4th edition

Medical care of older persons in residential aged care facilities

The Royal Australian College of General Practitioners

Medical care of older persons in residential aged care facilities (4th edition)

Funded by the Australian Government Department of Health and Ageing

Prepared by The Royal Australian College of General Practitioners – 'Silver Book' National Taskforce

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Foreword

General practitioner involvement in residential aged care is both a challenge and an opportunity to improve the quality of life of those in residential aged care. This publication provides a valuable resource for general practitioners.

As the number of older people increases in Australia, so too does the complexity of the management of chronic health concerns. As general practitioners, our challenge is to provide appropriate care of the highest quality to older people regardless of where they are living. General practitioners working collaboratively with other health providers play a key role in delivering high quality primary care to older people living in residential aged care settings.

Medical care of older persons in residential aged care facilities (the 'silver book') aims to provide general practitioners, and other health professionals including residential aged care nurses, with a resource for delivering quality health care in residential aged care facilities. The overall content was developed and reviewed by a national taskforce of health professionals working across the aged care sector. In addition, general practitioners, consumer representatives and aged care experts provided valuable input and feedback.

This 4th edition builds on the excellent foundations provided in the previous three editions. The title remains the same, however there is a substantial amount of new content reflecting the increasing influence of technological developments including the internet. The clinical care section has been expanded. Two new sections provide an overview of the residential aged care sector, and organisational systems and tools for streamlining and integrating systems of care.

There are increased opportunities for improving quality of care for residents by all members of the multidisciplinary team. Australian Government initiatives provide for general practitioners to carry out comprehensive medical assessments and contribute to residents' care plans. There is also provision for residential medication management reviews, and referrals to allied health and dental services. Advance care planning and access to new models for end of life care are also included; stressing the importance of the involvement of the resident, their family, and residential aged care facility staff.

This publication encourages collaboration between health professionals and provides suggestions for implementing systematic care involving residents, their general practitioners, residential aged care facility staff, families and other carers.

The Royal Australian College of General Practitioners thanks Dr Denise Ruth, Ms Sheila Neve, the members of our national taskforce, and all those who contributed to the preparation of this publication.

Professor Michael Kidd
President

Acknowledgments

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The first three editions of the *Medical care of older persons in residential aged care facilities* were prepared by the previous editor, Andris Darzins, with The Royal Australian College of General Practitioners (RACGP) National Care of Older Persons Committee. The development of this fourth edition aimed to retain the practical clinical focus of the highly regarded third edition, while responding to recent changes affecting medical practice and the residential aged care industry. We believe that this edition meets a need for information on medical care of residents, however it is not a textbook and we could not include all relevant clinical topics (eg. Parkinson disease and related disorders).

This fourth edition was prepared by Denise Ruth, editor, with Sheila Neve, project worker, and members of the RACGP Silver Book National Task Force. Information in this edition is based on general practice and aged care literature, plus multidisciplinary expert opinion. The information and structure of the book were reviewed and critiqued through a process of national consultations with the RACGP Silver Book National Taskforce, the RACGP South Australian Joint Care of Older Persons Committee, divisions of general practice, individual general practitioners, consumers and other experts.

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Introduction

General practitioners are the primary medical care providers for older people in the community, including those living in residential aged care facilities (RACFs). Residential aged care is an expanding and rewarding area of general practice. It offers GPs the opportunity to be at the forefront of new treatments and management practices and to make a difference to the quality of life of a patient group with complex medical needs. Providing high quality medical care for older persons living in RACFs requires a special set of knowledge, clinical skills, attitudes and practice arrangements.

This fourth edition of the *Medical care of older persons in residential aged care facilities* ('silver book') is primarily for use by GPs who are commencing, or already providing, care for patients in residential aged care. It recognises the multidisciplinary nature of care and may also be useful as a clinical or educational resource for:

- nurses and staff in RACFs in their work with GPs
- other health professionals who provide services to residents
- divisions of general practice that work collaboratively with GPs and residential aged care staff, and
- other regional, state and national support groups.

Section one presents principles and essential components of residents' care including comprehensive medical assessment, advance care planning, palliative and end of life care, and medication management. Section two discusses common clinical conditions. Section three offers additional resources including organisational and clinical tools.

Given that the focus is on medical care of people living in aged care facilities, the terms 'resident' and 'patient' have been used interchangeably. The resident centred approach acknowledges the important role that relatives, carers and legally appointed representatives play in the provision of medical care to residents, particularly as most older residents have some degree of cognitive impairment. Younger residents are also likely to benefit from the assessment and care processes presented in this edition of the 'silver book'.

Since the 1999 third edition of the 'silver book', several trends have presented challenges to GPs providing care to patients in residential aged care. The ageing of the population has increased the demand on the health care system overall. Historically, a reduction in the number of hospital beds and length of stay, and a move toward community based care has been the trend. In recent times, however, the number of hospital beds has increased slightly and the average length of stay has decreased. People now enter residential care with higher levels of dependency and with more complex medical needs in relation to chronic illness, physical disability and dementia.[1] The number of GP attendances to RACFs has been decreasing over recent times due to factors such as workforce shortages, high GP workloads, and part time work preferences.[2]

However, during the same period, some developments have increased support for medical care provision to residents. These include:

- an increased focus on evidence based preventive care and integrated systems of care for improving residents' health outcomes
- continuing development of clinical guidelines, practice standards and accreditation systems in general practice, government subsidised RACFs, and pharmaceutical services

- information technology such as electronic health records, clinical aids and health information management systems
- models of specialist outreach services to RACFs, including hospital in the home, aged care, postacute care, rehabilitation and palliative care.

Recent Australian Government initiatives have increased funding for: GP and multidisciplinary medical care to residents; divisions of general practice to support GP participation in quality improvement activities in residential aged care; and for dementia care as a national health priority.

There is considerable diversity in residential aged care across Australia. Therefore, it is advisable to adapt the information contained in the 'silver book' to the local context, in ways that take account of particular needs of the local resident population, as well as local organisational structures, staffing levels and access to specialist services for residents' health care.

It is hoped that the *Medical care of older persons in residential aged care facilities* will continue to enhance the work of GPs, staff of RACFs, and others caring for residents of RACFs.

Principles of medical care of older persons in RACFs

Overview of residential aged care

The lifetime risk of requiring aged care home care in Australia is estimated to be 20% for men and 34% for women.[3] Approximately 6% of people aged over 65 years (and 30% of people aged over 85 years) live in RACFs. There are equal proportions of men and women aged 65–74 years; but by age 85 years, residents are predominantly women.[4] The residential aged care population includes groups with special needs such as Aboriginal and Torres Strait Islander peoples, people from culturally and linguistically diverse backgrounds, and people with physical and intellectual disabilities.

Residential aged care facilities provide accommodation, personal care and other support services such as pharmacy, allied health, social services, specialist services or respite care. Facilities can be owned and managed by charitable not for profit, private for profit, or government organisations.

Residential aged care is regulated under *The Aged Care Act 1997* (Commonwealth) and accredited via the Aged Care Standards and Accreditation Agency.[5] There is an expectation of continuous improvement to services, and facilities must be accredited to receive subsidies. The Australian Government Department of Health and Ageing regularly audits facilities and residential care claims.

Facilities provide accommodation and high care and/or low care to eligible older people who are assessed by an Aged Care Assessment Team (ACAT) (Aged Care Assessment Teams are known as Aged Care Assessment Services [ACAS] in Victoria). The Resident Classification Scale (RCS) is used to assess the level of care and support needs of the individual. Based on this, an Australian Government subsidy is paid per resident per day. People entering are income tested with some residents expected to pay additional fees. An accommodation payment may also apply. Overall, there are about 140 000 government subsidised beds comprising 74 000 high care (formerly aged care home care) and 66 000 low care (formerly hostel care).[6] Ageing in place facilities enable residents to remain in the same facility as their care needs increase from low to high care.

There are increasing demands for residential care as the population ages, and as informal care by family members becomes a less viable option due to shifting work patterns and higher levels of family mobility.[7]

The transition into residential care

An older person requiring residential care will usually have had a period of care in their own home. They may or may not progress to requiring residential care. This may occur with a progressive disorder such as dementia (or with an acute event superimposed upon a progressive disorder), with admission occurring at a level of dependence when family and community support services can no longer meet the aged person's needs. Alternatively, the journey may be sudden for a previously independent person with an abrupt onset of disability due to an illness such as a stroke or hip fracture. Here the person and their family experience the shock of rapid changes to their needs and circumstances. They may be confronted by pressure for early hospital discharge. Decisions about future care may be made hastily, during a time of confusion, shock and grief. The care setting that is appropriate for an older person, and that meets his or her particular needs will be assessed by an ACAT.[8]

The Australian Government publication, *5 steps to entry into residential care* provides a resource that assists in understanding what residential care is, what to expect and how to arrange it. This booklet is available at www.health.gov.au/internet/wcms/Publishing.nsf/Content/ageing-rescare-resentry-5stepsa.htm

General practitioners play a significant role in supporting patients making the transition into residential care. They may be able to continue providing care, however some GPs do not visit RACFs, and some people need to find a new GP if they enter a facility in another locality. General practitioners can ease the move for the patient and their family by arranging community supports while waiting for a placement, by continuing to provide care in the RACF, by transferring medical records to the chosen GP at a new locality, or by accepting care of a new patient moving into a local facility.

Discussion with the patient and relatives before admission into residential care may include the management and likely course of health conditions, advance care planning, cultural values and family concerns (see *Medical assessment of the resident*).

Multidisciplinary health care of residents

Older people in residential aged care are the sickest and frailest subsection of an age group that manifests the highest rates of disability in the Australian population.[9] The prevalence of chronic conditions among residents in high care is estimated to be 80% sensory loss, 60% dementia, 40–80% chronic pain, 50% urinary incontinence, 45% sleep disorder, and 30–40% depression. Annually 30% of residents have one or more falls and 7% fracture a hip.[10]

General principles of quality medical care for persons living in residential aged care (as agreed by the RACGP Silver Book National Task Force) are:

- is of the same standard as applied to the community generally
- respects the rights and responsibilities of residents
- acknowledges the various levels of dependency among residents, including their functional status and capacity to make decisions
- acknowledges groups with special needs such as Aboriginal and Torres Strait Islander peoples, people from culturally and linguistically diverse backgrounds, people with disabilities, and veterans
- includes information, education, and support for relatives/carers/representatives involved with the health care of residents
- meets the specific health and quality of life needs of residents in relation to diagnostic evaluation, disease management, optimising function, symptom control, palliative care, psychosocial and spiritual wellbeing
- is multidisciplinary with collaboration between GPs, residential aged care staff, pharmacists, allied health and specialist service providers

- uses available evidence based clinical and organisational practices
- maintains continuous quality improvement through collaboration and systems development by general practice and residential aged care providers.

The multidisciplinary approach to health care of residents entails GPs working with residents and their relatives/carers/representatives, residential aged care staff, and other primary care and specialist service providers as needed. Assessment information and expertise from each discipline can be shared and used to define issues, set management goals and implement care plans. Teamwork is most effective within a climate that encourages the sharing of information and a spirit of cooperation.

Residential aged care staff

Residential aged care facilities provide residents with accommodation, personal care, including food and support services, health promotion and lifestyle activities, nursing care and allied health services. Services are mainly provided by staff of the facility with extra input when required from other service providers.

Facilities are required to maintain a safe and healthy environment for residents through providing systems and group programs such as infection control procedures, medication management systems, falls prevention programs, and physical and social group activities.

Nurses and personal care attendants (PCAs) provide 24 hour care, and also act as an important communication link with residents, relatives/carers, GPs and other service providers.

Registered nurses provide general nursing care, resident assessment, care planning and monitoring of residents' personal and health care needs. Evidence based tools for nursing assessment and management of common geriatric syndromes in residential aged care are widely used in care planning.[11] Registered nurses supervise PCAs and liaise with GPs and other service providers to facilitate health care for residents. They also facilitate the involvement of relatives and carers in residents' care. Registered nurses have responsibility for documentation related to residents' care plans, records and classification of care level, as well as accreditation of the facility.

Enrolled nurses (registered nurse Division 2 in Victoria) also make up the nursing workforce and have a range of responsibilities in care provision. The enrolled nurse is an associate to the registered nurse who demonstrates competence in the provision of patient centred care as specified by the registering authority's licence to practise, educational preparation and context of care.

Core as opposed to minimum enrolled nursing practice requires the enrolled nurse to work under the direction and supervision of the registered nurse as stipulated by the relevant nursing and midwifery registering authority. At all times, the enrolled nurse retains responsibility for his/her actions and remains accountable in providing delegated nursing care.

Core enrolled nurse responsibilities in the provision of patient centred nursing care include recognition of normal and abnormal in assessment, intervention, and evaluation of individual health and functional status. The enrolled nurse monitors the impact of nursing care and maintains ongoing communication with the registered nurse regarding the health and functional status of individuals. Core enrolled nurse responsibilities also include providing support and comfort, assisting with activities of daily living to achieve an optimal level of independence, and providing for the emotional needs of individuals. Where state law and organisational policy allows, enrolled nurses may administer prescribed medicines or maintain intravenous fluids, in accordance with their educational preparation.[12]

Personal care attendants are the largest occupational group in RACFs. While PCAs are not required to possess particular educational qualifications, about 60% of PCAs have a Certificate III, and 6% have a Certificate IV, in aged care.[13] Personal care attendants work within organisational guidelines to maintain residents' personal care and daily living activities. They liaise with registered nurses (if available), GPs and other service providers to facilitate health assessment and medical care for residents, particularly in low care facilities.

Support workers in facilities include cooks, activity aids and volunteers who contribute to residents' personal care and activities.

Primary medical care personnel

Primary medical care includes prevention, management of chronic diseases and geriatric syndromes, rehabilitation, palliative care and end of life care. Primary medical care is mainly provided by GPs, their practice staff and locum GPs, working closely with staff of the RACF, the resident, relative/carer and pharmacist, with extra input as required from allied health practitioners and specialist services. Some GPs will attend residents after hours, while many engage a medical deputising service to provide after hours care for patients. Locum GPs attend and treat residents, and provide feedback to their regular GP. General practice staff can facilitate administration of patient records and the use of immunisations, Medicare Benefits Schedule (MBS) items, case conferencing arrangements, and reminder systems for review appointments.

Pharmacists play an important part in the medical care of residents, given that most are prescribed multiple medications and need assistance with administering their medications. The pharmacist's role includes:

- the dispensing and supply of medications
- provision of information and advice
- involvement in medication education for consumers of aged care services and staff
- participation in medication advisory committees
- involvement in relevant quality assurance activities such as regular residential medication management reviews and reference to relevant professional standards.[14]

Allied health practitioners contribute a range of health services in residential aged care settings as part of multidisciplinary care including: rehabilitation, wound management, palliative care, and assessment following acute hospital admission. Qualified allied health professionals include physiotherapists, pharmacists, psychologists, podiatrists, occupational therapists, speech pathologists, social workers, radiographers, orthotists, optometrists and dieticians.[15] Skills of allied health professionals contribute to improved patient outcomes.

Residents periodically require specialist medical services such as acute care, aged care, psychiatry of older age, rehabilitation and palliative care. Services may be provided externally, eg. at a hospital, or as shared care with GPs and staff at the facility.

Acute care may require transfer of residents to hospital, or be provided at the facility (eg. through hospital in the home or aged care teams). Different strategies are being developed to improve communication across the acute/residential care interface, make hospital care more age friendly, and build the capacity of RACFs to treat acute illness and avoid hospitalisation.

Aged care assessment teams and geriatricians may provide GPs with specialist advice on the management of complex clinical conditions commonly encountered in older age, level of care assessments, geriatric assessments of patients at risk of functional decline, and education for GPs and residential aged care staff.[16]

Psychiatry of older age services may support the care of residents by GPs and RACF staff by providing expertise in the assessment and management of mental disorders including behavioural and psychological symptoms of dementia, depression and mood disorders, and psychosis of older age. Psycho-geriatricians (psychiatrists with specialist training in older age psychiatry), psychiatric nurses and allied health practitioners can provide professional education, patient assessment and management advice, case management, and telepsychiatry in remote areas.

Rehabilitation services are most commonly provided following an acute event such as stroke or hip fracture. Intensive short term programs are also useful for specific problems in residents with gradual decline of function, eg. spasticity, and bed-chair transfer. Restorative care refers to a less intensive form of rehabilitation focussed around activities of daily living.[17]

Specialist palliative care may be provided in two main ways. Specialist providers may help assess the resident and establish a plan of care with the resident, relative/carer, GP and RACF staff. The GP and RACF staff then provide ongoing care and reassessment. Less commonly, specialist services may be involved for a longer period of ongoing care. In general, all care provided by a specialist palliative care service will be provided in partnership with the primary care provider[18] (see *Palliative care*).

Figure 1 shows a map for integrated residential health care, where residents and their relatives/carers are served by three levels of multidisciplinary health care: residential aged care, primary medical care, and specialist medical care. The map can be used to identify local services and gaps in service provision and access.[19]

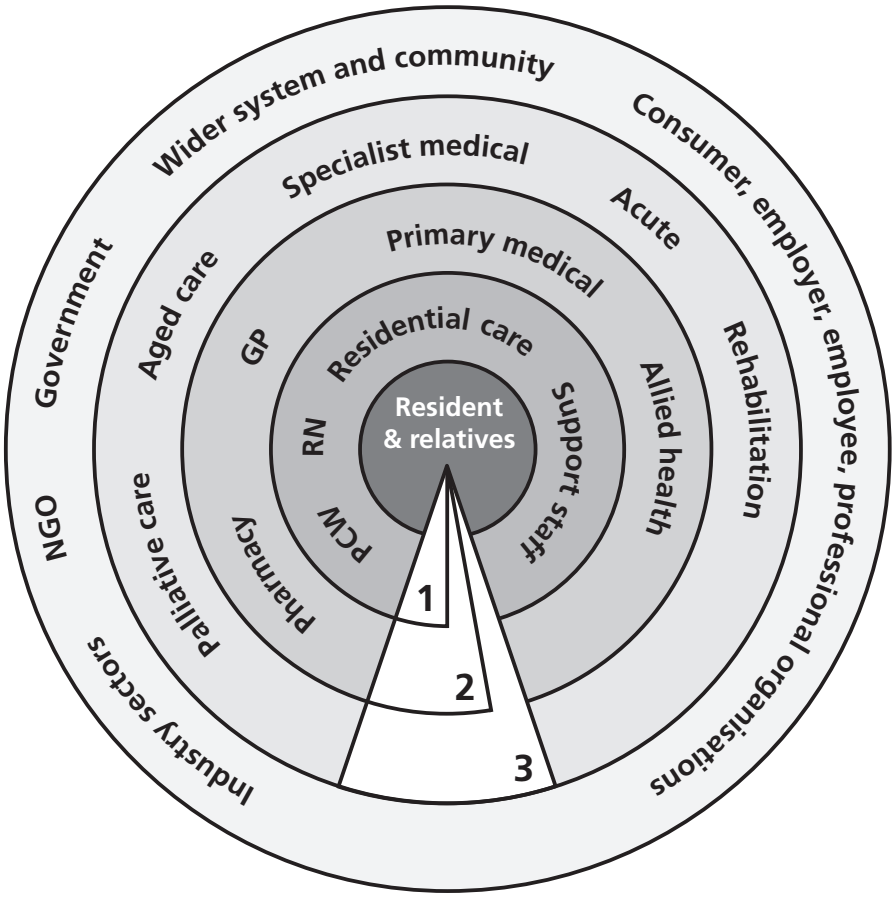


Figure 1. A map for integrated residential health care[20]

The fourth level (outer layer) represents the wider community and supports for residential medical care, including:

- population demographics, family and social structures and community attitudes
- government funding, regulation and monitoring of residential aged care and health service sectors (federal, state and local level)
- industry peak bodies, unions, employer groups and professional organisations which support providers' conditions, education, standards and practice
- consumer groups, eg. Council on the Ageing (COTA) and the Carers Association which represent older people and their relatives/carers
- nongovernment organisations (NGO), eg. Alzheimer's Association, Continence Foundation which support people with specific conditions.

Divisions of general practice play an important role in supporting GPs and primary health care. As part of the Strengthening Medicare Package, divisions of general practice are funded to establish and operate 'aged care GP panels' aimed at:

- improving access to appropriate medical care for all aged care residents
- increasing participation of GPs in aged care initiatives aimed at improving quality of care
- encouraging GPs and divisions to work more effectively with RACFs.

For further information regarding the Aged Care GP Panels Initiative, please contact your local division of general practice.

Role of residents and their relatives

Residents and their relatives are central in the provision of quality medical care.

Residents' rights

The RACGP standard on the 'Rights and needs of patients' requires that GPs treat their patients with confidentiality, privacy and ethical behaviour. Practices that respect these rights maintain confidence in the profession and increase patients' willingness to communicate fully with their doctor.[21] It is advisable for GPs to be familiar with the 'Commonwealth Charter of Residents' Rights and Responsibilities', as well as the advocacy services and complaints resolution processes in their state or territory. The charter includes privacy, dignity, safety, maintenance of independence, control over decision making, and the right of access to advocacy and a complaints procedure. It can be accessed at www.health.gov.au/internet/wcms/publishing.nsf/content/ageing-publicat-resicharter.htm Patients' rights do not diminish when they move into a RACF, regardless of their physical or mental frailty or ability to exercise or fully appreciate their rights. There is also an accompanying responsibility to ensure that a person exercising their individual rights does not affect the individual rights of others, including those providing care.

Advocacy

Federal and state advocacy services can be accessed via a toll free number (1800 700 600) available under the National Aged Care Advocacy Program (NACAP). NACAP advisory services are available free of charge. In some situations, GPs may choose to act as an advocate for the welfare of residents.

Complaints

Residents or their representatives have the right to complain if care recipients believe they are not receiving adequate care, or are dissatisfied with their living conditions or medical treatment. It is desirable for GPs to ensure that residents' issues or concerns are addressed and resolved. Achieving a satisfactory outcome involves effective communication between the GP and other service providers, resident, facility staff, family and carers. Most RACFs will have a complaints mechanism in place to resolve disputes. If a complaint cannot be resolved informally, alternative strategies are available. A Complaints Resolution Scheme is available and is overseen by a Commissioner for Complaints. Details of the scheme can be accessed at the commissioner's website at www.cfc.health.gov.au

Control over decision making

Residents have the right to accept or refuse any proposed medical treatment. However, many residents have difficulty understanding a medical treatment or conveying consent due to cognitive impairment or communication difficulties. The high prevalence of cognitive impairment has implications for gathering information in the assessment of residents, for discussing and deciding treatment, and for providing care. It also highlights the important role that relatives, carers and representatives play in the medical care of residents. Some residents will have full autonomy and be in a position to meaningfully have their privacy and control completely protected. However, most residents will need to have family (and/or others) help with providing information and making decisions; some may need decisions made for them. It is recommended, wherever possible, that when a person enters residential aged care, the appointment of an

authorised representative and advance care planning occur in anticipation of future changes that may occur in the resident's health and/or capacity to make decisions. It is important for GPs to be familiar with the relevant federal and state requirements in relation to authorised representatives and advance care plans (see *Advance care planning*). Irrespective of legal requirements, it is advisable to discuss any proposed treatment with the resident's family or carer to avoid any misunderstanding or disagreements, as family members or carers may hold different views.

Privacy and confidentiality of health information

The RACGP provides guidelines regarding the management of health information in private medical practice.[22] Information regarding the health of individuals collected by medical and other health practitioners has been treated as confidential for as long as health professions have existed and has been reinforced by common law. In many countries, the privacy and confidentiality of information, including health information, has been codified in statute law. In Australia, information privacy in the commonwealth public sector was codified in the Commonwealth Government Privacy Act 1988. Similar legislation has been passed in most states and territories. Private health service providers, including GPs and residential aged care providers, are required to abide by the National Privacy Principles in the Privacy Act (Health Amendment) 2000 when collecting, using, disclosing and storing health information. This means that residents of RACFs:

- have more choice and control over their information
- should be told what happens to their health information
- should be told why and when a health service provider may need to share information, for example to ensure they receive quality treatment and care from another provider
- can ask to see what is in their health record and, if they think it is wrong, ask for it to be corrected.

Under privacy laws, it is important that RACF staff ensure the consent form used on admission allows for residents' health information to be disclosed to all relevant service providers (see *Tools 10*). This allows residents to receive continuity of medical care, eg. by locum doctors, ambulance crews or hospital emergency staff. Where residents lack capacity to consent, there may be another person authorised to exercise their rights in relation to their health information. Where there is no authorised representative, the *Commonwealth guidelines on privacy in the private health sector* permit use and disclosure by the health service. Such use and disclosure must comply with the National Privacy Principles and also consider the health service providers' professional and ethical obligations, having regards to current accepted practices. Where practicable, residents should be advised when information is to be shared. In some specific situations such as case conferences, residents may choose to withhold specific information held by their GP from other care providers.

Medical assessment of residents

Comprehensive health assessment is the cornerstone of quality care of older people. It leads to improved identification and management of health care needs. Clinical studies have shown that older people with multiple health and functional problems benefit from comprehensive health assessment, through[23]:

- reduced medication use
- improved functioning or reduction in functional decline
- improved quality of life and mental health
- improved client/carer satisfaction and a reduction in carer burden
- reduced use of hospital services
- reduced need for residential care
- decreased annual health care costs
- prolonged survival.

The multidimensional assessment incorporates physical, psychological and social function as well as medical health, and so a multidisciplinary approach is often helpful. Assessment is generally undertaken using standardised tools, structured or semistructured proformas, and checklists[24] (see *Tools*).

Residential aged care facilities are required to assess needs and produce care plans for all residents. These plans have a strong focus on personal and nursing care. Medicare rebates have been introduced to support GPs' participation in multidisciplinary assessment and care through doing comprehensive medical assessments and contributing to residents' care plans (see *Organisational aspects of medical care*).

General practitioners have reported that comprehensive medical assessment of residents is useful for giving structure to the admission process, helps to formally introduce advance care planning and to clarify who can give consent for care. However, its use needs to be flexible and appropriate to the resident's personal situation, so that it can focus on each individual's needs and contribute to multidisciplinary health assessment and care planning.[25]

Comprehensive medical assessment at the time of admission would include review of background information and recent investigations. Additional information can be collected from direct questioning of residents or other informants (eg. relative/carer, RACF staff), direct observation by trained health professionals, and medical records. Each information source has inherent limitations, so it is valuable to combine information from residents, RACF staff, relatives/carers and medical documents (eg. ACAT report, resident care plan, advance care plan, hospital discharge, or medical correspondence). The accuracy of information from direct questioning of older people can be limited by acute illness, impaired cognition, impaired hearing, impaired communication (dysarthria, dysphasia), depression, limited proficiency in English, fear of significant change to lifestyle, and denial of problems. Most people admitted to residential care have some cognitive impairment, therefore it is advisable to seek collateral information as a matter of course from relatives/carers and RACF staff. Use direct observation and assessment from other health professionals and geriatric assessment services for patients with very complex problems or unstable conditions. For example, physiotherapists assess gait and balance, occupational therapists assess activities of daily living, speech pathologists assess swallowing, pharmacists perform medication reviews, and nurses assess continence.

When conducting a comprehensive medical assessment, it is desirable to see residents earlier in the day when less tired, sitting out of bed facing you at a similar level in a quiet well lit environment. Endeavour to ensure that any needed spectacles are readily available (and clean) and that hearing aids, if needed, are functioning. Complete the assessment over several visits if necessary. Ask what they consider the main problem is and their goals for care. Seek permission to gain further information from relatives/carers and other sources, and to share health information with other relevant service providers.[26] It is important to respect patient autonomy by fostering understanding, avoiding coercion, and recognising the right of residents to reject advice or refuse the communication of personal information to others.[27]

Ethnic groups differ widely in their approach to decision making (ie. involvement of family and carers), disclosure of medical information (eg. cancer diagnosis), and end of life care (eg. advance care planning and resuscitation preferences).[28] Also, wide differences appear among individuals within ethnic groups, therefore, in caring for patients of any ethnicity:[29]

- use the patient's preferred terminology for their cultural identity in conversation and health records
- determine whether interpreter services are needed; if possible use a professional interpreter rather than a family member
- recognise that patients may not conceive of illness in western terms
- determine whether the patient is a refugee or survivor of violence or genocide
- explore early on patient preferences for disclosure of serious clinical findings and confirm at intervals

- ask if the patient prefers to involve or defer to others in the decision making process
- follow patient preferences regarding gender roles.

Particular attention should be paid to assessing residents with impaired communication skills, eg. due to dementia, stroke, visual or hearing difficulties.[30] Consider cognitive impairment or depression in residents appearing 'flat', not making good eye contact or responding to questions. For residents with hearing impairment (who can not hear normal spoken conversation from 1 m away in a quiet room), check ears for wax and that any hearing aid is working, then speak slowly and loudly so they can see your mouth.[31] Establish whether the resident has a written advance care plan, and if they have appointed a representative to make health care decisions for them in the event that they are incapable of doing so themselves.

Diagnostic evaluation

Accurate diagnosis of disease and geriatric conditions is essential to formulate a list of medical problems and goals of care. Diagnostic evaluation involves obtaining a detailed history, examining the resident and ordering appropriate investigations. A detailed history includes: identifying the current main medical problems, past medical history, systems review, medication review, smoking and alcohol, nutritional status, oral health, immunisation status (influenza, tetanus, pneumococcus), and advance care planning.

The systems review helps to identify conditions commonly associated with ageing that may otherwise be unrecognised. Ask about[32]:

- loss of appetite
- weight loss or gain (amount, time period)
- oral health (mouth, teeth, gums, presence of dentures)
- fatigue
- poor exercise tolerance
- pain (location, character, intensity)
- dizziness (postural, vertigo, dysequilibrium)
- falls (number in past 6 months, location, time of day, mechanism: slip/trip, overbalancing, legs giving way, dizziness or syncope)
- cardio-respiratory symptoms (including chest pain, palpitations, shortness of breath)
- musculoskeletal symptoms (including arthritis, stiffness, weakness)
- neurological symptoms (including loss of sensation or power)
- hearing (including availability and use of aids)
- vision (including availability, use and type of spectacles, when vision last tested)
- feet and usual footwear
- swallowing (solids and liquids)
- communication (speech, handwriting)
- sleep habits (including pattern, duration, use of hypnotic medication)
- elimination (including usual pattern of bladder and bowel function, continence, use of aids)
- sexual function (including libido, symptoms of dysfunction).

Consider referral for a residential medication management review on admission and annually (see *Medication management,* and *Organisational aspects*).

Functional assessment

Any illness in older residents may be associated with loss of independence in self care and mobility, which may in turn increase dependence on family and community services. People are admitted to a RACF because they have lost their independence in self care and mobility, and their needs can no longer be adequately met by their families, friends or community services.

The World Health Organisation has described functional consequences of disease in terms of 'abnormality of body structure and function', 'activity limitation' and 'participation restriction'.[33] Abnormalities of body structure and function can be thought of entirely within the skin. They can result from any cause (eg. hemiplegia from cerebral infarction, or hip fracture from trauma). Activity limitations reflect the consequences of abnormalities of body structure and function in terms of functional performance and activity by the individual (eg. inability to walk following hemiplegia from stroke). Activity limitations can be conceptualised as reflecting problems at the level of the person. Participation restrictions are concerned with the disadvantages experienced by the individual as a result of impairments and disabilities (eg. inability to use public transport due to inability to walk following hemiplegia from stroke or hip fracture from trauma). Participation restrictions reflect interaction with the person's surroundings. Participation restrictions can be thought of as the inability to fulfil roles that are normal for people given their age, gender and position in society. Using this classification framework, all residents will have diseases, abnormalities of body structure and function, activity limitations and personal care participation restrictions at the time of their admission to a RACF.

Accommodation in the facility and the admission assessment ensure that the personal care needs have been met and that there are no participation restrictions. Further functional assessments provide the means to consider whether there are activity limitations, and abnormalities of body structure and function that need to be addressed to prevent and/or reverse decline in a resident's physical, psychological and social function.

Physical function

The Barthel Index (see *Tools 1*) is widely used to assess changes in self care and mobility activities of daily living. However, for older people in RACFs, the Barthel Index may give only a broad brush picture, as its ability to reflect change in function is limited by a floor effect and by lack of sensitivity to change. The floor effect occurs because many residents score in the lowest categories in most items in the Barthel Index, and in the event of deterioration there is no possibility to score their function any lower. The sensitivity to change is limited, as important improvements do not necessarily result in a change in score.[34]

When asking an older person about their physical function, it is important to recognise the distinction between their 'capacity' (which can be established by asking 'Can you…?') and their 'performance' (which can be established by asking 'Do you…?'). Older people in RACFs may perform below their capacity due to lack of support, feeling unwell or afraid (especially of falling), or the lack of suitable aids or environmental modifications.[35] Relatives/carers and RACF staff are well placed to provide information concerning the physical function of residents. However, sometimes they may underestimate capacity or may not have had sufficient contact to be able to provide up-to-date information. Direct observation by trained health professionals is likely to provide more accurate measurement of functional capacity than either self or informant reports which tend to reflect actual performance.

Psychological function

Early recognition of cognitive impairment is a particularly important aspect of assessment, as it may have a significant impact upon how assessment information is obtained and from whom. It is important to distinguish between delirium (acute) and dementia (chronic) (see *Table 5, Dementia*). The incidence of delirium is greater in those with pre-existing cognitive impairment (see *Delirium*). Depression is a common problem that can have a negative impact if not recognised and treated (see *Depression*).

Loss and grief for older residents and their families are key features of both entering and living in residential aged care. Changes in physical and mental functioning may lead to changes in role, status, and relationships with relatives and others. There may be a loss of valued skills and attributes, companionship and intimacy, identity and autonomy, possessions and surroundings, and expectations for the future.[36,37] The sense of loss may be difficult to acknowledge because

the older person is still alive and the journey may be protracted, with no definite starting or end point.[38] Grief may be accompanied by guilt, anxiety and confusion.

Social function

Assessment includes type of residential living arrangements (single or shared room), living environment and services, social support, financial circumstances, elder abuse or neglect and family issues. Social support includes the availability and adequacy of social input and emotional support from relatives/carers, RACF residents/staff/volunteers, and others. Elder abuse may be physical, psychological, financial or social, and may include neglect as well as actual harm. Carer issues also need to be considered. These may include the burden that the care role places on them; the provision of adequate support; and their own health status, needs and expectations.

Assessment of capacity [39]

General practitioners are increasingly required to assess residents' capacity to make decisions such as granting a power of attorney, making an advance care plan, or choosing a health care investigation or treatment.

Capacity and the lack of capacity are legal concepts. Capacity is determined by whether a person can understand and appreciate information about the context and decision, not the actual outcomes of choices made, and not whether they can perform tasks. For instance, illness can temporarily impair capacity, and chronic conditions such as schizophrenia or Alzheimer disease do not automatically mean incapacity. A declaration of incapacity is serious as it implies a need to assume responsibility for the incapable person's wellbeing. Valid assessments of capacity are necessary to honour the ethical principles of respect for individuals, beneficence and justice.

Capacity can be divided into a number of broad domains which include capacity to make a will or grant a power of attorney, make an advance care plan, manage finances or property, choose medical treatment, and manage personal care. Decision making in various domains involves a mixture of cognitive and functional abilities, and a person can be incapable in one domain and capable in another. A capable person:

- knows the context of the decision at hand
- knows the choices available
- appreciates the consequences of specific choices
- does not base choices on delusional constructs.

It is easy to judge the capacity of someone who is clearly capable or incapable. When a person has partial understanding and their capacity is borderline, the GP may undertake a more systematic assessment or refer to a psychologist or geriatrician. *Table 1* shows a six step assessment process developed to help judge capacity. Decisional aids are available to assess capacity in specific domains (step 5).[40]

1. Ensure that assessment of decision making capacity is done only when a valid trigger is present (situations that place the allegedly incapable person or others at risk, and on the face of it appear to be due to lack of capacity)
2. Engage the person being assessed in the process
3. Gather information to describe the context, choices and their consequences
4. Educate the person about the context, choices and their consequences
5. Assess capacity
6. Take action based on results of the assessment

Table 1. The six step capacity assessment process[41]

Medical management and review

Problems identified from the comprehensive medical assessment and the resident's situation and wishes at the time will determine the goals for current management and what emphasis is placed on:

- prevention
- treatment of disease
- rehabilitation and restoration of function
- symptom control and palliative care.

Goals should also be discussed for future care (see *Advance care planning*).

The comprehensive medical assessment, active problem list and goals of care can be incorporated into the resident's care plan and reviewed regularly. Chronic conditions such as diabetes, and cardiovascular and respiratory diseases may be assessed and managed according to existing disease specific guidelines. However, goals of care will vary depending on the stage of illness, comorbidities and wishes of the resident. The GP can then monitor the resident's management and health status and adjust management as necessary at scheduled visits.

Scheduled RACF visit checklist[42]:

1. Evaluate patient for interval functional change
2. Check vital signs, weight, laboratory tests, consultant reports since last visit
3. Review medications (correlate to active diagnoses)
4. Sign orders
5. Address RACF staff concerns
6. Write SOAP notes in resident record (SOAP: subjective data, objective data, assessment, plan)
7. Revise problem list as needed
8. Update advance care plan at least yearly
9. Update resident: update family member(s) as needed.

Education and involvement of relatives/carers in a resident's care can improve clinical outcomes, reduce feelings of loss and captivity, and increase satisfaction with care.[43] General practitioners play a significant role in supporting residents and relatives/carers with plain language information about the condition, management and likely course. This includes sensitivity to the different cultural needs of families and how they care for their older relatives, responding to any feelings or concerns, and referring for counselling and support if required (see *Contacts*).[44,45]

Advance care planning

Advance care planning enables people to prepare for, and make choices about, the type of future medical treatment they wish to have, or refuse, if they become unable to make their wishes known. There are two aspects to advance care planning – proxy directives and instructional directives. Proxy directives grant legal authority to another person to be responsible for health or personal care decisions. Instructional directives give explicit treatment instructions, eg. advance directive, advance care plan or living will; refusal of treatment certificate; and do not resuscitate orders.

Advance care planning involves discussions with patients about their medical history and condition, values, and preferences for future medical care. This is done in consultation with health care providers, family members and other significant people in their lives.

In Australia, there is strong support for advance care planning from both health professionals and the general community.[46] Awareness of advance care planning across health settings and the community is growing nationally, with the dissemination of programs such as 'Respecting patient choices', piloted by the Austin and Repatriation Medical Centre in Victoria.[47]

Increasingly, advance care planning is being incorporated into routine care of patients in RACFs. Many facilities ask about and record residents' wishes on admission. Some residents may already have an authorised representative or advance care plan. For residents who do not possess the

capacity to make their wishes known, and have not appointed a representative, most states have legislation to determine who is legally authorised to make medical treatment decisions on their behalf.

General practitioners can become familiar with the particular legal requirements in their state or territory by referring to *Table 2*, and contacting relevant guardianship authorities for up-to-date information (see *Contacts*). The role of GPs in advance care planning may include:

- discussing the idea of advance care planning with residents
- providing residents with information regarding their current health status, prognosis and future treatment options
- witnessing or completing instructional directives where appropriate
- applying residents' wishes to medical management.

Discussion leading to an advance care plan may occur over several occasions, and cover the following aspects:

- Introduce advance care planning: Ask residents if they have thought about their choices of medical treatment in the future
- Experience of end of life decision making: Ask residents if they have had any experience with a family member or friend who was faced with a decision about medical care near the end of life. If yes, ask them if the experience was positive or if they wish things could have been different, and how
- Selecting a representative: Provide information on appointing a representative. Ask whom they would like to make decisions for them if they were unable to make their own choices known. If they have someone in mind, recommend that they discuss their wishes with their potential representative
- Making decisions about future care: Ask how they would like decisions to be made if they could not make those decisions
- Goals and values: Ask what types of things and activities give life meaning (use relevant example)
- Religious, spiritual and cultural beliefs: Ask who or what sustains them when they face serious challenges in life. Is there someone they would like to speak with to help them think about these issues. Cultural customs may differ with respect to patient autonomy, informed decision making, truth telling and control over the dying process.

It is prudent to discuss the plan with relatives or carers to avoid any disagreement or potential conflicts that could arise. Residents can change their advance care plan, as long as they are capable. If a change is made, then a copy must be given to all relevant people (representative, GP, RACF, other relevant health care providers).

Some people may wish to discuss euthanasia. It is important to differentiate this from advance care planning, palliative care and end of life care. There is a significant ethical and legal difference between the concept of an advance care plan and the issue of euthanasia. Advance care planning is a fundamental and legitimate right of patients to accept or reject treatment options. This is in contrast with euthanasia where the primary purpose is to actively cause or hasten death. Euthanasia is illegal in Australia.[48] A summary of GP steps to advance care planning is given below.[49]

Step 1. Incorporate advance care planning as part of routine care of residents

- Provide information and offer advance care planning when doing a comprehensive medical assessment
- Suggest that the representative or family be involved in future consultations about the resident's wishes

Step 2. Assess capacity of resident to appoint a representative and complete an advance care plan

- Where residents have the capacity, check and witness that the representative/s is/are appropriate and agree, and that the appropriate form has been completed correctly
- Where residents do not have capacity, refer to state legislation for who can be the representative (see *Table 2*)

Step 3. Support discussion and documentation of advance care plan

- Discuss the resident's wishes with resident, representative, relatives/carers, and RACF staff
- Provide information on medical conditions, benefits and burdens of treatment
- Review advance care plan
- Complete relevant forms, eg. refusal of treatment and/or not for resuscitation if appropriate

Step 4. Apply the resident's wishes to medical care

- Advance care plans only come into use when residents are no longer able to communicate their wishes
- Consult advance care plans and resident/representative/relatives when major clinical decisions need to be made

Step 5. Review plan regularly or when health status changes significantly (can be revoked at any time as long as the resident is capable).

State	Advance care plan (ACP)	Proxy	Comments
VIC	Yes	Yes	Medical Treatment (Enduring Power of Attorney) Act 1990 allows appointment of proxy (representative). Patient can write a 'refusal of treatment' certificate, but only for a current illness that does not have to be terminal
SA	Yes	Yes	Consent to Medical Treatment and Palliative Care Act 1995 confirms that a person over 18 years of age can write an ACP but only for a terminal illness
NT	Yes	No	NT Natural Death Act 1988 allows a person 18 years and over to make an ACP to refuse extraordinary treatment in the event of illness
ACT	Yes	Yes	Medical Treatment Act allows for refusal of treatment. Protects health professionals who withhold/withdraw treatment at patient's request
QLD	Yes	Yes	Powers of Attorney Act 1998 allows ACP and proxy for health/personal matters. Guardianship and Administration Act 2000 (and amendments 2001) increased scope. Proxy can now consent to withdrawing/withholding life sustaining treatment
NSW	Yes	Yes	ACPs that comply with the requirements of the NSW health document Using Advance Care Directives (2004) are legally binding. Individuals may also appoint their own enduring guardian
TAS	No	No	No current legislation. Medical Treatment and Natural Death Bill (1990) not passed by Parliament. Tasmanian health department has 'dying with dignity' guidelines that recommend respecting ACP
WA	No	No	No current legislation. Private Members Bill for refusal of treatment by terminally ill people (Medical Care of the Dying Bill 1995) passed by Lower House November 1995, lapsed when election called. This bill recommended patients are able to refuse palliative care

Table 2. Summary of state legislation affecting advance care planning (as at 2004)[50]

Please note: This table is intended to provide a brief overview only. It should not be relied on as legal advice. You should consult your own legal advisor for guidance on the law as it provides to the facts and circumstances of a particular case.

Palliative and end of life care

'Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual'.[51]

In considering palliative care for residents, GPs can distinguish between three forms: a 'palliative approach' provided by primary care doctors, specialist palliative care service provision, and end of life care.[52] It is important to distinguish between medical treatment and palliative care. While in some states, a guardian may be able to refuse a medical treatment on behalf of a patient, they cannot refuse palliative care.

Palliative approach

A palliative approach embraces the World Health Organisation definition of palliative care.[53] It incorporates a positive and open attitude toward death and dying by all service providers working with residents and their families, and respects the wishes of residents in relation to their treatment near the end of life. This approach, by shifting from a 'cure' to a 'care' focus, is especially important in the last 6–12 months of life.

Active treatment for the resident's specific illness may remain important and be provided concurrently with a palliative approach. However, the primary goal is to improve the resident's level of comfort and function, and to address their psychological, spiritual and social needs.[54]

People with a life limiting illness, or those who are dying due to the ageing process, will benefit from receiving a palliative approach. The more complex illness trajectories in the noncancer older population can make it very hard to determine when the end of life is near and no more 'medical rescues' are plausible. However, symptom management to decrease suffering is vital.[55]

Australian *Guidelines for a palliative approach in residential aged care* are available at www.palliativecare.gov.au.[56] Multicultural palliative care guidelines are also available, including maps of major Australian cities with population breakdown for various cultural groups.[57]

Symptom assessment tools can be valuable to define symptoms, score their severity and monitor the effectiveness of treatments (see *Tools 2*, or the *Memorial Symptom Assessment Scale* at www.promotingexcellence.org/downloads/measures/memorial_symptom_short_form.pdf). In patients who lack sufficient cognitive and communicative capacity for self reporting instruments to be used, observational instruments may be supplemented by recorded observations of symptoms. Tools to assess symptoms and pain in elderly patients are available at the World Health Organisation Cancer Group at www.whocancerpain.wisc.edu/eng/17_1-2/Tools.html The *Palliative care therapeutic guidelines* provide GPs with guidance on symptom management[58] (see *Tools 7, 8*).

General practitioner communication with residents, RACF staff and other service providers becomes particularly important, and documentation of who is involved in providing care needs to be current. Lack of clarity among the aged care team members or a lack of openness with residents and families may lead to conflict and confusion about care goals. Family views and issues are important and need to be understood. Some relatives and staff may need GP support to accept the decision of residents for a palliative approach.

Specialist palliative care

General practitioners may have access to a palliative care team, usually including doctors, nurses, physiotherapists, occupational therapists, social workers, clinical pharmacists, dieticians, speech therapists and pastoral care workers. Specialist palliative care services can augment care by GPs and RACF staff, with intermittent or specific input as required, eg by providing:

- help with assessment and treatment of complex problems (physical, psychological, social, cultural and spiritual)
- discussion about goals of care, advance care planning, prognosis, effective symptom control or admission of a terminally ill patient to hospital
- information and advice to GPs and RACF staff on challenging issues such as ethical dilemmas of nutrition and hydration, management of depression and other symptoms, spiritual issues, and concerns held by the patient, relatives and staff toward the end of life
- assistance in maintaining a sense of therapeutic partnership between GPs, RACF staff, patients and their relatives/carers (especially when there are difficult family relationships or complex 'unfinished business')
- resources for bereavement management.

End of life care

Good quality care at the end of life can be provided in a RACF if staff are adequately trained and resourced. This will mean that residents can remain in familiar surroundings, cared for by staff and with other residents they know, rather than move to the unfamiliar surroundings of an emergency department or hospital ward focussed on 'cure'.

Methods used to determine survival time are not accurate and are not recommended. Active treatment to manage difficult symptoms, while continuing to follow a palliative approach, is considered best practice. Dying with dignity in a supportive environment is the key aspect of quality palliative care.

British Medical Journal surveys of people who are approaching death (and also of their relatives) led to the supplement 'What is a good death'.[59] Their views were summarised as 'principles of a good death'[60] in the following 12 points:

- to have an idea of when death is coming and what can be expected
- to be able to retain reasonable control of what happens
- to be afforded dignity and privacy
- to have control of pain and other symptoms
- to have reasonable choice and control over where death occurs
- to have access to necessary information and expertise
- to have access to any spiritual or emotional support required
- to have access to 'hospice style' quality care in any location
- to have control over who is present and who shares the end
- to be able to issue advance directives to ensure one's wishes are respected
- to have time to say goodbye and to arrange important things
- to be able to leave when it is time, and not to have life prolonged pointlessly.

During the final days and weeks of life, more care decisions are often necessary. Respecting the patient and their family's wishes on management options is important. Goals become more focussed on the patient's physical, emotional and spiritual comfort and/or support for their family and carers. Giving time to those left behind by listening to their thoughts and the bereavement arrangements will help them achieve peaceful closure.

The 'Multidisciplinary care path for palliative care: end stage care' (see *Tools 3*) offers a care path that can be used by RACF staff, GPs and other service providers caring for residents at the end of life.

Recognising that death is imminent can sometimes be difficult. However, within hours to days of death, several of the following symptoms and signs (not explained by a reversible cause) may be present[61]:

- peripheral shutdown and cyanosis
- changes in respiratory patterns (eg. Cheyne-Stokes breathing)
- drowsiness and reduced cognition (no response to verbal and/or physical stimuli)

- uncharacteristic or recent restlessness and agitation
- retained upper airways secretions
- cardiac signs (eg. hypotension, tachycardia)
- decreased mobility (eg. becoming bed bound)
- decreased ability to swallow safely.

Many of the troubling recurrent symptoms of the terminal phase can be remembered under the mnemonic 'PANERO', which stands for Pain, Agitation, Nausea (and vomiting), Emergencies (such as haemorrhage or seizures), Respiratory symptoms (such as noisy breathing) and Other symptoms (related to the specifics of the terminal illness) (see *Tool 3*). Checklists of common and distressing symptoms in the terminal phase can form the basis for locally derived treatment algorithms.[62]

Tools are also available to help audit and improve the quality of palliative care for patients in the terminal phase. The Liverpool Care Pathway template (*Table 3*) incorporates 11 goals covering care of the dying patient, as well as use of education and resources.[63] The Liverpool Care Pathway (www.lcp-mariecurie.org.uk/) can be used with the 'RACGP 5 step audit cycle'[64] to contribute Group 1 continuing medical education (CME) points required for vocational registration. It can also be used with the residential aged care continuing improvement cycle to contribute to RACF accreditation.[65]

Goals	Comfort mesures
Goal 1	Current medications (via appropriate route) assessed, nonessentials discontinued
Goal 2	As required subcutaneous medication written up as per protocol (eg. pain, agitation, nausea and vomiting, emergency orders, respiratory tract secretions)
Goal 3	Discontinue inappropriate interventions (routine blood tests, antibiotics, subcutaneous fluids, not for resuscitation documented when necessary, routine turning regimens/vital signs discontinued)
	Psychological insight
Goal 4	Ability to communicate in English assessed as adequate
Goal 5	Insight into condition assessed
	Religious/spiritual support
Goal 6	Religious/spiritual needs assessed with patient/family
	Communication with family/other
Goal 7	Identify how family/other are to be informed of patients impending death
Goal 8	Family given relevant RACF, funeral and bereavement information
	Communication with primary health care team
Goal 9	GP and other key people in the primary care team are aware of patient's condition
	Summary
Goal 10	Plan of care explained and discussed with patient/family
Goal 11	Family/others express understanding of plan of care

Table 3. The Liverpool Care of the Dying Pathway[66]

Medication management

Residents' medication needs are complex. They are large users of medications due to the high prevalence of disease and comorbidity, and they are dependant on RACF staff for administering their medication.

Optimal medication management in RACFs involves a multidisciplinary and systematic approach with residents or their representative, GPs, pharmacists, aged care nurses, other RACF staff and health service providers. The APAC *Guidelines for medication management in residential aged care facilities* recommended that each facility has a Medication Advisory Committee with GPs, pharmacists (supplying pharmacists and if different, the pharmacist conducting medication reviews), RACF management and staff (including nurses), and resident advocate/s working together to facilitate the quality use of medicines.[67] *Figure 2* summarises the organisational issues for medication management in RACFs that are addressed in the guidelines.

Particular aspects for GPs to consider include (also refer to the APAC guidelines mentioned above):

- an efficient and effective partnership between residents, prescribing GPs, dispensing and review pharmacists and administering RACF staff
- monitoring of risks of adverse medication reactions and interactions, particularly if polypharmacy is combined with over-the-counter medications, or alternative supplements
- regular reviews of prescribed medication following changes in comorbidity and progression of disease
- prescribing as required (PRN) and nurse initiated medication (NIM) to cover anticipated events
- use of alternative oral formulations
- requirements for end of life care.

Prescribing medication

All people have the right to give informed consent or to refuse any medical intervention including medication. It is therefore important to discuss treatment issues with residents and their relatives/carers or representatives using easily understood language. Treatment objectives from the perspective of residents may be affected by their experience of the ageing process, cognitive impairment, physical disability, chronic disease, pain, accumulated losses and social isolation.[68]

General principles of prescribing medication for older people include[69]:

- nonmedication treatments should be used wherever possible
- treat adequately to achieve goals of therapy
- new medications: start low, go slow and increase slowly checking for tolerability and response
- use the lowest effective maintenance dose
- generally prescribe from a limited range of medications and ensure familiarity with their effects in older people
- prescribe the least number of medications, with the simplest dose regimens
- consider the person's functional and cognitive ability when prescribing
- consider medication adverse effects if there is a decline in physical or cognitive functions or self care abilities
- prescribe suitable formulations of medications if a person experiences swallowing problems
- provide patient education, using Consumer Medicine Information (CMI) or simple verbal and written instructions for each medication to reinforce adherence
- regularly review treatment and the person's ability to manage the medications
- consider the medicines already being taken including prescription, nonprescription and complementary medicines.

Prescribing medications include routine medications, as well as pre-planning medications when required (PRN) for anticipated events from specific conditions (eg. allergic reaction, angina, asthma, behaviours of concern, constipation, diabetes, diarrhoea, pain).

Decisions to prescribe medication are optimally[70]:

- evidence based
- made in the context of the patient's medical and psychosocial condition, prognosis, quality of life and wishes
- made in the context that overuse, underuse, and inappropriate use of medications are equally important quality of care concerns
- made with disclosure of confidential information, only as necessary for direct patient care.

General practitioners have access to several excellent sources of evidence based information on prescribing medication. The National Prescribing Service at www.nps.org.au includes the Therapeutic Advice and Information Service (TAIS) for health care professionals. TAIS provides immediate access to independent medication and therapeutics information for the cost of a local call (1300 138 677). Therapeutic guidelines for management of patients with common clinical conditions are available as pocket sized books, CD-ROMs for installation on personal computers, and versions for use on health department intranets, commercial prescribing software, and hand held computers. These are obtainable at www.tg.com.au/home/index.html or telephone 1800 061 260. The *Australian medicines handbook* (AMH) provides a comparative, practical formulary covering most of the medications marketed in Australia. It is available in annual book editions, CD-ROM, PDA, or online (via Health Communications Network) at www.amh.net.au. Also provided by the AMH is the *Medication choice companion: aged care*, which is particularly relevant for older people living in RACFs.[71]

In addition, best practice for medication management in older adults includes these steps[72]:

- Identify the presence and nature of the resident's symptom, disease, condition, impairment, or risk
- Assess the resident to identify the cause of the problem, or document why an assessment was not performed
- Gather and assess information about the resident's current medications and treatments as well as responses and adverse reactions to previous medications and treatments
- Identify and document the reason(s) why the disease, condition, symptom, or impairment needs to be treated, or why treatment is not to be provided
- Choose an appropriate medication or modify an existing medication regimen
- Identify and document the objective(s) of treatment
- Consider and document the benefits and risks of treatment
- Consider and document possible medication interactions
- Order the selected agent
- Order appropriate precautions in administering the medication, including instructions for resident monitoring
- Assess and document the resident's status during or at the end of treatment
- Assess the resident for possible adverse medication reactions
- Modify the medication regimen as indicated by its effectiveness or by the presence of complications.

Medication orders are written on RACF medication charts by qualified prescribers taking into account the needs and views of residents (or representatives), policies of the RACF, legislative requirements and professional standards. The qualified prescriber is usually the resident's GP, but may also be a locum or hospital doctor, geriatrician or palliative care physician. In some situations, registered dental practitioners or registered nurse practitioners are able to prescribe medications.

It is considered best practice for GPs to work closely with RACF staff to regularly review and rewrite medication charts to maintain a continuum of medication for residents. The APAC *National guidelines to achieve the continuum of quality use of medicines between hospital and*

community should be referred to when a resident moves between different health care settings (eg. hospital to RACF).[73] A residential medication management review, conducted by the GP and pharmacist, is recommended for each resident on admission and regularly thereafter (see *Organisational aspects*).

Dispensing, storage and disposal of medication

Pharmacists work closely with GPs to dispense medication as prescribed and conduct medication reviews. They work closely with RACF staff to supply the dispensed medications in a suitable form and ensure their safe handling at the facility.

The Pharmaceutical Society of Australia has developed standards for pharmacy services to residents[74]:

- Maintain appropriate systems for the supply of medicines to the facility
- Ensure that medicines are delivered to the RACF in a timely manner
- Ensure that medicines are stored within the RACF in accordance with legislative and manufacturers' storage requirements
- Monitor stock medicines used in the RACF
- Check medications brought into the RACF by new patients, as soon as practicable after admission, to ensure consistency with currently prescribed medications
- Conduct a comprehensive medication review of all residents at regular intervals and maintain appropriate records
- In consultation with medical practitioners identify residents who may require therapeutic medication monitoring
- Identify, monitor and document adverse medication events
- Provide information on medicines that adequately meet the needs of the RACF
- Provide an education program appropriate to the needs of the RACF
- RACFs must have a mechanism in place for the disposal of returned, expired and unwanted medicines.

Administering medication

Medications can be administered by a registered nurse who is qualified to administer medication, or self administered by the resident (who is assessed as competent to do so).

Dose administration aids (DAAs) are used to provide medications where there is not a registered nurse qualified to administer medications, or to assist residents who are self administering medications. 'Blister' packaging systems or 'compartmentalised boxes' are packed and labelled by a pharmacist and the medications administered directly from the DAA to the resident. If the prescriber alters any medication order, the entire DAA must be returned to the supplying pharmacist for repackaging. Residential aged care facility staff should refer to relevant state/territory legislation for further information on DAAs.

It is recommended that RACFs have policies and procedures for the alteration of oral dose formulations (eg. crushing tablets or opening capsules) to make it easier to administer medication to residents with swallowing difficulties. In some cases, the practice of altering the form of medication may result in reduced effectiveness, a greater risk of toxicity, or unacceptable presentation to residents in terms of taste or texture. Controlled release medications should not be crushed or altered without consultation with the pharmacist. Residential aged care facility staff could refer to Appendix F of the APAC *Guidelines for medication management in residential aged care facilities* for more information on alteration of oral formulations (*Figure 2*).

Medication advisory committee (MAC) (Recommendation 1)*	Example of terms of reference and meeting agenda (Appendix A and B)* Example of a medication management administration policy (Appendix C)* Provision of pharmacy services to an RACF (Appendix D)*	
Residential aged care facility (RACF)	Medication chart (Recommendation 2)*	All residents including respite care Electronic or manual and photo ID Include self administered and complementary medicines
	Medication review (Recommendation 3)*	Reviews should be recorded on resident's record and medication chart Regular review/use multidisciplinary team Consult with patient
	Standing orders (Recommendation 5)*	Emergency supplies Consult relevant state/territory legislation
	Nurse initiated medication (Recommendation 6)*	Defined drug list and protocols GP access to list Regular review Consult state/territory legislation and guidelines
	Self administered medications (Recommendation 7)*	RACF policy and process re assessment of patient competency. Example of assessment of a resident's ability to self administer (Appendix E)* Regular review within care plan Document agreement/copy to patient
	Alteration of oral formulations (Recommendation 8)*	Alteration of solid dosage – methods Documentation on medication chart Medicines list remain unaltered and regular update OH&S considerations Example of guidelines and standard operating procedures for altering medication dose forms (Appendix F)*

	Dose administration Aids (DAA) (Recommendation 9)*	Use to encourage compliance with medication Roles and responsibilities of pharmacist Policy for the administration of medications offsite DAA indicate if ceased/withheld
	Emergency supplies (Recommendation 14)*	Refer to state/territory legislation MAC policy use/documentation/stock control Minimal range of medicines in after hours use
	Other	Administration of medications (Recommendation 4)* Information resources (Recommendation 10)* Storage and disposal of medicines (Recommendation 11 and 12)* Complementary/self selected medicines (Recommendation 13)*

Figure 2. Organisational issues for medication management in RACFs. (*See the Australian Pharmaceutical Advisory Council *Guidelines for medication management in residential aged care facilities*[67])

02 Common clinical conditions

Delirium

Delirium (acute brain syndrome, acute confusional state or acute organic psychosis) is an acute or subacute deterioration in mental functioning that occurs commonly in the older population, particularly in hospitals and RACFs. The cause is usually multifactorial and reversible, and may involve infection, metabolic disturbance, hypoxia, and medication toxicity or withdrawal. In hospital, delirium occurs in 30% of older patients and predicts poorer outcome and greater length of stay. Delirium has a fluctuating course, and although recovery is often rapid, complete resolution may take weeks.[75,76]

Assessment

Detection is often based on a history of fluctuating alertness with cognitive impairment that has developed over hours to days, and is worse at night. Some patients are predominately hyper-aroused with agitation and hallucinations, others are hypoactive with decreased consciousness, somnolence or stupor, and some alternate between agitated and hypoactive forms.[77]

The Confusion Assessment Method (*Table 4*) is a useful assessment tool. Diagnosis of delirium requires the presence of both features 1 and 2, as well as either 3 or 4.[78]

Feature of delirium	Assessment
1. Acute onset and fluctuating course	Is there an acute change in mental status from the person's baseline? Does the abnormal behaviour tend to come and go or increase and decrease in severity?
2. Inattention	Does the person have difficulty focussing attention? Eg. distracted or having difficulty keeping track of what is being said
3. Disorganised thinking	Is the person's thinking disorganised or incoherent, rambling or irrelevant, unclear or illogical, or unpredictable?
4. Altered level of consciousness	Overall is the person lethargic (drowsy, easily aroused), stuporous (difficult to arouse), comatose (unable to be aroused) or hypervigilant (hyperalert)?

Table 4. Confusion Assessment Method[79]

Differential diagnoses include depression, dementia, anxiety and psychosis. Patients with dementia are at greater risk of developing delirium. See *Table 6, Dementia* for a comparison of the clinical features of delirium, dementia and depression.

Look for reversible causes on examination and testing, particularly sepsis, dehydration, hypoxia, metabolic abnormalities and opioid toxicity. *Table 5* lists potentially reversible causes of delirium.

Medical	Medications
Infections (eg. urinary tract infection [UTI], pneumonia) Hyponatraemia Hypovolaemia Hypoxia Urinary retention and constipation Renal failure Cerebrovascular event Endocrine (eg. diabetes, thyroid dysfunction) Brain metastases Hepatic encephalopathy Psychosocial Hypercalcemia Immobilisation Head trauma Epilepsy Disseminated intravascular coagulation (DIC)	Tricyclic antidepressants Corticosteroids Opioids Benzodiazepines Diphenhydramine Nonsteroidal anti-inflammatory medication (NSAIDs) (uraemia) H2 blockers Metoclopramide
Psychosocial	
Depression Vision/hearing impairment Pain Emotional stress Unfamiliar environment Psychosis Mania	

Table 5. Potentially reversible causes of delirium[80]

Management

The aim of treatment is the resident's comfort and safety. Management involves treatment of underlying causes, alleviation of symptoms, and education of the resident, relatives/carers and RACF staff.

Review medication and discontinue unnecessary medications, consider opioid rotation, minimise or eliminate psychoactive medications. If required, give oxygen, rehydrate with subcutaneous or intravenous fluids, restrict fluids for hyponatraemia, treat hypercalcaemia with bisphosphonates. Commence antibiotics for infection after discussion with relatives/carers.

Provide continuity of nursing staff, familiar people and objects, structure and routines, a quiet, appropriately lit room, and removal of objects of harm. Ensure adequate warmth, nutrition, mobilisation and correction of sensory impairments (spectacles, hearing aids). It is preferable for service providers to identify themselves and approach the resident from the front rather than the side, as peripheral stimuli may be interpreted as hostile. Use simple explanations, with a calm, respectful attitude.[81]

In hospitalised patients with delirium, complete resolution of delirium may take weeks after discharge. Therefore the GP and RACF staff need to maintain vigilance about medication, environmental change and sensory problems.[82]

There are no specific medication treatments, apart from benzodiazepines for alcohol withdrawal (contraindicated if respiratory drive is compromised). Medications are not helpful for calling out or wandering. Short term antipsychotics may be used with caution for hallucinations or agitation.[83]

Symptoms and disinhibited behaviour associated with delirium may be distressing to relatives/carers and RACF staff. Distress can be reduced by educating relatives/carers and RACF staff, for instance, that:

- confusion and agitation are expressions of temporary brain malfunction, and not necessarily of discomfort or suffering for the resident

- grimacing or moaning may be due to increased expression (disinhibition) of well controlled physical symptoms rather than a worsening of symptoms
- observer distress can lead to excessive use of medication (eg. opioids) which can exacerbate delirium.

Dementia

Dementia is a progressive decline in general cognitive function, with normal consciousness and attention.[84] There is impairment of memory, abstract thinking, judgment, verbal fluency and the ability to perform complex tasks. It is associated with behavioural and psychological changes, and impairment of social and physical functioning. Behavioural and psychological symptoms of dementia (BPSD) include psychosis, depression, agitation, aggression and disinhibition in the later stages of the illness.[85]

The prevalence of dementia increases with age, from about 3.4% at 70–74 years to 20% at 85–89 years, and 40% at 95 years or over. As the Australian population ages, the number of people with dementia is estimated to rise from 200 000 (1% of Australians) in 2005, to 730 000 (2.8% of the projected population) by 2050.[86] Dementia is one of the most common conditions of older people who live in residential care, affecting about 30% of residents in low care and 60% in high care.

Many people with dementia will enter residential care for respite or long term care several years after onset when they require support for impairment in activities of daily living or behavioural and psychological symptoms. Dementia and BPSD can have a significant physical and emotional impact on families and carers. The process of moving to residential care can be difficult and requires understanding and support.[87] Some older people may develop dementia while living in residential care. Therefore, GPs are likely to see residents with the full spectrum of mild to moderate to severe dementia.

Common types of dementia are Alzheimer disease (40–60%), vascular dementia (10–20%), and Lewy Body dementia (15–20%). Other causes are frontal lobe dementia, Parkinson disease with dementia, normal pressure hydrocephalus, post-traumatic, medications, alcohol, anoxic encephalopathy, prion diseases (eg. Cretzfeldt-Jacob disease), Huntington disease, Down syndrome and AIDS.[88] Dementia may be due to a combination of causes.[89]

Alzheimer disease is characterised by an insidious onset of symptoms, with initial forgetfulness progressing over time to profound memory impairment with accompanying dysphasia, dyspraxia and personality change. Noncognitive symptoms may include decreased emotional expression and initiative, increased stubbornness and suspiciousness, and delusions.

Vascular dementia usually starts suddenly, with focal neurological signs and imaging evidence of cerebrovascular disease. There may be emotional lability, impaired judgment, gait disorders, with relative preservation of personality and verbal memory. It often occurs in combination with Alzheimer disease.

Lewy Body dementia is characterised by cognitive impairment that affects memory and the ability to carry out complex tasks, and fluctuates within 1 day. It is associated with at least one of the following: visual or auditory hallucinations, spontaneous motor parkinsonism, transient clouding or loss of consciousness, and repeated unexplained falls.

Frontal lobe dementia features include impaired initiation and planning, with disinhibited behaviour and mild abnormalities on cognitive testing. Apathy and memory deficit may appear later.

Residents with dementia have increased risks of other conditions, including:

- delirium
- depression
- dysphagia and aspiration

- falls, through impaired judgment, gait, visual space perception and ability to recognise and avoid hazards
- urinary and faecal incontinence through reduced awareness and mobility
- inadequate recognition and management of pain.

Assessment

Comprehensive assessment of residents with dementia will:

- confirm the diagnosis, although this may have occurred at earlier stages of the illness before admission to the facility,[90] or require specialist referral
- differentiate dementia from delirium and depression, although these conditions may co-exist with dementia
- identify the cause of dementia, which is important for treating any reversible conditions and for selecting medication
- identify behavioural and psychological symptoms
- determine the extent and severity of functional impairment, including activities of daily living, and decision making capacity
- consider the impact of dementia on other geriatric syndromes and their management
- identify the concerns of relatives and RACF staff, and their need for information and support.

Assessment methods are those outlined for the comprehensive medical assessment, with a focus on making an accurate diagnosis, identifying active problems and establishing goals of care with the resident, relatives/representative and RACF staff. (It will be helpful to do cognitive testing early in the assessment, and to talk with relatives/carers and RACF staff about their observations of functional status, BPSD and decision making capacity [see *Medical assessment of the resident*]). The Medicare item Comprehensive Medical Assessment can be utilised on admission and for annual review of a resident with dementia (see *Tools 10*).

Cognitive testing

Cognitive testing is useful to assess and document severity of cognitive impairment and to measure changes in cognitive function over time. It can help differentiate between dementia, delirium and depression. Many tests are available and suitable for cognitive assessment. Currently, the Mini-Mental State Examination (MMSE)[91] and clock drawing test are the most widely used and recommended. The Abbreviated Mental Test Score (AMTS)[92] is a quicker measure of cognitive impairment that correlates well with the MMSE and has been tested on an Australian sample of patients[93] (see *Tools 4*).

Versions of the MMSE are available in Medical Director software and in several publications.[94,95] Patients with Alzheimer disease are likely to score at least 21 on the MMSE for mild disease, 10–20 for moderate disease, and 9 or less for severe disease.[96] The MMSE score may be normal for people with early cognitive impairment.

The clock drawing test is useful in combination with the MMSE. It may demonstrate changes in the early stages of dementia, reflecting deficits in planning, spatial perception and cognition.[97] The technique involves giving the patient a sheet of paper and asking them to draw a clock face (big enough to ensure there is a need to plan the number spacing), draw the numbers in correct position, and draw hands to show the time of 'ten past 11'. There are several methods used to score the test, eg. one point for drawing a closed circle, one point for drawing 12 numbers, one point for positioning numbers correctly, and one point for placing clock hands at a designated time.[98]

Differentiation of dementia from delirium and depression

Table 6 compares the clinical features of dementia with delirium and depression.[99] However, features may co-exist, as residents with dementia are at increased risk of delirium and depression. It is important to identify delirium and arrange urgent investigation and treatment for physical

and medication related causes (see *Delirium*). Obtaining a history of depressive symptoms, and using depression assessment scales and cognitive testing, can assist in the diagnosis of depression (see *Depression*). Depression occurring in people with dementia needs to be distinguished from depressive pseudodementia, an uncommon condition of depression presenting as a dementia-like illness.

Feature	Delirium	Dementia	Depression
Onset	Acute/sub-acute depends on cause, often twilight	Chronic, generally insidious, depends on cause	Coincides with life changes, often abrupt
Course	Short, diurnal fluctuations in symptoms; worse at night in the dark and on awakening	Long, no diurnal effects, symptoms progressive yet relatively stable over time	Diurnal effects, typically worse in the morning; situational fluctuations but less than acute confusion
Progression	Abrupt	Slow but even	Variable, rapid-slow but uneven
Duration	Hours to less than 1 month, seldom longer	Months to years	At least 2 weeks, but can be several months to years
Awareness	Reduced	Clear	Clear
Alertness	Fluctuates; lethargic or hypervigilant	Generally normal	Normal
Attention	Impaired, fluctuates	Generally normal	Minimal impairment but is distractible
Orientation	Fluctuates in severity, generally impaired	May be impaired	Selective disorientation
Memory	Recent and immediate impaired	Recent and remote impaired	Selective or patchy impairment, 'islands' of intact memory
Thinking	Disorganised, distorted, fragmented, slow or accelerated, incoherent	Difficulty with abstraction, thoughts impoverished, marked poor judgment, words difficult to find	Intact but with themes of hopelessness, helplessness or self deprecation
Perception	Distorted; illusions, delusions and hallucinations, difficulty distinguishing between reality and misperceptions	Misperceptions often absent	Intact; delusions and hallucinations absent except in severe cases
Stability	Variable hour to hour	Fairly stable	Some variability

Emotions	Irritable, aggressive, fearful	Apathetic, labile, irritable	Flat, unresponsive or sad; may be irritable
Sleep	Nocturnal confusion	Often disturbed; nocturnal wandering and confusion	Early morning awakening
Other features	Other physical disease may not be obvious		Past history of mood disorder

Table 6. A comparison of the clinical features of delirium, dementia and depression[100]

A detailed history obtained from the resident and relatives/carers will help evaluate[101]:

- cognitive impairment and decline from a former level of functioning: memory, problem solving, language, getting lost, using appliances, failure to recognise people or objects
- behavioural and psychological symptoms: depression, withdrawal, aggression, agitation, false beliefs, hallucinations, sleep disturbance, loss of social graces, obsessive-compulsiveness
- risk assessment: falls, wandering, nutrition, medication, abuse
- alcohol intake
- family history
- capacity to consent to medical treatment, appoint a representative and make an advance care plan.

Physical examination can help diagnose[102]:

- specific conditions which may cause dementia, eg. stroke, cerebrovascular disease, Parkinson disease, hypothyroidism, alcoholism. Look for focal neurological signs, poor/abnormal gaze, tremor or abnormal gait
- underlying chronic conditions which may aggravate dementia, eg. hypertension, cardiac failure, renal failure, diabetes, asthma
- conditions which may cause delirium, eg. respiratory or urinary tract infection (UTI).

Investigations are usually undertaken to identify reversible causes of dementia and may include:

- haemoglobin, white cell count, erythrocyte sedimentation rate, serum B12 and folate levels
- serum electrolytes and renal function, serum calcium and phosphate
- liver function, thyroid function, blood sugar
- urine micro and culture
- chest X-ray (if delirium)
- brain scan
- syphilis serology and HIV antibodies if indicated.

Management

General practitioners are well placed to provide care to patients with dementia from the early stages at home through to later stages at a RACF.[103] Most residents with dementia are managed by their GP and RACF staff. Complex cases, or early cases where the differential diagnoses are unclear, may require specialist advice or support, eg. through cognitive, memory and dementia services, ACATs, psychogeriatric services, or palliative care services. Some people with severe dementia may require admission to a psychogeriatric unit. Involvement of the resident's relatives and carers can ameliorate feelings of loss and captivity, increase satisfaction with care, and improve clinical outcomes.[104,105]

A general approach to management of dementia by GPs involves[106]:

- establishing partnerships with the resident, family, RACF staff and relevant local specialist services

- regularly reviewing the physical and mental health of the resident, including the use of medication
- treating reversible causes and co-existing conditions
- requesting RACF staff to monitor symptoms and behaviours that cause concern, preferably using established scales
- discussing with RACF staff the psychological and social strategies for the management of BPSD
- understanding the resident and family perspective, so that the transition through stages of care can be sensitively managed.

Consultations with residents and their relatives/carers will enable GPs to provide information and address expectations and concerns. In the early stages of dementia, discussion may cover the condition, advance care planning, appointing a representative, and ways to maintain function. While remaining frank and open about what to expect, GPs may also be positive about the development of new treatments. Information and support for residents, their relatives/carers and health professionals is available from Alzheimer's Australia (see *Contacts*).

It is important that other geriatric syndromes are recognised and managed appropriately as often residents with dementia may not report specific problems during routine care. The residential care setting provides opportunities for carefully targeted prevention and intervention programs for care of common conditions in people with dementia,[107–109] including routine assessment of swallowing difficulties, monitoring nonverbal pain behaviours, prompting patients to visit the toilet on a regular basis, and reducing falls risk by minimising environmental hazards. Once reversible causes have been treated and coexisting conditions managed, the major mode of dementia management is with nonpharmacological interventions. These can be targeted to specific symptoms including cognitive impairment, apathy, depression, psychotic symptoms, and aggression.

Management of behavioural and psychological symptoms of dementia

Psychological and behavioural symptoms are an integral manifestation of dementia. Depression is common in the early stages. Behavioural manifestations are common in the intermediate stages of Alzheimer disease and at various stages in other types of dementia.[110]

Brodaty et al developed a service delivery model for managing people with behavioural and psychological symptoms of dementia.[111] The model divides people with BPSD into seven tiers in ascending order of symptom severity and decreasing levels of prevalence. Recommended treatment is cumulative through the tiers, with increasing interventions as symptoms become more serious.

- Tier 1: For no dementia, management is universal prevention, although specific strategies to prevent dementia remain unproven
- Tier 2: For dementia with no BPSD (40% prevalence), management is by selected prevention through preventive or delaying interventions (not widely researched)
- Tier 3: For dementia with mild BPSD (prevalence 30%), eg. night time disturbance, wandering, mild depression, apathy, repetitive questioning, and shadowing, management is by primary care workers
- Tier 4: For dementia with moderate BPSD (prevalence 20%), eg. major depression, verbal aggression, psychosis, sexual disinhibition, and wandering, management is by primary care workers with specialist consultation as required
- Tier 5: For dementia with severe BPSD (prevalence 10%), eg. severe depression, psychosis, screaming, and severe agitation, management is in dementia specific high level residential care, or by case management under a specialist team
- Tier 6: For dementia with very severe BPSD (prevalence <1%), eg. physical aggression, severe depression, and suicidal tendencies, management is in a psychogeriatric or neurobehavioural unit
- Tier 7: For dementia with extreme BPSD (rare), eg. physical violence, management is in an intensive specialist care unit.

General practitioners and RACF staff can minimise and manage BPSD effectively by getting to know residents with dementia and how to approach them, and by recognising the factors that aggravate their behavioural and psychological symptoms. Careful analysis of the cause of behaviour (*Table 7*), behavioural management strategies and good environmental design may reduce BPSD.

Patient	Interaction	Environment
• Cultural background, values, language • Social history • Impact of changes to family or work roles • Personality traits • Tiredness, sleeping problems • Hunger, thirst • Feelings of frustration, sadness, anger, grief • Pain, discomfort • Hearing impairment • Visual impairment • Infections, new illness • Physical movement problems • Incontinence • Constipation • Poor dental health • Blood pressure (high or low) • Pre-existing illness • Medication adverse effects, interactions • Progression of dementia	• Poor communication (speaking too fast, slurring words, mumbling) • Language too complex or condescending • Not enough information and prompting given • Poor eye contact • Hostile or defensive tone in voice or body language • Inappropriate or misunderstood verbal or nonverbal cues • Personal space invaded • Task or activity too complex or demeaning • Changes to routines or activities • Social isolation or too much socialisation • Minimal or overwhelming levels of activity • Unfamiliar people • Cultural and religious influences not considered • Preferred language not used • Feelings of resident not acknowledged	• Unfamiliar surroundings • Too much or competing noise • Clutter and obstructions • Visual distraction (patterned carpet) • Poor lighting (glare, shadows) • Decor and fittings confusing • Lack of visual prompts (eg. not obvious where toilet is located) • Visual prompts that cue unwanted behaviour (eg. coats or hats hung by the door) • Unsafe environment • Uncomfortable temperature (hot/cold) • Lack of personal belongings • Culturally inappropriate environment • Lack of privacy and personal space • Environment not sensitive to perceptual changes of dementia

Table 7. Factors that may contribute to behavioural disturbances in dementia[112]

Changes to the resident's environment, routines and tasks may help to reduce distress in day-to-day activities. See the Alzheimer's Association website (www.alzheimers.org.au) for help sheets on daily care (hygiene, dressing, safety), behavioural issues (sundowning, wandering, aggression, agitation), and changes that can be made to the resident's environment.

Behavioural interventions may include[113]:

- education: explanation for residents and relatives/carers, and training of RACF staff
- sensory stimulation: orientation cues, diversional activities, music, massage, pets
- cognitive: reminders and repetition of information
- self care skills: dressing, eating, toileting
- physical activity: simple exercise routines, eg. walking, gentle exercise groups
- social interaction: regular social activity, groups, and visitors
- behavioural therapies.

Behavioural therapies (eg. re-orientation, reminiscence, music therapy) may be useful for some people with behavioural disturbance, however clinical trials are small and few.[114] Residential aged care staff have access to training and several psychosocial approaches to care such as 'reality orientation', 'validation therapy' and other nonmedication therapies for BPSD.[115] Delirium should be suspected and the cause treated if a resident with dementia becomes acutely disturbed (see *Delirium*).

Restraint may be used in a RACF in situations where a patient's behaviour or activity may result in loss of dignity, personal harm, damage to property, or severe disruption to others. However it should be as a last resort and not a substitute for adequate education or resources in the facility. Restraint is 'any aversive practice, device or action that interferes with a resident's ability to make a decision or which restricts their free movement'.[116] Most RACFs have a restraint policy which complies with *The Aged Care Act 1997*, as well as the requirements of the Aged Care Standards and Accreditation Agency, state and territory legislative processes, and professional and ethical requirements.

Medication management

Medication can enhance cognitive function and delay progression of dementia, treat depression, and improve behavioural and psychological symptoms.[117] For any treatment, the impact on quality of life is a key consideration, including potential benefits and risks.

Acetylcholinesterase inhibitors can have a positive effect on cognitive impairment, apathy, psychotic symptoms and aggression.[118] However, while these medications improve the quality of life of some people with mild to moderate Alzheimer disease, clinical trials have found that, on average, improvements are modest in cognitive function and delay of functional decline. Guidelines suggest that patients who do not stabilise or improve in the first 6 months of anticholinesterase therapy are unlikely to have any subsequent benefit. Therefore patients should be reviewed regularly to assess the value of ongoing treatment. A meta-analysis reported similar effect sizes for donepezil, rivastigmine and galantamine, however crossover studies suggest a trial of a second agent in nonresponders is reasonable. Adverse effects such as nausea, vomiting, diarrhoea and dizziness are dose related.[119] See the *Pharmaceutical Benefits Scheme Handbook* for current prescribing guidelines for cholinestererase inhibitors.

Psychotropic medication may be effective for specific indications such as depression, anxiety, psychotic symptoms (hallucinations and delusions), motor activity and aggression. Starting doses should be low and increased slowly with careful monitoring for adverse effects, especially sedation, postural hypotension and parkinsonism.[120] Respiridone has been approved by the Pharmaceutical Benefits Scheme for management of BPSD.

Antidepressants are helpful in managing depressive symptoms and aggression in residents with dementia.[121] Nontricyclic antidepressants may be indicated, depending on symptoms and their severity, including sleep disorder, anxiety, and obsessive-compulsive features.[122] Tricyclic antidepressants with anticholinergic adverse effects have the potential to exaggerate cognitive impairment due to central acetylcholine deficiency in Alzheimer disease and should be avoided.[123]

Benzodiazepines may exacerbate cognitive impairment in dementia, and increase the risk of falls and associated injury. Oxazepine is recommended for severe anxiety, and agitation.[124]

Medication for the management of distressing BPSD may be considered in addition to nonmedication interventions. Psychotropic medication can be effective, particularly for behaviours and distress that have been precipitated by hallucinations and delusions.[125] However, there is limited evidence of efficacy for medications for restraint and significant risk of adverse effects.[126]

Antipsychotic agents may be required to manage distressing psychotic symptoms, aggression and behavioural disturbance. Conventional antipsychotic agents such as haloperidol are not recommended due to lack of evidence of effectiveness, common extrapyramidal side effects, and sedative anticholinergic side effects.[127] They should not be used in patients with suspected Lewy Body dementia or Parkinson disease.[128] Respiridone, an atypical neuroleptic agent, is effective for reducing psychotic features and aggression. Although it has fewer serious adverse effects and is better tolerated than conventional antipsychotic medications, it may sometimes cause extrapyramidal side effects, drowsiness, hypotension, hyperglycaemia and increased risk of cerebrovascular accidents.[129–131] Ask RACF staff to monitor and report signs of possible adverse effects such as abnormal movements of the face, trunk and limbs; dizziness or fainting on standing; sudden weakness or numbness in the face, arms or legs; speech or vision problems; or worsening diabetic control.[132]

Lewy Body dementia is a contraindication to the use of major tranquilliser-neuroleptic agents including the newer atypical antipsychotics.[133]

Anti-epileptic agents in low doses may be effective in reducing behaviours characterised by motor overactivity and aggression.[134]

Behavioural disturbances may be short term, therefore the need for medication should be reviewed within 6 months and the dose diminished and discontinued where possible.

Depression

Depressive disorders are common and disabling, particularly among older people who live in residential aged care or who have a comorbid illness.[135] Prevalence estimates vary depending on the methodology used and the definition of depression.[136] An Australian survey estimated that 51% of high care residents and 30% of low care residents without cognitive impairment had major depression based on the Geriatric Depression Scale.[137]

Depression in residents has been associated with recent bereavement, physical illness, cultural factors, quality of the home environment, existence of depression before admission, and the ways in which depression is treated.[138]

Depressive disorders include major and minor depression. Diagnostic criteria for major depression are shown in *Table 8*. Residents with minor depression (depressive symptoms without fulfilling DSM-IV criteria for major depression) may be just as distressed and functionally disabled by their symptoms as those with major depression.[139]

DSM-IV criteria for major depression are five or more of the following symptoms persisting over a 2 week period causing clinically important distress or impairing work, social or personal functioning (with depressed mood or decreased interest or pleasure as one of the five):

- Depressed mood most of the day, occurring most days (subjective or observed)
- Markedly diminished interest or pleasure most of the day, nearly every day
- Significant weight or appetite change
- Insomnia or hypersomnia
- Psychomotor agitation or retardation (observable by others)
- Fatigue or loss of energy
- Feelings of worthlessness or inappropriate guilt
- Diminished ability to concentrate or make decisions
- Recurring thoughts of death or suicide plans

Table 8. DSM-IV criteria for major depression[140]

Older people may have a recurrence of early onset depressive symptoms, or present with depression for the first time later in life (over 50 years of age). Early onset depressive disorders are likely to be associated with genetic risk and cognitive vulnerability to depression, and have an increased risk of developing coronary and cerebrovascular disease. Late onset depressive disorders are often associated with pre-existing physical illness, particularly cerebrovascular disease (eg. vascular depression and poststroke depression), heart disease, diabetes, cancer, Parkinson disease, dementia and cognitive impairment.[141,142] Depression may also occur in residents receiving palliative care.[143]

Vascular depression is characterised by a lack of family history of depression, subcortical neurological dysfunction, cognitive impairment and psychomotor change. Patients with vascular depression may later develop vascular dementia.[144]

Poststroke depression develops over months, with peak prevalence between 3–24 months, and is associated with poor functional and psychosocial outcome. Predictive factors are aphasia 3–12 months after stroke, older age, limited social supports and a previous history of psychiatric

problems. It usually remits after 1–2 years, but some cases persist up to 3 years following stroke.[145]

Depression in residents may be unrecognised and untreated as older people may not report symptoms or may attribute symptoms to ageing or physical causes. Also, symptoms are more likely to be somatic or atypical.

Assessment

Assessment involves obtaining a history from residents and their relatives, the use of depression assessment scales and cognitive testing, physical examination, and investigations. The purpose of assessment is to:

- confirm diagnosis and the severity of depression
- differentiate depression from dementia and delirium
- identify reversible causes
- identify other conditions that may contribute to depression or be aggravated by depression
- assess the risk of self harm.

Clinical features of depression in older patients include[146]:

- psychological – fluctuating depressed mood, loss of interest in activities, loss of motivation, irritability
- somatic – loss of energy, fatigue, headache, pain and palpitations
- cognitive – forgetfulness, poor concentration, psychomotor slowing
- behavioural – social withdrawal, reduction in activity, disinhibition.

Patients with severe depression may also exhibit cognitive dysfunction, psychotic symptoms and melancholia. Symptoms of depression may be due to an underlying medical condition or cognitive impairment rather than an underlying mood disorder. Differential diagnoses include dementia, delirium, side effects of medications, sepsis and hypothermia.[147]

Table 6 (see *Dementia*) compares the clinical features of depression with dementia and delirium. Cognitive testing (eg. using the MMSE) can help differentiate between dementia and depression. There are several depression assessment tests available that have been validated in older populations. The Geriatric Depression Scale (see *Tools 5*) and the Cornell Scale for Depression in Dementia (see *Tools 6*) are recommended.[148] The Geriatric Depression Scale is suitable for detecting major depression in older people without dementia. The Cornell Scale is designed for the assessment of depression in older people with dementia who can at least communicate basic needs. The Beck Depression Scale is recommended for patients poststroke, as it has low reliance on somatic symptoms and memory.[149]

Review medications to identify those with potential depressive effects (eg. anticonvulsants, acitretin, corticosteroids or progesterone). Investigations can help identify reversible causes of depression including vitamin B12 deficiency, hypothyroidism, delirium or sepsis.[150] Look for conditions that could contribute to depression or affect treatment (eg. chronic insomnia, pain, incontinence, alcoholism, stroke, recent myocardial infarction, dementia, Parkinson disease). Neurological imaging may help assess dementia and cerebrovascular disease. Assess whether the patient is at risk of self harm (eg. by using the guide to assessment of suicide risk in the *Psychotropic therapeutic guidelines*).[151]

Management

Most older patients with depression will respond to treatment, with improvement in function and wellbeing. Overall, the prognosis for late onset depression is similar to that for younger patients.[152]

Treatment of depressive symptoms involves a combination of nonmedication therapies (eg. patient education, behavioural strategies, psychotherapy) and antidepressant medication. Management also includes the treatment of reversible causes, change in medications or

situations that are contributing to the depression, adequate treatment of associated medical conditions, and reduction of self harm risk.

Monitor progress regularly, and consider specialist referral for patients[153]:

- with severe, melancholic or psychotic depression
- who fail to respond to treatment
- who are at significant risk of self harm
- where the diagnosis is unclear
- where specialist treatments are required, eg. electroconvulsive therapy.

Nonmedication therapy

Psychosocial management is the main treatment for mild depression related to loss, and provides additional support to antidepressant medication in major depression (eg. poststroke). Psychosocial management includes patient and family education, counselling, cognitive behavioural therapy, interpersonal therapy, re-establishment of sleep pattern, addressing functional difficulties, increasing social participation, diet, and regular exercise.[154] Exercise is effective in relieving symptoms in mild to moderate depression, improving mobility, and reducing risks for vascular disease and falls. Exercise can involve a daily walk or resistance training.[155]

Medication

Antidepressants are effective in treating major depression, however there is limited evidence for their effectiveness in minor depression.[156] Clinical trials demonstrate similar efficacy across the major medication classes of antidepressants for major depression. Combinations have not been shown to be more effective than monotherapy, and have a significant risk of serious adverse effects. When choosing medications, consider the patient's history and previous response to antidepressants, adverse effect profiles, and the potential for medication interactions with current medications.[157] Refer to guidelines for details of antidepressants, dosage regimens, adverse effects, interactions and discontinuation.[158]

The selective serotonin reuptake inhibitors (SSRIs) are first line antidepressants in the elderly as they have a safe side effect profile, a relatively quick onset of action of 7–10 days, and good anti-anxiolytic effects. Maximum benefit may take 6 weeks and treatment should be continued for at least 6 months. Most patients who have a relapse will respond to reinstated treatment. Monitor regularly for benefits and adverse effects, including falls and common effects of specific classes of medications.[159] Adjunctive therapies with antipsychotics and electroconvulsive therapy are sometimes indicated for patients with severe depression.

Dysphagia and aspiration

Dysphagia refers to difficulty in swallowing; there is a 40–50% prevalence among elderly people in RACFs.[160] Oropharyngeal dysphagia is the most common form of dysphagia in older people, and the most common causes are neurological disorders such as stroke, Parkinson disease, and dementia. Oropharyngeal dysphagia may be characterised by difficulty in initiation of swallowing and the impaired transfer of food from the oral cavity to the oesophagus. Oropharyngeal dysphagia causes increased morbidity and mortality through dehydration, malnutrition and aspiration pneumonia, and may be associated with depression and deterioration in quality of life. Causes of oesophageal dysphagia include motility disorders, medication, inflammatory causes (eg. reflux oesophagitis), infection (eg. candidiasis) and obstructions (eg. oesophageal cancer) and rarely Zenker's diverticulum, external pressure.

Aspiration refers to the inhalation of oropharyngeal or gastric contents into the larynx and lower respiratory tract. Silent aspiration, ie. aspiration without key clinical symptoms and signs, is found in more than 50% of patients who aspirate. Older people at risk for aspiration include those with stroke, Parkinson disease, dementia, reduced level of consciousness, or any severe illness or disability. Aspirate can include food, saliva and gastric content. Sequelae of aspiration are

dependent on the amount, frequency and nature of aspirated material as well as the person's immune response. Aspiration pneumonitis is a chemical reaction in the lung parenchyma caused by the inhalation of sterile gastric contents. Aspiration pneumonia is infection caused by inhalation of oropharyngeal secretions that are colonised by bacteria. Aspiration pneumonia is the most common cause of death in patients with dysphagia associated with neurological disorders.

Assessment

The usual symptoms of dysphagia include food sticking in the throat, coughing or choking, as well as nasal or oral regurgitation. There is lack of evidence to support the use of screening protocols for oropharyngeal dysphagia.[161] Clinical suspicion of aspiration could be followed up by referral to a speech pathologist for swallow assessment, and a 'modified barium swallow' when indicated. In some cases, referral may be required to a gastroenterologist or an ear, nose and throat specialist for further investigations (eg. endoscopy, full barium swallow with video recording, and manometry).

Aspiration pneumonitis and aspiration pneumonia have overlapping clinical features that may include coughing or choking on food, dyspnoea, crepitations, and signs of consolidation. However, they can present with nonspecific signs such as fever or a sudden deterioration in oxygen saturation (see *Respiratory infections*).

Management

In residents with dysphagia, the risk of aspiration can be reduced by[162,163]:

- minimising sedative and narcotic use (eg. related to dementia, cerbrovascular accident [CVA])
- oral hygiene to reduce risk of aspiration pneumonia
- dietary modification (eg. thickened fluids in place of thin fluids)
- education and/or supervision of resident with respect to safe swallowing methods (eg. upright posture, chin tucked, slow swallowing)
- education of relatives not to give inappropriate food or drink
- manoeuvres to achieve improved swallowing (eg. supraglottic swallow)
- speech therapy referral for more detailed clinical swallow assessment to guide therapy (if appropriate)
- dietician referral to optimise nutritional intake (if appropriate and available).

Aspiration pneumonitis and minor degrees of aspiration pneumonia do not require antibiotic treatment. Pain relief may help patients with chest pain to cough and clear secretions.[164] There is a lack of evidence to guide management of patients with recurrent aspiration pneumonia secondary to advanced neurodegenerative diseases. Enteral feeding (nasogastric or gastrostomy tubes) can provide nutritional support, but this has not been shown to improve or prevent aspiration. If enteral feeding is being considered in hospital, the patient, their GP and relatives/carers should be involved in decision making about commencement, including its purpose, type and duration. Ideally the issues would be discussed as part of advance care planning, before the time of a crisis, and consider medical indications, patient preferences, quality of life and contextual features.[165] Nasogastric and gastrostomy tube feeding may be used as a relatively short term measure for nutritional support. It is important that the benefits and adverse effects of longer term gastrostomy feeding are carefully considered before insertion, and reviewed periodically, particularly when there is a significant change in health status. If aspiration pneumonia is an indication that the person is entering a terminal phase, then a palliative approach would be appropriate (see *Palliative care*).

Falls and hip fracture prevention

Falls are a marker of increased frailty in older people and occur frequently among residents of ACFs, with 13–60% of residents falling at least once per year. The risk of hip fracture for older people living in residential aged care has been estimated to be 7% per annum, rising to 14–41% for recurrent fallers. Other major risk factors for hip fracture are reduced bone mineral density (osteoporosis) and previous low trauma fracture.[166]

When an older person falls, the cause is frequently multifactorial and requires a multidisciplinary approach to intervention. The risk of an older person falling increases with the number of risk factors. Risk factors for falling include[167]:

- age 65 years or over
- fallen in the past 12 months
- gait or balance disorder
- dementia, delirium or confusion
- incontinence
- syncope or dizziness
- low vitamin D levels
- takes more than three medications, particularly psychotropic medications
- visual deficit, or wears bi- or multi-focal spectacles when walking
- inappropriate footwear (eg. slippers) or presence of foot pain
- requires supervision for ambulation
- is restrained (physically or chemically)
- functions in a cluttered, poorly lit environment.

Multifaceted interventions, based on assessment of the resident and their environment, are more likely to be effective than single interventions for reducing falls and related injuries.

Evidence based Australian guidelines[168] for hospitals and RACFs recommend that all facilities implement 12 standard fall prevention strategies, fall risk assessment, fall and injury prevention interventions, and postfall management processes.

General practitioners can play an important role in RACF falls prevention programs and falls data monitoring, as well preventing harm from falls in residents by[169]:

- promoting independence for older people
- examining falls prevention in the context of an older person's medical circumstances, goals and interests
- ensuring the prevention of falls is standard practice when caring for older people
- taking an active role in assessing a person's risk of falling by reviewing past and current history, physical examination, medications and investigations then acting on the results
- using evidence based falls prevention interventions and outcome measures as part of a multidisciplinary, multifactorial approach
- continually reviewing the standard strategies, assessments, interventions and outcomes to identify areas for improvement
- analysing the circumstances around a fall and ensuring that additional injury prevention interventions are implemented for people who have fallen
- recognising that they play an important role in the team approach to planning, implementing and evaluating the effect of a falls prevention program.

Risk assessment

Assessment of a resident's fall risk may be undertaken by the GP and facility staff on admission, and after a fall. Assessing the risk of a fall and hip fracture includes collecting and interpreting information on[170]:

- history of falls
- medication (polypharmacy, laxatives, some psychotropics, antihypertensives and corticosteroids)
- confusion or altered mental state
- anxiety, mood disturbance or sleep disturbance
- sensory or visual impairment
- bowel or urinary continence
- gait and/or balance impairment
- history of hip fracture or pattern of injury
- bone mineral density
- feet and footwear
- cardiovascular status including heart rate and rhythm, postural hypotension
- vitamin D and calcium levels
- acute conditions including infection, changes in blood glucose level
- use of restraints
- their environment.

Postfall assessment includes the following[171]:

- a history of fall circumstances, medications, acute or chronic medical problems, and mobility levels
- an examination of vision, gait and balance and lower extremity joint function
- an examination of basic neurological function, including mental status, muscle strength, lower extremity peripheral nerves, proprioception, reflexes, tests of cortical, extrapyramidal and cerebellar function
- assessment of basic cardiovascular status including heart rate and rhythm, postural pulse and blood pressure and, if appropriate, heart rate and blood pressure responses to carotid sinus stimulation.

Some residents at high risk may benefit from referral to a local ACAT or falls and balance clinic.

Fall prevention interventions

The following interventions may be considered[172]:

- reduction in the number of medications where possible
- reduction or cessation of psychotropic medications where possible
- review of medications that have a dehydrating effect, including laxatives and diuretics
- management of cognitive impairment, confusion and delirium
- nutritional assessment and development of an appropriate meal plan
- continence assessment and management plan
- management of visual impairment
- individualised exercise program to increase muscle strength, balance and cardiovascular fitness
- management of foot pain and footwear (eg. firm soled, low heeled shoes)
- mobility assisting devices (eg. walking stick, frames)
- eliminating or minimising the use of restraints
- implementing surveillance and observation strategies (eg. bed alarms and call bells)
- environmental modification (eg. flooring, proximity of furniture, adequate lighting, handrails in toilets and bathrooms).

Injury prevention interventions

Many falls can be prevented. Some falls will still occur. To minimise the risk of injury if an older person falls, injury prevention interventions can be implemented such as[173,174]:

- hip protector pads in compliant wearers
- vitamin D supplements (ergocalciferol 1000 IU daily)
- 5–15 minutes exposure of the face and upper limbs to sunlight 4–6 times per week (avoiding exposure between 10 am – 3 pm)
- calcium (1000–1500 mg in postmenopausal women, 800–1000mg in premenopausal women, and men)
- osteoporosis management.

Incontinence – urinary

Urinary incontinence affects the physical, psychological and social wellbeing of older people, and is a major cause of admission to residential aged care. The incidence increases with age. It has been estimated to affect 70% of Australian aged care home residents and is more common in women than men.[175,176]

Urinary incontinence is not a normal part of ageing. It is the loss of urine control due to a combination of genitourinary pathology, age related changes, comorbid conditions and environmental obstacles.[177]

Urinary incontinence may be categorised according to symptoms as urge, stress, overflow, and functional or behavioural incontinence. Many patients have more than one type of incontinence.[178,179]

Urge incontinence is an involuntary loss of urine associated with a strong urge to void. This is due to either detrusor instability (the brain knows the bladder is full, but cannot suppress bladder contractions) or detrusor hyperactivity (nerves are damaged so the brain doesn't realise the bladder is full and there is no suppression of bladder contraction). Common causes include age related atrophic changes, anxiety, dehydration, urinary tract infections, prostatic hypertrophy and neurological disease.

Stress incontinence is involuntary loss of urine with raised intra-abdominal pressure (eg. on laughing, sneezing, coughing and lifting). This is due to either bladder neck weakening, or hypermobility of the urethra and its consequent failure to close effectively. It occurs more commonly in patients who are overweight, have pelvic floor weakness after childbirth, or as a complication of prostatic surgery.

Overflow incontinence is the involuntary loss of urine associated with an overdistended bladder. Continuous or intermittent leakage may occur. This may be caused by an atonic bladder (eg. neurogenic bladder) or partial obstruction of urine flow from faecal impaction, prostatomegaly or pelvic mass.

Functional or behavioural incontinence occurs in otherwise continent people who are unable to get to the toilet in time. Common causes include mobility problems (eg. arthritis, insufficient assistance, medications, Parkinson disease) and mental disorders affecting recognition of the need to void (eg. dementia, depression, medications).

Assessment

Evaluate the lower urinary tract as well as general medical, functional and cognitive status. Identify reversible causes of incontinence (*Table 9*) before proceeding to a more detailed evaluation.[180]

D	Delirium
I	Infection (eg. UTI)
A	Atrophic urethritis or vaginitis
P	Psychological (eg. depression, pain)
P	Pharmacological
E	Excess urine output
R	Restricted mobility
S	Stool impaction

Table 9. Potentially reversible causes of incontinence in older people[181]

Take a detailed history including symptoms, fluid intake, and review of medical, locomotor and past surgical/obstetric conditions. Ask residents how they manage and are affected by their incontinence such as anxiety, low self esteem, embarrassment in social situations or problems with hygiene. Review medications that may cause or aggravate incontinence[182]:

- urge incontinence – diuretics, SSRIs, cholinergic and anticholinesterase agents
- stress incontinence – selective alpha adrenergic blockers, and ACE inhibitors
- overflow incontinence – anticholinergic agents, verapamil, pseudoephedrine, opioids, and many psychotropic medications
- functional incontinence – psychotropic medications, analgesics, and antihypertensives.

Examine the abdomen (for enlarged bladder, pelvic masses), vagina (for atrophic changes, prolapse and stress incontinence on coughing) and rectum (for constipation, prostatic hypertrophy, anal tone and perineal sensation). Assess mobility, cognitive function, and signs of conditions associated with incontinence (eg. diabetes, neuropathy, cerebrovascular disease, Parkinson disease, depression).

Investigations include urinalysis, urine microscopy and culture, a bladder chart, and measurement of residual urine.

Use a bladder chart over 3 days to record voiding patterns and episodes of incontinence in four columns:

- time
- damp/wet/soaked
- dry, and
- volume.[183]

Measurement of postvoid residual urine by ultrasound will exclude urinary retention and indicate total bladder capacity (voided volume plus residual volume). Normal bladder capacity is about 500 mL and no residual urine. A residual urine volume of more than 100 mL may require further investigation. Consider referral to aged care, urology or urogynaecology services for urodynamic studies or further investigations and management if indicated. Many regional aged care services offer continence clinics with access to a geriatrician, a continence nurse advisor and a physiotherapist. The National Continence Helpline (1800 330 066) can provide details of continence clinics, continence physiotherapists and nurse advisors.

Management

Urinary incontinence can often be managed successfully in the residential care setting with a planned multidisciplinary approach. In a stepped approach, treat all transient reversible causes first (DIAPPERS). Avoid caffeine and alcohol, and minimise evening fluid intake. Aim to achieve continence irrespective of the resident's frailty or functional status. This can be independent continence, dependent continence (dry with reminders or assistance from carers) or social continence (dry with the use of aids).[184]

Nonmedication measures are the first line of treatment and may include[185,186]:

- appropriate fluid intake (1.5 L/day), limit caffeine intake
- avoidance of constipation (increase fibre, increase fruit)
- regular toileting habits with good posture, time for complete emptying
- toileting assistance and prompting for regular voiding
- mobility aids, bedside commode or urinary bottle at night
- pelvic floor exercises for women, and men with detrusor instability[187]
- urethral massage for men with postmicturition dribble
- bladder retraining for urge incontinence in residents with cognitive functioning
- intermittent or permanent urinary catheterisation
- continence aids such as disposable pants, absorbent bedding.

In some cases, medication may be indicated, eg. oestrogen cream for atrophic vagina; aperients, stool softeners and enemas for constipation; or antibiotic prophylaxis for recurrent urine infections. In urge incontinence, anticholinergics may relieve symptoms by relaxing the bladder and increasing its capacity. Start with oxybutynin 2.5 mg orally at night, increase slowly according to response and tolerability (maximum dose 5 mg tds), and stop if there is no benefit after 4–6 weeks. Tricyclic antidepressants are not well tolerated due to sedative hypotensive and cardiac side effects. Alpha adrenergic agonists are no longer recommended for stress incontinence due to lack of efficacy and poor tolerability.

Surgical treatments include:

- dilation of urethral stricture, transurethral resection of prostate
- repair of vaginal prolapse, pelvic floor repair (bladder neck suspension, sling and colposuspension)
- urine outflow blockers (eg. pessaries, tampons, adhesive pads)
- suprapubic catheter
- cystoscopy (eg. for inflammation, polyps)
- circumcision (for external catheter systems).

Incontinence – faecal

Faecal incontinence is the involuntary loss of anal sphincter control that leads to unwanted release of liquid or solid faeces (not flatus), at an inappropriate time or in an inappropriate place.[188] Prevalence increases with age; 17% in men and women aged over 60 years,[189] and 54% of aged care home residents.[190]

Causes of faecal incontinence in older people are[191]:

- faecal impaction – this may result from chronic constipation associated with immobility or decreased fluid and fibre intake[192]
- neurogenic incontinence – higher central nervous system damage from stroke or advanced dementia, autonomic neuropathy
- anal sphincter or pelvic muscle weakness – from obstetric trauma or surgery
- intestinal hurry – diarrhoeal illness, dietary excess, alcohol abuse, medications (eg. antibiotics, laxatives)
- rectal or colon disease – carcinoma, villous papilloma, rectal prolapse.

Faecal impaction is the most common cause. The faecal mass causes reflex anal sphincter relaxation and irritation of the rectal mucosa leading to mucous and fluid production, with overflow of liquid stools. Neurogenic faecal incontinence, the second most common cause, is due to the failure to inhibit the defaecation reflex (eg. from strokes and advanced dementia).[193] Often faecal incontinence co-exists with urinary stress incontinence.

Assessment

Ask about frequency and type of incontinence (solid, liquid or gas), other symptoms (constipation, pain or straining), and impact on lifestyle and hygiene. Review medical conditions, diet (fruit, fibre) and medication use (including use of laxatives and enemas). Consider cognitive status, mobility, access to toilet and carer assistance.

Perform a rectal examination to exclude faecal impaction, prostate enlargement or rectal mass, and to assess anal sphincter tone (resting and squeeze pressure), rectal prolapse and pelvic muscle tone. If the rectum is empty, a plain abdominal X-ray is helpful to exclude colonic loading. Stool consistency can help distinguish between faecal impaction (liquid stool) and neurogenic incontinence (formed stool). Loose anal sphincter tone can occur with severe constipation, anal sphincter damage and spinal cord lesion (with reduced perineal sensation).

Management

Treatment depends on the underlying cause. Multiple interventions may be required. Faecal incontinence in residents is most commonly due to colonic loading and overflow. Simulate the usual bowel pattern. Use daily enemas until no more results (glycerine suppository, bisacodyl suppository, or microenema [eg. docusate 5 mL]). Add a daily osmotic laxative (MgSO or MgOH) and bowel training. Stool transit can be stimulated with abdominal massage in the direction of colonic transit.[194] Impaction may require manual evacuation in some residents, after a premedication for pain. To prevent constipation, ensure adequate dietary fibre and fluid intake, easy access to toilet, and regular exercise within the resident's ability.

Neurogenic faecal incontinence is treated with a regular toileting program or regular enemas alternating with constipating medications.

Patient education[195]:

- Respond promptly on urge to defaecate
- Use coffee to stimulate the gut
- Position of toilet to facilitate rectal evacuation: back support, foot stool to achieve squat position
- Exercise to improve bowel function
- Rectal sphincter exercises (tighten rectal sphincter for 10 seconds 50 times/day using digital rectal examination or biofeedback).

Residents with anal sphincter weakness can benefit from[196–198]:

- altering stool consistency (eg. decreasing dietary fibre)
- careful use of constipating medications (eg. loperamide to reduce diarrhoea and increase external anal sphincter tone)
- teaching to resist urgency
- sphincter training – referral to continence adviser or physiotherapist for biofeedback and sphincter exercises
- pelvic floor exercises
- referral for surgical sphincter repair.

Infection control

The RACF environment can potentially facilitate infection between residents, staff, visitors and health care providers. To reduce risks, national best practice guidelines[199] for infection control in the health care setting should be considered in association with the relevant state or territory legislative requirements. Key points for the prevention and management of outbreaks of infection in RACFs are given in the national guidelines[200]:

- Infections in RACFs may be community acquired, health care associated or endemic. Residents are both susceptible to, and a potential source of infection

- Infection can be transmitted when transferring residents between different health care settings. Therefore RACFs should have an established infection control relationship with any associated acute care and other health care establishment/providers (eg. for antimicrobial resistant bacteria)
- Each RACF must have an infection control program coordinated by a designated infection control practitioner
- The home-like atmosphere of RACFs presents some specific issues for infection control, eg. visiting hairdressers, podiatrists and companion animals
- Surveillance should be done with data collected by trained personnel using published definitions for case finding and incidence reporting. It may be appropriate to survey infections of skin, respiratory tract, urinary tract and the bloodstream, gastroenteritis and unexplained febrile episodes
- Residents may be colonised or infected with multimedication resistant organisms when they are admitted, or through use of antibiotics during their stay. Therefore, the infection control program should include clinical guidelines for empiric antimicrobial prescription (eg. *Therapeutic guidelines: antibiotic*),[201] review of antibiotic usage and restricted formulary
- Risks of infection can be reduced through patient health programs, including immunisation, tuberculosis screening and prevention and control of each resident's specific infection risks.

Effective infection control programs involve standard procedures for all patients regardless of their perceived infectious risk, and additional precautions for patients known or suspected to be infected with highly transmissible pathogens.

Standard precautions provide adequate protection for blood borne diseases (eg. hepatitis B). Precautions include aseptic technique, hand washing, use of personal protective equipment (eg. gloves, eye protection), appropriate handling of sharps and clinical waste, appropriate reprocessing of instruments and equipment, and implementation of environmental controls and support services. Standard precautions should incorporate safe systems for handling blood (including dried blood), other body fluids, secretions and excretions (excluding sweat), nonintact skin and mucous membranes.

Additional precautions relate to the specific routes of transmission by air (eg. tuberculosis), droplet (eg. influenza, Group A streptococcal pneumonia) or contact with skin or surfaces (eg. resistant bacteria, scabies, pediculosis, and incontinent patients with hepatitis A, gastroenteritis). Precautions are tailored to the particular infectious agent and mode of transmission, and include relative isolation of the patient, use of personal protective equipment, and treatment. See guidelines for details of precautions and treatment for specific conditions.[202–204]

Immunisation and testing strategies include[205]:

- vaccination of residents for prevention of influenza and pneumococcal pneumonia
- vaccination of all health care workers for prevention of hepatitis B, tetanus and influenza
- offering tests for HIV, hepatitis C and hepatitis B to health care workers exposed to blood or sharps injuries with potential for blood borne virus infections.

Pain management

Acute pain has a prevalence of approximately 5% across all age groups, whereas the prevalence of chronic pain increases with age. The prevalence of chronic pain in aged care home residents is as high as 60–83%. Consequences of chronic pain include increased confusion, sleep disturbance, nutritional alterations, impaired mobility, depression, social isolation, worsening pain, slowed rehabilitation, and increased risk of falls.[206]

Assessment [207]

Pain can be acute (<3 months) or chronic (>3 months). Acute pain may occur concurrently with chronic pain, and should be investigated and treated. For chronic pain, identification of pain patterns helps to establish a treatment regimen. Baseline pain is experienced constantly for more

than 12 hours per day. Breakthrough (intermittent) pain is transient periods of increased pain. Incident pain flares up during an activity (eg. turning in bed).

Diagnosis of the cause of pain impacts on treatment and choice of analgesia. Nociceptive pain results from somatic and visceral stimulation/injury. Neuropathic pain results from injury to the nervous system. The most common type of pain seen in aged care home residents is nociceptive pain, often resulting from pathologies related to ageing such as arthritis, osteoporosis and vascular disease. Types of nociceptive and neuropathic pain are presented in *Table 10*.

Characteristic of pain	Nociceptive superficial	Nociceptive deep somatic	Nociceptive visceral	Neuropathic
Origin of stimulus	Skin, subcutaneous tissue; mucosa – mouth, nose, sinuses, urethra, anus	Bone joints, muscles, tendons, ligaments; superficial lymph nodes; organs and capsules, mesothelial membranes	Solid or hollow organs, deep tumour masses, deep lymph nodes	Damage to nociceptive pathways
Examples	Pressure ulcers, stomatitis	Arthritis, liver capsule distension or inflammation	Deep abdominal or chest masses, intestinal, biliary ureteric colic	Tumour related brachial, lumbosacral plexus or chest wall invasion, spinal cord compression; nontumour related: postherpetic neuralgia, post-thoracotomy syndrome, phantom pain
Description	Hot, burning, stinging	Dull, aching	Dull, deep	Dysesthesia (pins and needles, tingling, burning, lancinating, shooting) Allodynia; phantom pain, pain in numb area
Localisation to site of stimulus	Very well defined	Well defined	Poorly defined	Nerve or dermatome distribution
Movement	No effect	Worsening pain Resident prefers to be still	May improve pain	Nerve traction provokes pain, eg. sciatic stretch test
Referral	No	Yes	Yes	Yes
Local tenderness	Yes	Yes	Maybe	Yes
Autonomic effects	No	No	Nausea, vomiting, sweating, BP and heart rate changes	Autonomic instability: warmth, sweating, pallor, cold, cyanosis (localised to nerve pathway)

Table 10. Types of pain and their causes[208]

Consider assessment of pain on admission of resident to the facility, after a change in medical or physical condition, and as symptoms arise. Assessment includes input from resident, family, and RACF staff. Regular reassessment is required to determine changes and the effect of interventions.

Self reporting of pain is the usual method of assessment of location, duration and intensity, however the subjective nature of pain makes quantification difficult. Asking about pain in the present (rather than in the past) is a reliable method of assessment for residents whose communication skills are compromised by illness or cognitive impairment.

Pain is often expressed through behavioural symptoms, even in residents whose verbal communication skills are intact, by:

- aggression, resistance, withdrawal, restlessness
- facial expression: grimacing, fear, sadness, disgust
- verbalisations: self reports of pain, requests for analgesia, requests for help, sighing, groaning, moaning, crying, and unusual silence.

Physiological changes with pain include:

- raised heart rate, pulse, temperature, respiratory rate, blood pressure or sweating
- abnormal colour of skin, discharge from eyes, nose, vagina or rectum
- lesions to oral or rectal mucosa, skin
- distension of the abdomen, swelling of limbs, swelling of body joints
- abnormal results on testing urine (eg. presence of blood, leucocytes, glucose)
- functional decrease in mobility, range of movement, activity, endurance, and increase in fatigue
- changes in posture – standing, sitting, reclining.

Multidimensional pain assessment scales have been developed specifically for use in older people. The Abbey Pain Scale (see *Tools 7*) is suitable for residents with dementia who cannot verbalise their pain, and may also be useful for cognitively intact residents who aren't willing or cannot talk about their pain. The Resident's Verbal Brief Pain Inventory (see *Tools*[8]) is suitable for residents able to verbalise their pain. The same scale/s selected for the individual resident should be for reassessment.

Management[209]

Establish treatment goals with the resident (or representative), taking into account their culture, beliefs and preferences. The aim may be to eradicate the pain and/or reduce it to tolerable levels so that mobility and independence can be restored or maintained. For example, chronic nociceptive pain due to degenerative arthritis requires a balance between pain relief and the maintenance of function, whereas residents in the terminal stage of a disease may require complete pain relief, even though mental and physical function is compromised.

Effective pain management relies on care planning to manage baseline pain and future pain episodes. Regularly reassess pain, and review management if pain scores are repeatedly high and breakthrough strategies are used more than twice in 24 hours.

Nonmedication therapy

Nonmedication and complementary therapies (eg. aromatherapy, guided imagery [not usually suitable for cognitively impaired people], acupuncture or music) may be used by themselves or in conjunction with medication. Emotional support for residents in pain can be therapeutic when offered by their GP, RACF staff and relatives/carers. Diversional therapies may help, as well as offering nutrition and fluids, ensuring the resident is warm and comfortable, and reducing lighting and surrounding noise.

Physiotherapists trained to evaluate nociceptive and neuropathic pain can assist choosing nonmedication therapies to enhance medication. Physical therapies include TENS, walking programs, strengthening exercises and massage. Heat or cold packs need to be used with care to avoid burns or hyperalgesia. Cognitive behavioural therapies (CBT) are beneficial for older patients, including residents who have mild dementia. Patients will often benefit from a clear explanation about the cause of their pain, as well as behaviours and positive thoughts to enhance their own capacity to manage pain.

Medication

Choice of medication is based on pain severity. Begin with a mild analgesic such as paracetamol, and build up stepwise to opioids for severe unrelieved pain. Regular medication for baseline pain, that maintains a therapeutic blood level, is more beneficial than administering analgesia when residents ask for it or as staff consider it necessary. Treat breakthrough and incident pain with additional analgesia. Analgesia can be given 30 minutes before activities such as pressure area care, dressings, physiotherapy, and hygiene procedures.

Paracetamol is the preferred analgesic for older people and is effective for musculoskeletal pain and mild forms of neuropathic pain. Lower doses should be used in patients with hepatic or renal impairment. Aspirin is not recommended for use as an analgesic in older people because of the risk of gastrointestinal bleeding.

Codeine has a short half life and is suitable for incident pain or predictable mild to moderate short lasting pain. About 10% of people lack the enzyme that converts codeine to the active opioid form; therefore they will have no analgesic benefit.

Tramadol is a centrally acting analgesic that also weakly acts on opioid receptors and as an inhibitor to noradrenaline and serotonin reuptake. It is a useful medication in a significant minority of older people with chronic noncancer pain, but should be used with caution because of the high incidence of side effects (up to one-third experience nausea, vomiting, sweating, dizziness or hallucinations) and medication interactions (eg. SSRIs). Low doses are recommended initially (25–50 mg per day for the first 3 days) with careful titration and monitoring. Patients over 75 years of age should not have more than 300 mg per day.

Opioids should not be withheld if pain is moderate to severe and unresponsive to other interventions. In general, commence with low doses of short acting opioids and titrate the dosage slowly. More rapid dosage escalation is appropriate in very severe pain, cancer pain and palliative care. In these situations, increase titration by 25% of the prescribed dose until pain ratings are 50% less, or the patient reports satisfactory relief.

When changing the route of administration of opioids, adjust the new dose accordingly. Tolerance to opioids may develop necessitating an increase in dose or decreased interval of administration to achieve the same pain relief. Long acting opioid agents can be used in conjunction with short acting opioids to treat incident pain. In moderate to severe noncancer pain, dosage increments are usually less frequent and the target degree of pain relief may need to be modified, maintaining function and other patient defined goals. Apart from codeine, the main opioids are morphine, oxycodone and fentanyl.

Morphine is suitable for the treatment of severe pain in older people, and is available in forms for most routes of administration. Starting doses for severe acute pain are 10–30 mg 3–4 hourly orally, 2.5–5.0 mg 4–6 hourly intramuscularly, 2.5–10.0 mg 2–6 hourly intravenously, and 2.5–10.0 mg 2–6 hourly subcutaneously. In chronic severe pain, unresponsive to other interventions, after 24 hour dosage needs are established, long acting morphine (MS Contin) can be introduced.

Oxycodone is available in immediate release (endone, oxynorm) and sustained release form (oxycontin) for oral administration. Endone or oxynorm (immediate release) may be used for the initial establishment of tolerance and dosage needs, and later for breakthrough pain. Oxycontin (sustained release) is recommended for chronic pain with the recommended dose of 5–20 mg twice per day.

Transdermal fentanyl is used for ongoing severe pain. It is potent and long acting and the risk for delirium and respiratory depression is high. It should be used only when the resident has had opioids previously and high dosage needs are established. Fentanyl is metabolised in the liver and is suitable for patients with renal failure. Its adverse effects are similar to those of morphine but with a lower incidence of constipation and confusion.

To change the type of opioid medication or route of administration, convert dose to equivalent dose of oral morphine, as shown in *Tables 11* and *12*. Conversion doses are only approximate, if drowsiness occurs reduce the dose, if pain increases, increase the dose.

Opioid	Conversion factor from oral morphine	Approx. equivalent dose to 10 mg oral morphine
Codeine	x 10	100 mg
Fentanyl (IV/SC) (100 mcg/2 mL amps) (500 mcg/10 mL amps)	x 6.5–7.0 for mcg dose (x 0.0065–0.007 (in mg))	65–70 mcg (approx. 50–100 x more potent than morphine)
Fentanyl Transdermal Patch	see Table 12	see Table 12
Hydromorphone (oral) (1 mg/mL in 473 mLs)	x 0.15–0.2	1.5–2.0 mg (approx. 5.0–7.5 x more potent than morphine)
Hydromorphone (SC/IV) (2 mg/1 mL amps) (10 mg/mL 1 or 5 mL amps)	x 0.067	0.67 mg (approx. 5 x more potent than morphine)
Morphine (rectal)	x 1	10 mg
Morphine (IV/SC)	x 0.33	3.33 mg (approx. 3 x more potent than oral)
Oxycodone (oral)	x 0.5	5 mg (approx. 2 x more potent than morphine)
Pethidine (oral)	x 8	80 mg
Pethidine (IV/SC/IM)	x 2.5	25 mg
Sufentanil (SC/IV) (250 mcg/5 mL amps)	x 0.5 for mcg dose (x 0.00045–0.0005 [in mg])	5 mcg (mcg daily dose equiv.) (approx.15 x more potent than fentanyl)

Table 11. Opioid conversion[210]

Where a fentanyl patch is substituted for another opioid, the total daily dose of the opioid should be first converted to mg per day of morphine. *Table 12* gives data on ranges for conversion, as fentanyl patches may have variable rates of delivery (eg. sweaty skin, hot climates). Patches produce a reservoir in the underlying skin and consequent continued absorption and are usually changed every 3 days. In some patients, breakthrough needs may increase on the third day and the patch may need to be changed more frequently (eg. every 2 or 2.5 days). After the patch is removed the half life of fentanyl in the blood is 15–20 hours.[211]

Patch strength (mg)	Delivery rate (mcg/hour)	Parenteral morphine dose equivalent (mg/day)	Oral morphine dose equivalent (mg/day)
2.5	25	30–40	60–100
5.0	50	60–80	120–200
7.5	75	90–120	180–300
10	100	120–160	240–400

Table 12. Dose conversion of transdermal fentanyl patches to morphine

Adjuvant medications used in pain management are medications not primarily used for pain treatment but that have analgesic properties. They may be given alone or in conjunction with analgesics. Types of adjuvant medications:

- Low dose tricyclic antidepressants are suitable for use in neuropathic pain (eg. painful diabetic neuropathy, postherpetic neuralgia, central poststroke pain) or fibromyalgia syndromes. Start with 10 mg nocte, and titrate over 3–7 days to between 30–50 mg. Amitriptyline is the best researched agent. Nortriptyline may be better tolerated. Side effects include: anticholinergic properties, postural hypotension, sedation, constipation, urinary retention, exacerbation of cardiac conditions
- Anticonvulsants (eg. carbamazepine) are suitable for trigeminal neuralgia but require careful titration over 1 month to reduce adverse effects
- Gabapentin may be as effective and better tolerated than anticonvulsants and tricyclics but does not have PBS approval for pain management
- Corticosteroids for inflammatory conditions such as rheumatoid arthritis
- NSAIDs for nociceptive pain that accompanies musculoskeletal disorders. Caution should be exercised because of the risk of gastrointestinal bleeding and ischaemic heart disease
- Glucosamine sulphate (1500 mg/day) has been shown to relieve pain and improve function in knee and hip arthritis. It is well tolerated, however as it is made from shellfish, it should not be taken by those with an allergy to seafood
- Complementary and alternative medicines other than glucosamine (eg. herbs, foods, vitamins) have been shown to be effective for pain relief in rheumatoid arthritis (omega-3 oils 4–6 gm/day) and osteoarthritis (eg. chondroitin, topical capsaicin, topical stinging nettle, ginger [*Zinger officinale*], devil's claw [*Harpargophytum procumbens*]). Significant drug interactions have been identified between some herbal products and conventional medicines.[212]

It is preferable to use a minimum number of medications to maintain a simple regimen, promote adherence and minimise adverse effects. However, sometimes using small doses of medications from different classes in combination will provide a therapeutic benefit that cannot be achieved with a larger dose of a single medication. For example, it may be possible to maintain a resident with postherpetic neuralgia on controlled release morphine 5 mg twice per day plus nortriptyline 10 mg nocte, whereas a higher dose of either morphine or nortriptyline alone may not provide pain relief or may cause intolerable adverse effects.

Older people have lower muscle mass, increased adipose tissue and reduced glomerular filtration. Therefore they have greater sensitivity to the therapeutic and adverse effects of opioid analgesics and many adjuvants, eg. central adverse effects of somnolence, sedation, poor concentration and confusion, are particularly common with opioids, tricyclic antidepressants, carbamazepine and other antiepileptics. NSAIDs can cause confusion and fluid retention, which can precipitate heart failure and acute renal failure. Medication interactions are common, eg. warfarin interacts with NSAIDs and carbamazepine.

The route of administration of a medication is preferably the least invasive and safest for patients. The oral route is the least invasive and is effective in most cases. Percutaneous endoscopic gastrostomy (PEG) tubes may be used to administer oral medications where they can be crushed or given in liquid form. The sublingual or rectal route may be a good alternative for patients unable to tolerate oral medication. The subcutaneous route, using a 'butterfly needle' may be indicated where the patient is nauseated or vomiting. Intramuscular injection should be avoided if patients are on warfarin because of the risk of haematoma. Topical applications, (eg. NSAIDS) are often perceived as beneficial by patients.

Pressure ulcers

A pressure ulcer (bedsore, decubitus ulcer) is an area of localised damage to the skin and underlying tissue caused by pressure, shear or friction.[213] Friction and moisture are the most important factors in the development of superficial skin breakdown. Pressure and shearing forces have a greater effect on subcutaneous and muscle tissues. Ulcers can be deep, even with minimal skin breakdown, and may not be evident until days after injury.[214] They commonly form over bony prominences such as the heels, the malleoli and the sacrum. Pressure ulcers significantly reduce quality of life and increase care costs, as well as the length of hospital stay.[215] Prevalence in Australian aged care homes is between 3.4 and 5.4%.[216]

Most pressure ulcers are preventable adverse events. Many Australian hospitals and RACFs implement programs for the prevention and management of pressure ulcers. The first national guidelines were developed in 2001 by the Australian Wound Management Association.[217] Guidelines are available through NICS: *Pressure ulcer resource guide* at www.nicsl.com.au/knowledge_reports_detail.aspx?view=10 The more recent Queensland Health *Pressure ulcer prevention and management resource guidelines*[218] are available at www.qheps.health.qld.gov.au/tpch/Pubs/pressure_ulcers.pdf

Prevention

Risk assessment involves examination of the skin, nutritional and general medical assessment to identify risk factors, and use of a risk assessment tool.[219] Major risk factors are immobility, sensory loss, impaired cognitive state, urinary and faecal incontinence, age over 65 years, male sex, European background, chronic illness, poor nutritional status, impaired oxygen delivery to tissues, raised skin temperature, skin dryness and the presence of pressure, shear or friction forces.[220]

The most commonly used risk assessment tools are the Norton Scale (*Table 13*),[221] the Braden Score,[222] and the Waterlow Risk Assessment.[223]

The Norton Scale is designed to identify the need for preventive pressure care in older hospital patients and aged care home residents. Each of the five items is scored from 1 to 4, with a maximum total score of 20. Scores of 14 or less rate the patient as 'at risk' of developing pressure sores, the lower the score, the greater the risk.[224] Validity and reliability range from poor to good. The scale is more reliable when undertaken by registered nurses.[225]

Physical condition	Mental condition	Activity	Mobility	Incontinence
Good 4	Alert 4	Ambulant 4	Full 4	Not 4
Fair 3	Apathetic 3	Walk help 3	Slightly limited 3	Occasional 3
Poor 2	Confused 2	Chair bound 2	Very limited 2	Usually/urine 2
Very bad 1	Stupor 1	Bed 1	Immobile 1	Doubly 1

Table 13. The Norton Scale[226]

Preventive strategies to reduce risk factors can be incorporated into care plans for residents identified as 'at risk'. Consider[227]:

- daily inspection of all pressure points
- protection of skin – routine inspection, moisturisers for dry skin, protect from moisture (treat incontinence), avoid harsh cleansers
- pressure relieving interventions and devices – pressure relieving positions, turning schedules, repositioning intervals, reducing contact between bony prominences and support surfaces, lifting devices and aids, low pressure support surface for 'at risk' patients, dynamic support surface for 'high risk' patients
- optimise nutrition and hydration – adequate protein and caloric intake, zinc, vitamins.

Assessment and management

The ulcer should be assessed and documented daily, based on the depth of tissue destruction. Stages of pressure ulcer are defined as[228]:

Stage 1 – observable pressure related alteration(s) of intact skin whose indicators, as compared to the adjacent or opposite areas of the body, may include changes in one or more of the following: skin temperature (warmth or coolness), tissue consistency (firm or boggy feel) and/or sensation (pain/itching). The ulcer appears as a defined area of persistent redness if skin is lightly pigmented. In darker skin tones, the ulcer may appear with persistent red, blue and purple hues

Stage 2 – partial thickness skin loss involving epidermis and/or dermis. The pressure ulcer is superficial and presents clinically as an abrasion, blister or shallow crater

Stage 3 – full thickness skin loss involving damage or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of the adjacent tissue

Stage 4 – full thickness skin loss with extensive destruction, tissue necrosis or damage to muscle, bone or supporting structures (eg. tendon or joint capsule). Undermining and sinus tracts may also be associated with stage 4 pressure ulcers.

Wound cultures are not indicated unless there is evidence of surrounding cellulitis or bacteremia. X-rays or bone scans may be indicated to diagnose osteomyelitis in deep nonhealing ulcers.[229]

The differential diagnosis for pressure ulcers includes venous stasis and arterial ulcers, cancers, traumatic ulcers, neuropathic and infective ulcers, vasculitides and other skin conditions.[230] *Table 14* shows wound characteristics by ulcer type for arterial, diabetic, pressure and venous ulcers.

	Arterial	Diabetic	Pressure	Venous
Location	Tips of toes or between toes, on pressure points of foot (eg. heel or lateral foot), or in areas of trauma	Plantar surface of foot, especially over metatarsal heads, toes, and heel	Over bony prominences (eg. trochanter, coccyx, ankle)	Gaiter area, particularly medial malleolus
Size and shape	Small craters with well defined borders	Even wound margins with callus	Variable length, width, depth depending on stage (see staging system)	Edges may be irregular with depth limited to dermis or shallow subcutaneous tissue

Wound bed	Pale or necrotic	Granular tissue unless PAD present	Varies from bright red, shallow crater to deeper crater with slough and necrotic tissue; tunnelling and undermining	Ruddy red; yellow slough may be present; undermining or tunnelling uncommon
Exudate	Minimal amount due to poor blood flow	Variable amount; serous unless infection present	Purulent, becoming serous as healing progresses; foul odour with infection	Copious, serous unless infection present
Surrounding skin	Halo of erythema or slight fluctuance indicative of infection	Normal	May be distinct, diffuse, rolled under; erythema, oedema, induration if infected	May appear macerated, crusted, or scaling
Pain	Cramping or constant deep aching	None, because of neuropathy	Painful, unless sensory function impaired	Variable, may be severe, dull, aching, or bursting in character

Table 14. Wound characteristics by ulcer type[231]

Treatment principles are to relieve pressure, promote ulcer healing, reduce risk factors and optimise general health. Pressure ulcers should heal or show signs of healing within 2–4 weeks. Provide adequate pain control, treat cellulitis, alleviate pressure and minimise oedema. Wound cleansing, product selection, and debridement of nonviable tissue (eschar, slough) depend on the stage of the ulcer. Numerous dressing protocols are available (see guidelines for details)[232]:

- Stage 1 – protect and cover with transparent films, barrier creams, skin sealants
- Stage 2 – hydrate, insulate and absorb consider transparent films, occlusive wafers, hydrogels, foams
- Stage 3 – cleanse, prevent infection and promote granulation consider calcium alginate, hypertonic saline, cavity foams, silver dressings, vacuum assisted closure
- Stage 4 – as for stage 3 plus pack dead space.

Respiratory infections – influenza

Due to their age, chronic illness and close living conditions, residents of RACFs are at high risk of developing infections and consequently dying due to influenza and pneumonia. Preventive interventions including vaccination and reduction of risk factors can reduce respiratory infections and associated morbidity and mortality. The *Australian immunisation handbook* recommends influenza and pneumococcus vaccination for residents and influenza vaccination for RACF staff.[233] It is important to maintain vaccines between 2°C and 8°C by transporting in cold boxes and storing in refrigerators dedicated to the storage of medications. Regular quality assurance testing of refrigerators is a requirement for both general practice and residential aged care accreditation.

Influenza infections occur seasonally with most cases reported from mid autumn to the end of winter. It is contagious for 3–5 days from onset. Symptoms include fever, headache, myalgia, sore throat and cough for several days, usually with full recovery within 7 days. However, residents of RACFs are at particular risk of complications due to their age and chronic debilitating diseases.

In the aged care home population, influenza vaccination can be 50–60% effective in preventing hospitalisation or pneumonia, and 80% effective in preventing death, even though the effectiveness in preventing influenza illness may be lower. To provide continuing protection, annual vaccination with the most recent strains is necessary before winter. Vaccination is not recommended for residents with anaphylactic hypersensitivity to eggs, a history of Guillian-Barré syndrome (due to risk of developing the syndrome again), or during an acute febrile illness (fever >38.5°C).[234]

Elderly residents may have an impaired response to vaccination due to age or comorbidities, and outbreaks have occurred in RACFs despite high vaccination rates. Therefore, it is important to prevent individuals introducing the virus into RACFs by vaccinating staff and health care workers (including GPs), and educating visitors to stay away when unwell.[235]

Infection control programs can reduce the spread of infections through institutions, and limit the impact of outbreaks when they occur. It is advisable that each RACF have a policy on staff influenza immunisation and a surveillance system as infection control measures.

An outbreak of influenza is defined as three or more residents with symptoms and fever of at least 37.7°C within a 3 day period. A RACF surveillance system would recognise, notify and diagnose early cases. This enables timely, outbreak control measures to be implemented, in collaboration with attending GPs and departments of health. Additional precautions for droplet transmission should be observed and patients treated symptomatically. Health care workers with influenza should avoid patient contact or take sick leave. Consider vaccination of previously unvaccinated staff and residents, and the use of antiviral treatment according to state health department advice or guidelines.[236–238]

A resource to assist facilities and health care professionals with prevention and management of influenza outbreaks in RACFs has been developed from the *National infection control guidelines and the Australian immunisation handbook* (8th ed) by the Australian Government Department of Health and Ageing. The 'Influ-Info Influenza Kit for Aged Care' is available at www.health.gov.au/wcms/publishing.nsf/Content/ageing-publicat-influinfo.htm

Respiratory infections – pneumonia

Compared with community dwelling older adults, RACF residents acquire pneumonia at a rate of 10 times higher, and are admitted to hospital 30 times more often. Pneumonia is the leading cause of death among aged care home residents, accounting for one-third to one half of all deaths. Survivors have high rates of re-hospitalisation, long term morbidity and mortality.

Pneumonia can be hospital acquired or community acquired. Aged care home acquired pneumonia is a recognised variant of community acquired pneumonia. In aged care homes, compared to the general community, *Streptococcus pneumoniae* remains the commonest cause, and there are higher rates of gram negative bacilli, *Staphylococcus aureus* and respiratory viruses, and lower rates of atypical pathogens (legionella, chlamydia and mycoplasma).

Aspiration may lead to either pneumonia or noninfectious chemical pneumonitis (which does not require antibiotics). However differentiating between the two can be difficult.[239] Aspiration pneumonia may be caused by a wider range of organisms than community acquired pneumonia, including *Staphylococcus aureus*, *Haemophilus influenzae*, *Gram negative aerobes* and anaerobes. Recommended antibiotic treatment of moderately severe illness is 10 days of oral clindamycin (450 mg 3 times per day), or amoxicillin with clavulanic acid (500 mg/125 mg 3 times per day). Severe aspiration pneumonia requires hospital admission for intravenous therapy[240] (see *Dysphagia* and *Aspiration*).

It is important to identify 'end of life' pneumonia that has little attributable mortality, and where antibiotics have little impact on life expectancy. However, antibiotics may be appropriate for the relief of symptoms within a palliative care context.

Prevention

Pneumococcal vaccination with 23vPPV is recommended for adults 65 years and over, and Aboriginal and Torres Straight Islander peoples 50 years and over, with a single re-vaccination 5 years later. Vaccination can be done concurrently with influenza vaccination or at any other time of the year. Vaccination is not recommended for residents who have been vaccinated within the past 3 years because of increased risk of local adverse reactions; or for individuals who have recently had immunosuppressants or radiation of lymph nodes.[241]

Risk of pneumonia can be reduced by optimal management of predisposing factors such as dysphagia, asthma, chronic obstructive pulmonary disease (COPD), diabetes, heart failure, cerebral vascular disease, immobility, debility, oral hygiene and feeding problems; and by minimising the use of corticosteroids. Prophylactic antibiotics have not been shown to reduce risk, and may lead to resistant organisms.

Assessment

Common presenting symptoms of pneumonia are: a new cough, sputum, fever, rigors, breathlessness, wheezing, pleuritic chest pain, sore throat and head cold symptoms. However, classic symptoms are often absent in the elderly. Symptoms are often nonspecific, and include tachypnoea, lethargy, functional decline, incontinence (new onset), alteration in sleep-wake cycles, loss of appetite, increased confusion or agitation.

Common differential diagnoses are pulmonary embolism, pulmonary oedema, malignancy, and aspiration pneumonitis.

Investigations to confirm diagnosis, assess severity and guide treatment include chest X-ray, pulse oximetry (oxygen saturation of less than 90% predicts short term mortality), full blood count (FBC), urea and electrolytes (U&E) and glucose. Sputum cultures are useful if a deep cough specimen can be obtained before antibiotic therapy and processed in the laboratory within 1–2 hours of collection. General practitioners may also consider culture for mycobacterium tuberculosis for residents with an identified risk of tuberculosis, urinary antigen test for *Legionella pneumophila* type 1, or blood cultures in patients with severe pneumonia.

Management

Management involves:

- antimicrobial therapy
- oxygen
- paracetamol for pain relief and antipyretic action
- supportive nursing care and monitoring
- decision on whether the patient can be safely managed in the RACF.

Initial antibiotic therapy is based on the severity of clinical presentation, expected microbial patterns, and antibiotic resistance. Several validated risk scoring systems have been developed such as the pneumonia severity index (PSI)[242] but these require laboratory testing which may be difficult to perform in many RACFs. In the following clinical assessment scale, patients displaying two or more features are defined as having severe pneumonia with high risk of mortality (>30%):

- respiratory rate >30/min
- pulse >125/min
- acute change in mental state
- hypotension (systolic <90 mmHg and/or diastolic <60 mmHg and/or 20 mmHg less than patient's baseline
- history of dementia, cardiovascular disease, liver disease or renal failure
- requiring oxygen at a rate >3 L/min.

Patients with mild to moderate pneumonia and good functional status seem to do better with treatment in the RACF. Patients with severe pneumonia may have lower acute mortality if hospitalised initially, although longer term mortality may not be improved. Minor aspiration may not require antibiotic treatment, and aspiration pneumonia will require coverage for anaerobic organisms. (See guidelines for recommended treatment regimens).[243,244]

Assess the resident's response to treatment daily and seek specialist advice if there is no improvement within 48 hours, if the patient is immunosuppressed or may have tropical cause of pneumonia. Inform public health authorities if a notifiable disease is suspected, ie. tuberculosis or legionella.

One-third of older adults presenting with pneumonia are found to have asthma or COPD within 3 years of the pneumonia episode. It is recommended that spirometry be performed in the convalescence period to diagnosis any underlying asthma or COPD, particularly if the resident exhibited diffuse wheeze and crackles on auscultation during the pneumonia episode.

Urinary tract infections

Urinary tract infections are a significant problem for residents in RACFs. The prevalence among women is 20% between 65–75 years of age; 20–50% over 80 years of age; and among males over 80 years of age, 3%. Four percent of the RACF population has recurrent urinary tract infections.[245] Asymptomatic bacteriuria has an incidence of 50% in the RACF population compared to 10% in older people living in the community.

Contributing factors are related to ageing and disease and include decreased urinary concentrating ability, failure to completely empty the bladder, incontinence, diabetes, kidney stones, urinary catheters, medications with anticholinergic effects, and microbial resistance. Additional factors in women are a short urethra and atrophic changes due to reduced oestrogen levels, while men may have prostatic hypertrophy, urethral stricture, or prostatitis.[246,247] Inadequately treated lower urinary tract infections can ascend to cause pyelonephritis.

Assessment

Common symptoms of a lower urinary tract infection are dysuria, frequency, urgency, nocturia, haematuria, and suprapubic discomfort. Patients with pyelonephritis may have loin pain, fever, nausea, vomiting, diarrhoea and general malaise. Older people may also present with delirium, confusion, falls, immobility or anorexia.[248]

Diagnosis of an urinary tract infection depends on the presence of pyuria and bacteriuria in a carefully collected specimen of urine, preferably midstream. Microscopy, culture and sensitivity will confirm diagnosis and severity and guide antibiotic treatment. Blood cultures should be done for patients with pyelonephritis due to high rates of bacteremia and higher rates of infection with resistant strains. Patients may require further investigation if they have a high risk of obstruction or structural abnormalities.

Management

Treatment is not recommended for asymptomatic bacteriuria or asymptomatic pyuria. Treatment has not been shown to decrease bacteria levels in the urine, prevent recurrent episodes or decrease the risk of febrile illness developing, and may lead to resistant organisms.[249,250]

Antibiotic treatment of lower urinary tract infections can be commenced on clinical diagnosis, and reviewed with results of urine culture. Most cases are caused by *E. coli* and gram negatives such as proteus, klebsiella enterobacter, serratia, and pseudomona due to cross infection from the gastrointestinal tract. Recommended first line oral regimens are trimethoprim 300 mg at night (to maximise urinary concentration) or cephalexin 500 mg 12 hourly, or amoxycillin/clavulanate 500 mg/125 mg 12 hourly. If there is proven microbial resistance, use norflaxacin 400 mg 12 hourly (but do not combine with an alkaliniser as it can cause crystallisation).[251,252] Optimal duration of treatment is not known, and current recommendations

are to treat women for 3–7 days and men for 14 days.[253,254] Monitor clinical progress daily and do a follow up urine culture at least 1 week after the conclusion of therapy. Paracetamol can relieve pain and fever. Dehydration should be corrected, however additional benefits of increasing fluid intake, urinary alkalinisers and cranberry juice have not been established.[255]

Pyelonephritis requires treatment for 10 days, and may need intravenous therapy for the first 2–3 days in hospital or at the facility using hospital in the home. Refer to *Therapeutic guidelines: antibiotic* for recommended regimens.[256]

Measures to prevent recurrent urinary tract infections include investigating the underlying causes, addressing identified risk factors, perineal hygiene, adequate fluid intake, intravaginal oestrogen and prophylactic antibiotics with cephalexin 250 mg or trimethoprim 150 mg at night. There is not enough evidence to support the use of hexamine hippurate, however it may have some efficacy in patients without upper renal tract abnormality.[257]

03 Organisational aspects of medical care

Service systems and templates

The provision of medical care to residents of RACFs requires a systematic approach and arrangements between general practice, residential aged care and other organisations. An understanding of differences in their work structures, funding, accreditation standards and cultures is essential for developing effective systems.

Steps for organising the general practice and RACF to deliver medical care to residents are:

1. Identify the health care needs of the residents in your care
2. Identify service providers, stakeholders and support organisations with whom you need to develop partnerships
3. Select resources and tools from *Table 15*
4. Use quality improvement processes to implement resources and tools in your practice, RACF or other organisation.

Organisational systems and tools can be applied to support service delivery for residents at the patient and facility level. *Table 15* contains examples of resources and tools that GPs and RACF staff can use. It also includes strategies that divisions of general practice can use to support GPs and RACF staff to improve quality of care for residents.

Types of resources and tools include:

- service systems and templates, eg. work arrangements, registers, recall/reminder systems, checklists, health information management and technology
- Medicare item numbers that remunerate GPs for multidisciplinary care of residents, including new Medicare item numbers for chronic disease management
- funded aged care GP panels through divisions of general practice
- information resources for residents and their relatives/carers, eg. rights and responsibilities, GP and RACF services, advance care planning, clinical conditions, state based support services
- clinical resources for individual care, eg. assessment tools, guidelines, protocols, local service directories
- facility wide programs and systems using multiple interventions to maintain a safe and healthy environment for residents and staff, eg. falls prevention programs, infection control procedures, medication management systems
- professional education and training, geriatric assessment, advance care planning, dementia, medication management
- quality improvement strategies, eg. advisory committees, 'plan, do, study, act' (PDSA) cycle, working groups, audits.

Organisational aspect of care	GP tools	RACF tools	DGP tools
Develop partnerships between service providers	• Designate a practice staff member as RACF coordinator • Establish work arrangements with RACFs • Provide practice information on GP services for residents (including respite) • Medical Deputising Service after hours arrangements • Identify local allied health and dental practitioners for referral • List of local specialist services • Knowledge of staff skills and services of RACF (high/low level, respite, dementia) • Accreditation and compliance with privacy legislation	• Designated GP/health care coordinator • Register of attending GPs • Checklist of GP work arrangements • Medical and/or medication advisory committees • Accreditation and compliance with privacy legislation	• Establish and maintain aged care GP panel in consultation with RACFs and other stakeholders • Develop agreed goals for working together • Information on liaison and support for special needs patients, eg. Aboriginal And Torres Strait Islander peoples, culturally and linguistically diverse people, those with disabilities
Arrange care for the new resident/patient	• GP request transfer of medical record for new patient • Comprehensive medical assessment (CMA) • Advance care plan • MBS: CMA, RACF visits, GP contribute to care plan, case conference • Provide practice information on GP services • Discussions with resident and family/carer	• State based entry application • Discussions with resident and family/carer • Identify authorised representative • Consent form for resident or authorised representative for exchange of health information • Identify resident's GP • Assessment and care plan	• Commence advance care planning • Request GP contribution to care plan • Disseminate information on GP services for RACF patients • Promote use of CMA and other MBS items including new chronic disease management items • Support advance care planning
• Provide comprehensive continuing medical care to each resident: – prevention – disease management – optimising function – symptom control – palliative care	• Practice staff support with liaison, recall, administration documentation, health records management • RAC patient register and recall/reminder system • Clinical resources/protocols	• Request GP contribute to care plan • Use case conference record • Reminder system • Clinical resources/protocols • Notify GP of available RACF services, health programs for residents	• Disseminate information, resources and tools, eg. 'silver book' • Educational seminars in relevant clinical topics • Local service directory with eligibility, availability, waiting times

	• MBS items: new chronic disease management items, RACF visits, CMA, GP contribute to care plan, case conference, referrals for allied health and dental care • Case conference record • Discussions with resident and family/carer • Referral links with specialist services (aged care, psychogeriatric, acute, rehabilitation, palliative care) • Acute and after hours notification and call out protocols	• Acute and after hours protocols for GP attendance/hospital transfer • Discussions with resident and family/carer • Transfer arrangements with GP and other services for pathology and health reports	• Promote use of MBS items, including new chronic disease management items • Aged care GP panels
Transfers between RACF and acute care	• GP receive hospital discharge information • GP review resident, medication and care plan	• Protocols for referral, notification of relatives/carers, GP notification, transfer and hospital discharge information, medication update, GP review of care plan	• Promote hospital use of discharge summaries and exchange of information on medication, test results
• Maintain facility based systems • Medication management • Infection control • Prevention of falls, flu • Physical and social activity groups	• Guidelines (eg. *Australian medicines handbook*, RACGP *Standards for general practices*) • Legislation and regulations • Electronic software to print medication labels • MBS: Chronic disease management, RMMR, case conference • Discussions with resident and family/carer	• Guidelines (eg. APAC), legislation and regulations • Medication Advisory Committee • MBS: RMMR • Commercial medication management systems • Audits (eg. pharmacy) • After hours medication arrangements with pharmacy, GP, hospital	• Promote establishment of effective medication management systems with local GPs, RACFs and pharmacists including routine, after hours and on return from hospital • Educational seminars • Support local health programs into facilities (eg. falls)
Conduct continuous quality improvement activities	Use PDSA cycle to implement organisational tools	• Use the Standards Agency Continuing Quality Improvement for Aged Care to implement organisational tools	• Identify and promote strategies to address service gaps • Training and development • Aged care GP panels • Promote GP participation in quality activities with RACFs • Support local joint quality improvement projects

Table 15. Examples of resources and tools for the delivery of medical care to residents

When people enter residential aged care, it is important that RACF staff seek consent from them (or their representative) for health information to be disclosed to all relevant service providers involved in providing their medical care (see *Tools 9*). Staff could also provide information about how to appoint an authorised representative and initiate advance care planning in anticipation of future changes that may occur in the resident's health and/or capacity to make decisions.

On admission to RACFs, staff members usually ask new residents whom they have or wish to have as their GP. It would be helpful for residents who do not have a local GP to be given information on local GPs (eg. practice brochures).

It is recommended that each RACF have a register of attending GPs with a record of their preferred work arrangements. The checklist in *Tools 12* provides a useful starting point for clarifying and documenting work arrangements with each GP.

A recall/reminder system in the general practice and/or RACF can be used by staff to track when residents are due for a GP visit, comprehensive medical assessment, case conference, care plan review, or residential medication management review. Samples of recall/reminder systems with reminder letters and resident information sheets are available in the 'GP and residential aged care kit' produced by North West Melbourne Division of General Practice.[258]

RACF staff can facilitate GPs' input into multidisciplinary health assessments and care plans by:

- nominating staff to liaise with the GP, resident, relatives/carers/representative and other health care providers
- sharing information from the resident's records and care plan with the GP
- supporting the use of Medicare items for GP comprehensive medical assessments, GP contribution to care plan (at request of RACF staff), GP involvement in case conferences, and the GP and pharmacist component of residential medication management reviews
- facilitating or participating in case conferences where residents' issues, goals and management plans are discussed
- offering standardised documentation to record the comprehensive medical assessment (see *Tools 10*), case conference discussions (see *Tools 11*) and care plans.

Medicare item numbers

Until November 2000, Medicare rebates were available only for GP consultations at the RACF. Since then, items have been introduced progressively to better remunerate GPs, and improve multidisciplinary care for residents. The Medicare Benefits Schedule (MBS) lists current item descriptors and rebates available for medical services provided to residents for the following services[259]:

- GP consultations in RACFs
- GP comprehensive medical assessment (CMA)
- GP organising or participating in multidisciplinary case conferences
- GP contribution to the resident's care plan
- GP participation in residential medication management review
- allied health and dental services on referral from a GP.

Figure 3 provides a summary of how these MBS items can be used by GPs providing care for residents.

Consider the following when deciding on how to organise and use Medicare items at a RACF:

- What is the likely workload within the facility (how many patients are likely to need a CMA or case conference per week, month or year)? Use a reminder/recall system to schedule reviews
- What is the range of complexity or special needs of residents? Identify and target residents who will benefit most from a CMA, case conference or specific types of services

- How much available time do GPs and facility staff have to contribute to the CMA and care planning?
- What is the range and level of multidisciplinary expertise available? Identify RACF staff and external service providers with specific skills, eg. for assessment, advance care planning and treatment.

General practitioner attendances at a RACF: The purpose of MBS rebates for GP consultations in RACFs is to reimburse GPs for face-to-face patient consultation time, plus travel time. The MBS rebate is equivalent to the corresponding item in the GP's rooms, plus an amount divided by the number of patients seen (up to six patients), and then a set amount per patient for seven or more patients.

Comprehensive medical assessment: An up-to-date health and medical summary for all patients including those in residential aged care is a RACGP accreditation standard. General practitioners can be remunerated to undertake a CMA annually for new and existing permanent residents in high and low care facilities. The CMA may highlight particular issues such as an immediate medical need, problems with medication management, and needs for specialist referral or allied health services. A sample 'Comprehensive medical assessment form' is provided in *Tools 10*, or at www.health.gov.au/internet/wcms/publishing.nsf/Content/health-medicare-health_pro-gp-cmarach.htm

General practitioner contribution to a resident's care plan: RACFs are required and receive funding to develop care plans for permanent residents. RACF care plans focus on personal and nursing care rather than medical care. General practitioners may contribute to these care plans at the request of RACF staff. From 1 July 2005 new chronic disease management (CDM) Medicare numbers replaced EPC multidisciplinary care planning items which will be withdrawn on 1 November 2005. The new CDM item 731 retains similar provisions to the old item 730 for GPs to contribute to the preparation and/or review of care plans for residents of aged care facilities. Item 731 can be claimed at 6 monthly intervals. It involves review of the plan with the addition of any relevant medical information, eg. instructions for after hours care, need for referral to allied health or dental services. It is also an opportunity for GPs to enquire if advance care planning has been discussed.

General practitioner RACF case conference: Case conferences support multidisciplinary management of residents with complex care needs, when a condition has been present or is expected to last for at least 6 months, or is terminal. Medicare Benefits Schedule items may be claimed for up to five case conferences for an individual resident in any 12 month period when there is participation by the GP and at least two other care providers. A sample 'GP RACF case conference record' is provided in *Tools 11*.

Referrals for Medicare rebated allied health and dental services: When a GP has contributed to a care plan for a resident and item 731 (or 730) has been claimed, the resident is eligible to access Medicare rebatable items for allied health and dental services on referral from their GP. Eligibility is determined for a resident with a chronic condition and complex care needs managed by a GP and identified in the resident's care plan. The dental problem must be adding significantly to the seriousness of the chronic condition identified in the care plan. Up to five allied health services per year (in total not five per service type) and three dental services are available. The allied health professional or dentist must register as a private provider with the Medicare Australia. A referral to the allied health practitioner or dentist is made using the EPC Program referral form for allied health services, available at www.medicareaustralia.gov.au/providers/incentives_allowances/medicare_initiatives/allied_health.htm

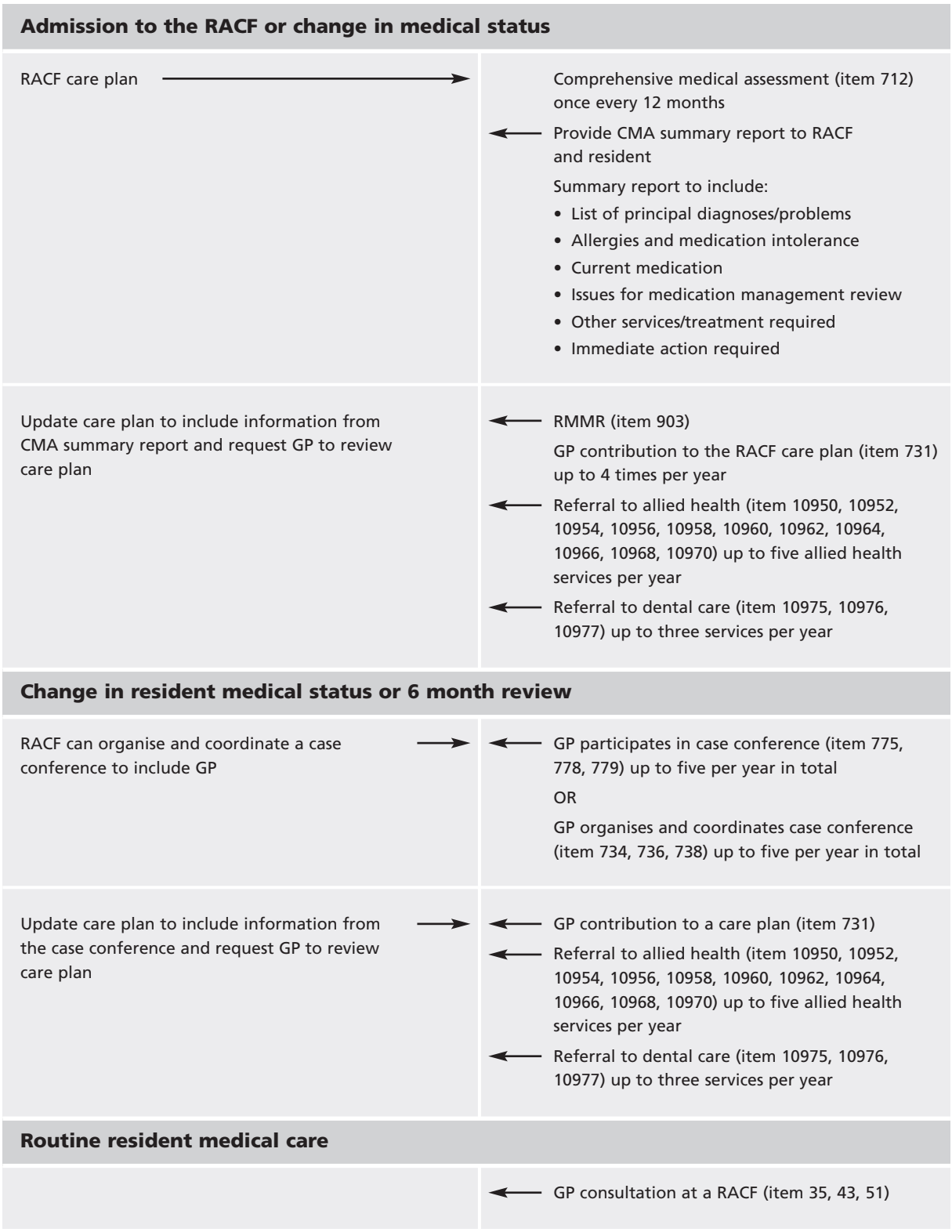


Figure 4. How MBS items relate to a resident's medical care

Residential medication management review (RMMR): The RMMR enables the GP and pharmacist to review the medication needs of a new or existing resident. *Table 16* gives a GP checklist for a RMMR. The checklist and up-to-date forms can be accessed at www.health.gov.au/internet/wcms/publishing.nsf/Content/health-epc-dmmrqa.htm

1. Determine the clinical need for a medication management review. This step is not necessary for new residents as they are entitled to a residential medication management review on admission	Mandatory for existing residents
2. Explain RMMR to resident/representative and obtain consent	Mandatory
3. Initiate the RMMR and collaborate with reviewing pharmacist regarding the pharmacist's component of the review. The initial discussion with the reviewing pharmacist should cover: • a communication protocol • exceptions to a postreview discussion • clinical information relevant to the pharmacist's component of RMMR	Mandatory
4. Postreview discussion with the reviewing pharmacist should cover: • the findings of the pharmacist's review • medication management strategies • means to ensure the strategies are implemented and reviewed, and • any issues for implementation and usual follow up	Mandatory unless: • no recommended changes • minor changes GP and pharmacist agree on need for case conference
5. Consultation with the resident to discuss the outcomes of the review and proposed medication management strategy and to gain the resident's agreement to the plan	Mandatory
6. Finalise and prepare written medication management plan	Mandatory
7. Offer a copy of the plan to the resident/or resident representative: • copy for the resident's records • copy for the nursing staff of the aged care home • discuss the plan with aged care nursing staff if necessary	Mandatory
8. Bill the resident for the service	Item 903

Table 16. GP checklist for conducting a RMMR

Quality improvement

There is scope for improving the quality of medical care for residents through implementing systems and tools over the short and medium term. Many RACFs use a continuous quality improvement cycle to implement changes.[260] The PDSA (plan, do, study, act) cycle is increasingly used for quality improvement in general practice and health service organisations.[261]

The PDSA method encourages starting with small changes, which can build into larger improvements in practice through successive quick cycles of change, as shown in *Table 17*.

Step 1. **Plan** to test selected improvement or change
Once the actual change to be introduced has been agreed, consider the following questions:
- What would we expect to see as a result of this change?
- What data do we need to collect to check the outcome of the change?
- How will we know whether the change has 'worked' or not?
- Who, what, where, when?

Step 2. **Do** the test and collect data for analysis
Keep the 'do' stage short and record any outcomes, unexpected events, problems and other observations.

Step 3. **Study** the results
Has there been an improvement? Did your expectations match the reality of what happened? What could be done differently?

Step 4. **Act** on the result
Do an 'amended' version of what happened during the 'do' stage, measure and study any differences in results. Once you have achieved success in a PDSA cycle, the change can be implemented as part of usual practice and mechanisms established to sustain the improvement. These may include:
- training and education of staff
- standardisation of systems and processes
- documentation of associated policies and guidelines
- measurement and review to ensure that the change is incorporated into routine practice

Table 17. The Plan, Do, Study, Act cycle

Over the long term, there are further challenges for enhancing the quality of medical care in the residential setting. There is a need for:
- inclusion of residents in clinical studies of the effectiveness of interventions
- systematic data collection to build an information base about the epidemiology and current medical treatment of the residential aged care population
- processes to establish agreed and evidence based treatment guidelines specific to the needs of this population.

General practitioners could help meet these challenges by working with other professional groups (eg. nurses and geriatricians) to:
- collect agreed objective data that can be used comparatively as a starting point for quality enhancement
- examine and understand reasons for suboptimal care
- establish agreed clinical indicators that reflect good care
- establish agreed evidence based benchmarks
- develop agreed strategies for translating evidence into practice.

04 Tools

1. Barthel Index – activities of daily living (modified)

The Barthel Index is a simple to administer tool for assessing self care and mobility activities of daily living. It is widely used in geriatric assessment settings. Reliability, validity and overall utility are rated as good to excellent. Information is gained from observation, self report or informant report. It takes approximately 5–10 minutes to complete if the observational method is used.[262]

Guidelines for scoring:

- The index should be used as a record of what a patient does, not as a record of what a patient could do
- The main aim is to establish degree of independence from any help, physical or verbal, however minor and for whatever reason
- The need for supervision renders the patient not independent
- Usually the patient's performance over the preceding 24–48 hours is important, but occasionally longer periods will be relevant
- Middle categories imply that the patient supplies over 50% of the effort
- Use of aids to be independent is allowed.

Maximum score is 100. Low scores on individual items highlight areas of need.

The Barthel Index

Patient name Rater name Date

ACTIVITY	SCORE
Feeding 0 = unable 5 = needs cutting, spreading butter, etc, or requires modified diet 10 = independent	
Bathing 0 = dependent 5 = independent (or in shower)	
Grooming 0 = needs help with personal care 5 = independent face/hair/teeth/shaving (implements provided)	
Dressing 0 = dependent 5 = needs help but can do about half unaided 10 = independent (including buttons, zips, laces, etc)	
Bowels 0 = incontinent (or needs to be given enemas) 5 = occasional accident 10 = continent	
Bladder 0 = incontinent, or catheterised and unable to manage alone 5 = occasional accident 10 = continent	
Toilet use 0 = dependent 5 = needs some help, but can do something alone 10 = independent (on and off, dressing, wiping)	
Transfers (bed to chair and back) 0 = unable, no sitting balance 5 = major help (one or two people, physical), can sit 10 = minor help (verbal or physical) 15 = independent	
Mobility (on level surfaces) 0 = immobile or <50 yards 5 = wheelchair independent, including corners, >50 yards 10 = walks with help of one person (verbal or physical) >50 yards 15 = independent (but may use any aid, eg. stick) >50 yards	
Stairs 0 = unable 5 = needs help (verbal, physical, carrying aid) 10 = independent	
	Total (0–100)

Reprinted with permission. Mahoney FI, Bethel D. Functional evaluation: the Bethel Index. Maryland State Med J 1965;14:56–61

2. Edmonton Symptom Assessment Scale

This tool helps identify and measure the severity of common symptoms in patients receiving palliative care.

Edmonton Symptom Assessment Scale (ESAS)

Date of completion Time

Please circle the number that best describes:

	0	1	2	3	4	5	6	7	8	9	10	
Pain	No pain											Worst possible pain
Tiredness	Not tired											Worst possible tiredness
Nausea	Not nauseated											Worst possible nausea
Depression	Not depresses											Worst possible depression
Anxiety	Not anxious											Worst possible anxiety
Drowsiness	Not drowsy											Worst possible drowsiness
Appetite	Best appetite											Worst possible appetite
Wellbeing	Best feeling of wellbeing											Worst possible feeling of wellbeing
Shortness of breath	No shortness of breath											Worst possible shortness of breath
Other problem												

ESAS completed by:

☐ Patient ☐ Health professional ☐ Family ☐ Assisted by family or health professional

Version date December 11, 2002

Source: Bruera E, Kuehn N, Miller M, Selmser P, Macmillan K. The Edmonton Symptom Assessment System (ESAS): a simple method for the assessment of palliative care patients. J Palliat Care 1991:7;6–9

3. Multidisciplinary carepath for palliative care: end stage care

This tool is a multidisciplinary carepath for care of the patient who is dying and has at least two of the following five criteria:

- is bedridden
- is no longer able to take tablets
- has decreasing/fluctuating levels of consciousness
- is weak and drowsy for extended periods of time
- is able to tolerate sips of fluid only.

Essential components of care:			
1. Comfort measures All nonessential investigations/observations/interventions have been discontinued (eg. routine blood tests, routine nursing observations, routine imaging)	**Yes**	**No**	**N/A**
Four hourly observations for pain, agitation, nausea and vomiting, and other symptoms are continued			
Nonessential medications have been discontinued			
Essential medications have been charted via an appropriate route (s/c, pr, s/l) (eg. analgesia, sedatives, anti-emetics and anticholinesterase Rx as indicated)			
PRN medications are charted via an appropriate route in anticipation of symptoms (see 'Symptom management' below)			
2. Moral/ethical issues The resuscitation status has been documented			
Any advanced care directive has been acknowledged and copied into the chart			
Organ donation issues (cornea, other organs) have been discussed with the patient and family/carers			
Issues surrounding any intravenous fluids/parenteral feeding/oxygen have been discussed			
The patient has completed a will			
The patient has selected an 'enduring power of attorney'			
The patient is dealing with identified 'unfinished business' (including funeral wishes, relationship issues)			
3. Communication The patient's ability to communicate and need for interpreters has been assessed and is being addressed			
The patient is aware of their condition and counselling offered			
The patient's family/carers are aware of the condition and any advance care directives agreed on by patient; family conference has been organised and follow up bereavement arrangements made			
The patient has expressed a preference for who should be present. Preferred place of death issues have been addressed (eg. hospital, hospice, aged care home, home)			

Financial issues: Carer's allowance if at home, will, funeral arrangements and allowances, transport costs			
The patient's family/carers have been given general hospital information (visiting hours, accommodation, dining, toilets, parking, after death procedures, issues with children attending)			
The key contact person and next of kin are identified in the notes with 24 hour contact numbers			
Patient's GP and relevant community health/palliative care service staff have been contacted			
4. Spiritual/religious needs (see 'Spiritual history') Spiritual issues have been explored			
Religious needs have been assessed			
Any special needs have been addressed (eg. speed of burial, washing of body, request for the 'sacrament of the sick', imam, rabbi, priest or other special minister called for, 24 hour pastoral care number has been given, counselling offered)			

Box 1. Management of common symptoms seen in the 'end stage'

P – Pain (eg. subcutaneous morphine, hydromorphone, fentanyl, sufentanil, watch morphine metabolites build up in renal failure – decrease doses)

A – Agitation and delirium, restlessness (eg. subcutaneous midazolam, haloperidol, clonazepam)

N – Nausea and vomiting (eg. metoclopramide, haloperidol, promethazine)

E – Emergencies: related symptoms and anxiety provoking signs (eg. massive haemorrhage in lungs, gut, brain; bowel perforation and subsequent peritonitis; sudden vomit and aspiration) (eg. morphine, midazolam – larger doses)

R – Respiratory secretions, especially 'upper airway' retained secretions ('gurgling') (eg. glycopyrrolate, hyoscine butylbromide or more sedating hyoscine hydrobromide), or 'lower airway' pulmonary oedema (eg. frusemide) (if having intravenous hydration at 'end stage' also cease this and discuss with family)

O – Other: related to specific disease (dyspnoea, seizures, gastrostomy suction) (eg. lorazepam s/l, clonazepam s/l, pr, s/c)

Box 2. Spiritual history

F – Faith or beliefs (orthodox and nonorthodox)
- What is your faith or belief?
- Do you consider yourself spiritual or religious?
- What things do you believe in that give meaning to life?

I – Importance and influence
- Is it important to your life?
- What influence does it have on how you take care of yourself?
- How have your beliefs influenced your behaviour during this illness?

C – Community (including family and friends)
- Are you part of a spiritual or religious community?
- Is this of support to you, and how?
- Is there a person or group of people whom you really love or who are really important to you?

A – Address
- How would you like me, your health care provider, to address these issues in health care?

Reprinted with permission. Mater Hospital. Authorised end stage care pathway used in the Mater Adult Hospital. Brisbane: Mater Hospital, 2005

4. Abbreviated Mental Test Score

The AMTS was introduced by Hodkinson in 1972 to quickly assess elderly patients for the possibility of dementia. The test has utility across a range of acute and outpatient settings. It has been tested on an Australian sample of patients.[263] The test takes 5 minutes and must include all 10 questions. Maximum score is 10. A score of less than 7 or 8 suggests cognitive impairment. The test can differentiate normal from cognitively impaired but is not reliable in identifying delirium.[264]

Question	Score 0 or 1
1. How old are you?	
2. What is the time (nearest hour)?	
3. Address for recall at the end of test – this should be repeated by the patient, eg. 42 West Terrace	
4. What year is it?	
5. What is the name of this place?	
6. Can the patient recognise two relevant persons (eg. nurse/doctor)	
7. What was the date of your birth?	
8. When was the second World War?	
9. Who is the present prime minister?	
10. Count down from 20 to 1 (no errors, no cues)	
TOTAL CORRECT	

Source: Hodkinson HM. Evaluation of a mental test score for assessment of mental impairment in the elderly. Age Ageing 1972;1:233–8

5. Geriatric Depression Scale

The Geriatric Depression Scale is used to identify depression in older people in hospital, aged care home and community settings. The 15 item version is most widely used with self report or informant report, and takes 5–10 minutes to complete. Sensitivity ranges from 79–100%. Specificity ranges from 67–80%. It is suitable for use with residents with a Mini-Mental Status score of more than 14. It has questionable accuracy when used to detect minor depression. The Geriatric Depression Scale is available in many languages and can be downloaded from www.stanford.edu/~yesavage/GDS.html

Calculate the total score by adding up the ticks in bold (right hand column). Each scores one point. Scores greater than 5 suggest the presence of depression.

Date / /	**Please tick ✔**
1. Are you basically satisfied with your life?	Yes ☐ No ☐
2. Have you dropped many of your activities and interests?	Yes ☐ No ☐
3. Do you feel that your life is empty?	Yes ☐ No ☐
4. Do you often get bored?	Yes ☐ No ☐
5. Are you in good spirits most of the time?	Yes ☐ No ☐
6. Are you afraid that something bad is going to happen to you?	Yes ☐ No ☐
7. Do you feel happy most of the time?	Yes ☐ No ☐
8. Do you often feel helpless?	Yes ☐ No ☐
9. Do you prefer to stay at home, rather than going out and doing things?	Yes ☐ No ☐
10. Do you feel you have more problems with memory than most?	Yes ☐ No ☐
11. Do you think it is wonderful to be alive now?	Yes ☐ No ☐
12. Do you feel pretty worthless the way you are now?	Yes ☐ No ☐
13. Do you feel full of energy?	Yes ☐ No ☐
14. Do you feel that your situation is hopeless?	Yes ☐ No ☐
15. Do you think that most people are better off than you?	Yes ☐ No ☐
TOTAL SCORE	

Source: Sheik JI, Yesavage JA. Geriatric Depression Scale (GDS): recent evidence and development of a shorter version. In: Brink TL, editor. Clinical gerontology: a guide to assessment and intervention. New York: Haworth Press, 1986

6. Cornell Scale for Depression in Dementia

The Cornell Scale for Depression in Dementia (CSDD) is designed for the assessment of depression in older people with dementia who can at least communicate basic needs. The CSDD differentiates between the diagnostic categories and severity of depression. It has been tested for reliability, sensitivity and validity on patients in community, hospital and aged care home settings. Scores are determined by a combination of prior observation and two interviews: 20 minutes with the carer and 10 minutes with the patient. Depressive symptoms are suggested by a total score of 8 or more.

Cornell Scale for Depression in Dementia

Name Age Sex Date

☐ Inpatient ☐ Aged care home resident ☐ Outpatient

SCORING SYSTEM

A = unable to evaluate 0 = absent 1 = mild or intermittent 2 = severe

Ratings should be based on symptoms and signs occurring during the week prior to interview. No score should be given if symptoms result from physical disability or illness.

A.	**Mood related signs**				
1.	Anxiety: anxious expression, ruminations, worrying	A	0	1	2
2.	Sadness: sad expression, sad voice, tearfulness	A	0	1	2
3.	Lack of reactivity to pleasant events	A	0	1	2
4.	Irritability: easily annoyed, short tempered	A	0	1	2
B.	**Behavioural disturbance**				
5.	Agitation: restlessness, hand wringing, hair pulling	A	0	1	2
6.	Retardation: slow movement, slow speech, slow reactions	A	0	1	2
7.	Multiple physical complaints (score 0 if GI symptoms only)	A	0	1	2
8.	Loss of interest: less involved in usual activities (Score only if change acutely, ie. in less than 1 month)	A	0	1	2
C.	**Physical signs**				
9.	Appetite loss: eating less than usual	A	0	1	2
10.	Weight loss (score 2 if greater than 5 lb in 1 month)	A	0	1	2
11.	Lack of energy: fatigues easily, unable to sustain activities (Score only if occurred acutely, ie. in less than 1 month)	A	0	1	2
D.	**Cyclic functions**				
12.	Diurnal variation of mood: symptoms worse in the morning	A	0	1	2
13.	Difficulty falling asleep: later than usual for this individual	A	0	1	2
14.	Multiple awakenings during sleep	A	0	1	2
15.	Early morning awakening: earlier than usual for this individual	A	0	1	2
E.	**Ideational disturbance**				
16.	Suicide: feels life is not worth living, has suicidal wishes or makes suicide attempt	A	0	1	2
17.	Poor self esteem: self blame, self depreciation, feelings of failure	A	0	1	2
18.	Pessimism: anticipation of the worst	A	0	1	2
19.	Mood congruent delusions: delusions of poverty, illness or loss	A	0	1	2

Reprinted with permission. Alexopoulos GS, Abrams RC, Young RC, Shamoian CA. Cornell Scale For Depression in Dementia. Biological Psychiatry 1988;23:271–84

7. Abbey Pain Scale

The Abbey Pain Scale is used for people with dementia or who cannot verbalise.

Abbey Pain Scale

Name of resident

For measurement of pain in people with dementia who cannot verbalise

How to use scale: While observing the resident, score questions 1 to 6

Name/designation of person completing the scale

Date Time

Latest pain relief given was at hours

Q1 Vocalisation

eg. whimpering, groaning, crying

Absent 0 Mild 1 Moderate 2 Severe 3

Q2 Facial expression

eg. looking tense, frowning, grimacing, looking frightened

Absent 0 Mild 1 Moderate 2 Severe 3

Q3 Change in body language

eg. fidgeting. rocking, guarding part of body, withdrawn

Absent 0 Mild 1 Moderate 2 Severe 3

Q4 Behavioural change

eg. increased confusion, refusing to eat, alteration in usual patterns

Absent 0 Mild 1 Moderate 2 Severe 3

Q5 Physiological change

eg. temperature, pulse or blood pressure outside of normal limits, perspiring

Absent 0 Mild 1 Moderate 2 Severe 3

Q6 Physical changes

eg. skin tears, pressure areas, arthritis, contractures, previous injuries

Absent 0 Mild 1 Moderate 2 Severe 3

Add scores for 1–6 and record here **Total pain score**

Now tick the box that matches the total pain score	0–2 No pain	3–7 Mild	8–13 Moderate	14+ Severe

Finally, tick the box that matches the type of pain	Chronic	Acute	Acute on chronic

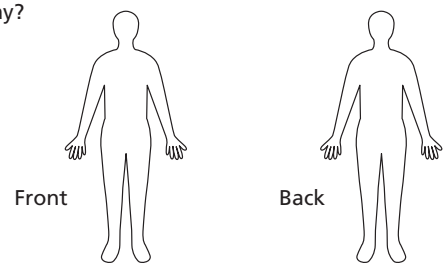
Source: Abbey J, De Bellis A, Piller N, Esterman A, Giles L, Parker D, Lowcay B. Funded by the JH & JD Gunn Medical Research Foundation 1998–2002

8. Brief pain inventory

Brief Pain Inventory

Name Date Time

1. Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, toothaches). Have you had pain other than these everyday types of pain today?
   1. Yes 2. No
2. On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.



3. Please rate your pain by circling the one number that best describes your pain at its worst in the past 24 hours.

   0 1 2 3 4 5 6 7 8 9 10
   No pain *Pain as bad as you can imagine*

4. Please rate your pain by circling the one number that best describes your pain at its least in the last 24 hours.

   0 1 2 3 4 5 6 7 8 9 10
   No pain *Pain as bad as you can imagine*

5. Please rate your pain by circling the one number that best describes your pain on average.

   0 1 2 3 4 5 6 7 8 9 10
   No pain *Pain as bad as you can imagine*

6. Please rate your pain by circling the one number that tells how much pain you have right now.

   0 1 2 3 4 5 6 7 8 9 10
   No pain *Pain as bad as you can imagine*

7. What treatment or medication are you receiving for the pain?

   _____

   _____

   _____

   _____

   _____

8. In the past 24 hours, how much relief have pain treatments or medication provided? Please circle the one percentage that most shows how much relief you have received.

   0% 10 20 30 40 50 60 70 80 90 100%
   No relief *Complete relief*

9. Circle the one number that describes how, during the past 24 hours, pain has interfered with your:

   A. General activity

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

   B. Mood

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

   C. Walking ability

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

   D. Normal work (includes both work outside the home and housework)

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

   E. Relations with other people

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

   F. Sleep

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

   G. Enjoyment of life

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

   H. Ability to concentrate

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

   I. Appetite

   0 1 2 3 4 5 6 7 8 9 10
   Does not interfere *Completely interferes*

9. Resident consent to exchange of health information

To comply with privacy legislation, we need your consent to exchange information in relation to your care needs

I, _____

(Print full name of client/resident or power of attorney)

agree to the exchange of information regarding the services/medical information received by _____

_____ *(insert name of client/resident or 'MYSELF')* from general practitioners,

specialist medical practitioners, hospitals, care and support agencies and allied health professionals with

_____ *(insert name of RACF)* for the purpose of assessing my care

needs and for the provision of ongoing services.

I understand that all information obtained will be kept confidential.

Signed: _____

Date: _____

Witness: _____

Collection statement

We are collecting the information on this form for the purpose of assessing your care needs at this residential aged care facility.

The information relating to your current state of health and financial status will be disclosed to the commonwealth government, as this is a requirement under *The Aged Care Act*. It will be used to make decisions about the level of funding we receive for the care we deliver.

Information contained on this form will not be disclosed to any other individual or organisation (unless they are directly related to your care) without your consent.

Reprinted with permission. Ruth D, Wong R, Haesler E. General practice in residential aged care, partnerships for 'round the clock' medical care. Melbourne: North West Melbourne Division of General Practice, 2004

10. Comprehensive medical assessment form

Resident's surname: **Other names:**

Resident's details (may be available from aged care home) Date of birth / /

Pension No. Medicare No. DVA No.

New or existing resident

Aged care home Phone

Next of kin/guardian

Name Phone

Advance care directive (or similar?) ☐ Yes ☐ No

Enduring Medical Power of Attorney ☐ Yes ☐ No

Has the resident had a previous CMA? ☐ Yes ☐ No

If yes: Date of last CMA / /

Consent for a CMA obtained? ☐ Yes

Consent given by ☐ Resident ☐ Representative

Date consent was given / /

CMA service details

Provided by Dr Phone

Is this the resident's usual doctor? ☐ Yes ☐ No

Date/s of service / /

If doctor providing CMA is not the resident's usual doctor, has a report of the CMA been provided to the resident's usual doctor? ☐ Yes ☐ No

Diagnoses/problems

Principal diagnoses	Other significant health problems

Immediate action

Cardiovascular system	Oral health
Respiratory system	Nutrition status
Pain	Dietary needs
Physical function	Skin integrity
Psychological function	Continence
Other	

Allergies and medication intolerance

Current medication

(including prescribed and nonprescribed medication) (medication chart/Webster sheet can be attached)

Issues for consideration in medication management review

Other services required

EPC care plan ☐ Yes ☐ No EPC case conference ☐ Yes ☐ No

Medication management review ☐ Yes ☐ No

Other

Comments

GP's signature Date / /

Resident's relevant medical history

(May refer to current information from aged care home; information from resident's records can be attached)

Immunisation status

Influenza current ☐ Yes ☐ No Tetanus current ☐ Yes ☐ No

Pneumococcus current ☐ Yes ☐ No

Comprehensive medical examination

Cardiovascular system

Normal Abnormal

Identified problems

Respiratory system

Normal Abnormal

Identified problems

Pain

Acute ☐ Yes ☐ No Chronic ☐ Yes ☐ No

If yes, cause of pain

Physical function including activities of daily living, eg. walking, eating, dressing, personal care (bathing, toilet). Identified problems

Test/screening tool used (eg. MMSE)

Psychological function cognition

Mood Normal Depressed

Impaired Other

Identified problems

Oral health identified problems

Teeth Dentures Gums

Nutrition status identified problems

Weight Height BMI

Dietary needs

Identified problems

Skin integrity identified problems

Normal | Abnormal (sores/lesions) | Other

Continence: urinary (if indicated)

Faecal

Identified problems

Normal | Abnormal

Normal | Abnormal

Urine test

Normal | Abnormal

Identified problems

Other medical examination as relevant to resident

Fitness to drive

Hearing

Vision

Smoking

Foot care

Sleep

Cardiovascular risk factors

Alcohol use

Other

Identified problems

Source: Medicare Australia www.medicareaustralia.gov.au/internet/wcms/publishing.nsf/Content/health-medicare-health pro-gp-cmarach.htm

11. GP RACF case conference record

Date / / GP details

Case conference MBS item (maximum 5 per year)

GP organises and coordinates	735	736	738
GP participates	775	778	779

RACF phone number

Address

Patient details

Name

Date of birth / /

GP file no Pension no.

Medicare no. DVA no.

Aboriginal/Torres Strait Islander

Date of case conference / /

Start time Finish time

Case conference organised and coordinated by ☐ GP ☐ RACF

Patient or next of kin consent gained ☐

Case conference participants

Names/disciplines

1

2

3

Other participants (optional)

Patient

Relative/carer

Other service providers

Issues discussed

Outcomes

Actions to be taken

This documentation has been

- ☐ Placed in resident's record (at front or prominent place for easy access)
- ☐ Placed in patient record at general practice
- ☐ Given to all participants

Review date set for / /

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12. GP RACF work arrangements form

GP work practice arrangements

GP name

Name of GP clinic

Address of clinic

Telephone Fax

GP contacts after hours

Mobile Email

Preferred methods of communication ☐ Telephone ☐ Fax ☐ Email ☐ Letter

GP attendance times at RACF

GP completing CMAs on residents ☐ Yes ☐ No

Will attend case conferences ☐ Yes ☐ No

Organised by ☐ GP ☐ RACF

Will participate in care plan on request of RACF ☐ Yes

Arrangements for RMMRs

Arrangements for medication chart rewrites

Recall/reminder methods by ☐ GP ☐ RACF

Other arrangements

After hours arrangements

Name and contact number for after hours care

Telephone

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Contacts

Aged care contact numbers

Aged Care Complaints Resolution Line	1800 550 552
Aged Care Information Line	1800 500 853
Aged Care Planning Advisory Committees	02 6289 1555
Aged Care Standards and Accreditation Agency Ltd	02 9633 1711

Commonwealth Carelink Centres

Brochures available in several languages. Follow the links for GPs and health professionals www.commcarelink.health.gov.au	1800 052 222

Commonwealth government departments

Commonwealth Department of Health and Ageing GPO Box 9848, Furzer St, Philip ACT 2606 www.health.gov.au	Tel 1800 020 103 Fax 02 6281 6946
Office for an Ageing Australia www.ageing.health.gov.au/ofoa	Tel 02 6289 5246

Advocacy services

National Aged Care Advocacy Program
www.sa.agedrights.asn.au Follow the links to each state organisation

Pensioners and Superannuants' Federation
www.health.gov.au/internet/wcms/publishing.nsf/Content/nmp-advisory-apac

Centrelink

Centrelink call (general enquiries)	13 28 50
Pension enquiries	13 23 00
Financial information service appointments	13 10 21
Teletypewriter service for people with hearing or speech impairments	1800 810 586

Commonwealth Department of Veterans' Affairs

Outside metro area (free call)	1800 555 254
General enquiries (connects to nearest state office, local call)	13 32 54

Councils on the Ageing (COTA)

COTA National Seniors Partnership (formerly Council on the Ageing Australia) Level 2, 3 Bowen Crescent, Melbourne Vic 3004 www.nationalseniors.com.au/Branches%20Map.htm#newsouthwales follow links to state and territory branches	Tel 03 9820 2655 Fax 03 9820 9886

Alzheimer's Australia

PO Box 108, Higgins ACT 2615 Dementia helpline – National toll free number www.alzheimers.org.au and follow links to various state and territory organisations	1800 639 331

Carer's organisations

Carer Resource Centre

National toll free information number	1800 242 636
www.centrelink.gov.au/internet/internet.nsf/services/carer_resource_centres.htm	
Tasmania	03 6231 5507
Victoria	03 9650 9966
New South Wales	02 9280 4744
Australian Capital Territory	02 6296 9900
Queensland	07 3843 1401
Northern Territory	08 8948 4877
South Australia	08 8271 6288
Western Australia	08 9444 5922
Red Cross Carers' Support Service www.redcross.org.au	08 9325 5111

National Carer Counselling Program 1800 242 263

Guardianship authorities

New South Wales	02 9265 1443
Office of the Public Guardian www.lawlink.nsw.gov.au/opg	1800 451 510
Victoria	
Office of the Public Advocate www.publicadvocate.vic.gov.au	1800 136 829
Queensland	
Office of the Adult Guardian www.justice.qld.gov.au/guardian/ag.htm	1300 653 187
Western Australia	
PO Box 6293, East Perth, WA 6892 www.justice.wa.gov.au	08 9219 3111 or 1300 306 017
South Australia	
Office of the Public Advocate www.opa.sa.gov.au	08 8269 7575 or 1800 066 969
Tasmania	
The Public Trustee of Tasmania: www.justice.tas.gov.au/guar/	03 6233 7598 or 1800 068 784
Northern Territory	
Office of Adult Guardianship PO Box 40596, Casuarina, NT 0811	08 8922 7116 or 08 8951 6739
Office of Public Guardian PO Box 721, Alice Springs, NT 0870 www.nt.gov.au/health/org_supp/performance_audit/adult_guard/guardianship.shtml	
Australian Capital Territory	
Community Advocate www.oca.act.gov.au/	02 6207 0707

Abbreviations

ABS	Australian Bureau of Statistics
ACAS	Aged Care Assessment Service
ACSA	Aged and Community Services Australia
ACSAA	Aged Care Standards and Accreditation Agency
ADGP	Australian Divisions of General Practice
AIHW	Australian Institute of Health and Welfare
AMA	Australian Medical Association
AMH	Australian Medicines Handbook
AMTS	Abbreviated Mental Test Score
ANF	Australian Nursing Federation
ANHECA	Aged Care Association Australia
APA	Australian Physiotherapy Association
APAC	Australian Pharmaceutical Advisory Council
APS	Abbey Pain Scale
ASGM	Australian Society for Geriatric Medicine
BPSD	Behavioural and psychological symptoms of dementia
CA	Carers Australia
CBT	Cognitive behavioural therapy
CMA	Comprehensive medical assessment
CME	Continuing medical education
COPD	Chronic obstructive pulmonary disease
COTA	Council on the Ageing
CSDD	Cornell Scale for Depression in Dementia
CVA	Cerebrovascular accident
DAA	Dose administration aid
DGP	Division of general practice
DoHA	Department of Health and Ageing
DRS	Delirium Rating Scale
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, fourth edition
EPC	Enhanced primary care
ESR	Erythrocyte sedimentation rate

FBC	Full blood count
GDS	Geriatric Depression Scale
GP	General practitioner
Hb	Haemoglobin
HIC	Health Insurance Commission
HIV	Human immunodeficiency virus
MAC	Medication advisory committee
MBS	Medicare Benefits Schedule
MIS	Mental impairment score
MMSE	Mini-Mental State Examination
NGO	Nongovernment Organisation
NHS	National Health Service
NSAA	National Strategy for an Ageing Australia
NSAID	Nonsteroidal anti-inflammatory medication
PBAC	Pharmaceutical Benefits Advisory Committee
PBS	Pharmaceutical Benefits Scheme
PCA	Personal care attendant
PDSA	Plan-Do-Study-Act
PEG	Percutaneous endoscopic gastrostomy
PRN	According to need
PSA	Pharmaceutical Society of Australia
PSI	Pneumonia severity index
RACF	Residential aged care facility
RACGP	The Royal Australian College of General Practitioners
RCS	Resident Classification Scale
RMMR	Residential medication management review
SSRI	Selective serotonin reuptake inhibitors
TAIS	Therapeutic Advice and Information Service
TENS	Transcutaneous electrical nerve stimulation
TGA	Therapeutic Goods Administration
U&E	Urea and electrolytes
WCC	White cell count

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