



General principles

- In 2015, an estimated half of all Australians aged ≥ 65 years were living with a disability.
- The majority of disabilities in aged care relate to mobility and cognition, and to the natural ageing process.
- When managing any patient with a disability, it is important to consider the person first and, where possible, work with the patient's knowledge of their disability and their care needs.
- The autonomy and independence of a person with a disability should be respected, and they should be included in decisions about what they can or cannot do.
- General practitioners (GPs) will need to be aware of changes in supports as their patients transition from National Disability Insurance Scheme (NDIS) supports to aged care.
- People with cognitive disabilities may have a wide variation in past capabilities. When assessing the patient, family members and familiar carers can provide GPs with background information of these capabilities.
- Managing disability is an integral part of the holistic care provided by GPs.

Introduction

The results of a 2015 survey by the Australian Bureau of Statistics (ABS) found that an estimated half (50.7%) of all Australians aged ≥ 65 years were living with a disability, and 35.4% reported they had a disability resulting in a profound or severe limitation.¹ The majority of disabilities in aged care relate to mobility and cognition, and to the natural ageing process.

Because of the prevalence, a knowledge of disability and its impact on health is an integral part of the healthcare of this population group. This chapter will focus on those in aged care who have developed disabilities that are unrelated to the ageing process, and discuss how the disability affects the management of these patients.

According to the World Health Organization (WHO),² disability is an umbrella term that covers impairments, activity limitations and participation restrictions. There is a wide range of causes for disability that can have differing effects on the health of older people.

This chapter will cover the common types of disabilities and, where possible, provide general guidance in their management in the context of ageing patients. The chapter will also refer to a few specific aetiologies where there are specific health issues related to ageing. As there are a wide range of disabilities and an even wider range of aetiologies, general practitioners (GPs) may wish to familiarise themselves with the health risks associated with ageing.

Clinical context

When managing any patient with a disability, it is important to consider the person first and, where possible, work with the patient's knowledge of their disability and their care needs. The autonomy and independence of a person with a disability should be respected, and they should be included in decisions about what they can or cannot do.

The National Disability Insurance Scheme (NDIS) commenced in 2013 and was due to be rolled out across all of Australia by the end of 2019. To be [eligible](#) for services, patients need to be Australian citizens aged ≤65 years. While this will preclude the great majority of patients in residential aged care, it may be available those with neurodegenerative conditions resulting in premature ageing. GPs will need to be aware of changes in supports as their patients transition from NDIS supports to aged care.

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Managing disability is an integral part of the holistic care provided by GPs. This chapter does not cover all aspects of disability, but has shown the cross-interaction between conditions associated with ageing and ageing on people with disability. As people with disability age, they bring with them health vulnerabilities that will need monitoring and, at times, active preventive healthcare by their GP.

Developmental disabilities

Developmental disabilities are defined as impaired function (ie cognitive, motor, social, sensory) that arises from a developmental difference in, or injury to, the developing brain to such a degree that it causes substantial, lifelong difficulties in day-to-day living (eg mobility, personal care, social engagement, communication).

Developmental disabilities include intellectual disability and autism. In a general population, people with developmental disabilities have a greater prevalence of health problems and die on average 10 years younger than those without a disability. However, those who advance into old age are closer in life expectancy to those without a disability.^{3,4}

Intellectual disability

Some causes of intellectual disability have a propensity to particular health problems, but there are also those that affect ageing. Most, but not all, people with Down syndrome develop Alzheimer's disease in the latter parts of their life. The median age of onset for the development of Alzheimer's disease in people with Down syndrome is 55 years of age, which is 10–20 years earlier than in the general population.⁵ This often means that the individual moves into a residential aged care facility (RACF) at a much earlier stage.

Before a diagnosis of Alzheimer's disease is made, it is important to rule out other causes of decline that can also occur more commonly in those with Down syndrome. These can include depression, hypothyroidism, sleep apnoea, vitamin B12 deficiency, metabolic diseases (eg kidney disease, diabetes), coeliac disease, loss of vision and hearing, and medication side effects.⁵

Cerebral palsy

Cerebral palsy is a physical disability that affects movement and posture. It is a permanent lifelong condition starting in childhood.⁶ As people with cerebral palsy age, their problems with mobility tend to lead to a loss of muscle mass and a decline in mobility. Their mobility and use of mobility aids may need to be reassessed by a physiotherapist or occupational therapist.

At times, spasticity and strictures may result in postural problems, difficulties with seating and joint instability, which would warrant review by an orthopaedic surgeon or rehabilitation specialist. Difficulties with swallowing and aspiration increase with age and an assessment with a video-fluoroscopy by a specialised speech pathologist may be indicated.

Hearing and visual impairment

Patients with communication or cognitive difficulties are less likely to inform GPs of their difficulties in hearing and visual impairment;⁷ therefore, regular examination of both is important in this population group.

The prevalence of hearing loss accelerates dramatically with age, where an estimated 25% of people aged 50–65 years have hearing thresholds greater than 30 dB in at least one ear.⁸ This hearing threshold increases further with age. As such, hearing difficulties are a common problem within RACFs and in the community.

People who develop hearing impairment prior to old age may be further compromised as they grow older. Hence, an examination of the ear, regular audiological review and maintenance of hearing aids are important, whatever the timing of the hearing impairment.

Likewise non-refractive causes of visual impairment increase with age. Aljied et al⁹ found a visual impairment prevalence of 8.3% in those aged 65–74 years, and 15.6% for those aged 75–84 years. Visual impairment and blindness will increase the patient's dependency and affect their quality of life. It is therefore important that older people have regular eye examinations and visual acuity tested. Glasses may not be tolerated by the patient, but adjustments in the person's visual environment can improve their independence.

Psychiatric disorders

The prevalence of psychiatric disorders (eg depression, anxiety, bipolar, schizophrenia) is high among older people, with a prevalence of almost 20% in people without dementia aged ≥65 years.¹⁰ Psychiatric disorders have consistently been reported to have a poor outcome in older people (refer to [Part A. Mental health](#)).

Among the consequences of depression are social deprivation, loneliness, poor quality of life, disability, increased use of health and home care services, decline in cognition, increased risk for physical disorders (eg stroke), chronicity, suicide, and an increased non-suicidal mortality.¹¹

Chronic, long-term psychiatric illness may result in earlier admission to an RACF. Patients on long-term treatment with psychotropic medications are at risk of developing osteoporosis,¹² metabolic syndrome (often unrecognised)¹³ and Parkinsonian side effects. These three conditions are already associated with increasing age, so there will be a need to monitor patients and benefits against side effects.

Spinal injuries

Disabilities resulting from spinal injuries may include paraplegia and quadriplegia. Older patients with spinal injuries are vulnerable to medical complications of immobility, including osteoporosis (refer to [Part A. Osteoporosis](#)), pressure sores, postural back problems, obesity and constipation. There is an increased risk for cardiovascular disease, pneumonia and deep vein thrombosis.^{14,15,16,17}

A lack of sensation in the lower limbs and lymphoedema make older patients with spinal injuries more susceptible to chronic leg ulcers. In addition, chronic lower tract urinary infections due to catheterisation can lead to bladder cancer,¹⁸ renal infections and chronic renal failure.¹⁹

The additional effect of ageing on all of these conditions means that the GP will need to actively monitor for all of these conditions in older patients with spinal injuries.

The use of wheelchairs, prosthetics, and lifting and mobility devices by older patients with spinal injuries need to be reviewed for their ongoing suitability and general wear and tear.

This population group is also prone to mental health problems, including post-traumatic stress disorder (PTSD) and depression.²⁰

Upper limb injuries

Disabilities to the arm, shoulder or hand can result from musculoskeletal problems, including inflammatory and degenerative arthritis, injury, neurological disorders, congenital deformity and a variety of pain syndromes. This can affect a person's ability to care for themselves (eg grooming, dressing, toileting, bathing, preparing, eating) and increase their degree of dependency. Disabilities to the arm, shoulder or hand may develop as a result of conditions associated with ageing (eg degenerative arthritis, cerebrovascular disease).

Lower limb injuries

Lower limb dysfunction can affect a person's mobility and balance. These have the same variety of causes as upper limb injuries. In the RACF setting, these will increase the patient's dependency on others and increase support needs. Maintaining muscle strength and balance is important as falls can result in life-threatening injuries.

Post-polio syndrome

Post-polio syndrome is a condition that occurs with later age in people who survived the acute phase of polio in childhood.

Post-polio syndrome may involve 'slowly progressive and persistent new muscle weakness or decreased endurance ... generalised fatigue, muscle atrophy, or muscle and joint pain'.

Less commonly, symptoms attributed to post-polio syndrome include new problems with breathing or swallowing.²¹ Treatment of post-polio syndrome should focus on increasing cardiovascular fitness rather than muscle strength, as the latter may accelerate the functional decline.

Neurodegenerative disorders

There are a range of neurodegenerative disorders that may accelerate patient's placement in an RACF. These can include multiple sclerosis, Parkinson's disease, Alzheimer's disease, Huntington's disease, amyotrophic lateral sclerosis (ALS) and motor neuron disease. These conditions may affect cognitive function, muscle strength and balance, and not only require management of the disease process, but also management of the resulting disability.

The disability resulting from these conditions is likely to increase more rapidly than in the normal ageing process. While these conditions will often involve specialist care through a neurologist, geriatrician or rehabilitation specialist, primary healthcare should be proactive in monitoring general health, maintaining preventive health measures (eg immunisation), monitoring medications for efficacy and adverse effects, and working with allied health professionals to maintain mobility and independence.

Stroke

In 2009, an estimated 1.8% of Australians reported they had experienced a stroke, of which 69% were aged ≥65 years. There is a wide range of disabilities that can result from a stroke, including the following proportions:²²

- Loss of sight – 12.1%
- Loss of hearing – 7.7%
- Speech difficulties – 25.2%
- Chronic recurring pain or discomfort – 18.7%
- Slow at learning or understanding – 26.0%
- Incomplete use of arms or fingers – 35.6%
- Difficulty gripping and holding things – 32.9%
- Incomplete use of feet or legs – 40.4%
- Restriction in physical activities or work – 54.2%

As such, people who have experienced a stroke have a wide range of disabilities requiring assessment and ongoing support. Much of this ongoing support is through allied health professionals; however, as with neurodegenerative disorders, primary healthcare plays a key role in maintaining health and quality of life.

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