectiveness of physiotherapy in the management of elderly people following a stroke. London: Chartered Society of Physiotherapy. Available on www.csp.org.au; retrieved 29 September 2009.
10. Chartered Society of Physiotherapy and the National Osteoporosis Society (1999). *Physiotherapy*

- guidelines for the management of osteoporosis. London: Chartered Society of Physiotherapy.
11. Zehnacker, C. H. & Bemis-Dougherty, A. (2007). Effect of Weighted Exercises on Bone Mineral Density in Post Menopausal Women: A Systematic Review. *Journal of Geriatric Physical Therapy*, 30(2), 79-88
 12. Holman, H. & Lorig, K. (2000). Patients as partners in managing chronic disease. *British Medical Journal*, 320(7234), 526-7
 13. Dennis, S. M., Zwar, N., Griffiths, R., Roland, M., Hasan, I., Davies, G. P. & Harris, M. (2008). Chronic disease management in primary care: from evidence to policy. *Medical Journal of Australia*, 188: S53-7
 14. Sochalski, J., Jaarsma, T., Krumholz, H. M., Laraamee, A. & McMurry, J. J. V et al. (2009). What works in chronic care management: the case of heart failure. *Health Affairs*, 21, :179-189
 15. Effing, T., Monninkhof, E. M., van der Valk, P. P., Zeilhuis, G. G. & Walters, E. H., et al. (2007). Self-management education for patients with chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews*(4): CD002990.
 16. Ries, A. L., Bauldoff, G. S., Carlin, B. W., Casaburi, R. & Emery, C., et al. (2007). Pulmonary Rehabilitation: Joint ACCP/AACVPR Evidence-Based Clinical Practice Guidelines. *Chest* 131(5 Suppl): 4S-42S
 17. Australian Institute of Health and Welfare (2008). Diabetes: Australian facts 2008. Diabetes series no. 8. Cat. No. CVD 40. Canberra, AIHW.
 18. English, C. K., Hillier, S. L., Stiller, K. R. & Warden-Flood, A. (2007). Circuit class therapy versus individual physiotherapy sessions during inpatient stroke rehabilitation: a controlled trial. *Archives of Physical Medicine & Rehabilitation* 88(8): 955-63
- 4 5 of 5
19. Macko, R. F., Benvenuti, F., Stanhope, S., Macellari, V. & Taviani, A., et al. (2008). Adaptive physical activity improves mobility function and quality of life in chronic hemiparesis. *Journal of Rehabilitation Research & Development* 45(2): 323-8
 20. Australian Physiotherapy Association (2005). Evidence-based Clinical Statement - Knee joint osteoarthritis. Available on www.physiotherapy.asn.au; retrieved 29 May 2009.
 21. Australian Physiotherapy Association (2005) Position Statement: Evidence regarding therapeutic exercise in physiotherapy. Available on www.physiotherapy.asn.au; retrieved 29 May 2009.