

Pain in  
Residential  
Aged Care  
Facilities

---

Management  
Strategies

August 2005

---

THE AUSTRALIAN PAIN SOCIETY

---



Copyright © The Australian Pain Society 2005

ISBN: 0-9757989-1-X

This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without prior written permission from the Australian Pain Society. Requests and inquiries concerning reproduction and rights should be addressed to:

The Secretariat

The Australian Pain Society

PO Box 637 North Sydney NSW 2059 Australia

Phone +61 2 9954 4400 • Fax + 61 2 9954 0666

Additional copies can be downloaded from the

Australian Pain Society website: [www.apsoc.org.au](http://www.apsoc.org.au)

---

### **Important Notice**

Medicine is an ever changing science. As new research and clinical experience broaden our knowledge, changes in treatment are required. This work has been prepared by a panel of experts using the latest information available at the time. It is believed to be reliable.

Because of the possibility of human error and advances in medical science, readers are encouraged to confirm the appropriateness of the information provided. This is particularly important in relation to prescription medications.

# Foreword

## FOREWORD

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

*Unrecognised and poorly managed pain results in an unnecessary and serious decline in quality of life. Pain is not a normal part of the ageing process but the prevalence of persistent pain increases with age and illness, reaching its highest levels among older people residing in long-term care settings.*

*Concern within the membership and executive of the Australian Pain Society about our most frail and vulnerable citizens, the 150,000 older people in our 3,000 residential aged care facilities, has led to the publication of these management strategies.*

*Research shows that unrecognised and untreated pain, especially non-cancer pain, is widespread among aged care residents. Because many residents have impaired cognition, more than 40 per cent of the Australian nursing home (high-level residential care) population is unable to even report pain.*

*The implementation of carefully determined procedures for pain identification and assessment and an evidence based multidisciplinary approach to pain management are the essentials for successful pain management in aged care facilities.*

***Pain in Residential Aged Care Facilities - Management Strategies** is a comprehensive and considered exploration of the ways in which we can reduce pain and improve the quality of life of long-term aged care residents. The recommended strategies are based on the best available research evidence. There is also a great need for further research to improve this evidence base.*

# Foreword

## FOREWORD

PA I N R E S I D E N T I A L A G E D C A R E F A C I L I T I E S • M A N A G E M E N T S T R A T E G I E S

*The causes of sub-optimal pain management in the residential aged care setting are complex and challenging. They include:*

- *A lack of appreciation of the extent and impact of unidentified pain*
- *Inconsistent pain identification, assessment and treatment procedures*
- *The particular spectrum of complex medical characteristics and care needs of the residential aged care population*
- *Limited knowledge about contemporary multidisciplinary approaches to the assessment and treatment of persistent pain*
- *Limited clinical workforce availability in the residential care sector*
- *A limited organisational infrastructure for delivering a multidisciplinary health service within the residential care sector*
- *Limited interaction between residential care clinicians and pain specialists*

*Pain in Residential Aged Care Facilities - Management Strategies, is the result of commitment, consultation and challenge. I commend all of those involved and trust that the unprecedented guidance offered to all who care for Australian aged care facility residents, will be followed and implemented.*



*Dr Carolyn Arnold, President*

*The Australian Pain Society, July 2005*



# THE AUSTRALIAN PAIN SOCIETY

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

*The Australian Pain Society was formed in 1979 as the Australian Chapter of the International Association for the Study of Pain. It is a non-profit organisation and is directed by an elected honorary council. The APS is a multidisciplinary organisation. Its members represent many medical specialties as well as dentistry, psychology, nursing, general practice, other health professions and the basic sciences. Membership now numbers in excess of 800 and includes investigators and clinicians who are active in the field of pain and its management.*

## *The Society's Aims*

- To foster and encourage research into pain mechanisms and pain syndromes.
- To help improve the management of patients with acute and chronic pain by bringing together basic scientists, physicians and other health professionals of various disciplines and backgrounds who are interested in pain research and management.
- To promote and to facilitate the dissemination of new information in the field of pain.
- To promote and sponsor the Annual Scientific Meeting of the Society.
- To encourage the adoption of uniform classifications, nomenclatures and definitions and the development of national and international data banks relating to pain and pain syndromes.
- To inform the general public of the results and implications of current research in the field of pain.
- To advise national and regional agencies on standards relating to the use of drugs, appliances and procedures in the treatment of pain.
- To engage in such other activities as may be incidental to or in furtherance of the aforementioned aims.

# Contents

## CONTENTS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

Foreword	iv
The Australian Pain Society	vi
Contents	vii
List of Tables and Figures	viii
List of Appendices	ix
Preface	x
Authors	xi
Summary	xii
Abbreviations	xvi
Section 1 • Identification	1
Section 2 • Assessment	7
Preamble to Sections 3, 4, 5 & 6 • A Multidisciplinary Treatment Approach	18
Section 3 • Pharmacological Treatments	21
Section 4 • Psychological - Educational Approaches	29
Section 5 • Physical Therapies	37
Section 6 • Complementary & Alternative Therapies	45
Section 7 • Quality & Systems Issues	51
Appendices 1 - 14	63
Useful Websites	78
Pain Management Guidelines	79
Index	80

# Tables

## LIST OF TABLES & FIGURES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

1	Known barriers to acute pain identification	Page 2
2	Asking communicative residents about their pain	2
3	Informant opinion of a resident's pain	4
4	Staff observation: Common pain behaviours in cognitively impaired elderly persons	5
5	Factors relevant to a pain assessment	9
6	Factors & conditions associated with persistent non-cancer pain in long-term care populations	10
7	The impact of pain	11
8	The Resident's Verbal Brief Pain Inventory (RVBPI)	12
9	The Abbey Pain Scale	15
10	Non-pharmacological therapies for consideration in residential care	18
11	Interventional pain management techniques in the elderly	19
12	Bowel regimen for constipation	22
13	Common components of psycho-educational therapy for the management of persistent pain	30
14	Prescription of strengthening exercises	38
15	Prescription of aerobic exercises	39
16	Prescription of stretching exercises	39
17	Standards and Guidelines for Residential Aged Care Services 1998	52
18	Quality indicators for pain management in vulnerable elders	54
19	Quality indicators for the management of osteoarthritis in vulnerable elders	54
20	Pain assessment indicators for pain documentation review	56
21	Target indicators for pain management practice in institutions	58
22	Attributes of an ideal pain management system	59
23	Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requirements	60
24	Education topics and format	60
	FIGURE 1	
	Recommended organisation, responsibilities and relationships for the care of residents with pain	57

# Appendices

## LIST OF APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

<b>Appendix 1</b>	Acknowledgements
<b>Appendix 2</b>	Components of initial pain assessment recommended by the American Geriatrics Society Panel on Persistent Pain in Older Persons (2002)
<b>Appendix 3</b>	The Brief Pain Inventory (BPI): Background
<b>Appendix 4</b>	Brief Pain Inventory (BPI): Translations and validations
<b>Appendix 5</b>	The Present Pain Inventory (PPI)
<b>Appendix 6</b>	Pain Thermometer
<b>Appendix 7</b>	The Pain Assessment In Advanced Dementia (PAINAD) Scale
<b>Appendix 8</b>	Visual Analogue Scale
<b>Appendix 9</b>	Pictorial or Faces Pain Scales
<b>Appendix 10</b>	Other review instruments: The Memorial Symptom Assessment Scale (MSAS) The Memorial Pain Assessment Card (MPAC)
<b>Appendix 11</b>	The Geriatric Pain Assessment Sheet (GPAS)
<b>Appendix 12</b>	Checklist of Nonverbal Pain Indicators (CNPI)
<b>Appendix 13</b>	Tips for better sleep: Things you can do for yourself
<b>Appendix 14</b>	Complementary and Alternative Medicine Glossary

# Preface

## PREFACE

---

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

*Pain in Residential Aged Care Facilities - Management Strategies is the first Australian publication to comprehensively address the issue of pain, its identification and its management among residents of aged care facilities.*

*In 2001 the Australian Pain Society and the Australian Pain Relief Association established a six-member multidisciplinary working party (see Authors), with special expertise in both pain and aged care, to develop appropriate best practice criteria. A first draft of the document was published in January 2004 and was widely distributed to stakeholders and the public through national newspaper advertisements and the Australian Pain Society's website. After extensive review the draft was revised and, subsequently, endorsed by the Australian Pain Society for publication in August 2005.*

*Pain in Residential Aged Care Facilities - Management Strategies draws on relevant international best practice approaches, expert opinion and published research evidence up to 2004.*

*Australian data and published Australian studies have been utilised when available but there is an acknowledged lack of clinical data about the illnesses and current treatments being provided for aged care residents in Australia. The approaches detailed in Pain in Residential Aged Care Facilities - Management Strategies are, consequently, often informed by international data, particularly the publications of the American Geriatric Society and the American Medical Directors and Health Care Associations.*

*Many people (Appendix 1) contributed advice, suggestions and useful material to the development of this document. Their involvement was greatly appreciated.*

# Authors

## AUTHORS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

The working party members who developed *Pain in Residential Aged Care Facilities - Management Strategies* each had responsibility for specific areas and worked collaboratively throughout the document's development. They are:

**Dr Roger Goucke** MBChB FANZCA FFPANZCA FACHPM was President of the Australian Pain Society (2000-03) and is a Consultant and Head of the Department of Pain Management, Sir Charles Gairdner Hospital, Perth (Editor).

**Dr Sam Scherer** MBBS DGM is General Manager Medical Services of Royal Freemasons' Homes of Victoria. He is a Visiting Geriatrician at the Aged Care Pain Clinic, Royal Melbourne Hospital and a Federal Councillor and Chairman of the Policy and Planning Committee of the Australian Society for Geriatric Medicine (Sections 1, 2 and 7).

**Dr Benny Katz** FRACP FFPANZCA is a Consultant Physician in Geriatric Medicine, Austin Health, Melbourne. He was formerly the Director of the Pain Management Clinic for the Elderly at Melbourne Extended Care and Rehabilitation Centre. He is a member of the Australian Pain Society and a member of the Australian Society for Geriatric Medicine (Section 3).

**Associate Professor Stephen Gibson** PhD, MAPsS is a Clinical Psychologist with the Department of Medicine, University of Melbourne and Director of Clinical Research, National Ageing Research Institute, Melbourne (Section 4).

**Dr Michael Farrell** BAppSc (Phy) MSC (Gerontology) PhD is a Senior Research Officer at the Howard Florey Institute and a Consultant Physiotherapist in the Aged Care Pain Clinic, Royal Melbourne Hospital, Melbourne (Section 5).

**Mark Bradbeer** RN (Div 1), BSc (Hons), MSc, Grad. Dip.Epidem / Biostats is an experienced Pain Management Nurse who has also worked as a Graduate Research Assistant, predominantly in the area of arthritis and the biochemistry of connective tissues (Section 6).

Editorial co-ordinator • Alison Clarke (03) 9886 1737

Design • Alison Maclean Graphic Design (02) 9460 3733

Printer • Lindsay Yates & Partners (02) 9420 5500

# Summary

## SUMMARY

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

*Pain in Residential Aged Care Facilities - Management Strategies* outlines good practice principles to assist health care practitioners to successfully identify, assess and manage pain in our residential aged care population.

### 1. Identification

- Australia's residential aged care sector needs a pain vigilant culture which appreciates that many residents often suffer from unrecognised pain.
- Failure to identify pain may stem from residents' cognitive and communicative impairments, social diversity or attitudes. Inadequate staff awareness and high workloads may compound the problem.
- Residents able to report pain should be asked about their pain with genuine concern and carefully phrased questions.
- Two structured procedures, Informant Reports and Staff Observation, should be used to identify pain in residents who are unable to report their pain.
- The possibility of the onset of pain must be considered if there is a significant change in a resident's condition and, routinely, every three months.

### 2. Assessment

- Successful pain management is enhanced by the correct diagnosis of the cause(s) of pain because the underlying cause may be remediable and because different types of pain respond to different treatments.
- New acute pain or remediable persistent pain should be diagnosed promptly and treated appropriately.
- Systematic, multidisciplinary collaboration between doctors, nurses, physiotherapists and other care staff is the key to effective pain assessment and management.
- A resident and his or her representative must be informed about, and actively involved in, pain assessment and management.
- Structured procedures must be used to identify the cause(s) of pain, pain intensity and the impact of pain on a resident's activities of daily living, mood, sleep and quality of life.
- The Resident's Verbal Brief Pain Inventory (RVBPI) is recommended as a useful standard multidimensional pain assessment tool for residents with sufficient cognitive ability.

# Summary

## SUMMARY

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

- The Abbey Pain Scale is recommended as a useful standard pain assessment tool for residents with severe cognitive impairment.
- Residents with partial capacity to self-report may benefit from the application of both the RVBPI and Abbey Pain Scale assessments.
- Once a comprehensive pain assessment has been completed, uni-dimensional pain assessment tools, such as a Numeric Rating Scale and a Verbal Descriptor Scale, should be used for on-going evaluation of pain intensity and response to treatment.

**Multidisciplinary pain management, involving both pharmacological and non-pharmacological approaches, should be routine.**

### 3. Pharmacological Treatments

- Pharmacological treatments require a diagnosis where possible and co-existing medical conditions must be considered.
- Medications should be tailored to the type of pain and its severity.
- Consideration of age-related changes in drug sensitivity, efficacy, metabolism and side effects is essential.
- A pharmacological approach to pain relief must feature an understanding of the mode of action, common side effects and common drug interactions of medications.
- Symptoms other than pain, such as constipation, insomnia and depression, must be treated as part of a resident's pain management.
- Medication dose, administration, monitoring and adjustment must be carefully considered.
- Paracetamol (1gm 6 hourly) is the drug of choice for musculoskeletal pain.
- NSAIDs and COX 2 inhibitors must be used with caution (short-term, low dose).
- Neuropathic pain should be evaluated and treatment with antidepressant and antiepileptic adjuvant drugs considered.
- Referral to a pain specialist or multidisciplinary pain clinic is an option if troublesome pain persists after reasonable trials of pharmacological and non-pharmacological therapies.

# Summary

## SUMMARY

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

#### 4. Psychological-Educational Approaches

- Cognitive (thought) – behavioural (actions) therapy is supported by strong evidence for the management of persistent pain in older persons and should be made available to all aged care facility residents who might benefit. These are:
  - Cognitively competent residents who are willing and able to try such therapy and who have support from those who care for and interact with them on a day-to-day basis.
  - Those with evidence of pain-related behavioural problems (for example, inactivity, sleeplessness, dependence on others and medication overuse).
  - Those with cognitive or emotional problems related to a persistent pain condition (such as anxiety or depression or those who catastrophise about pain).
- Better coping skills, engagement in social activity and an overall improvement in quality of life are among the benefits of cognitive-behavioural therapy.
- Cognitive-behavioural therapy can reduce self-rated disability, depression, anxiety and mood disturbance, and use of health care resources.

#### 5. Physical Therapies

- Physical therapies can provide pain relief for many aged care facility residents and can have beneficial effects on physical ability and mood.
- Physical therapies selected according to residents' cognitive, communicative and physical abilities.
- Correctly prescribed and supervised exercise has negligible adverse risk.
- Active resident participation, with adherence to an exercise program, is essential for physical exercise to be beneficial.
- Residents should be informed about the likely benefits of exercise and reassured that initial post-exercise soreness does not usually persist when a program is maintained.
- Isotonic strengthening exercises should be considered for improved pain management in the wide cross section of residents who have diverse functional capacities.
- Aerobic exercise should be considered as a pain management strategy for residents with the physical capacity to improve their cardiac function.
- Physical modalities, such as the application of superficial heat, must be carefully evaluated before use as they are not safe for many residents and are of dubious benefit for chronic pain.
- Transcutaneous Electrical Nerve Stimulation should be considered for the effective management of persistent pain in residents who can provide accurate feedback.
- Manual handling requires a significant level of care and skill.

# Summary

## SUMMARY

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### 6. Complementary and Alternative Medicine Therapies

- Complementary and Alternative Medicine (CAM) therapies, such as massage, are mostly used for pain relief in conjunction with orthodox medicine.
- A diversity of therapies may be beneficial if there is good communication between the practitioners and their treatments complement each other.
- More research is needed into the safety and effectiveness of CAM therapies.
- Health care providers must always be informed before a CAM therapy is undertaken. This is for safety reasons (for example, St John's wort interacts with numerous prescribed medications) and to enable the health care team to develop a comprehensive treatment plan based on the needs of each resident.
- Clear approval and consent from the resident, whether cognitively or communicatively impaired, bedridden or fully capable, is essential before a complementary therapy is administered on the recommendation of family, friends, staff or doctors.
- Users should always be fully informed about the safety and effectiveness of any CAM treatment.
- CAM practitioners should be carefully chosen so the resident has confidence in their credentials and qualifications.
- It is advisable to check with private health insurers to see whether a CAM therapy is covered.

### 7. Quality and Systems Issues

- Successful pain management in the residential aged care sector requires an effective quality enhancement process. The collection of accurate and valid clinical data and the collaborative development of objective clinical indicators would provide a good basis for continuous quality enhancement.
- The residential aged care sector requires organised and integrated multidisciplinary pain management systems. The components of a good system include:
  - An adequately organised and resourced health service infrastructure.
  - A qualified health practitioner in a dedicated pain management co-ordination role within each facility.
  - Access to a network of primary and specialist clinicians.
  - Regular pain management education for staff in aged care facilities.
  - Residents, families and consumers being informed about basic principles of good pain management.

# Abbreviations

## ABBREVIATIONS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

ACE	_____	Angiotensin Converting Enzyme
ADL	_____	Activities of Daily Living
AGS	_____	American Geriatrics Society
AMDA	_____	American Medical Directors Association
ARTG	_____	Australian Register of Therapeutic Goods
BPI	_____	Brief Pain Inventory
CAM	_____	Complementary and Alternative Medicine
CBT	_____	Cognitive Behavioural Therapy
CNPI	_____	Checklist of Nonverbal Pain Indicators
COX	_____	Cyclo-Oxygenase
GP	_____	General Practitioner
GPAS	_____	Geriatric Pain Assessment Sheet
IADL	_____	Instrumental Activities of Daily Living
JCAHO	_____	Joint Commission on Accreditation of Healthcare Organizations
MMSE	_____	Mini Mental State Examination
MPAC	_____	Memorial Pain Assessment Card
MSAS	_____	Memorial Symptom Assessment Scale
NHMRC	_____	National Health and Medical Research Council
NICS	_____	National Institute of Clinical Studies
NSAIDs	_____	Non-Steroidal Anti-Inflammatory Drugs
NRS	_____	Numeric Rating Scale
PAINAD	_____	Pain Assessment IN Advanced Dementia
PBS	_____	Pharmaceutical Benefits Scheme
PPI	_____	Present Pain Inventory
RCT	_____	Randomised Controlled Trial
RM	_____	Repetition Maximum
RVBPI	_____	Resident's Verbal Brief Pain Inventory
SSRIs	_____	Selective Serotonin Reuptake Inhibitors
TENS	_____	Transcutaneous Electrical Nerve Stimulation
UK	_____	United Kingdom
US	_____	United States
VAS	_____	Visual Analogue Scale
VDS	_____	Verbal Descriptor Scale

# SECTION 1

## IDENTIFICATION

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### SECTION 1

## Identification

Australia's residential aged care sector needs a pain-vigilant culture which appreciates that many residents suffer from pain that often goes unrecognised.

Good practice principles for the identification of pain can be summarised as:

- Residents' cognitive and communicative impairments, social diversity or attitudes may mean pain is not identified. Inadequate staff awareness and high workloads may compound the problem. Knowledge of these obstacles (*Table 1*) is essential for improved pain management for aged care facility residents.
- Residents able to report pain must be asked about it with genuine concern and carefully phrased questions (*Table 2*).
- Two structured procedures should be used to identify pain in residents who are unable to report their pain:
  1. Informant Reports (*Table 3*) and
  2. Staff Observation and Appreciation of Common Pain Behaviours (*Table 4*).
- The possibility of the onset of pain should be considered if there is a significant change in a resident's condition and, routinely, every three months.

The identification of pain is of critical importance in Australia's residential aged care sector as it often goes unrecognised and untreated. This applies especially to those residents who cannot report their pain because of cognitive or communicative impairments. And, because pain is so common in old age, it may be dismissed as something to be expected and, hence, its importance is underestimated. Under-reported pain can place an older person at risk of not having a disease or injury assessed and

appropriately treated and can significantly reduce quality of life.<sup>1</sup> To successfully identify pain, the residential aged care sector needs a pain-vigilant culture<sup>2</sup> so pain is not overlooked nor its significance underestimated. A pain-vigilant culture requires a high index of suspicion about unreported or undetected pain.<sup>3</sup> Australian studies are in keeping with overseas research and have shown that between 28<sup>4</sup> and 86<sup>5</sup> per cent of nursing home residents have pain. Staff must, therefore, convey a genuine interest and concern as to whether or not each resident has pain. Every resident, whether cognitively impaired or not, must be believed by clinicians, caregivers and family when he or she reports pain.

### Cognitive & Communicative Abilities

Impairments such as dementia and sensory loss (*Table 1*) must be considered when identifying pain and appropriate pain identification methods used because:

- In Australia, 28 per cent of hostel (low-level residential care) residents and 60 per cent of nursing home (high-level residential care) residents have a diagnosis of dementia. Cognitive impairment is even more prevalent with 54 per cent of hostel residents and 90 per cent of nursing home residents cognitively impaired.<sup>6</sup>
- The detection of pain is significantly reduced in those with severe cognitive impairment.<sup>7</sup>
- Forty per cent of Australian nursing home residents are totally unable to report pain due to a major cognitive or communicative disability.<sup>4</sup>
- Any reports of pain from cognitively-impaired residents who are communicative should be accepted as just as valid and reliable as reports from residents with no cognitive impairment.<sup>8,9</sup>

# SECTION 1

## IDENTIFICATION

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 1**

### KNOWN BARRIERS TO ACCURATE PAIN IDENTIFICATION

#### Cognitive and communicative impairments

- ▶ Dementia
- ▶ Hearing and vision loss
- ▶ Dysphasia
- ▶ Dysarthria

#### Social diversity

- ▶ Educational levels
- ▶ Cultural, ethnic and linguistic differences

#### Residents' attitudes

Many elderly people simply don't expect pain relief because:<sup>10</sup>

- ▶ Pain is considered an expected part of ageing
- ▶ They fear that pain may suggest worsening disease
- ▶ They are concerned about being seen as complainers
- ▶ They fear distracting physicians from the treatment of the underlying disease

#### Residents often believe:<sup>2</sup>

- ▶ Chronic pain does not change
- ▶ Their carers will be more influenced by external visible signs, rather than their own pain reports
- ▶ They will become addicted to medication
- ▶ Reporting pain will reduce permitted independence

#### Staff workloads

- ▶ Nurses and care staff believe that workload pressure means a lack of time for adequate pain assessment<sup>2</sup>

There are several published studies on the identification and treatment of pain among nursing home residents with various degrees of dementia which underline the need for extra vigilance:

- Doctors identified pain in 43 per cent of one nursing home's communicative residents but in only 17 per cent of non-communicative residents.<sup>10</sup>
- A large sample<sup>11</sup> of US nursing home residents found that 22 per cent had severe cognitive impairment and 34 per cent had moderate cognitive impairment. Pain recognition rates were uniformly low, but significantly worse in proportion

to the degree of cognitive impairment. Fourteen per cent of those with moderate impairment were identified as having pain compared with eight per cent of those with severe impairment. Residents with mild or no cognitive impairment had a significantly higher rate of pain recognition (22 per cent).

- Cognitively impaired nursing home residents are prescribed less analgesia by their doctors as well as being given less nurse initiated analgesia.<sup>12</sup>

## Residents Able to Report Pain

The most accurate and reliable evidence of the existence of pain and its intensity is an individual's report.<sup>13</sup> Residents with no dementia, mild to moderate dementia, and with whom verbal communication is feasible despite other communicative difficulties, should be asked about their pain very carefully (*Table 2*).

**Table 2**

### ASKING COMMUNICATIVE RESIDENTS ABOUT THEIR PAIN

- ▶ Staff taking a general medical history or pain history should sit down with the resident, make eye contact and demonstrate a willingness to discuss whether the resident has any pain.
- ▶ Staff should allow sufficient time for the resident to process the question and formulate a response.<sup>14</sup>
- ▶ The resident should be asked about pain in a broad and open-ended way, using at least two questions, phrased in different ways, such as:
  1. Does it hurt anywhere?<sup>3</sup>
  2. Do you have any aching or soreness?<sup>3</sup>
  3. Do you have any ache, pain or discomfort?<sup>4</sup>
  4. Is your pain a big problem, a medium-sized problem or a small problem?<sup>4</sup>
  5. From time to time, most of us have had pain, such as minor headaches, sprains and toothaches. Have you had pain other than these everyday kinds of pain during the past 24 hours?<sup>15</sup>

## SECTION 1

# IDENTIFICATION

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

Staff need to make a judgement about whether or not residents with a cognitive or communicative impairment have sufficiently understood the questions and have been able to convey an adequate response.

### Then:

- If you feel the resident has understood the questions, accept the report as valid,<sup>8,9</sup> or
- If you feel the resident has not been able to sufficiently understand the questions and convey an adequate response, follow the procedures below for residents who are unable to report pain.

### Further:

- In the many borderline cases that will arise, where some pain report is present but is difficult to obtain consistently, the verbal report information should be supported with the observational procedures described below.
- Some residents with moderate to severe impairment will be best managed, at least initially, by simultaneous institution of both verbal and observational sets of identification procedures.

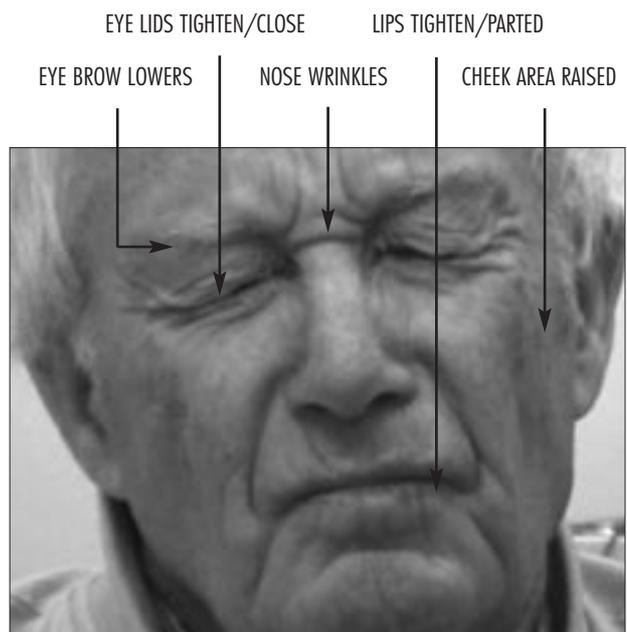
## Residents Unable to Report Pain

Although more studies are needed in the complex area of care that involves residents who are unable to report pain, mostly due to dementia or other causes such as dysphasia, dysarthria or delirium, current published evidence and expert opinion support the use of two structured procedures: Staff Observation and an Informant Report.

With both procedures, it is important to record if the identified pain behaviour occurs at rest (and over what time) or only in relation to a certain activity (for example, being turned) or in conjunction with other activities (for example, moving a certain part during dressing or bathing).



*These two photographs show the contrast between a pain-free face (above) and a face in pain (below).*



*Stereotypic Pain Face*

### Staff Observation

Staff should formally observe and document both the known kinds of pain-related behaviours seen in people who are not cognitively impaired, as well as other behavioural and clinical changes that could indicate pain in people suffering from severe dementia. These are outlined in Table 4 and demonstrated in the photographs above.

## SECTION 1

# IDENTIFICATION

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 3**  
**INFORMANT OPINION OF A RESIDENT'S PAIN**

This may be used for non-verbal residents or to document the views of concerned others.

Resident's name

---

Informant's name

---

Date

---

Time

---

***In your opinion:***

**What was the resident's pain like at worst in the past 24 hours?**

0 None    1 Mild    2 Moderate    3 Severe

---

**How much pain does the resident have right now?**

0 None    1 Mild    2 Moderate    3 Severe

---

**What effect has pain had during the past 24 hrs on the resident's:**

***General activity***

0 None    1 Mild    2 Moderate    3 Severe

---

***Mood***

0 None    1 Mild    2 Moderate    3 Severe

---

***Walking ability***

0 None    1 Mild    2 Moderate    3 Severe

---

***Relations with other people***

0 None    1 Mild    2 Moderate    3 Severe

---

***Sleep***

0 None    1 Mild    2 Moderate    3 Severe

---

***Enjoyment of life***

0 None    1 Mild    2 Moderate    3 Severe

---

### Informant Report

This involves obtaining and documenting a report from people familiar with the resident including family members, carers, nurses, personal care assistants or other informant, surrogate or proxy who knows the resident well.<sup>16</sup> However, this approach is not well developed and some caution is needed as, while professional carers tend to underestimate a patient's pain, family members tend to overestimate<sup>14</sup> and proxy ratings have poor agreement with self-reporting.

In the absence of an established instrument for this purpose, these management strategies use the Brief Pain Inventory<sup>15</sup> as a model for an informant report pro-forma, Informant Opinion of a Resident's Pain (Table 3). However, a recent Australian pilot study<sup>17</sup> suggests caution in interpreting the results of this kind of proxy rating due to poor correlation between such ratings and self-reporting and observational scales.

### Identification

Once pain has been identified as a possible significant issue, assessment procedures should be employed to:

- Confirm the presence of pain and quantify its intensity
- Identify and document the impact of the pain

Information and suitable tools for these purposes are provided in Section 2: Assessment.

### Non Identification

If pain is not identified during assessment on admission to residential care, it is recommended<sup>3</sup> that the issue of pain identification is raised again:

- In the event of significant change in resident's condition
- At any time that pain is suspected
- Every three months

## SECTION 1

# IDENTIFICATION

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 4**

### **STAFF OBSERVATION: COMMON PAIN BEHAVIOURS IN COGNITIVELY IMPAIRED ELDERLY PERSONS**

*Pain can be demonstrated through:*

#### **Facial expressions**

- ▶ Slight frown; sad frightened face
- ▶ Grimacing, wrinkled forehead, closed / tightened eyes
- ▶ Any distorted expression
- ▶ Rapid blinking

#### **Verbalisations, vocalisations**

- ▶ Sighing, moaning, groaning
- ▶ Grunting, chanting, calling out
- ▶ Noisy breathing
- ▶ Asking for help
- ▶ Verbally abusive

#### **Body movements**

- ▶ Rigid, tense body posture, guarding
- ▶ Fidgeting
- ▶ Increased pacing, rocking
- ▶ Restricted movement
- ▶ Gait or mobility changes

#### **Changes in interpersonal interactions**

- ▶ Aggressive, combative, resisting care
- ▶ Decreased social interactions
- ▶ Socially inappropriate, disruptive
- ▶ Withdrawn

#### **Changes in activity patterns or routines**

- ▶ Refusing food, appetite change
- ▶ Increase in rest periods
- ▶ Sleep, rest pattern changes
- ▶ Sudden cessation of common routines
- ▶ Increased wandering

#### **Mental status changes**

- ▶ Deterioration in normal cognitive status
- ▶ Crying or tears
- ▶ Increased confusion
- ▶ Irritability or distress

*The American Geriatrics Society (AGS) panel guidelines on persistent pain in older persons, Clinical Practice Guideline. P211, Table 3.<sup>13</sup>*

**NOTE:** It is important to remember that some residents demonstrate little or no specific behaviour associated with severe pain and the above behaviours can be portrayed by residents who are distressed for reasons other than pain.

## SECTION 1

# IDENTIFICATION

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### REFERENCES

- 1 Katz B and Helme RD. Pain in old age. In Tallis R, Fillit H (eds). Brocklehurst textbook of geriatric medicine and gerontology, 6th edition. London: Churchill Livingstone, 2003;Ch109;1391-1398.
- 2 Weiner DK, Herr K. Comprehensive interdisciplinary assessment and treatment planning: an integrated overview. In Weiner D, Herr K, Rudy T (eds). Persistent pain in older adults, an interdisciplinary guide for treatment. Springer, 2002.
- 3 American Health Care Association and Medical Directors Association © 1999. Clinical practice guideline: chronic pain management in the long-term care setting.
- 4 McClean WJ, Higginbotham NH. Prevalence of pain among nursing home residents in rural New South Wales. *Med J Aust* 2002;177:17-20.
- 5 Madjar I, Higgins IJ. Unrecognised pain in nursing home residents. *Veterans Health* 1997; autumn 60:13-15.
- 6 Rosewarne R, Opie J, Bruce A, Ward S, Doyle C, Sach J, Beckmann J. Care needs of people with dementia and challenging behaviour living in residential facilities. Canberra: Australian Government Publishing Service, 1997.
- 7 Morrison, RS, Siu AL. A comparison of pain: its treatment in advanced dementia and cognitively intact patients with hip fracture. *J Pain Symptom Manage* 2000;19,240-248.
- 8 Ferrell BA, Ferrell BR, Rivera L. Pain in cognitively impaired nursing home patients. *J Pain Symptom Manage* 1995;10:591-598.
- 9 Parmelee PA, Smith B, Katz IR. Pain complaints and cognitive status among elderly institution residents. *J Am Geriatr Soc* 1993; May41(5):517-22.
- 10 Sengstaken EA, King SA. The problem of pain and its detection among geriatric nursing home residents. *J Am Geriatr Soc* 1993;41:541-4.
- 11 Teno J, Chloe B, Mor V. The prevalence and treatment of pain in US nursing homes. Center for Gerontology and Health Care Research, Brown University. 2003.
- 12 Horgas AL, Tsai PF. Analgesic drug prescription and use in cognitively impaired nursing home residents. *Nurs Res* 1998; 47:235-242.
- 13 American Geriatrics Society panel guidelines on persistent pain in older persons. *J Am Geriatr Soc* 2002;50:S205-S224.
- 14 Herr KA, Garand L. Assessment and measurement of pain in older adults. In Ferrell B (ed). Pain management in the elderly. Clinics in geriatric medicine. WB Saunders Company, 2001.
- 15 Cleeland CS. Measurement of pain by subjective report. In Chapman CR and Loeser JD (editors). Issues in pain measurement. New York: Raven Press, 1989.
- 16 Krulewitch H, London MR, Skatel VJ, Lundstedt GJ, Thomason J, Brummel-Smith K. Assessment of pain in cognitively impaired older adults: a comparison of assessment tools and their use by non professional care givers. *J Am Geriatr Soc* 2000;48:1607-1611.
- 17 Gibson SJ, Scherer SC, Goucke CR. Preliminary field-testing and preparations for implementing Australian Pain Society and Australian Pain Relief Assoc Pain management guidelines for residential care Nov 2004. [www.apsoc.org.au/pdfs/APRA-finalreport7.doc](http://www.apsoc.org.au/pdfs/APRA-finalreport7.doc)

## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## SECTION 2

# Assessment

Successful pain management is enhanced by the correct diagnosis of the cause(s) of pain and systematic, multidisciplinary assessment of the severity and impact of pain. Such information is essential for planning appropriate treatment.

This is especially pertinent in aged care facilities where many residents often have multiple medical problems<sup>1</sup> and persistent pain may be caused by more than one factor.<sup>2</sup>

**Good practice principles for the assessment of pain can be summarised as:**

- A resident and his or her representative must be informed about, and actively involved in, pain assessment and management so that optimum outcomes can be achieved and procedures can be balanced with the resident's wishes and the overall aims of care.
- Multidisciplinary collaboration between doctors, nurses, physiotherapists and other care staff is the key to effective pain assessment and management.
- Structured procedures are used to identify the cause(s) of pain (*Tables 5 and 6*).
- New acute pain or remediable persistent pain is diagnosed promptly and treated appropriately.
- Structured procedures are used to identify pain intensity and the impact of pain (*Table 7*) on a resident's activities of daily living, mood, sleep and quality of life.
- The Resident's Verbal Brief Pain Inventory (*Table 8*) is used as the standardised multidimensional pain assessment tool at the time of initial assessment and for formal periodic reassessments for residents with sufficient cognitive ability.

- A uni-dimensional pain assessment instrument is used to continue to evaluate pain intensity and the response to treatment once a comprehensive assessment has been completed. Both a Numeric Rating Scale and a Verbal Descriptor Scale should be available and one or the other chosen on the basis of utility and resident preference.
- The Abbey Pain Scale (*Table 9*) is the recommended pain assessment tool for residents with severe cognitive impairment.
- Both at rest and movement-based (for example, during transfers) periods should be included in the assessment protocol when observational pain measures are undertaken.

**Pain assessment of older people in residential aged care needs a systematic approach.<sup>3</sup> This will:**

- Avoid unnecessarily complex assessment methods
- Use resources efficiently
- Minimise the number of instruments used, and
- Standardise the tools used

## Types of Pain

There are three main mechanisms of pain.<sup>2</sup> Each needs a different approach to treatment. Evidence indicates that treatment strategies are more effective when they target underlying pain mechanisms, thus the approach to different types of pain varies.<sup>4</sup> The main types of pain are:

### 1. Nociceptive pain

This is due to stimulation of pain receptors located in somatic and visceral structures. It may arise from tissue inflammation, mechanical deformation and ongoing injury or disease.

It usually responds well to simple analgesics, anti-inflammatory medications and opioid compounds together with non-pharmacological strategies such as cognitive-behavioural therapy (*Section 4*) and/or physical strategies such as heat (*Section 5*). Examples of nociceptive pain include arthritis, fractures, musculoskeletal problems, skin ulcers and intra-abdominal conditions.

## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### 2. Neuropathic pain

This results from damage to the peripheral and/or central nervous system. It is often described using words such as burning, itching, tingling, electric or shooting. Neuropathic pain is less responsive to conventional analgesics. Adjuvant drugs such as tricyclic antidepressants, anticonvulsants or antiarrhythmics, alone or in combination, may have a role in management. Examples of neuropathic pain include diabetic neuropathy, central post-stroke pain, sciatica, phantom limb pain, post-herpetic neuralgia and trigeminal neuralgia.

### 3. Pain due to psychological / psychiatric factors

This is said to be present when psychological / psychiatric factors are judged to play a major role in the onset, severity and maintenance of the pain. Somatic complaints such as pain may be part of the presentation of depression. It is important to remember that medical conditions often co-exist and contribute to a resident's presentation. The apparent absence of contributing organic factors is not sufficient to merit this classification. Rather, psychopathology must be identified and then treated.

The American Geriatrics Society<sup>5</sup> also describes a fourth pain category: pain related to mixed or unknown mechanisms. Treatment of such pain (for example, some forms of widespread pain or recurrent headaches) can be unpredictable and may require trials of different or combined approaches.

## Associated Factors

### Cultural and Linguistic Diversity

In our multicultural society, pain assessment (as well as management) in an individual may require the health care provider to bridge language, religious and cultural barriers. Access to interpreters (formal or informal) and simple standard assessment tools suitable for translation are, therefore, needed.

Residents' cultural beliefs may hinder effective pain management. For example, modes of expression and acceptable ways of behaving when in pain can vary across cultures. A recent study<sup>6</sup> highlighted the need to identify cultural issues for each

resident in all aspects of care delivery. The study showed that in some indigenous Australian communities there was considerable fear regarding morphine being given at the end of life while many indigenous Australians feared needles and did not understand drugs and palliative care.

Awareness and understanding of the influence of educational level and socio-economic differences are also needed. Some older people have had little access to education about pain and may have considerable fear associated with their pain.

### Psychosocial Issues

Pain is subjective and isolating and can undermine one's psychological integrity. The biopsychosocial model of pain suggests that suffering involves not just biological injury but also the psychological and social contexts.

Some people appear to cope with pain better than others. This may be due to individual personality and psychosocial factors that modify the relationship between past experience and the capacity for psychological adjustment. For example, spousal bereavement is associated with greater severity and persistence of pain.<sup>7</sup>

The multidisciplinary evaluation and management of a resident must be broadly informed by such considerations.

## Assessment Procedures

Multidisciplinary collaboration between nurses, doctors, physiotherapists, other therapists and care staff is the best way to gather important information about a resident's pain. The clinical team should explain the purpose and scope of an assessment to the resident and family member/ representative beforehand. This helps the resident to be involved in understanding and managing identified pain.

In order to identify the cause(s) of pain, a number of issues must be considered (*Table 5*). In particular:

- Treating staff should obtain a medical and psychosocial history and conduct a physical examination as recommended by the American Geriatrics Society (*Appendix 2*). The examination should focus on likely

## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

diagnoses suggested by the history and include special attention to the neurological and musculoskeletal systems.<sup>8</sup>

- Medical staff should determine whether previous diagnostic investigations are adequate and sufficiently recent or if further investigations are needed to assess ongoing causes of pain.<sup>8</sup>
- It is important to determine whether the pain is of recent onset. Such information can help identify a new condition that needs specific treatment (for example, a recent fracture or a deep vein thrombosis).
- The doctor should consider primary treatment of the diseases causing pain (for example, ischaemic pain may respond to stenting a blocked artery or inflammatory musculoskeletal disorders may respond to disease modifying treatment).

**Table 5**  
**FACTORS RELEVANT TO A PAIN ASSESSMENT**

### Pain history

- |                                   |             |
|-----------------------------------|-------------|
| ▶ When pain began                 | ▶ Site      |
| ▶ Severity                        | ▶ Quality   |
| ▶ Aggravating & relieving factors | ▶ Radiation |

### General medical history

- ▶ Relevant diseases (eg dementia, arthritis, vascular, neurological, gastrointestinal, renal)
- ▶ Associated symptoms (eg nausea)
- ▶ Allergies

### Physical examination

Comprehensive examination covering and including:

- ▶ Sites of reported pain and referred pain
- ▶ The musculoskeletal and neurological systems
- ▶ Signs of arthritis
- ▶ Sensory changes (including hyperalgesia or allodynia)

### Physical impact of pain

- ▶ Impact of pain on activities of daily living
- ▶ Spontaneous movement
- ▶ Evidence of activity
- ▶ Avoidance of activity
- ▶ Comfort on movement
- ▶ Functional assessment

### Psychosocial situation

- ▶ Resident's coping resources
- ▶ Resident's belief about the cause(s) of pain
- ▶ Resident's cognitive state
- ▶ Family expectations and beliefs about pain and stress
- ▶ Presence of anxiety and/or depression
- ▶ Effect on sleep
- ▶ Suicidal thoughts

### Social impact of pain

- ▶ Impact on relationships
- ▶ Impact on social activities

### Review of medications and other treatments

- ▶ Treatments that have been tried  
(list dates and reasons for discontinuation if known)
- ▶ Effectiveness of current treatments

### Prognosis

*Modified from the National Health and Medical Research Council Acute pain guidelines 1999 and the American Geriatrics Society panel guidelines on pain in older persons 2002 (Appendix 2).*

## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 6**

### **FACTORS & CONDITIONS ASSOCIATED WITH PERSISTENT NON-CANCER PAIN IN LONG-TERM CARE POPULATIONS**

- ▶ Low back disorders (vertebral compression fractures, facet arthropathies, spinal canal stenosis)
- ▶ Degenerative joint disease (osteoarthritis)
- ▶ Rheumatoid and other inflammatory arthritides
- ▶ Crystal-induced arthropathies (gout, calcium pyrophosphate deposition disease)
- ▶ Pressure and other skin ulcers
- ▶ Chronic leg cramps
- ▶ Peripheral vascular disease (rest pain, claudication)
- ▶ Amputations (stump pain, phantom limb pain)
- ▶ Post-stroke pain syndromes
- ▶ Neuropathic pain: damage to nerves (diabetic neuropathy, postherpetic neuralgia, carpal tunnel syndrome, trigeminal or occipital neuralgia)
- ▶ Headaches
- ▶ Oral or dental pathology
- ▶ Angina
- ▶ Constipation
- ▶ Immobility, contractures
- ▶ Improper positioning, use of restraints
- ▶ Mood disorders

*Modified from Ferrell B. Pain evaluation and management in the nursing home. Ann Int Med. 1995 and the AMDA Clinical Practice Guideline: Chronic Pain Management in the Long-Term Care Setting, © 1999 American Medical Directors Association.*

### **Common Causes of Pain**

A survey of 68 United Kingdom nursing homes<sup>9</sup> found a 37 per cent prevalence of chronic non-cancer pain and a two per cent prevalence of chronic cancer pain. Other medical reviews have emphasised that a large number of factors and medical conditions are commonly associated with pain in long-term care residents (*Table 6*).

In many cases, the cause(s) of pain will already be known or will have been identified during initial assessment. Sometimes, in consideration of the resident's wishes and overall aims of care, it will be decided not to investigate further, even though the cause remains uncertain. The aim of the assessment in such instances is to evaluate the severity and impact of the pain and to review and document the adequacy of treatment.

### **Severity of Pain**

Once the presence of significant, persistent pain is identified, it is necessary to consider its nature and severity. It is important for those providing treatment to understand the intensity and periodicity of the pain and the degree to which these are being modified by treatment. Tools for evaluating pain intensity are described below.

However, it is inappropriate, intrusive and wasteful of scarce clinical resources to initiate a time-consuming comprehensive assessment if pain is mild, transient, short-lived, self limiting or easily relieved with simple measures and, generally, non bothersome. A pain-vigilant culture will facilitate future assessment if pain becomes more troublesome.

### **Impact of Pain**

Unrelieved pain carries a high price in terms of a detrimental effect on quality of life. Complex physical, psychological and social changes occur as the result of persistent pain in older people<sup>5</sup> and such pain has important inter-relationships with a number of physical and psychological factors<sup>10</sup> as outlined in *Table 7*.

## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 7**

### THE IMPACT OF PAIN

Pain can cause:<sup>11, 12, 5</sup>

- ▶ Limitation of activity (disability). Between 71 and 83 per cent of communicative aged-care sector residents complain of pain-related disability.<sup>13</sup>
- ▶ Restriction of participation (handicap)
- ▶ Depression
- ▶ Anxiety
- ▶ Decreased socialisation
- ▶ Sleep disturbance
- ▶ Impaired ambulation
- ▶ Increased healthcare utilisation and costs
- ▶ Agitation in residents with both pain and communicative impairment because they have difficulty making their needs known.

As well:

- ▶ There is a significant two-way correlation between pain and depression (as well as anxiety).<sup>14</sup>
- ▶ Unrelieved pain is most distressing for family members. They share the suffering, loss of control, impaired quality of life and experience the resulting psychological and social stress.<sup>15</sup>

Pain has been shown<sup>12,15</sup> to worsen many geriatric problems including:

- ▶ Physical deconditioning
- ▶ Gait disturbances
- ▶ Falls
- ▶ Failed rehabilitation
- ▶ Polypharmacy
- ▶ Cognitive dysfunction
- ▶ Malnutrition

## Assessment Tools

The Australian Pain Society has reviewed research on pain assessment tools. Comprehensive pain evaluation is complex and depends upon a number of variables including a resident's cognitive and communicative abilities. Assessment becomes even more challenging as these abilities decrease.

## Communicative Residents

Whenever verbal communication is feasible and a valid pain report can be obtained, a resident should be assessed with simple questions and screening tools using the resident's preferred language. A discussion indicating interest and raising the issue of pain in varied ways (*as described in Section 1*) is the best way to introduce the matter of pain intensity. It is important to note that some residents may respond to words such as "soreness" or "discomfort" rather than "pain".

## Multidimensional Pain Assessment

A multidimensional pain assessment instrument is the best choice for the initial assessment of communicative people and subsequent formal reviews at weekly or longer intervals. This type of assessment provides comprehensive information about pain intensity, the site of pain and the physical and psychosocial impact of pain.

The Australian Pain Society's recommended multidimensional assessment instrument for aged care facility residents with whom verbal communication is feasible is:

## The Resident's Verbal Brief Pain Inventory (RVBPI)

The Resident's Verbal Brief Pain Inventory (RVBPI) (*Table 8*) is a modification of the Brief Pain Inventory (BPI)<sup>16</sup> (*Appendix 3*) and has been designed and developed specifically for use in residential aged care facilities as part of these management strategies.

The original BPI is evidence-based and is known to be useful to assess the global impact of pain in older community populations<sup>8</sup> although there have been no previous formal validation studies for its use in residential aged care populations.

## SECTION 2 ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 8**  
**THE RESIDENT'S VERBAL BRIEF PAIN INVENTORY (RVBPI)**

Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Time \_\_\_\_\_

Name \_\_\_\_\_

Date of Birth \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

1. Have you had aches, discomfort, soreness or pain today?

YES     NO

2. Please rate your pain by ticking the word that best describes your pain **right now**.

None     Mild     Moderate     Severe

3. Please rate your pain by ticking the word that best describes your pain **on movement**.

None     Mild     Moderate     Severe

4. Please rate your pain by ticking the word that best describes your pain **at its worst over the past 24 hours**.

None     Mild     Moderate     Severe

5. Please rate your pain by ticking the word that best describes your pain **at its least over the past 24 hours**.

None     Mild     Moderate     Severe

6. Please rate your pain by ticking the word that best describes your pain **on average over the past 24 hours**.

None     Mild     Moderate     Severe

7. On diagram at right, shade areas where you feel pain and put an X on the areas that hurt the most.

8. Tick the word that best describes how, during the past 24 hours, pain has interfered with your:

**GENERAL ACTIVITY**

None     Mild     Moderate     Severe

**MOOD**

None     Mild     Moderate     Severe

**WALKING ABILITY**

None     Mild     Moderate     Severe

**RELATIONS WITH OTHERS**

None     Mild     Moderate     Severe

**SLEEP**

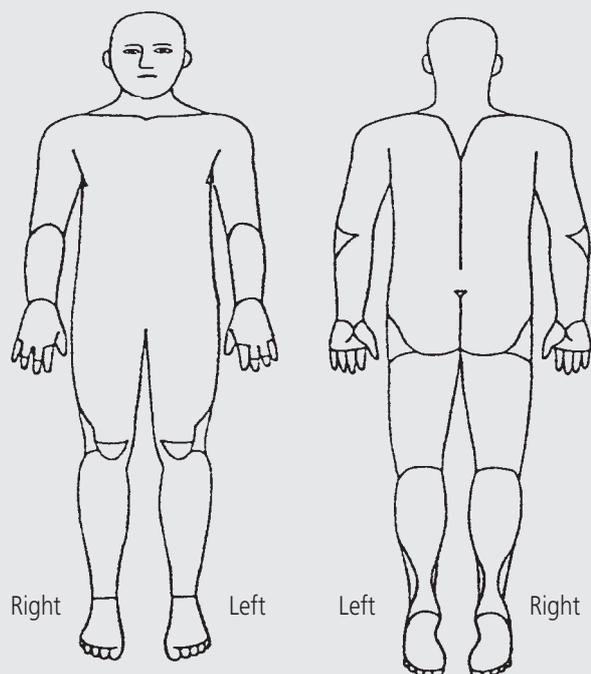
None     Mild     Moderate     Severe

**ENJOYMENT OF LIFE**

None     Mild     Moderate     Severe

FRONT

BACK



## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

The BPI was originally developed in English for the US and is now available in 36 languages, although only 17 of these have been properly validated (*Appendix 4*).

The RVBPI takes into consideration evidence that most residents with moderate degrees of dementia prefer verbal descriptors of pain intensity, rather than numeric rating scales. One study<sup>17</sup> of a nursing home group with mild to moderate dementia found 65 per cent could complete a verbal descriptor scale while only 47 per cent could complete a numeric intensity scale. Accordingly, the RVBPI uses verbal descriptors to assess intensity of all variables. A pilot study<sup>18</sup> in Australian high-level and low-level care facilities suggests the RVBPI is useful, reliable and valid for this population.

However, even residents who can communicate effectively may understate pain (*Table 1*). The RVBPI may be less reliable in those with moderate cognitive impairment. In cases of borderline capacity to communicate it may be possible to enlist the support of a relative or carer for a joint pain report from both the resident and relative. In more severe dementia, when the report is largely the opinion of the relative, the Informant Opinion of a Resident's Pain (*Table 3*) should be used instead of the RVBPI in conjunction with an observational scale (see *pg 14*).

The RVBPI assesses the physical and psychosocial factors relevant to pain in appropriate detail. On average, it takes about seven minutes to administer.<sup>19</sup> The first question determines the need for further assessment. If the answer to the first question is no, then no further questions are indicated. Further questions evaluate pain intensity and the effectiveness of current treatments. A body map defines the site of pain. This is helpful in evaluating the cause of pain. The size of the area in which pain is felt, the shape (distribution) and travel path (radiation) of the pain also often suggest a certain cause (for example, sciatica). Pain location also guides the effective application of local treatments. The remainder of the RVBPI looks at the impact of pain on activity, mood, mobility, socialisation and sleep.

### Uni-Dimensional Pain Assessment

Once a comprehensive pain assessment is completed, a uni-dimensional pain assessment scale can be used for ongoing evaluation of pain intensity and the response to treatment. Uni-dimensional assessments can be performed daily, or more

frequently, if the information gained will help guide treatment. Both a Numeric Rating Scale (NRS) and a Verbal Descriptor Scale (VDS) should be available and one or the other chosen on the basis of utility and resident preference. A reasonable approach may be to try an NRS first and if it is not well understood, to offer a VDS.

### Numeric Rating Scale (NRS)

Both horizontal and vertical versions of the verbally administered NRS are available. In using an NRS, the clinician simply asks the resident: "On a scale of zero to 10, with zero meaning no pain and 10 meaning the worst pain possible, how much pain do you have now?"

An NRS is known to be reliable and valid in older populations.<sup>8</sup> The US Joint Commission on Accreditation of Healthcare Organizations and many other institutions have all adopted this method for routine assessment of "pain as the fifth vital sign" after observation of pulse, blood pressure, respiration rate and temperature. The 10-point NRS (*represented by Item 1 below*) is particularly useful for quantifying treatment response.

#### Item 1: 10-point Numeric Rating Scale (NRS)

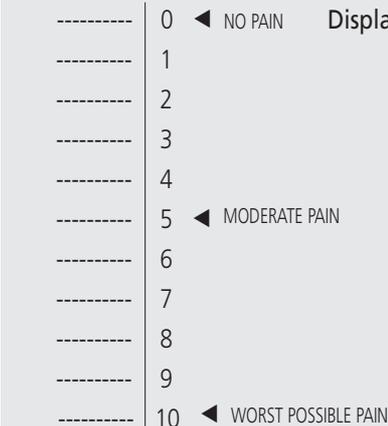
Displayed horizontally



The vertical form of the scale (*represented by Item 2 below*) may be preferable for older people with impaired abstract reasoning skills.<sup>8</sup>

#### Item 2: 10-point Numeric Rating Scale (NRS)

Displayed vertically



## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Verbal Descriptor Scale (VDS)

Some older adults, whether or not cognitively impaired, may have difficulty responding to an NRS (as noted earlier in the RVBPI recommendation). For residents who prefer, and who have relatively good retention of verbal communication, a VDS may be more useful than an NRS.

Various types of VDS have been validated. They ask people to respond to brief descriptions of levels of pain intensity such as those shown in the six-category VDS represented below.

Six-category Verbal Descriptor Scale (VDS)					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No Pain	Mild Pain	Moderate Pain	Severe Pain	Very Severe Pain	Worst Possible Pain

Residents, with whom communication is adversely affected by linguistic or cultural backgrounds or limited education, may still be able to respond to a VDS.<sup>8</sup> A simple six-category VDS is shown below. Question five from the RVBPI can also be extracted to serve as a more simple four-category VDS. Additional uni-dimensional VDS pain assessment instruments are described and shown in Appendices 5 and 6.

### Non-Communicative Residents

Pain identification and assessment techniques for people with moderate to severe dementia or other impairment (due, for example, to strokes or severe hearing or vision loss) are critical issues in high-level residential care.

An Informant Report and Staff Observation of pain-related behaviours (*Section 1*) are helpful in such cases but more research regarding the assessment of pain in non-communicative people is needed. However, evidence suggests that once pain has been identified as a possible significant issue, the use of a focused observational instrument will help indicate the presence and intensity of pain in these people.

Expressions of pain may not be apparent in chronic pain states when a person is at rest. In many cases movement-induced exacerbation of the underlying pain condition will result in overt behavioural expressions similar to those seen in acute pain conditions.<sup>19</sup> Therefore, observational pain assessment protocols must include both at rest and movement-based (for example, during transfers) periods.

A review of published studies of observational pain scales with evidence of utility for people with severe dementia living in residential aged care facilities led to an Australian study<sup>18</sup> that applied both the Abbey Pain Scale<sup>20</sup> and the Pain Assessment in Advanced Dementia (PAINAD) Scale<sup>21</sup> to a resident group. Both of these behavioural observation scales were found to be a useful adjunct to verbal self-report and essential for those with dementia or verbal communication problems.

The Abbey Pain Scale showed marginally better utility, reliability and validity as well as greater acceptance from aged care staff.<sup>18</sup>

The Australian Pain Society's recommended assessment instrument for residents with whom verbal communication is not feasible and the RVBPI is not suitable is:

### The Abbey Pain Scale

The Abbey Pain Scale (*Table 9*) was created for the measurement of pain in people with dementia who cannot verbalise. Based on observation and knowledge of a resident's usual function and medical history, the resident is rated on a four-point word descriptor scale (absent, mild, moderate, severe) across six domains of pain-related behaviour: vocalisation, facial expressions, change in body language, change in behaviour, physiological change and physical changes. Scores are combined to provide an overall assessment of pain intensity ranging from no pain to severe. Pain is also rated as being acute, acute on chronic or chronic. The Abbey Pain Scale takes between two and six minutes to administer.<sup>18</sup>

An alternative pain assessment instrument to the Abbey Pain Scale is the Pain Assessment in Advanced Dementia (PAINAD) Scale (*Appendix 7*). It was found to have acceptable utility, validity and reliability in the Australian study.<sup>18</sup>



## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Residents with borderline communicative capacity

There will be many residents who can provide some pain report but whose severity of cognitive impairment reduces the reliability of the report (*as noted in Section 1*). These residents will be best managed, at least initially, by applying both verbal and observational sets of assessment procedures. Preliminary Australian research<sup>18</sup> found both the Abbey and PAINAD behavioural observation scales were a useful adjunct to verbal self-report. Experience over time may indicate whether one set of procedures can be ceased in favour of the other for a particular individual.

### Review procedures

Repeated assessments of pain are critical to effective pain management. It is important to evaluate and document changes in a resident's pain intensity, mood and function including the effect of treatment over time. The RVBPI, the Abbey or PAINAD scales can all be used for review and progressive assessment of pain. A formal scheduled review using the validated instrument may be more valuable than frequent, brief impressions.

However, in some situations (for example, communicative residents undergoing a trial of treatment) a uni-dimensional intensity scale should be employed frequently as described above. Progress notes should also be used for significant observations and exception reporting, especially for non-communicative residents. These should trigger an additional formal review, using the recommended instrument, when needed.

### Alternative instruments

Other pain assessment instruments not yet referred to in these management strategies include:

#### Communicative Residents

- Uni-dimensional pain intensity scales for pain intensity assessment only. These include the:
  - ▶ Visual Analogue Scale (*Appendix 8*)
  - ▶ Pictorial or Faces Pain Scale (*Appendix 9*)
- Alternative review instruments include the:
  - ▶ Memorial Symptom Assessment Scale (*Appendix 10*)
  - ▶ Memorial Pain Assessment Card (*Appendix 10*)
  - ▶ Geriatric Pain Assessment Sheet (*Appendix 11*)

#### Non-Communicative Residents

- The Checklist of Nonverbal Pain Indicators (*Appendix 12*).

## SECTION 2

# ASSESSMENT

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### REFERENCES

- 1 Scherer SC. Australian Society for Geriatric Medicine. Position statement No. 9, Medical care for people in residential aged care services. *Australas J Ageing* 2001;20.4:204-8.
- 2 Katz B, Helme RD. Pain in old age. In Tallis R, Fillit H (eds). *Brocklehurst's textbook of geriatric medicine & gerontology*, 6th edition. London Churchill Livingstone 2003;Ch109;1391- 8.2003.
- 3 Weissman DE, Griffie J, Muchka S, Matson S. Building an institutional commitment to pain management in longterm care facilities. *J Pain Symptom Manage* 2000; 35 20 1.
- 4 Helme RD, Gibson SJ. Measurement and management of pain in older people. *Australas J Ageing* 1998;17(1)5-9.
- 5 American Geriatrics Society (AGS) panel guidelines on persistent pain in older persons. *J Am Geriatr Soc* 2002;50:S205-S224.
- 6 Sullivan K, Johnson L, Collier C. 2002 Indigenous palliative care needs study – final report. Canberra, ACT: Commonwealth of Australia.
- 7 Bradbeer M, Helme RD, Scherer SC, Gibson S. Widowhood and other demographic associations of pain severity in independent older people. *Proceedings of 10th World Congress on Pain* 2002.
- 8 Herr KA, Garand L. Assessment and measurement of pain in older adults. In Ferrell B Editor. *Pain management in the elderly*. Clinics in geriatric medicine. WB Saunders Company, 2001.
- 9 Allcock N, McGarry J, Elkan R. Management of pain in older people within the nursing home: a preliminary study. *Health Soc Care Community* 2002;10(6) 464-470.
- 10 Weiner D, Herr K, Rudy T (eds). *Persistent pain in older adults. An interdisciplinary guide for treatment*. Springer, 2002.
- 11 Rogers J, Gwinn S. Functional assessment and outcomes. In Weiner D, Herr K, Rudy T (eds) *Persistent pain in older adults* Springer, 2002.
- 12 Ferrell B. Pain evaluation and management in the nursing home. *Ann Intern Med* 1995;123:681-687.
- 13 Ferrell BA, Ferrell BR, Osterweil D. Pain in the nursing home. *J Am Geriatr Soc* 1990;38:409-414.
- 14 Manfredi P, Breuer B, Wallenstein S. Opioid treatment for agitation in patients with advanced dementia. *Int J Geriatr Psychiatry* 2003;18:700-705.
- 15 Ferrell BA. Pain management in elderly people. *J Am Geriatr Soc* 1991;39(1)64-73.
- 16 Cleeland CS. Measurement of pain by subjective report. In Chapman CR and Loeser JD (editors). *Issues in pain measurement*. New York: Raven Press, 1989.
- 17 Ferrell BA, Ferrell BR, Rivera LJ. Pain in cognitively impaired nursing home patients. *J Pain Symptom Manage* 1995;10:591-598.
- 18 Gibson SJ, Scherer SC, Goucke CR. Preliminary fieldtesting and preparations for implementation of Australian Pain Society and Australian Pain Relief Association pain management guidelines for residential care. November 2004. [www.apsoc.org.au/pdfs/APRA-finalreport7.doc](http://www.apsoc.org.au/pdfs/APRA-finalreport7.doc)
- 19 Hadjistavropoulos, T, Craig, KD. A theoretical framework for understanding self-report and observational measures of pain: a communications model. *Beh Res Therapy* 2002;40:551-570.
- 20 Abbey J, Piller N, Bellis A, Esterman A, Parker D, Giles L, Lowcay B. The Abbey pain scale: a 1 minute numerical indicator for people with end stage dementia. *Int. J. Palliative Nursing* 2004;10:6-13.
- 21 Warden V, Hurley A, Volicer L. Development and psychometric evaluation of the Pain Assessment in Advanced Dementia (PAINAD) Scale. *J Am Med Dir Assoc* 2003;4:9-15.

PREAMBLE TO SECTIONS 3,4,5,6  
**A MULTIDISCIPLINARY TREATMENT APPROACH**

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## A Multidisciplinary Treatment Approach

Reduced pain, increased function and improved mood are among the potential benefits when a multidisciplinary treatment approach to pain management is implemented.

### Good practice principles for a multidisciplinary treatment approach can be summarised as:

- A combination of pharmacological and non-pharmacological treatment therapies (as discussed in sections 3, 4, 5 and 6) shall be incorporated into pain management plans for residents of aged care facilities.
- It is particularly important to recognise that pharmacological therapy for persistent pain is always more effective when combined with non-drug approaches to pain management and older people generally feel more satisfied with a multimodal treatment approach<sup>1,2</sup>
- The nature of persistent pain with sensory and emotional components dictates a comprehensive approach to management, including the use of non-drug therapies.<sup>3</sup>
- Issues related to polypharmacy, adverse drug reactions and side effects as well as the high incidence of co-morbid disease in older persons enhance the appeal and benefits of using non-drug therapies in older residential care populations.<sup>4</sup>
- Many non-drug treatments may be particularly suitable for residents in aged care facilities. They usually have the benefit of increasing a resident's involvement in pain management options and improving the sense of control over pain. However, the selection of non-pharmacological treatments depends on a variety of factors apart from treatment efficacy. These include a resident's cultural background and financial resources; the availability of a particular treatment approach within a residential care facility; and a resident's cognitive and communicative abilities (Table 10).
- Non-pharmacological therapies can be used alone or in combination with other therapies and there may be synergistic benefits.

**Table 10**  
**NON-PHARMACOLOGICAL THERAPIES FOR CONSIDERATION IN RESIDENTIAL CARE**

#### For residents with significant cognitive impairment

- ▶ Superficial heat (mild)
- ▶ Superficial cold (mild)
- ▶ Vibration (mild)
- ▶ Massage
- ▶ Biological Complementary and Alternative Medicine (CAM) therapies
- ▶ Manipulative CAM therapy
- ▶ Mobilising exercise
- ▶ Passive relaxation

#### For residents with no significant cognitive impairment

##### **All treatments listed above, plus:**

- ▶ Educational approaches
- ▶ Restructure thoughts
- ▶ Biofeedback /relaxation
- ▶ Guided imagery
- ▶ Coping skills
- ▶ Problem solving
- ▶ Behaviour reactivation
- ▶ Transcutaneous Electrical Nerve Stimulation (TENS)
- ▶ Mind-body CAM
- ▶ Strengthening exercise
- ▶ Aerobic exercise

PREAMBLE TO SECTIONS 3,4,5,6  
**A MULTIDISCIPLINARY TREATMENT APPROACH**

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

- some non-pharmacological approaches are low-tech and require minimal staff training to administer.
- Residents who fail to respond to pharmacological therapy, together with appropriate in-house non-pharmacological treatment, and who continue to be distressed by their pain should be considered for referral to a pain medicine specialist or a multidisciplinary pain clinic.

## Multidisciplinary Pain Clinics

Multidisciplinary pain clinics offer a combined treatment approach covering pharmacological and non-pharmacological therapies. Following appropriate multidisciplinary assessment and bearing in mind the age and functional capacity of the resident, a specific specialist-supervised multidimensional management plan is instituted.

## Interventional Pain Management

Following specialist or multidisciplinary pain clinic assessment one of the interventional strategies described in Table 11 may be recommended. While an evidence base for these interventions is slowly growing, it is not possible to easily extrapolate this evidence to a residential care population.

**Table 11**  
**INTERVENTIONAL PAIN MANAGEMENT TECHNIQUES**  
**IN THE ELDERLY**

Intervention	Procedure and benefits
Local anaesthetic blocks	Local anaesthetic blocks delivered to intervertebral discs and facet joints may prove helpful in identifying pain site.
Radiofrequency denervation	Radiofrequency denervation of the nerves to the facet joints in the cervical spine and lumbar spine may be used when previous local anaesthetic blocks have demonstrated analgesia.  Level II evidence of pain relief lasting three to 12 months. <sup>5,6</sup>
Epidural corticosteroid injections	Epidural corticosteroid injections may be used for radiculopathic leg pain (sciatica).  Level I evidence shows a significant short term benefit for up to 60 days. <sup>7</sup>  There is no evidence to support the use of epidural corticosteroid injections in the management of back pain without radiculopathy. <sup>8</sup>

PREAMBLE TO SECTIONS 3,4,5,6  
A MULTIDISCIPLINARY TREATMENT APPROACH

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

REFERENCES

1. Ferrell BR. Patient education and non-drug interventions. In: Ferrell BR and Ferrell BA (eds). Pain in the elderly, Seattle: IASP Press, 1996;pp35-44.
2. Kung F, Gibson SJ, Helme RD. Development of a pain management strategies survey questionnaire: preliminary findings. *The Pain Clinic* 2001;12(4):299-316.
3. Turk DC and Monarch ES. Biopsychosocial perspective on chronic pain. In: Turk DC and Gatchel RJ (eds). Psychological approaches to pain management: a practitioner's handbook (2nd ed), New York, NY, US: Guilford Press, 2002;pp3-29.
4. American Geriatrics Society panel guidelines on persistent pain in older persons. *J Am Geriatr Soc* 2002; 50:S205-S224.
5. Lord SM, Barnsley L, Wallis BJ, et al. Percutaneous radiofrequency neurotomy for chronic cervical zygapophyseal joints. *NEJM* 1996;335:1721-6.
6. Van Kleef M, Barendse GA, Kessels A, et al. A randomised trial of radiofrequency lumbar facet denervation for chronic low back pain. *Spine* 1999; 24:1937-42.
7. Watts RW, Silagy CA. A meta-analysis on the efficacy of epidural corticosteroids in the treatment of sciatica. *Anaesth Intensive Care* 1995;Oct 23(5):564-9.
8. Koes BW, Scholten RJPM, Mens JMA, et al. Efficacy of epidural steroid injections for low back pain and sciatica: a systematic review of randomised clinical trials. *Pain* 1995;3:279-88.

SECTION 3  
PHARMACOLOGICAL TREATMENTS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

SECTION 3

## Pharmacological Treatments

Pain is often initially treated with medication. However, the evidence base for this approach comes from limited studies, few of which have included residents in aged care facilities.

**Good practice principles for pharmacological treatments for pain can be summarised as:**

- Make a diagnosis where possible.
- Choose an appropriate drug for the pain type and severity.
- Beware of co-existing medical conditions.
- Use around the clock administration for persistent pain.
- Paracetamol (1gm 6 hourly) is the drug of choice for musculoskeletal pain.
- Use NSAIDs and COX-2 inhibitors with caution (short-term, low dose).
- Anticipate constipation if opioids are prescribed.
- Think of neuropathic pain and consider antidepressant and antiepileptic adjuvant drugs.

**NOTE** Pain management is often more appropriate and effective when it uses both pharmacological and non-pharmacological approaches.

### Key Messages

- Analgesic medications provide symptomatic pain relief. They do not modify the underlying cause of pain.
- Combining pharmacological and non-pharmacological approaches may allow lower drug doses to be used, potentially reducing side effects.
- The selection of medication should be based on the highest likelihood of gaining pain relief with the lowest likelihood of side effects. Consideration must be given to age-related changes in drug sensitivity, efficacy, metabolism and side effects.
- The goal of analgesic therapy needs to be explicit: is the aim to eradicate pain or to reduce it to tolerable levels?

*When answering this question, remember:*

- ▶ Analgesic-induced side effects (for example, constipation, anorexia, nausea, drowsiness, confusion and falls) may be more troublesome than the pain.
- ▶ Complete pain relief is rarely achievable when dealing with pain of neuropathic origin.
- ▶ Non-cancer pain requires a balance between pain relief and the maintenance of function.
- ▶ In the terminal phases of cancer and other end of life situations, the goal may be to relieve pain even if function is compromised.
- The timing of analgesic medications is often as important as the medication selected.
  - ▶ A short-acting analgesic should be used for infrequent or incident pain while controlled release analgesics are best given regularly (around the clock) for persistent or frequently recurring pain. Short-acting analgesics may be necessary when controlled release analgesics do not control the pain adequately (breakthrough pain).
  - ▶ For predictable or incident pain, analgesics are often more effective when given prior to an activity that is known to induce or aggravate pain, for example, changing a wound dressing or changing position.
- Medications should, generally, be commenced at a low dose, monitored and titrated slowly as required. More frequent monitoring, dose adjustment and higher doses

## SECTION 3

# PHARMACOLOGICAL TREATMENTS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

should be implemented for severe pain as recommended in the Australian Pharmaceutical Advisory Council's Guidelines for Medication Management in Residential Aged Care Facilities 2002.<sup>1</sup>

- Symptoms other than pain, such as constipation, insomnia and depression, may significantly impact on an individual. Treatment of these is an important part of a resident's pain management.
- Constipation should be expected with opioid therapy and a bowel regimen (*Table 12*) routinely instituted.
- Referral to a pain specialist or multidisciplinary pain clinic should be considered if troublesome pain persists after reasonable trials of pharmacological and non-pharmacological therapies.

**TABLE 12**

### **BOWEL REGIMEN FOR CONSTIPATION**

- ▶ Encourage fluids, especially fruit drinks
- ▶ Encourage high fibre cereal, eg bran with adequate fluids
- ▶ Keep mobile
- ▶ Encourage patient to sit during a bowel movement (using a bedside commode if practical)
- ▶ Encourage toileting after meals when gastro colic reflex is maximal
- ▶ Provide comfort and privacy

#### **As well:**

- ▶ Exclude treatable causes (hypothyroidism, hypercalcaemia)
- ▶ For chronic constipation consider regular bulking agents (ispaghula husk, psyllium) and stool softeners (docusate, liquid paraffin)
- ▶ Stimulant laxatives (bisacodyl, senna) are generally recommended for short term use only

*Modified from Australian Medicines Handbook 2002<sup>2</sup> and the American Medical Directors Association Clinical Practice Guideline 1999.<sup>3</sup>*

## Common Medications

An understanding of the mode of action, common side effects and common drug interactions is essential when determining a pharmacological approach to pain relief:

### **Paracetamol**

Paracetamol is thought to work by inhibiting centrally acting prostaglandins.<sup>2</sup> It is a common component of many over-the-counter products and combination therapies (for example, paracetamol/codeine combinations and many cold and flu preparations).

Paracetamol is the preferred analgesic for older individuals with musculoskeletal pain and it may be effective for mild forms of neuropathic pain. In most cases, no dose reduction is required for the elderly but care needs to be taken to avoid exceeding the maximum recommended 24-hour limit of 4gm in divided doses (eight standard 500mg tablets) to avoid toxicity. The risk of paracetamol hepatotoxicity is increased by fasting, dehydration, poor nutrition, high alcohol intake or underlying liver dysfunction.

### **Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)**

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) are among the most widely prescribed medications in the world. This group of medications includes conventional NSAIDs and the newer selective cyclo-oxygenase (COX-2) inhibitors. NSAIDs should be used with caution in the elderly and, if prescribed, used in the lowest effective dose for the shortest duration possible. NSAIDs are associated with an increased risk of serious side effects, particularly peptic ulceration and haemorrhage, in this age group. There are theoretical reasons why selective COX-2 inhibitors may cause fewer gastrointestinal complications than conventional NSAIDs but longer term studies are not conclusive.

Both conventional NSAIDs and selective COX-2 inhibitors can cause water and sodium retention, increase blood pressure and peripheral oedema, and reduce glomerular filtration rate. Special caution is required when using these medications in those with hypertension, cardiac failure or renal impairment,

## SECTION 3

# PHARMACOLOGICAL TREATMENTS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

particularly when they are used in combination with Angiotensin Converting Enzyme (ACE) inhibitors. Rofecoxib (Vioxx) has been withdrawn from sale because of adverse thromboembolic events. Other COX-2 inhibitors are being evaluated to ascertain whether they too increase the risk of cardiovascular events.<sup>4</sup>

Neither the simultaneous administration of two NSAIDs nor surpassing the recommended dose will confer greater pain relief. Low dose corticosteroids may be a safer alternative for individuals with inflammatory arthropathies. Despite concerns regarding the safety profile of conventional and selective NSAIDs in the elderly, in selected cases they are appropriate therapy.

Selective COX-2 inhibitors and conventional NSAIDs should therefore be used with caution in the older population<sup>5</sup> and for the shortest possible duration to minimise the risk of adverse side effects.

### Tramadol

Tramadol is an atypical centrally acting analgesic with weak action on some parts of the opioid receptor system. It has significant additional pharmacological actions as an inhibitor of noradrenaline and serotonin reuptake. For this reason it is usually classified separately from the opioid group described below. Short acting (50mg immediate release) and sustained release oral preparations are available. Dose reduction may be required when used in the elderly.

Many patients are unable to tolerate tramadol, experiencing symptoms such as nausea, vomiting, sweating, dizziness, tremors and headaches.<sup>2,6</sup> Serious side effects include delirium and hallucinations. Serotonergic Syndrome is another possible side effect when other serotonergic medications are used concurrently. These include Selective Serotonin Reuptake Inhibitors (SSRIs), tricyclic antidepressants, venlafaxine and mono-amine oxidase inhibitors such as moclobemide, lithium and St John's wort. Serotonergic Syndrome features include delirium, confusion, agitation, hypomania, hyperactivity, restlessness, fever, sweating, tachycardia, hypertension, ataxia and tremor. It may occur dramatically or insidiously. Mild forms should resolve within 24 hours of ceasing the medications.

### Opioid Therapy

Codeine is the mostly widely-used opioid analgesic. It has a short half life and can be recommended for incident, predictable, short lasting and infrequent pain. The usual single dose is 15 - 60mg and it is often given in fixed combination tablets with paracetamol or with aspirin. Codeine can cause constipation, nausea and confusion.

The analgesic effects of codeine can be inhibited by many commonly prescribed medications (for example, cimetidine, quinidine, haloperidol and amitriptyline) and many of the SSRIs including fluoxetine, paroxetine and fluvoxamine. Codeine does not offer effective pain relief for about eight per cent of Caucasians and two per cent of Asians who lack the necessary processing enzyme. Therefore, it is important to monitor a person's response to codeine and change to another analgesic if pain relief is inadequate.

Therapy with strong opioid agents such as morphine and oxycodone is well established in the treatment of cancer pain and is also appropriate for selected individuals with severe non-cancer pain.

Older individuals tend to be more sensitive to opioids and experience greater and more prolonged pain relief than younger populations.<sup>7</sup> They are also more prone to side effects. These commonly include constipation (which should be anticipated with a bowel regimen established, *Table 12*), sedation and cognitive changes (which often settle after a few days) and nausea and itching (which may need antiemetic treatment or, occasionally, drug withdrawal).

Used appropriately, however, controlled release opioids in relatively low doses can provide effective pain relief for older people with persistent pain when non-opioid analgesics have proved inadequate. Patients and/or their representatives should be advised of the likely side effects of opioid therapy to ensure informed consent and appropriate participation in ongoing treatment decisions. Adherence to legal prescribing requirements is essential.

## SECTION 3

# PHARMACOLOGICAL TREATMENTS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

A good principle when using opioid therapy in older individuals is "start low and go slow". Commence with a low dose, usually of a short acting opioid, assess response, and titrate accordingly until adequate control is achieved. For continuous or frequent pain, sustained release preparations (oxycodone and morphine) are the preferred opioids. Anticipate breakthrough pain, which is usually managed with a dose of a short acting analgesic, often in the order of one sixth of the daily maintenance dose (controlled release morphine 5mg bd; morphine oral liquid 5mg).

Some opioid preparations require additional caution. Fentanyl patches are not appropriate for opioid-naive patients. They should be reserved for patients with high opioid dose requirements who are intolerant of oral preparations or troubled by side effects from other opioids. Pethidine should not be used on a regular basis as its metabolite norpethidine may accumulate causing excitement, agitation, twitching, tremor and convulsions. Older individuals are also more prone to toxicity associated with methadone accumulation due to its variable half life, from six hours up to two to three days.

Phobia regarding the use of opioid therapy often creates a barrier to appropriate pain management. The illicit use of opioids is rarely for pain relief and aberrant opioid seeking behaviours are extremely uncommon in older age groups. This may need to be discussed with the resident and other concerned individuals before they feel comfortable with this form of therapy, particularly for the control of non-cancer pain.

### Adjuvant Analgesics

Adjuvant analgesics, such as antidepressants and antiepileptic agents, are valuable in the management of neuropathic pain although they rarely completely eradicate such pain. Reductions in pain severity, even if the pain is not totally eliminated, may still be considered quite valuable by an individual.<sup>8</sup>

Empirically, antidepressants have been used for neuropathic pain with a burning quality and anticonvulsants used for

### CASE STUDY • Neuropathic Pain

Mr K, a 78-year-old hostel resident, complained of troublesome burning pain in his feet, especially at night when it kept him awake. His history included hypertension, diabetes and occasional falls. Mr K was treated with paracetamol at night. His symptoms settled for a while but then recurred, and had been troublesome for three months. His doctor diagnosed painful diabetic neuropathy.

#### Issues

Diabetic neuropathy and other neuropathic pain, such as post-herpetic neuralgia and central post-stroke pain, tend to be less sensitive to simple analgesic and Non-Steroidal Anti-Inflammatory Drugs than nociceptive pains such as osteoarthritis. However, it is appropriate to try paracetamol and, if this is not effective, a trial of a paracetamol/codeine combination or controlled release tramadol is worthwhile. If pain is unrelieved or side effects become a problem, adjuvant agents such as antidepressants and anticonvulsants should be considered. These have similar efficacy for pain relief in that one in three patients will receive at least 50 per cent more pain relief than with a placebo. The selection of the agent is often based on the side effect profile and cost.

#### Management

The tricyclic antidepressant amitriptyline was commenced at 10mg at night. Initially this helped Mr K's insomnia but not his pain. The dose was increased every third day. On 30mg at night he reported less pain on the Resident's Verbal Brief Pain Inventory (RVBPI) but had difficulty passing urine and was unsteady on his feet due to postural hypotension. The reduced impact of pain on sleep was noted on the RVBPI.

Although amitriptyline has been shown to be effective in managing painful diabetic neuropathy, common side effects may limit its use in older patients. Constipation,

## SECTION 3

# PHARMACOLOGICAL TREATMENTS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

voiding difficulties in males, postural hypotension, falls and excessive sedation are common. The treatment options and costs were discussed with Mr K. Amitriptyline was weaned and gabapentin (100mg at night) was commenced. Sedation and unsteadiness occurred over the first three days but resolved within one week. The dose was slowly increased to 300mg (100mg three times a day). Mr K still had pain at night but considered it quite tolerable. He did not wish to have a further increase in the gabapentin dosage and was maintained on paracetamol (1gm six hourly) and 300mg of gabapentin every 24 hours. A trial of opioid analgesia would have been considered had gabapentin not been effective.

### Key Points

- Neuropathic pain such as painful diabetic peripheral neuropathy, post-herpetic neuralgia and central post-stroke pain are less responsive to simple analgesics than are musculoskeletal and other types of nociceptive pain.
- Adjuvant analgesics such as tricyclic antidepressants and anticonvulsants have a specific role in the management of neuropathic pain.
- Adjuvant analgesics rarely eradicate pain but they usually ease it to tolerable levels.
- About one in three patients will experience a 50 per cent pain reduction with tricyclic antidepressants and anti-convulsants. Other patients may report less reduction but will still record a valuable improvement in quality of life.

shooting pains, despite the lack of controlled trial evidence demonstrating efficacy for such symptoms. Selection of adjuvant analgesics should be based on evidence of efficacy for the underlying condition, the side effect profile and availability of the medication.

The older tricyclic antidepressants, namely amitriptyline, nortriptyline, imipramine and desipramine, are commenced in low doses. The analgesic effects are independent of antidepressant effects, occurring more rapidly and at a lower dose than when used for depression. Common side effects include dry mouth, orthostatic hypotension, constipation, urinary retention, cognitive impairment and sedation. However, the sedating effect can be helpful for some residents with pain-related insomnia.

Among the tricyclic antidepressants, nortriptyline may be better tolerated than amitriptyline. The starting dose of these medications is usually 5-10mg at night, increasing gradually, to about 50mg.

Newer antidepressant medications, such as SSRIs, are better tolerated and safer than the older tricyclic antidepressants. However, they have not been shown to be effective for the management of persistent pain.

Anticonvulsants are widely used for neuropathic pain although the evidence of their effectiveness is limited.<sup>9</sup> Carbamazepine is the drug of choice for trigeminal neuralgia.<sup>10</sup> Gabapentin has been shown to be beneficial in the symptomatic management of diabetic neuropathy and post-herpetic neuralgia.<sup>11,12,13</sup>

As gabapentin is not available for pain management on the Pharmaceutical Benefits Scheme (PBS) in Australia, the cost of this medication is beyond the resources of many.

Other anticonvulsant medications such as carbamazepine, phenytoin and sodium valproate are on the PBS and are worth considering, although evidence of their efficacy has not been conclusively established.

## SECTION 3

# PHARMACOLOGICAL TREATMENTS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

All anticonvulsant medications should be used with caution in frail older individuals. Common side effects include sedation, dizziness and ataxia which predispose the individual to falls. Initial doses should be low (often lower than the approved prescribing information) and titrated slowly as tolerated (carbamazepine 50mg bd; sodium valproate 100mg bd; gabapentin 100mg tds).

In summary, pain of neuropathic origin is often difficult to manage. Combining pharmacological and non-drug therapies is recommended. If simple analgesics do not adequately control the pain, then a trial of a tricyclic antidepressant is worth considering, followed by an anticonvulsant (sodium valproate, gabapentin, carbamazepine), followed by a trial of opioid analgesia, until adequate pain control is achieved.

If the first antidepressant or anticonvulsant is not tolerated at an adequate dose, it is worth considering a different agent within the same class, but the simultaneous use of two medications within one class should be avoided. Because of the variable response to these medications, and the variable severity of their side effects, it is important that each patient is monitored closely and the medication continued only when its therapeutic benefits outweigh the negative side effects.

### Topical Agents

Topical agents are unlikely to be very effective on their own. However, they may be offered as add-on therapy to reduce the oral medication load.<sup>14</sup> Rubbing or massaging a painful site with over-the-counter or proprietary gels or creams is often soothing.

Topical NSAID preparations may give additional pain relief. An extract from hot chilli peppers, capsaicin, (capsaicin 0.025% and capsaicin 0.075% creams), has some evidence of efficacy in painful diabetic neuropathy and post-herpetic neuralgia. Before treatment residents must be warned of an initial burning sensation upon application and the need to avoid contact with the mouth or eyes. Capsaicin creams are best applied with disposable gloves, followed by hand washing.

### CASE STUDY • Opioid Therapy in Non-Cancer Pain

Mrs H is an 88 year old woman who has been a nursing home resident for the past four years. She suffers from a number of problems including moderately severe Alzheimer's disease, severe osteoarthritis of her knees, profound deafness and visual impairment. Until three months ago, she managed to walk short distances with the aid of a frame. Then she stopped walking and required two nurses to help her to stand. This caused her obvious distress. When sitting she often exhibited spontaneous pain behaviours: crying, rubbing her knees and abnormal vocalisations. She could not verbally communicate her pain experience because of the combination of dementia and deafness. Her pain behaviours at rest and during transfers were recorded on the Abbey Pain Scale.

Her general practitioner had tried her on paracetamol / codeine combinations and tramadol without great success. Anti-inflammatory medications, including COX-2 inhibitors, were not appropriate in view of cardiac failure and renal impairment.

### Issues

Mrs H had severe pain and disability due to her osteoarthritis. She had not been adequately controlled with standard management and was unsuitable for surgery. Opioid therapy had not been initiated for fear of worsening her confusion.

Age, cognitive impairment and nursing home residence are risk factors for inadequate pain management. Individuals with mild forms of dementia are usually able to communicate their pain experience but this ability is lost with more advanced dementia. Pain is frequently unrecognised or poorly managed in the nursing home setting. Clinicians often have to infer that a person is in pain by observing behaviours and understanding the symptoms associated with the known pathology.

## SECTION 3

# PHARMACOLOGICAL TREATMENTS

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Management

A trial of opioid analgesia, aimed at reducing Mrs H's pain and optimising her mobility, was commenced. A low dose (5mg daily) of oral morphine mixture (5mls of a 1mg/ml morphine mixture) was introduced three times a day. The dose was titrated upwards twice weekly. Nursing staff observed and charted pain behaviours such as grimacing and vocalisations, ease of bed and chair transfers and confusion levels. They also monitored and managed her constipation. Once tolerating the short acting morphine mixture she was changed to a controlled release preparation, administered twice a day.

By the time the morphine dose had been increased to 15mg 12 hourly, Mrs H appeared to be much more comfortable, with less grimacing and abnormal vocalisations. She no longer required two nurses to transfer her from her bed, being easily managed by one, and was able to take a few steps with assistance. At times she attempted to stand and walk by herself. After analgesia, her Abbey Pain Scale score (with a maximum of 18 and a minimum of 0) reduced from 6 to 0 at rest and 11 to 3 during transfers.

Mrs H was reviewed by a physiotherapist who considered Mrs H's right knee was too unstable for her to walk unassisted. The dose of morphine was therefore not increased. Twelve months later her pain remained adequately managed with controlled release morphine (20mg 12 hourly).

### Key Points

- Age, cognitive impairment and nursing home residence are risk factors for inadequate pain management.
- There is increasing acceptance of maintenance opioid therapy for troublesome persistent pain in older individuals.
- Older individuals are more sensitive to both the analgesic and adverse effects of opioid analgesia.
- Start at a low dose and titrate slowly, according to nursing observations.
- Potential adverse effects of opioid analgesic medications (for example, constipation) should be anticipated and prevented or treated promptly.

SECTION 3  
**PHARMACOLOGICAL TREATMENTS**

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

REFERENCES

- 1 Guidelines for medication management in residential aged care facilities.  
[www.health.gov.au/internet/wcms/Publishing.nsf/Content/nmp-pdf-resguide-cnt.htm/](http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/nmp-pdf-resguide-cnt.htm/)  
Accessed 17 July 2005.
- 2 Australian Medicines Handbook 2005.
- 3 American Medical Directors Association Clinical Practice Guideline 1999.
- 4 P Juni, P Dieppe. Older People should NOT be prescribed 'coxibs' in place of conventional NSAIDs. *Age and Ageing* 2004;33:100-104.
- 5 FitzGerald GA. Coxibs and cardiovascular disease. *New Eng J Med* 2004;351:1709-11.
- 6 Tramadol Product Information CSL Pty Ltd.
- 7 Forman WB. Opioid analgesic drugs in the elderly. In: Ferrell BA (ed). *Clinics in Geriatric Medicine* 1996;12:3:489-500.
- 8 Sindrup and Jensen. Efficacy of pharmacological treatment of neuropathic pain: an update and effect related to mechanism of drug action. *Pain* 1999;83:389-400.
- 9 Backonja MM. Anticonvulsants (antineuropathics) for neuropathic pain syndromes. *The Clinical Journal of Pain* 2000;16:S67-S72.
- 10 Killian and Fromm. Carbamazepine in the treatment of neuralgia. *Arch Neurol* 1968;19:129-136.
- 11 Rowbotham M, Harden MD, Stacey B, Bernstein P, Magna-Miller L. Gabapentin for the treatment of postherpetic neuralgia: a randomized controlled trial. *JAMA* 1998; 280(21):1837-1842.
- 12 Rice, et al. Gabapentin in postherpetic neuralgia: a randomised, double blind, placebo controlled study. *Pain* 94;(2001)215-224.
- 13 Backonja M, Beydoun A, Edwards KR, Schwartz SL, Fonseca V, Hes HH, LaMoteaux L, Garofalo E. Gabapentin for the symptomatic treatment of painful neuropathy in patients with diabetes mellitus. *JAMA* 1998;280(21):1831-1836.
- 14 Ahmad M, Goucke CR. Management strategies for the treatment of neuropathic pain in the elderly. *Drugs Aging* 2002;19:929-945.

SECTION 4  
PSYCHOLOGICAL-EDUCATIONAL APPROACHES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

SECTION 4

# Psychological - Educational Approaches

A psychological-educational approach to the management of persistent pain is based on the premise that pain is a sensory and emotional experience with psychological factors contributing to the pain.

The most frequently used psychological-educational treatment for the management of persistent pain is cognitive (thought)-behavioural (actions) therapy.

**Good practice principles for cognitive-behavioural therapy can be summarised as:**

- Cognitive-behavioural therapy (CBT) covers a wide variety of interventions and provides more adaptive ways of thinking and acting as well as a better understanding of pain and pain control techniques, and a greater sense of personal mastery (*Table 13*).
- CBT has been shown to be effective for the management of chronic pain<sup>1,2,3</sup> including demonstrated benefit for older persons<sup>4,5,6</sup> and for those in residential care.<sup>7</sup>
- Cognitive-behavioural therapy should be made available to all aged care facility residents who might benefit.

**These are:**

1. Cognitively competent residents who are willing and able to try such therapy and who have support from those who care for and interact with them on a day-to-day basis.
2. Residents with evidence of pain-related behavioural problems (for example, inactivity, sleeplessness, dependence on others and medication overuse).
3. Those with cognitive or emotional problems related to a persistent pain condition (such as anxiety or depression or those who catastrophise about pain).

**NOTE** Pain management is often more appropriate and effective when it uses both pharmacological and non-pharmacological approaches.

Cognitive-behavioural therapy is supported by strong evidence for the management of persistent pain in older persons.

Significant reductions in pain severity, levels of self-rated disability, depression, anxiety and mood disturbance as well as reduced utilisation of health care resources have been demonstrated as benefits of cognitive-behavioural therapy for the management of chronic pain disorders in older adults.<sup>8,9,10,5,6,4,7,11</sup> Increased coping skills, engagement in social activity and an overall improvement in quality of life are also said to result.

## Cognitive-behavioural therapy

- Requires cognitive capacity and active participation from the resident.
- Should be administered by a trained therapist.

SECTION 4  
PSYCHOLOGICAL-EDUCATIONAL APPROACHES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 13**  
**COMMON COMPONENTS OF**  
**PSYCHOLOGICAL-EDUCATIONAL THERAPY FOR**  
**MANAGEMENT OF PERSISTENT PAIN**

1. EDUCATION

**Description and Examples**

- ▶ Discuss expectations of therapy and agree on common treatment goals (not a pain "cure", but better pain management).
- ▶ Explain how thoughts, emotions and actions all influence pain severity (anxiety and depression make pain seem worse and limit ability to cope).
- ▶ Challenge the view that pain must indicate that something terrible is wrong: pain is a normal part of the healing process and not just a signal of deterioration and tissue damage.
- ▶ Teach how the response to pain can be changed even if the pain signal cannot (increased pain doesn't mean necessarily, that one must remain at rest and in bed).

***All other methods outlined below also involve a strong educational component.***

2. RESTRUCTURE BAD THOUGHTS / RECONCEPTUALISATION

**Description and Examples**

- ▶ Teach residents to identify negative or distorted thoughts about pain and its consequences:  
  
"I can't stand the pain, it is awful and overwhelms me, there is nothing that I can do to relieve my pain, I cannot enjoy anything because of my pain, more pain medication equals more pain relief."  
  
and replace or modify with more adaptive thoughts:  
  
"I can deal with this pain, I have done it before and I can do it again, pain shows that my body is healing, if I plan my activities I can usually avoid increasing my pain, I have many options to cope better with pain."

3. RELAXATION / BIOFEEDBACK

**Description and Examples**

- ▶ Teach residents to be aware of increased muscle tension and anxiety. Methods of relaxation include the use of:
  - pre-recorded calming relaxation tapes
  - deep, controlled breathing exercises often with a calming message to oneself on each outward breath
  - progressive muscle relaxation involving the voluntary tightening and systematic relaxation of individual muscles
- ▶ Biofeedback involves the same type of relaxation exercises guided by machine feedback of physiological signs (temperature, muscle tension and galvanic skin resistance).

4. COPING SKILLS

**Description and Examples**

Provide training in the use of new methods to cope with pain and its consequences.

***Strategies might include:***

- ▶ Attention distraction  
Watch TV, play a game, read
- ▶ Reinterpretation of pain sensations  
Think of warmth or tickling
- ▶ Positive self-coping statements  
"I can deal with this, I have managed before, it will pass soon"
- ▶ Prayer  
" I pray to God and I know my faith will help."
- ▶ Increased activity  
"I can move, I can start an enjoyable activity."
- ▶ Guided imagery  
"I imagine that I am sitting on a warm beach, I can hear the calming waves break on to the beach, I can smell the salt air and feel the wind through my hair."

*(see Appendix 13, Tips for better sleep: Things you can do for yourself)*

## SECTION 4

# PSYCHOLOGICAL-EDUCATIONAL APPROACHES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### 5. PROBLEM SOLVING

#### Description and Examples

Training in principles of adaptive problem solving, including

- ▶ Identification of the true problem
- ▶ Considering alternative modes of action
- ▶ Evaluating the benefits and risks of each alternative
- ▶ Undertaking an action plan, assessment of success
- ▶ Reformulation of new strategies:
  - learning to set appropriate goals
  - pace activity and break tasks into smaller more manageable fragments
  - use of pre-planning to arrange appropriate coping methods for dealing with common pain-inducing situations

### 6. BEHAVIOUR REACTIVATION / OPERANT CONDITIONING

#### Description and Examples

- ▶ Reward for engaging in healthy behaviour
- ▶ Encourage gradual increase in meaningful activities according to pre-set goals (eg play cards for half an hour, go for a 30 - 100 metre walk each day)
- ▶ Ignore maladaptive or disruptive pain-associated behaviours (eg ignore or time-out aggressive agitation, inactivity or excessive/unreasonable demands for attention or medication)

### 7. OTHER SKILLS

#### Description and Examples

*Other skills that may be applicable to certain residents:*

- ▶ Improved communication skills
- ▶ Increased social interaction
- ▶ Stress management
- ▶ Sleep hygiene
- ▶ Anger management
- ▶ Conflict resolution
- ▶ Marital counselling
- ▶ Cognitive therapy for depression, anxiety, fear-avoidance

### Treatment

Cognitive-behavioural therapy is normally administered by a psychologist trained in pain management or by allied health staff in consultation with a trained psychologist.<sup>12</sup>

An important aspect of a psychological-educational program is to ensure a resident feels able to undertake the assigned behavioural tasks and to discuss the resident's expectations about what the treatment can and cannot do.<sup>13</sup> Total pain relief is seldom possible. Therefore, unrealistic hopes for rapid and complete relief may lead to feelings of hopelessness and a failure to continue with behavioural treatment methods.

An explicit agreement is usually made with an older person to achieve realistic goals for increased levels of appropriate activity and social interaction as well as increased use of effective behavioural treatments for pain such as relaxation, biofeedback and therapeutic exercise (*Sections 5 and 6*).

As a result, much time is spent rehearsing newly learned behavioural strategies. There are also formal practice sessions over several weeks and periodic reviews of new skills in order to ensure confidence and competence in the technique.<sup>12</sup>

Residential staff and carers have a major role in promoting the educational message, assisting with skills' acquisition and practice sessions, and maintaining an appropriate reward schedule for healthy behaviours. As well, nurses can support pain management on a day-to-day basis, raising the morale of a facility and the mood of individual residents by developing trusting relationships with residents, nurturing an environment that encourages family and friends to visit, and supporting group activities and relaxation therapies.

## SECTION 4

# PSYCHOLOGICAL-EDUCATIONAL APPROACHES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Delivery Format

- Can be given individually or, preferably, in a group setting.
- Requires educational sessions to improve the understanding of pain, mood disturbance and the consequent physical deactivation and disability.
- Is usually conducted over a minimum of 6 - 10 sessions, each of half to one hour duration.
- Is most effective when delivered in a structured and systematic fashion. Every session should comprise:
  1. A review of the material presented in previous session
  2. Training and education in a new concept or skill
  3. The consolidation of the new skill and homework assignments for practising the technique between sessions
- Requires progress to be assessed on a sessional basis and any problems or failures with technique to be addressed immediately.
- Attempts to reconceptualise the residents' focus: from finding a pain "cure" to a rehabilitation model of pain management. Residents are encouraged to take an active role and accept responsibility for their pain, shifting from helplessness to personal mastery and confidence in being able to cope with pain.

### CASE STUDY • Psychological Assessment and Management Plan

Italian-born Mrs B, 77, lives in a nursing home due to high level physical dependencies related to obesity, heart failure and complications following an unsuccessful hip replacement operation two years ago. She is literate but not well educated, and worked hard in factories when younger and then as a homemaker. She is devoutly religious and although unsophisticated, Mrs B's cognitive abilities are largely intact.

Mrs B and her husband, who have two daughters and a son aged in their 40s, moved to Australia in 1955. Her husband lives in the family home with their son. The son has a serious mental illness and his volatile behaviour over many years has caused considerable distress for Mr and Mrs B. Dealing with their son's illness is a source of great conflict between the couple. Their daughters help as much as they can, given their own family commitments. In the year or so before admission to residential aged care, Mrs B did very little except prepare light meals although when her four grandchildren visited, she seemed capable of more elaborate preparations. Her contact with friends has deteriorated since moving into residential care. Mrs B is seen by a psychologist using an Italian-speaking interpreter.

### Issues

In 1983, around the time of a hysterectomy, Mrs B received psychological treatment for depression with medication initially prescribed by a psychiatrist. She has not taken anti-depressants for 15 years. However, there have been many hard years and, probably, subsequent untreated depressive episodes. Mrs B believes she may have been "cursed".

Mrs B complains of unbearable pain everywhere but, when pressed for detail, says it is worst in her neck, both hands and hip. She also reports intermittent, debilitating headaches. The headaches have been occurring for about two years but the other pains began in the 1980s and have

SECTION 4  
PSYCHOLOGICAL-EDUCATIONAL APPROACHES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

been getting progressively worse. Investigations show widespread osteoarthritis. Further surgery is not an option.

Asked about exacerbating factors for her pain, Mrs B says that any sustained physical activity makes all of her pains worse. She denies psychological stress has any effect on her pain but it comes to light that rare visits from her grandchildren seem to correspond with significant reductions in pain behaviour. However, visits from her husband, usually accompanied by their son, are often cut short by a need to retire to bed due to pain.

On assessment, Mrs B nominates pain as the source of all of her problems. She is sure that if the doctor would just prescribe the correct medication, most of her problems would be substantially alleviated. She admits to low mood, poor sleep, low energy, poor concentration and stress about her family situation as well as the pain of her physical conditions.

### Management

Mrs B's psychologist further assesses the influences on her pain. Her psychological history, knowledge of pain and previous coping strategies are also evaluated and an assessment of Mrs B's premorbid personalities is made.

Individual sessions were arranged with Mrs B to explore her beliefs and attitudes to the apparent worsening of her pain and disease progression. This included education about pain in her age group, relaxation and problem solving strategies and some simple thought restructuring (positive, self-coping: I can manage a short walk in the garden after lunch).

Mrs B responded well to cognitive therapy for her depression and improved on her activity levels as assessed by the Resident's Verbal Brief Pain Inventory (RVBPI). She began to understand her joy at seeing her grandchildren and the effect this had on lessening her pain.

## Background & description of psychological-educational approaches to pain management

Cognitive - behavioural therapy interventions include:

- Modification of beliefs and attitudes about pain
- Teaching new coping methods
- Stress reduction techniques
- Goal setting
- Planned behavioural reactivation
- Pacing of physical activity
- Education about the nature of pain and its consequences on mood, function and quality of life
- Relaxation training
- Distraction and imagery techniques

### Background

All cognitive-behavioural interventions arise from behavioural social learning theory<sup>14, 15, 16, 17</sup> or cognitive learning models.<sup>18, 19</sup> Aspects of both theoretical models have been combined into the cognitive-behavioural approach that has gradually evolved into the mainstay of psycho-educational therapy for the management of persistent pain.<sup>13, 20</sup>

A principle that is fundamental to all types of cognitive therapy is the notion that one's beliefs, appraisals and the meanings attributed to a situation will largely determine emotional and behavioural responses.<sup>21, 22</sup> Persons with persistent pain often exhibit maladaptive, distorted or dysfunctional beliefs that contribute to greater levels of pain and greater pain impact. The basic aim of cognitive treatment is to educate a resident about the strong relationship between thoughts, emotions and the consequent levels of pain and suffering.<sup>13, 12, 20</sup>

A reconceptualisation of thoughts about pain and provision of alternative and more effective coping strategies (eg, positive self-coping statements and reinterpreting sensations) constitute the main treatment approach. The person is encouraged to take an active role in this process and to accept responsibility for the pain and its impact, rather than being regarded as a

## SECTION 4

# PSYCHOLOGICAL-EDUCATIONAL APPROACHES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

passive victim. Typically, a multidimensional model of pain is presented and is contrasted with the sensory/physiologic model in which all pain is seen as equating to tissue damage.

This can help to demonstrate the ability of the individual to change the cognitive and emotional components of pain even if the sensory aspects remain unchanged. It also leads to a better understanding of the importance of psychological states (such as fear, anxiety, depression, anger and helplessness) in worsening the pain experience.<sup>13,12,20</sup>

The psychological manifestations of persistent pain (for example, anxiety and depression) are also often treated as part of the cognitive treatment approach.<sup>23,20</sup> Cognitive methods are seldom given in isolation and may incorporate problem solving and communication techniques, guided-imagery exercises and stress reduction techniques. The main goal of behaviour therapy is to reduce maladaptive behavioural expressions of pain (for example, excessive levels of disability and inactivity) and reward healthy behavioural choices (for example, increased exercise and social interactions).<sup>16</sup>

### Components of Therapy

It is important to recognise that cognitive-behavioural therapy is more than just a collection of cognitive and behavioural coping methods. To be effective, therapy must be given in a structured and systematic fashion.<sup>13,12,20</sup> The principles of a psycho-educational approach highlight several defined overlapping stages of treatment. These include some initial sessions devoted to a full discussion about the historical, physical, psychosocial and treatment aspects of the medical assessment (*Section 2*) of the pain problem.

Educational information on pain and its consequences is provided as well as an explanation of cognitive-behavioural approaches and likely treatment gains. This is followed by a reconceptualisation of maladaptive thoughts, new skills acquisition with cognitive and behavioural rehearsal as well as later sessions on the maintenance of treatment gains and how to prevent and cope with future flare-ups and setbacks.<sup>13,12,20</sup>

Moreover, there is a systematic structure within each individual treatment session comprising a review of material presented in previous sessions, training and education in a new concept or skill and consolidation and practice of the new skill. Without this type of formal psycho-educational structure, many of the described techniques are likely to be less effective.<sup>13,12,20</sup>

### Evaluation of Treatment

In addition to the previously mentioned studies about the benefits of cognitive-behavioural therapy for pain management, some randomised controlled trials have demonstrated the efficacy of cognitive-behavioural therapy when administered to older adults living in the community.<sup>5,6,4</sup>

One recent nursing home trial<sup>7</sup> showed a cognitive-behavioural program was efficacious in reducing pain and pain-related disability when compared to an attention/social support control group. The program was given to residents over 10 weekly group sessions. Several participants had mild cognitive impairment. The program involved two sessions on education and reconceptualisation of pain, five sessions dealing with behavioural and cognitive coping skills, including progressive relaxation, imagery and attention diversion and, finally, three sessions on skills consolidation and problem solving techniques. The treatment effects were maintained at a four-month follow-up.

### Summary

Despite strong scientific evidence in support of psycho-educational approaches for pain management in older persons,<sup>5,6,4</sup> including those from a residential care setting,<sup>7</sup> this type of therapy has rarely been used in residential care settings to date.

SECTION 4  
**PSYCHOLOGICAL-EDUCATIONAL APPROACHES**

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

REFERENCES

1. Flor H, Fydich T, Turk DC. Efficacy of multidisciplinary pain treatment centers: A meta-analytic review. *Pain* 1992;49:221-230.
2. Morley S, Eccleston C, Williams A. Systematic review and meta analysis of randomised control trials of cognitive-behavioral therapy for chronic pain in adults, excluding headache. *Pain* 1999;80:1-13.
3. Guzman J, Esmail R, Karjalainen K, et al. Multidisciplinary rehabilitation for chronic low backpain: systematic review. *BMJ* 2001;322:1511-1516.
4. Puder RS. Age analysis of cognitive-behavioural group therapy for chronic pain outpatients. *Psychology Aging* 1988;3:204-207.
5. Ersek M, Turner JA, McCurry SM, et al. Efficacy of self-management group intervention for elderly persons with chronic pain *Clinical Journal of Pain* 2003;19:156-167.
6. Keefe FJ, Caldwell DS, Williams DA, et al. Pain coping skills training in the management of osteoarthritis knee pain: a comparative study. *Behavior Therapy* 1990;21:49-62.
7. Cook AJ. Cognitive-behavioural pain management for elderly nursing home residents. *Journals of Gerontology: B Psychological Science* 1998;53:51-59.
8. Sorkin BA, Rudy TE, Hanlon RB, Turk DC. Chronic pain in old and young patients: differences appear less important than similarities. *Journals of Gerontology* Mar 1990;Vol 45(2):pp P64-P68.
9. Middaugh SJ, Levin RB, Kee WG, et al. Chronic pain:its treatment in geriatric and younger patients. *Archives Physical Medicine and Rehabilitation* 1988;69:1021-1026.
10. Gibson SJ, Farrell MJ, Katz B, Helme RD. Multidisciplinary management of chronic nonmalignant pain in older adults. In Ferrell BA and Ferrell BR (eds). *Pain in the elderly*. Seattle, WA: IASP Press,1996;pp91-101.
11. Cutler RB, Fishbain DA, Rosomoff RS, Rosomoff HL. Outcomes in treatment of pain in geriatric and younger age groups. *Archives Physical Medicine Rehabilitation* 1994;75:457-464.
12. Turner JA, Keefe FJ. Cognitive-behavioral therapy for chronic pain. In Max M (ed) *Pain 1999: an updated review (refresher course syllabus)*. Seattle,WA: IASP Press, 1999;pp523- 531.
13. Turk DC, Meichenbaum DH. A cognitive-behavioral approach to pain management. In Melzack R, Wall PD (eds). *Textbook of pain*. 3rd ed. New York, NY: Churchill-Livingstone, 2000;pp1001-1009.
14. Fordyce WT, Fowler RS, Delateur B. An application of behavior modification technique to a problem of chronic pain. *Behaviour Research & Therapy* 1968;6(1)105-107.
15. Turk DC, Gatchel RJ. *Psychological approaches to pain management: a practitioner's handbook*. 2nd ed. New York, NY: Guilford Press, 2002.
16. Sanders SH. Operant conditioning with chronic pain: back to basics. In Gatchel RJ (ed),Turk DC (ed). *Psychological approaches to pain management: a practitioner's handbook*. New York, NY: Guilford Press, 1996;pp112-130.
17. Wisocki PA, Powers CB. Behavioral treatments for pain experienced by older adults. In Mostofsky, David I (ed), Lomranz, Jacob (ed). *Handbook of pain and aging*. The Plenum series in adult development and aging. New York, NY: Plenum Press, 1997;pp365-382.
18. Ellis A. *Reason and emotion in psychotherapy*. Oxford, England: Lyle Stuart, 1962.
19. Beck AT, Mahoney MJ. Schools of "thought." *American Psychologist* 1979;vol 34:pp93-98.
20. Kerns RD, Otis JD, Marcus KS. Cognitive-behavioral therapy for chronic pain in the elderly. *Clinics Geriatric Medicine* 2001;17:503-523.
21. Gibson SJ, Helme RD. Cognitive factors and the experience of pain and suffering in older persons *Pain* 2000;85:375-383.
22. Yong HH, Bell R, Workman B, Gibson SJ. Psychometric properties of the pain attitudes questionnaire (revised) in adult patients with chronic pain. *Pain* 2003;104:673-681.
23. Gibson SJ, Katz B, Corran TM, Farrell MJ, Helme RD. Pain in older persons. *Disability Rehabilitation* 1994;16:127-139.



## SECTION 5

# PHYSICAL THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## SECTION 5

# Physical Therapies

Exercise is often the first choice of physical therapy in residential aged care facilities. It can provide pain relief for many residents, have beneficial effects on physical ability and mood and, when correctly prescribed, has negligible adverse risk.

**Good practice principles for physical therapies can be summarised as:**

- Active resident participation is essential for physical exercise to be beneficial.
- Long-term adherence to an exercise program is necessary for sustained results.
- Regular feedback and encouragement can enhance compliance.
- Residents may be apprehensive about exacerbating pain.
- When possible, residents should be informed about the likely benefits of exercise and reassured that initial post-exercise soreness does not usually persist when a program is maintained.
- Physical therapies should be selected according to residents' cognitive, communicative and physical abilities (*Table 10*).
- Cognitive impairment does not preclude exercise but it does dictate the need for salient levels of supervision.
- Communicative impairment can be a significant barrier to exercise prescription and may rule out this option.
- Isotonic strengthening exercises (*Table 14*) should be considered for improved pain management in the wide cross section of residents who have diverse functional capacities.
- Aerobic exercise (*Table 15*) should be considered as a pain management strategy for residents with the physical capacity to improve their cardiac function.
- Physical modalities such as the application of superficial heat, should be carefully evaluated before use as they are not safe for many residents and are of dubious benefit for persistent pain.

- Transcutaneous Electrical Nerve Stimulation (TENS) is a safe physical modality that can be used to manage persistent pain

**NOTE** Pain management is often more appropriate and effective when it uses both pharmacological and non-pharmacological approaches.

Therapeutic exercise is primarily intended to decrease pain through disease modification and by altering a resident's pain perception. Its secondary objective is to foster coping strategies by slowing physical deterioration or by maintaining or increasing functional capacity.

## Types of Exercise

### Strengthening

Two types of strengthening exercises, isotonic and isometric, are applicable to the residential aged care setting as they are better suited than aerobic exercise to the wide cross section of residents with diverse functional capacities. Evidence strongly supports the use of strengthening exercises, especially isotonic exercises, for improved pain management.

Isotonic exercises have been shown to reduce the intensity of pain in older people with musculoskeletal disorders by about 30 per cent.<sup>1,2</sup> They also improve the mood of older people with depression,<sup>3,4</sup> including patients with high levels of co-morbidity.<sup>5</sup> These results are comparable with aerobic exercise although it may be more difficult to ensure compliance with strengthening programs in this population.<sup>6</sup> Frail older people can also achieve very substantial increases in strength and associated improvements in functional capacity with isotonic exercises.<sup>7, 8, 9, 10</sup>

Isotonic exercises involve resisted contractions of major muscle groups through a prescribed joint range. This requires effort if high levels of resistance are used. However, low numbers of repetitions mean that a program targeting a circumscribed number of major muscle groups can be performed within a short time, making direct supervision feasible. The major effect of isotonic exercises is to increase the maximum force

## SECTION 5

# PHYSICAL THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

that a muscle can generate although aerobic-type exercises are more efficacious in increasing muscle action endurance. Isotonic exercises usually consist of a few repetitions of muscle contraction against a high level of resistance. The usual way of describing resistance is to express weights as a proportion of the maximum weight that can be lifted on one occasion: the 1RM (Repetition Maximum). For instance, 3RM refers to the maximum amount of weight a person can lift three times in succession before they fatigue and are unable to lift the weight a fourth time. Ideally, three or four repetitions of movements against resistance of 70 to 80 per cent of the 1RM should be used for isotonic exercises for maximum increases in muscle power.

Isometric exercises require static contractions of major muscle groups without joint movement and are usually performed within the mid range of the muscle. Isometric exercises have significantly less impact on pain reports<sup>11</sup> than isotonic exercises but are well-tolerated by residents beginning an exercise program.

**Table 14**  
**PRESCRIPTION OF STRENGTHENING EXERCISES**

### ISOTONIC

**Intensity** A range of 40 to 80 per cent of maximal voluntary contraction (1RM).

**Repetitions** One to six repetitions.

**Frequency** Two to three times a week, preferably with one day's rest between sessions.

**Progression** Resistance can be gradually increased at five to 10 per cent a week.

### ISOMETRIC

**Intensity** A range of 40 to 70 per cent maximal voluntary contraction (1RM).

**Repetitions** One to 10 repetitions.

**Frequency** From twice daily to five times a day.

**Progression** An intermediary step towards isotonic exercise.

### Aerobic

Aerobic exercise (for example, walking) involves sustained, repetitive movements of large muscle groups with more intensity than usual daily activity. Its customary purpose is to increase cardiovascular capacity. This precludes many aged care facility residents with inadequate functional ability.

When the primary objective is pain management, programs incorporating aerobic exercise have reduced pain by some 30 per cent in older people with common age-related clinical conditions (for example, osteoarthritis and osteoporosis).<sup>12, 13, 14, 15</sup> Graduated exercise can also improve claudicant pain associated with peripheral vascular disease, increasing walking distance by 150 per cent.<sup>16</sup>

As well, aerobic exercise programs support the management of disability and mood disturbance. Functional improvement has been reported in aged care residents and in older groups with significant co-morbidity including chronic heart failure<sup>17</sup> and severe Alzheimer's disease.<sup>18, 19</sup> Improved mood state has been shown in older people with mild, moderate and severe depression which was not being treated with medication.<sup>6, 20</sup> Ancillary improvements were also produced in anxiety in older people with osteoarthritis, rheumatoid arthritis and osteoporosis.<sup>21, 22</sup>

Aerobic capacity increases when exercise places greater than usual demands on cardiac output. It is most commonly measured with two parameters: maximum heart rate and heart rate reserve.

Maximum heart rate is the fastest rate at which a healthy person's heart is capable of beating. It is age-dependent and can be calculated by subtracting a person's age from 220. For example, a 70-year-old person would be expected to have a maximum heart rate of 150 beats per minute (220 minus 70 = 150).

Heart rate reserve refers to the difference between a person's resting heart rate and maximum heart rate. A 70-year-old person with a resting heart rate of 80 beats per minute would have a heart rate reserve of 70 beats per minute. (Maximum

## SECTION 5 PHYSICAL THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

heart rate of 150 minus a resting heart rate of 80 = heart rate reserve of 70). Many empirical evaluations of aerobic exercise use a proportion of heart rate reserve as a target. This simple procedure can be undertaken in the residential care setting without any special training or equipment. Taking a resident's pulse after a period of exercise will establish if a target, compatible with a training effect, has been reached.

Some residents are likely to be on medication (such as beta-blockers) that limits heart rate responses. It is sensible to request a medical opinion before commencing an aerobic exercise program to ensure the resident has the capacity to experience a training effect.

**Table 15**  
**PRESCRIPTION OF AEROBIC EXERCISE**

<b>Intensity</b>	Residents should commence aerobic exercise at a low to moderate level of exertion, consistent with exercise at 50 to 75 per cent of the maximum heart rate. Residents should be able to converse comfortably when exercising at this level.
<b>Duration</b>	Initially four or five brief successive bursts, totalling 20 to 30 minutes of activity, and increasing to at least 20 minutes of continuous activity.
<b>Frequency</b>	Three to four days a week.
<b>Progression</b>	The intensity or duration of exercise can be increased gradually by two to three percent each week.

The lowest limit of aerobic exercise to benefit older people with significant levels of co-morbidity has not been established. However, evidence suggests that 25 minutes of exercise three times a week at 40 per cent of heart rate reserve (equivalent to approximately 50 to 70 per cent of maximum heart rate) over 10 weeks will result in a 10 to 15 per cent increase in

cardiovascular fitness.<sup>23</sup> Self-paced walking will usually achieve 40 per cent of heart rate reserve. It is acceptable to rest for a few minutes during a 25 minute exercise session as the heart rate is likely to remain elevated until exercise resumes. Using the previous example of a 70-year-old with a resting heart beat of 80, we would find:  $220 - 70 = 150 - 80 = 70$  reserve by 40 per cent = 28 to give the target during a 25 minute walk of  $80 + 28 = 108$  beats per minute.

### Stretching

Stretching exercises involve slow stretching movements of major joints and muscles. They are intended to increase flexibility. Reports on the effects of stretching exercises on flexibility in frail older people have shown a mixture of positive and absent results. Any benefits have not translated into significant improvements in functional capacity.<sup>19</sup> There is also a lack of evidence associating stretching exercises with pain relief in this population. This does not encourage their use in residential aged care facilities. Stretching exercises are also unlikely to benefit mood.

**Table 16**  
**PRESCRIPTION OF STRETCHING EXERCISES**

<b>Duration</b>	Each stretch should be maintained for 10 to 30 seconds.
<b>Repetitions</b>	From one stretch per major joint and muscle group to 10 repetitions.
<b>Frequency</b>	From once /day 3 times /week, to daily.
<b>Progression</b>	Initiation of a stretching program can lead to muscle and joint soreness although the prior application of superficial heat facilitates movement. Progression should be gradual, depending on associated symptoms. Supervision is necessary when joint inflammation is active.

## SECTION 5

# PHYSICAL THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Physical Modalities

The primary objective of physical modalities, such as superficial heat and Transcutaneous Electrical Nerve Stimulation (TENS), is to reduce pain intensity. Physical modalities can only be used with residents who are able to provide adequate feedback on their experience. Using physical modalities with residents who cannot give accurate feedback carries the risk of tissue damage and/or additional pain.

Further, the modalities described here all involve stimulation of cutaneous and subcutaneous tissues and may exacerbate pain if applied to sensitive skin. It is therefore important to remember that skin sensitivity can increase dramatically in association with painful conditions such as diabetic neuropathy or post-herpetic neuralgia.

Most physical modalities for pain relief have brief periods of efficacy. Hence, they are not practical for managing persistent pain although repeated applications may be warranted for a limited time during acute pain episodes.

#### Superficial Heat

All methods that increase skin temperature carry the risk of superficial burns. Therefore, residents must have intact thermal sensation and adequate communicative and cognitive abilities to be able to provide accurate feedback on the degree of warmth experienced when superficial heat is applied. Importantly, superficial heat should not be applied within 48 hours of pain developing as it may increase swelling.

Although superficial heat may be well tolerated, any associated reductions in pain are usually transient. This argues against its use for persistent pain. Frequent applications of superficial heat are also an ineffectual use of resources. Rather, superficial heat may help relieve acute pain when a reasonably quick resolution of the pain is expected and the extra resource allocation can be justified. It can also be a helpful precursor when activities are likely to provoke incident-related pain.

Superficial heat should only be used to manage acute pain 48 hours after onset or as a preamble to a painful procedure for residents who have intact thermal sensation and can provide accurate feedback.

#### Superficial Cold

The duration of relief associated with superficial cooling does not support its use as a regular pain relieving technique. Its frequent application is a resource-dependent strategy with little expectation of improvements in the pain experiences of older people.<sup>24,25</sup> Prolonged cooling of the skin also has the potential to cause tissue damage and is not well tolerated by many people. Intact thermal sensation and adequate communicative and cognitive abilities are prerequisites for its application.

And, although superficial cooling has been ascribed with beneficial effects when applied within 48 hours of the onset of inflammation, the degree of cooling required to assist with inflammation and oedema is substantial and carries risks that exclude this use in older residents.<sup>26</sup> Also, the brief local reductions in pain perception associated with prolonged or intense cooling are less apparent in older people than in younger people.<sup>27</sup>

Superficial cold is not recommended as a pain relieving modality in aged care residents.

#### Vibration

There is scant empirical support for the application of vibration in the management of clinical pain. Under experimental conditions, vibration produces small reductions in pain ratings but these are reversed within seconds of the vibration ceasing.<sup>28</sup> The delivery of vibration requires dedicated equipment and, possibly, significant staff input for residents without the functional capacity to manipulate a stimulator independently.

Vibration is not recommended as a pain relieving modality in aged care residents.

#### Transcutaneous Electrical Nerve Stimulation (TENS)

The capacity of Transcutaneous Electrical Nerve Stimulation (TENS) to provide pain relief has been assessed for a variety of clinical conditions, including disorders often encountered in the elderly, such as osteoarthritis of the knee and post herpetic neuralgia. TENS may be viable for the relief of

## SECTION 5

# PHYSICAL THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

persistent pain experienced by some residents but those who cannot report on the sensations are not suitable candidates. A TENS unit, which is portable and fits into a pocket or clips onto a belt, does not interfere with a resident's capacity to engage in usual functional activities. The unit applies a low frequency current (2 to 100 Hz) to the site of pain via electrodes that are taped or self-adhere to the skin. TENS electrodes should not be positioned where they may interfere with cardiac pacemakers nor over the carotid sinuses. The electrode adhesives can cause skin reactions.

TENS can relieve pain for more than 30 minutes when used intermittently (that is, one hour daily)<sup>29</sup> and may be applied for many hours consecutively if pain persists throughout the day and night. The capacity of TENS to be used for long periods with minimal supervision makes this technique a viable option for pain management of aged care residents. While providing guarded support for TENS, meta-analytic reviews have noted substantial methodological shortcomings in many studies.<sup>30,31,32</sup> However, the simplicity and intrinsic safety of TENS mean that a trial of the technique is warranted to assess its efficacy in individual cases.

It is recommended TENS use produces a strong but comfortable tingling sensation, which exceeds the perception threshold, to have a therapeutic effect, although optimal TENS parameters for pain relief are yet to be determined. Excessive levels are uncomfortable and can be painful. Stimulation parameters should be determined by trial and error, balancing efficacy (assessed with serial pain measures) and tolerance of the evoked sensations. Low frequency (2 to 5 Hz, "acupuncture-like TENS") and high frequency TENS (80 to 100Hz) have provided comparable levels of analgesia.<sup>32</sup> A TENS unit costs about \$150 to \$200. Units can be purchased from pharmacies and medical equipment stores. They use regular, commonly available batteries. Supplies of these and self-adhesive electrodes are an ongoing cost.

It is recommended that a TENS trial be considered for residents who have persistent pain and can provide accurate feedback on the sensations evoked by the stimulator.

### *CASE STUDY • Musculoskeletal Pain During Transfers*

Mrs C is an 83-year-old widow who has been a resident of a high-level care facility for 10 months. She has a mild to moderate level of cognitive impairment, osteoarthritis of both knees and left hip, congestive cardiac failure and a mild right hemiparesis which predominantly affects the dexterity of her arm and finger movements. She rarely reports pain at rest but complains of severe pain on arising and experiences moderate pain when ambulating with a walking frame and assistance.

#### **Issues**

A change of posture after a prolonged period in a static position can be particularly aggravating for people with osteoarthritis. Mrs C's pain is largely confined to activity and weight bearing. Routine questions about pain when Mrs C is comfortably at rest, may not elicit any complaints because her cognitive impairment can cloud her memory of transient discomfort. Asking Mrs C to describe her pain during transfers and ambulation is more likely to provide useful information.

Mrs C's mobility status precludes aerobic exercise as a pain management option while most physical modalities are inappropriate for the management of transient pain problems. Strengthening exercises are considered. A trial of TENS can also be considered if Mrs C demonstrates reliable responses to questions about the quality and intensity of sensations evoked by the stimulator.

#### **Management**

Mrs C was supervised during a strengthening exercise program that included resisted movements of knee flexion and extension. The strength of Mrs C's quadriceps and hamstrings was very low at the outset of the program. Staff used manual resistance while Mrs C performed her exercises seated in a chair. The four repetitions of each movement on each leg were repeated every second day.

## SECTION 5

# PHYSICAL THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

Under supervision, as Mrs C became stronger, elastic "theraband" was tied to one end of her chair leg and then looped around her ankle to provide resistance.

Mrs C also reliably indicated the onset and offset of a "tingling" sensation as the intensity of a TENS unit applied to her knee was increased and decreased. She was not troubled by the quality of the sensation and a trial was instituted to establish the efficacy of the stimulator for the relief of pain during transfers and ambulation. The unit was adjusted to produce a strong but comfortable tingling sensation several minutes before Mrs C attempted to stand. Stimulation was continued during transfers and ambulation on three separate days. Mrs C was asked to rate her pain upon arising and after walking several metres. The TENS stimulation did not change Mrs C's pain ratings nor was there an appreciable change in her pain behaviours. Consequently, the trial was stopped.

Over the course of several weeks Mrs C demonstrated increases in her knee flexion and extension power. Her ability to transfer improved but remained painful. Mrs C's ambulation distance doubled from five to 10 metres and she reported minimal pain at the conclusion of her walk.

### Key Points

- The pain of osteoarthritis can occur at rest but may be confined to aggravating activities.
- Impaired memory can influence the recall of transient pain. Questions about pain may have more relevance during activities that are associated with discomfort.
- Reduced mobility precludes aerobic exercise in many residents of high-level care facilities.
- Strengthening exercises can be performed by residents with multiple pathologies and poor mobility and are likely to produce positive outcomes in terms of function and pain relief.
- TENS' safety and ease of application encourages its trial for many pain problems.

## Manual Handling

Successful manual handling in the residential aged care sector, where many residents need assistance to mobilise, requires a significant level of skill.

Safe and comfortable transfers are an ongoing challenge as a resident who is unable to transfer independently is particularly vulnerable to pain being exacerbated because movements are beyond their control. Staff assisting residents with transfers and mobility can reduce the risk of exacerbating pain by using appropriate assessment techniques and adapting transfer procedures.

### There are two major reasons why pain is exacerbated during manual handling:

1. Stimulation of tissue that has increased sensitivity to pain.
2. Movements that exceed the impaired range of joints and muscles.

### Increased Pain Sensitivity

Many pain-related disorders provoke heightened pain responses. Sometimes, the pain threshold is lowered and normally noxious stimuli provoke more intense pain than usual. In other cases, injury or disease of the peripheral or central nervous system can increase sensitivity to pain.

Increased sensitivity to pain is called hyperalgesia. A common example of this is the local tenderness that occurs when pressure is placed on a joint affected by osteoarthritis. Extreme sensitivity to pain is called allodynia. It is exemplified by the pain provoked by gently stroking the skin of a resident who has suffered shingles.

### Restricted Range

All joints and muscles have a finite range of movement. Many older residents also suffer from conditions that restrain this range. Therefore, manual handling activities (such as transfers) can quickly exceed the usual range of movement, provoking incident pain. These movements can also precipitate injury. Active or passive stretching, performed under controlled conditions, may help modify the range of movement.

## SECTION 5

# PHYSICAL THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Assessment

Pain sensitivity and range of movement can be assessed through palpation and passive movement. In particular:

- Communicative residents should be asked to report any discomfort.
- Observation of facial expressions, analgic movements or postures, breathing patterns and vocalisations can be very informative if verbal communication is not possible.
- Physical examination should be constrained to areas and movements subject to manual handling.
- Gentle pressure can be applied to regions where support is usually provided in the course of transfers.
- Joint range assessment should be limited to the structures and directions of movement required for successful transfers.
- Methodical palpation and passive movement should identify regions of sensitivity or restriction that are likely to contribute to incident pain during manual handling.

### Protocols

Establishing manual handling protocols is a complex task. Increased tissue sensitivity, restricted movement, safety, comfort and practicality must all be considered. However, carefully planned manual handling techniques ultimately lead to more efficient procedures.

Therefore, a team approach with input from multiple disciplines is highly recommended:

- Care staff should be encouraged to routinely assess residents' levels of sensitivity and range of movement to identify potential sources of discomfort.
- Physiotherapy services may be warranted for further assessment and relevant advice.
- Occupational therapy input can assist with acquiring, adapting or manufacturing devices, such as splints and sliding boards, which facilitate transfers.
- Medical reviews can lead to pharmacological interventions that reduce the risk or intensity of incident pain associated with manoeuvres.
- Other staff members may contribute suggestions for pre-transfer palliative techniques.

### REFERENCES

1. Fransen M, McConnell S, Bell M. Therapeutic exercise for people with osteoarthritis of the hip or knee. A systematic review. *J Rheumatol* 2002;29(8):1737-45.
2. Fransen M, McConnell S, Bell M. Exercise for osteoarthritis of the hip or knee. *Cochrane Database Syst Rev* 2003(3):CD004286.
3. Huang MH, Lin YS, Yang RC, Lee CL. A comparison of various therapeutic exercises on the functional status of patients with knee osteoarthritis. *Semin Arthritis Rheum* 2003;32(6):398-406.
4. Singh NA, Clements KM, Fiatarone MA. A randomized controlled trial of progressive resistance training in depressed elders. *J Gerontol A Biol Sci Med Sci* 1997;52(1):M27-35.
5. Singh NA, Clements KM, Singh MA. The efficacy of exercise as a long-term antidepressant in elderly subjects: a randomized, controlled trial. *J Gerontol A Biol Sci Med Sci* 2001;56(8):M497-504.
6. Penninx BW, Rejeski WJ, Pandya J, Miller ME, Di Bari M, Applegate WB, et al. Exercise and depressive symptoms: a comparison of aerobic and resistance exercise effects on emotional and physical function in older persons with high and low depressive symptomatology. *J Gerontol B Psychol Sci Soc Sci* 2002;57(2):P124-32.
7. Timonen L, Rantanen T, Timonen TE, Sulkava R. Effects of a group-based exercise program on the mood state of frail older women after discharge from hospital. *Int J Geriatr Psychiatry* 2002;17(12):1106-11.
8. Binder EF, Schechtman KB, Ehsani AA, Steger-May K, Brown M, Sinacore DR, et al. Effects of exercise training on frailty in community-dwelling older adults: results of a randomized, controlled trial. *J Am Geriatr Soc* 2002;50(12):1921-8.
9. Fiatarone MA, Marks EC, Ryan ND, Meredith CN, Lipsitz LA, Evans WJ. High-intensity strength training in nonagenarians. Effects on skeletal muscle. *JAMA* 1990;263(22):3029-34.
10. Fiatarone MA, O'Neill EF, Ryan ND, Clement KM, Solares GR, Nelson ME, et al. Exercise training and nutritional supplementation for physical frailty in very elderly people. *N Engl J Med* 1994;330(25):1769-75.

## SECTION 5

# PHYSICAL THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

11. Sullivan DH, Wall PT, Bariola JR, Bopp MM, Frost YM. Progressive resistance muscle strength training of hospitalized frail elderly. *Am J Phys Med Rehabil* 2001;80(7):503-9.
12. Bravo G, Gauthier P, Roy PM, Payette H, Gaulin P, Harvey M, et al. Impact of a 12-month exercise program on the physical and psychological health of osteopenic women. *J Am Geriatr Soc* 1996;44(7):756-62.
13. Malmros B, Mortensen L, Jensen MB, Charles P. Positive effects of physiotherapy on chronic pain & performance in osteoporosis. *Osteoporos Int* 1998;8(3):215-21.
14. Prior JC, Barr SI, Chow R, Faulkner RA. Prevention and management of osteoporosis: consensus statements from the Scientific Advisory Board of the Osteoporosis Society of Canada. 5. Physical activity as therapy for osteoporosis. *CMAJ* 1996;155(7):940-4.
15. Van Baar ME, Dekker J, Oostendorp RA, Bijl D, Voorn TB, Lemmens JA, et al. The effectiveness of exercise therapy in patients with osteoarthritis of the hip or knee: a randomized clinical trial. *J Rheumatol* 1998;25(12):2432-9.
16. Leng GC, Fowler B, Ernst E. Exercise for intermittent claudication. *Cochrane Database Syst Rev* 2000(2):CD000990.
17. Owen A, Croucher L. Effect of an exercise programme for elderly patients with heart failure. *Eur J Heart Fail* 2000;2(1):65-70.
18. Rolland Y, Rival L, Pillard F, Lafont C, Rivere D, Albaredo J, et al. Feasibility of regular physical exercise for patients with moderate to severe Alzheimer disease. *J Nutr Health Aging* 2000;4(2):109-13.
19. Lazowski DA, Ecclestone NA, Myers AM, Paterson DH, Tudor-Locke C, Fitzgerald C, et al. A randomized outcome evaluation of group exercise programs in long-term care institutions. *J Gerontol A Biol Sci Med Sci* 1999;54(12):M621-8.
20. Blumenthal JA, Babyak MA, Moore KA, Craighead WE, Herman S, Khatri P, et al. Effects of exercise training on older patients with major depression. *Arch Intern Med* 1999;159(19):2349-56.
21. Ross MC, Bohannon AS, Davis DC, Gurchiek L. The effects of a short-term exercise program on movement, pain, and mood in the elderly. Results of a pilot study. *J Holist Nurs* 1999;17(2):139-47.
22. Minor MA, Hewett JE, Webel RR, Anderson SK, Kay DR. Efficacy of physical conditioning exercise in patients with rheumatoid arthritis and osteoarthritis. *Arthritis Rheum* 1989;32(11):1396-405.
23. Mangione KK, McCully K, Gloviak A, Lefebvre I, Hofmann M, Craik R. The effects of high-intensity and low-intensity cycle ergometry in older adults with knee osteoarthritis. *J Gerontol A Biol Sci Med Sci* 1999;54(4):M184-90.
24. Brosseau L, Yonge K, Robinson V, Marchand S, Judd M, Wells G, et al. Thermotherapy for treatment of osteoarthritis. *Cochrane Database Syst Rev* 2003;4:CD004522.
25. Robinson V, Brosseau L, Casimiro L, Judd M, Shea B, Wells G et al. Thermotherapy for treating rheumatoid arthritis. *Cochrane Database Syst Rev* 2002(2):CD002826.
26. Meeusen R, Lievens P. The use of cryotherapy in sports injuries. *Sports Med* 1986;3(6):398-414.
27. Washington LL, Gibson SJ, Helme RD. Age-related differences in the endogenous analgesic response to repeated cold water immersion in human volunteers. *Pain* 2000;89(1):89-96.
28. Ward L, Wright E, McMahon SB. A comparison of the effects of noxious and innocuous counterstimuli on experimentally induced itch and pain. *Pain* 1996;64(1):129-38.
29. Cheing GL, Tsui AY, Lo SK, Hui-Chan CW. Optimal stimulation duration of tens in the management of osteoarthritic knee pain. *J Rehabil Med* 2003;35(2):62-8.
30. Osiri M, Welch V, Brosseau L, Shea B, McGowan J, Tugwell P, et al. Transcutaneous electrical nerve stimulation for knee osteoarthritis. *Cochrane Database Syst Rev* 2000(4):CD002823.
31. Milne S, Welch V, Brosseau L, Saginur M, Shea B, Tugwell P, et al. Transcutaneous electrical nerve stimulation (TENS) for chronic low back pain. *Cochrane Database Syst Rev* 2001(2):CD003008.
32. Carroll D, Moore RA, McQuay HJ, Fairman F, Tramer M, Leijon G. Transcutaneous electrical nerve stimulation (TENS) for chronic pain. *Cochrane Database Syst Rev* 2001(3):CD003222.

SECTION 6  
COMPLEMENTARY & ALTERNATIVE MEDICINE THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

SECTION 6  
Complementary  
& Alternative  
Medicine Therapies

Complementary and Alternative Medicine (CAM) includes many diverse therapies of variable effectiveness. It is defined as *"diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual framework of medicine"*.<sup>1</sup>

CAM therapies are often used for the relief of pain and anxiety.<sup>2</sup> About 40 per cent of elderly persons have reported using CAM therapies, often for the treatment of arthritic pain and depression or anxiety.<sup>3</sup> In UK nursing homes, aromatherapy and massage have been widely used (49 and 23 per cent of residents respectively).<sup>4</sup>

Most people (96 per cent) use CAM in conjunction with orthodox medicine and a diversity of therapies may be beneficial if there is good communication between the practitioners and their treatments complement each other. There is a potential for benefit in using complementary therapies to reduce polypharmacy and analgesic doses, particularly as older people are more vulnerable to adverse side effects and drug interactions.

However, more research is needed into the safety and effectiveness of CAM therapies. In recent years, governments have begun monitoring for unsafe CAM services and testing for effective CAM interventions. Agencies such as the Australian Therapeutic Goods Administration<sup>5</sup> and the US National Institutes of Health<sup>6</sup> also provide independent information on studies indicating the effectiveness, or otherwise, of various CAM therapies. Independent reviews of multiple clinical trials are available from the international

health care information organisation, the Cochrane Collaboration.<sup>7</sup> The websites of all three bodies provide information that is generally up-to-date and reputable.

**Good practice principles for the use of CAM therapies can be summarised as:**

- Health care providers must always be informed before a CAM therapy is undertaken. This is for safety reasons (for example, St John's wort interacts with numerous prescribed medications) and to enable the health care team to develop a comprehensive treatment plan based on the needs of each resident.
- Clear approval and consent from the resident, whether cognitively or communicatively impaired, bedridden or fully capable, is essential before a complementary therapy is administered on the recommendation of family, friends, staff or doctors.
- Users should always be fully informed about the safety and effectiveness of any CAM treatment.
- CAM practitioners should be carefully chosen so the resident has confidence in their credentials and qualifications. Websites offering some details regarding the credential and registration requirements for Chinese medicine, acupuncture, chiropractic and osteopathy practitioners are available.<sup>8</sup>
- It is advisable to check with private health insurers to see whether a CAM therapy is covered.

*For a glossary of CAM terminology, see Appendix 14*

**NOTE** Pain management is often more appropriate and effective when it uses both pharmacological and non-pharmacological approaches.

## SECTION 6

# COMPLEMENTARY & ALTERNATIVE MEDICINE THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Key Messages

**The considerations for use of CAM therapies<sup>9</sup> can be summarised in relation to perspective, relationships, safety and effectiveness:**

#### Perspective

There is no clear line separating orthodox and CAM therapies although the latter may be seen to offer a more holistic perspective of health that includes overall quality of life. CAM therapies may also address both mind and body, similar to the psychological and physical interventions (stress management, relaxation techniques and exercise) that have been incorporated into multidisciplinary pain management. Many such therapies incorporate some CAM principles by actively engaging the individual in the therapy and addressing not just pain but overall quality of life.

In our multicultural society, orthodox medicine and its associated medications may also be less attractive to some ethnic, socio-economic and religious groups. For example, people of Chinese or Indian heritage may feel more comfortable with acupuncture or yoga. In addition, with rapid developments in medical science and technology, some people may feel disempowered and alienated from mainstream treatments.

#### Relationships

The therapeutic relationship is very important to the vulnerable individual in persistent pain. Good therapists, whether orthodox or CAM, explain their intervention, engage the individual and gain their confidence. Care must be exercised to ensure that trust is not breached with unrealistic therapy goals. Good communication between different therapists is also required to provide a continuum of care and develop a management plan for the resident. This is particularly important from the medical practitioner's viewpoint when concurrent medications or co-morbidities are involved.

With the time pressures on medical practitioners, CAM therapists may be seen to offer better communication, longer and more accessible appointments, a more pleasant therapeutic

experience such as "high touch, low tech", greater empathy and trust and, perhaps, a relationship based on more equal terms.<sup>9</sup> All of these qualities suggest a more trusting patient therapist relationship. This "may lead to the release of (pain-relieving) endogenous opioids"<sup>10</sup> and be at least as effective as the placebo influence of medical doctors.<sup>11</sup> The placebo influence on a patient's pain can be significant.<sup>12</sup> At the same time, residents should be aware of the credential and registration requirements for various CAM practitioners.<sup>8</sup> This is just as important as having confidence in the qualifications and registration of medical practitioners.

#### Safety and Effectiveness

Mainstream medicine aspires to be evidence-based and the quality of evidence is rated by the National Health and Medical Research Council (NHMRC) criteria.<sup>13</sup> Few CAM therapies have high level scientific evidence.<sup>14</sup> Evidence for CAM therapies, beyond placebo, is difficult to obtain for a number of reasons: difficulty in designing an adequate sham placebo to recipients blinded to the intervention; lack of consensus among therapists for indications for their use;<sup>9</sup> lack of funding for clinical studies and commercial promotion of natural therapies (for example, glucosamine) that may not be patentable;<sup>9</sup> and natural CAM medications may have a number of active compounds of variable concentration, making comparison of different preparations difficult and their use sometimes dangerous.<sup>9</sup>

Some people may perceive CAM therapies as less invasive or as having greater safety or effectiveness.<sup>9</sup> A number of CAM therapies, such as spiritual healing or homeopathy, have relatively low direct risks.<sup>9</sup> Considering the limitations of pharmacological or surgical interventions to completely eliminate persistent pain, or necessarily improve quality of life, anecdotal reports of CAM effectiveness may make these therapies attractive despite their lack of scientific support.<sup>15</sup>

Provision of evidence-based CAM information is one way carers can honour a resident's autonomy, yet do no harm.<sup>16, 17</sup> Evidence may develop for some CAM therapies. Updated independent assessments of the accumulating evidence may be found on the website addresses previously mentioned.<sup>5, 6, 7</sup>

## SECTION 6

# COMPLEMENTARY & ALTERNATIVE MEDICINE THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## Types of CAM Therapies

The US National Center for Complementary and Alternative Medicine<sup>18</sup> classifies CAM therapies into five areas:

### 1. Biologically-Based

Biologically-based CAM therapies use substances found in nature such as herbs, foods and vitamins. Some examples include dietary supplements, herbal and aromatherapy products and other so-called natural, but as yet scientifically unproven, therapies. Conversely, medicines prescribed by medical practitioners have been extensively scientifically tested, whether of natural origins (for example, morphine) or not and appropriate dosages and circumstances for use determined.

In Australia, complementary medicines are evaluated regarding their traditional and/or scientific evidence by the Therapeutic Goods Administration and, depending on their purpose, may either be "listed" or "registered" on the Australian Register of Therapeutic Goods (ARTG).<sup>19</sup> Listed products are identified by the letters AUST L preceding their listing number while registered products have AUST R before their registration number.

Listed products, such as those commonly used for pain or headache, are generally considered low risk, appropriate for minor self-limiting conditions and can be sold without a prescription. Listed products may be recalled if evidence compromising safety arises.

Examples of listed CAM medications (2003) for migraine-type pains were feverfew, butterbur and peppermint oil. CAM medications listed in 2003 for the relief of rheumatic pain included a variety of oral herbal preparations (for example, devil's claw, stinging nettle and willow bark) and topical agents such as capsicum (hot chilli essence), arnica flower, comfrey herb or root and tea tree oil.<sup>20</sup> Topical capsicum preparations have some scientific evidence for moderate relief of osteoarthritic pain. Studies of avocado and soybean extracts also show promising results in the treatment of pain due to osteoarthritis.<sup>21, 22, 23</sup> For pain due to rheumatoid arthritis, there appears some potential for the use of gamma

linolenic acid which is found in primrose seed, borage seed and blackcurrant seed oils.

The ARTG may register preparations which have demonstrated efficacy in at least one well-designed multicentre double-blind Randomised Controlled Trial (RCT) or in a review of many RCTs. Registered products can claim to treat pain associated with serious diseases. There are not many registered complementary medicines for pain relief. Complementary approaches are often used in conjunction with registered analgesics, such as paracetamol, aspirin and some anti-inflammatory drugs that are available without prescription. Registered analgesics associated with higher risk or for more severe pain, such as morphine, require prescription.

An interesting example of a CAM therapy becoming mainstream, is glucosamine. Some preparations of glucosamine are registered. Even though the mechanism of its action is unclear (in 2004), it has demonstrated high level evidence for efficacy in relieving some types of osteoarthritic pain<sup>24, 25, 26</sup> and it is increasingly recommended by medical practitioners. In contrast, the evidence for other CAM medicines for osteoarthritic pain has been more mixed.<sup>27</sup>

### 2. Alternative Medical Systems

Alternative medical systems are built upon complete systems of theory and practice. Often, these systems have evolved apart from and earlier than a conventional medical approach. Examples of alternative medical systems that have developed in Western cultures include homeopathic and naturopathic medicines. Examples of systems that have developed in non-Western cultures include traditional Chinese medicine and Indian practice (ayurveda). A recent review of quality acupuncture studies regarding low back pain treatment suggests that there is currently high-level scientific evidence for acupuncture to be of only questionable benefit.<sup>28</sup> The studies were for no longer than 12 weeks duration. But recent randomised controlled trials studying the effect of weekly acupuncture for three to six months on chronic headache and arthritic knee pain (ie some scientific evidence) suggest that significant pain relief may be possible.<sup>29, 30</sup>

### 3. Mind-Body Interventions

Mind-body interventions use a variety of techniques to enhance the mind's capacity to affect bodily function and symptoms. Some techniques that were once considered complementary or alternative are now mainstream, for example, patient support groups and cognitive-behavioural therapy. Other mind body techniques including meditation, prayer, mental healing and the use of creative outlets such as art, music or dance are still considered complementary and alternative therapies.

### 4. Manipulative and Body-Based Methods

Manipulative and body-based methods in CAM are based on manipulation and/or movement of one or more parts of the body. Some examples include chiropractic or osteopathic manipulation and massage.

A recent review indicated no convincing high-level scientific evidence for general pain control with massage or chiropractic manual therapies.<sup>31</sup> There is, though, high-level scientific evidence from the recent review of studies regarding, specifically, low back pain (a major CAM indication for use of body-based therapies), that suggests positive benefit from massage and modest benefit from spinal manipulation.<sup>28</sup>

### 5. Energy Therapies

Energy therapies involve the use of energy fields.

There are two types:

- Biofield therapies are intended to affect energy fields that purportedly surround and penetrate the human body. The existence of such fields has not yet been scientifically proven. Some forms of energy therapy claim to manipulate biofields by applying pressure and / or manipulating the body by placing the hands in, or through, these fields. Examples include qi gong, reiki and therapeutic touch.
- Bioelectromagnetic-based therapies involve the unconventional use of electromagnetic fields such as pulsed, magnetic and alternating current or direct current fields.

### CASE STUDY • A CAM Therapy Mix

Mrs S is an 89-year-old widow with painful widespread osteoarthritis (involving shoulder, knee, back and fingers) and mild cognitive impairment. She is on regular paracetamol for analgesia although she is prescribed paracetamol/codeine for exacerbations. In the past, codeine has been associated with bowel discomfort, constipation and occasional confusion and NSAIDs have caused gastric upsets. She last received physiotherapy when given a wheeled walking frame, before entering a low-level residential aged care facility two years ago.

#### Issues

Despite her poor memory, Mrs S tells her massage therapist on her arrival at the facility that she looks forward to having her weekly massage. Massage is one of the more commonly used CAM therapies amongst older people in the US<sup>3</sup> and in nursing homes in the UK.<sup>4</sup>

Mrs S lies on her side on the bed, supported by pillows. Rarely are older people comfortable lying prone. Massage areas are exposed, and clothes or bedclothes are arranged so as to maintain warmth and respect modesty. Mrs S has already indicated her choice for relaxation music (a tape of "Summer Rain") and for the scent of lavender essential oil, diluted in sweet almond oil, rather than frankincense, patchouli or neroli oils.

#### Management

The massage therapist, who has eight years experience, has been trained in Swedish (or relaxation) massage. Deep tissue massage is not appropriate for most older people, particularly those with painful conditions. Massage may be harmful.<sup>32</sup> The massage therapist usually begins at the scalp or neck, then massages arms, working down the back towards the legs and feet, with gentle light strokes (effleurage), generally towards the heart, and

## SECTION 6

# COMPLEMENTARY & ALTERNATIVE MEDICINE THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

gentle slow pressure (petrissage), generally across muscle fibres. This massage therapist finds her clients prefer very light effleurage, which she describes as butterfly strokes. The massage oil also minimises friction with the skin.

During the course of the 60 minute massage, Mrs S reminisces about her mother who used to play the piano (her musical selection had piano) and talks about her family and her youth. Sometimes the massage therapist asks Mrs S to describe the images she remembers. Mrs S's limbs relax and her breathing slows. The massage therapist completes the session with a foot massage, after which the client is left to her own thoughts while covered with warm towels.

Mrs S volunteers that "the massage takes out the kinks in my body" and "during massage, I feel that I have no pain. I can float away." Also: "Touch is wonderful to experience again. I've missed the feeling. You see, when one loses a partner and you get old, no one wants to touch you to give you that warm, comfortable feeling."

How long the pain relief lasts is uncertain. But staff report that Mrs S sleeps better for several days afterwards, is more social and seems less likely to request further analgesia. Clinical reviews suggesting the efficacy of massage are limited to persistent low back pain.<sup>33,28,31</sup> There is less rigorous evidence supporting its general use for older people with pain in residential care.<sup>34</sup> Massage is contraindicated for deep vein thrombosis, burns, skin infections, eczema, open wounds, fractured bones and advanced osteoporosis.

## REFERENCES

1. Ernst E, Resch KL, Mills S, Hill R, Mitchell A, Willoughby M, et al. Complementary medicine – a definition. *Br J Gen Pract* 1995;45:506.
2. Astin JA. Why patients use alternative medicine: results of a national study. *BMJ* 1998;May 20;279(19):1548-53.
3. Astin JA, Pelletier KR, Marie A, Haskell WL. Complementary and alternative medicine use among elderly persons: one year analysis of a Blue Shield Medicare supplement. *Gerontol A Biol Sci Med Sci* 2000;Jan:55(1):M4-9.
4. Allcock N. Management of pain in older people within the nursing home: a preliminary study. *Health and Social Care in the Community* 2002;10(6):464-471.
5. Australian Government. Department of Health and Ageing. Therapeutic Goods Administration. [tga.gov.au](http://tga.gov.au). Accessed 15 July 2005.
6. National Institutes of Health. [www.nih.gov](http://www.nih.gov). Accessed 8 December 2003.
7. The Cochrane Collaboration. [www.cochrane.org/cochrane.revabstr](http://www.cochrane.org/cochrane.revabstr). Accessed 22 December 2003.
8. Chinese medicine and acupuncture: Chinese Medicine Registration Board of Victoria. [www.cmr.vic.gov.au](http://www.cmr.vic.gov.au). Accessed 15 July 2005; The Australian Acupuncture and Chinese Medicine Association. [www.acupuncture.org.au](http://www.acupuncture.org.au). Accessed 15 July 2005. Chiropractic: Chiropractors' Association of Australia. [www.chiropractors.asn.au](http://www.chiropractors.asn.au). Accessed 16 July 2005. Chiropractors Registration Board of Victoria. [www.chiroreg.vic.org.au](http://www.chiroreg.vic.org.au). Accessed 16 July 2005. Osteopathy: Australian Osteopathic Association. [www.osteopathic.com.au](http://www.osteopathic.com.au). Accessed 15 July 2005. Queensland Government. Office of the Queensland Parliamentary Counsel. [www.legislation.qld.gov.au](http://www.legislation.qld.gov.au). Accessed 24 July 2005.
9. Ernst E. The role of complementary and alternative medicine. *BMJ* 4 Nov 2000;321:1133-1135.
10. Gloth FM. Pain management in older adults: prevention and treatment. *JAGS* 2001;49:188-199.
11. Ter Riet G, De Craen ATM, de Boer A, Kessels AGH. Is placebo analgesia mediated by endogenous opioids? A systematic review. *Pain* 1998;76:273-275.

## SECTION 6

## COMPLEMENTARY &amp; ALTERNATIVE MEDICINE THERAPIES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

12. Hrobjartsson A and Gotzsche PC. Is the placebo powerless? *New England J Medicine* 2001;344(21):1594-1602.
13. Website: Australian Government. National Health and Medical Research Council. [www.health.gov.au/nhmrc](http://www.health.gov.au/nhmrc) Accessed 16 July 2005.
14. American Health Care Association and Medical Directors Association © 1999. Clinical Practice Guideline: chronic pain management in the long-term care setting. P25.
15. McBee L. Complementary and alternative medicine interventions for nursing home residents. *Clinical Geriatrics* 2003;11(12): 34-36.
16. Kerridge IH and McPhee JR. Ethical and legal issues at the interface of complementary and conventional medicine: *MJA* 2004;181(3):164-166.
17. Cohen M. Ethical and legal issues in complementary medicine: a United States perspective. *MJA* 2004;181(3):168-9.
18. National Center for Complementary & Alternative Medicine. [nccam.nci.nih.gov](http://nccam.nci.nih.gov). Accessed 22 December 2003.
19. Australian Government. Department of Health and Ageing. Therapeutic Goods Administration. [www.tga.gov.au/docs/html/artg.htm](http://www.tga.gov.au/docs/html/artg.htm) Accessed 15 July 2005.
20. Chrubasik S and Roufogalis B. Herbal medicine products for the treatment of pain. Chrubasik S and Roufogalis B (eds) 2000.
21. Berman BM. Integrative approaches to pain management: how to get the best of both worlds. *BMJ* 2003;326:1320-1321.
22. Soeken KL. Selected CAM therapies for arthritis-related pain: the evidence from systematic reviews. *Clin J Pain* 2004;20:13-18.
23. Weiner DK and Ernst E. Complementary and alternative approaches to the treatment of persistent musculoskeletal pain. *Clin J Pain* 2004;20:245-255.
24. Reginster JY, Deroisy R, Rovati LC, Lee RL, Lejeune E, Bruyere O, Giacovelli G, Henrotin Y, Dacre JE, Grossett C. Long-term effects of glucosamine sulphate on osteoarthritis progression: a randomised, placebo-controlled clinical trial. *The Lancet* 2001;Jan 27:357,251-256.
25. Towheed TE, Anastassiades TP, Shea B, Houpt J, Welch V, Hochberg MC. Glucosamine therapy for treating osteoarthritis. *Cochrane Database Syst Rev* 2001;(1):CD002946.
26. Pavelka K, Gattlerova J, Olejarova M, Machacek S, Giacovelli G, Rovati LC. Glucosamine sulfate use and delay of progression of knee osteoarthritis: a 3-year, randomised, placebo-controlled, double-blind study. *Arch Intern Med* 2002;Oct 14:162(18):2113-23.
27. Long L, Soeken K, Ernst E. Herbal medicines for the treatment of osteoarthritis: a systematic review. *Rheumatology (Oxford)* 2001;40:779-93.
28. Cherkin DC, Sherman KJ, Deyo RA, Shekelle PG. A review of the evidence for the effectiveness, safety, and cost of acupuncture, massage therapy, and spinal manipulation for back pain. *Ann Intern Med* 2003;Jun 3:138(11):898-906.
29. Vickers AJ, Rees RW, Zollman CE, McCarney R, Smith C, Ellis N, Fisher P, Van Haselen R. Acupuncture for chronic headache in primary care: large, pragmatic, randomised trial. *BMJ* 2004;Mar 27;328(7442):744.
30. Berman BM, Lao L, Langenberg P, Lee WL, Gilpin AMK, Hochberg MC. Effectiveness of acupuncture as adjunctive therapy in osteoarthritis of the knee: a randomised controlled trial. *Annals of Internal Medicine* 2004;141(12):901-910.
31. Ernst E. Manual therapies for pain control: chiropractic and massage. *Clin J Pain* 2004;Jan-Feb 20(1):8-12.
32. Ernst E. The safety of massage therapy. *Rheumatology (Oxford)* 2003 Sep;42(9):1101-6.
33. Furlan AD, Brosseau L, Imamura M, Irvin E. Massage for low back pain. *Cochrane Databas Sys Rev* 2002;(2):CD001929.
34. Sansone P and Schmitt L. Providing tender touch to elderly nursing home residents: a demonstration project. *Geriatric Nursing* 2000;21(6):303-308.

SECTION 7  
QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

SECTION 7

Quality &  
Systems Issues

Careful consideration of quality assurance principles and services is pertinent to any intention to meaningfully enhance pain management among the 150,000 people in the 3,000 government-subsidised residential aged care facilities throughout Australia.

Quality assurance is the process of looking at how well a medical service is provided.<sup>1</sup> It requires a systematic approach and the application of best practice guidelines. Comprehensive information systems, the advancement and application of clinical knowledge, well developed systems for care delivery and robust monitoring systems are fundamental to successful pain management in any sector, including the residential aged care sector.

**Good practice principles for quality assurance require:**

- The standardised collection of valid and reliable data about the pain experience (and related variables) of residents.
- The introduction and implementation of agreed best practice guidelines.
- The development of objective and quantifiable clinical indicators, which reflect the quality of pain management and which are made available to health service and care providers, consumers and researchers.
- A service that can deliver high quality, integrated multidisciplinary pain management.

*The components of such a system include:*

- ▶ A qualified health practitioner in a dedicated pain management co-ordination role.
- ▶ Routine and timely assessment procedures.
- ▶ Access to appropriate multidisciplinary treatment methods and personnel.

- ▶ Integrated multidisciplinary treatment protocols which are understood by staff.
- ▶ Programs to educate residential sector health care providers about state-of-the-art principles of pain management as is consistent with their scope of practice.
- ▶ Residents and families being involved in, and educated about, pain management.

Assurance of high quality evidence-based pain management in the residential aged care sector is important as pain affects both quality of life and physical function. Freedom from pain is considered the most important end of life priority, ahead of being at peace with God and being with loved ones, according to a survey of 1,462 seriously ill patients, bereaved family members, physicians and other care providers.<sup>2</sup>

The only source of objective data about pain management in Australian residential care published in recent years<sup>3</sup> evaluated pain and its management among 917 residents of 15 nursing homes. It found 22 per cent of residents reporting pain had no pain treatment ordered and agreement between residents reporting pain and nursing records was moderate to poor. It concluded that pain management "could be substantially improved", suggested that the legislative standards might not be being met and pointed to the absence of, and need for, a "benchmark of practice".

**Quality Health Care & Best Practice**

The application of best practice in quality assurance principles and services has evolved into an internationally-benchmarked discipline. Internationally, a regulatory and inspectorial approach has been replaced by a collaborative emphasis. This sees a quality assurance organisation supporting recipient provider organisations in the development of quality-enhancing systems through a collaborative process of collecting data, selecting quality indicators and identifying and updating best practice information and educational priorities.<sup>4</sup>

**Quality health care has been defined as:**

- *Doing the right thing at the right time, in the right way for the right person and getting the best possible results.<sup>1</sup>*

## SECTION 7

# QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

- *The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.*<sup>5</sup>

Objective evaluation of the achievement of "desired health outcomes" requires the development and application of valid clinical outcome indicators.<sup>6</sup> Evaluation of the achievement of consistency "with current professional knowledge" implies a process measure and signifies adherence to evidence-based best practice guidelines.

The residential aged care sector in Australia uses a continuous quality enhancement model that requires aged care facilities to meet legislated standards. The Aged Care Standards and Accreditation Agency monitors facilities to ensure they meet the standards. The agency also has an educative function that supports facilities in meeting their obligations under the Aged Care Act 1997. It is the only accreditation process in Australia that has a legislative basis for its core functions.

Four Accreditation Standards, which nominate 44 expected outcomes, are referred to in the Quality of Care Principles 1997 of the Aged Care Act 1997. One of these 44 outcomes is Pain Management<sup>7</sup> (Table 17) which stipulates the following outcome: "All residents are as free as possible from pain." Criteria evaluating the presence of policies and practices for pain identification, assessment and multidisciplinary management are used to determine if this outcome is met. Table 17 also outlines Additional Guidelines and Considerations for Pain Management from a Department of Health and Ageing manual.

The content and wording of the 1998 Pain Management Standard are well-expressed and appropriate but would be enhanced by the use of objective performance data and quality indicators.

The strategies recommended by the Australian Pain Society in *Pain in Residential Aged Care Facilities - Management Strategies* have been developed to help aged care facilities meet the accreditation standards.

**Table 17**

### **STANDARDS AND GUIDELINES FOR RESIDENTIAL CARE AGED SERVICES** (last updated 1 May 1998)

#### STANDARD 2.8 • PAIN MANAGEMENT

##### EXPECTED OUTCOME:

All residents are as free as possible from pain.

##### CRITERIA:

##### **Policies and practices provide:**

- A. For identifying residents who are suffering from pain
- B. For the assessment of the cause of pain
- C. For appropriate pain management programs, including a range of interventions, in consultation with each resident (or his or her representative)
- D. That pain management programs are documented, regularly reviewed and acted upon by the relevant members of the health care team.

*Australian Government: Department of Health and Ageing.*

[www.health.gov.au/internet/wcms/publishing.nsf/Content/Home](http://www.health.gov.au/internet/wcms/publishing.nsf/Content/Home)

*Accessed 5 July 2005.*

#### **Additional Guidelines Standards and Guidelines Manual**

#### 2.8 • PAIN MANAGEMENT • ISSUE NO 98 / 1 G-43

##### PREAMBLE

Staff of the service have a responsibility to identify those residents who are suffering from pain.

A pain management program should be in place to enable residents to be kept as free from pain as possible.

This Expected Outcome addresses the need to consider all types of pain management strategies that are available, as well as any appropriate medication.

## SECTION 7

# QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Considerations

- ▶ Procedures for identifying, assessing, documenting, managing and reviewing each resident's pain management program.
- ▶ Documented consultation with each resident or their representative on the development and review of the pain management program.
- ▶ The resident care plan identifies whether the resident has indicated pain and the cause.
- ▶ Strategies to identify pain in residents who are unable to communicate (for example, people from diverse cultural and linguistic backgrounds or those suffering from dementia).
- ▶ The resident care plan details the resident's individual needs and how they will be managed.
- ▶ Outcomes are regularly reviewed, documented and acted upon.
- ▶ Strategies to relieve or reduce the symptoms of pain in cases where the cause of the pain cannot be identified.
- ▶ Identification of pain requiring medical intervention.
- ▶ In-service staff education programs address pain identification.
- ▶ Identification of contemporary pain relief measures eg, change position, heat packs and massage.
- ▶ Procedures to support and refer to appropriate health professionals when necessary eg, medical practitioner, pain clinic, physiotherapist or other relevant allied health professional.

### Quality Indicators for Evaluating the Management of Pain

Some guidance about quality indicators for evaluating the management of pain in vulnerable elders (who live in the community) has been provided through two strategic overseas literature reviews.<sup>8,9</sup> Both sets of chosen indicators (*Tables 18 & 19*) can be objectively evaluated and they provide an example of the contemporary international approach to quality assurance.

However, because they are not specifically targeted at the frailer residential aged care population, their applicability and appropriateness in this setting is less clear. The high prevalence of cognitive and physical co-morbidities, and informed end-of-life considerations, also need to be incorporated into the evaluation of quality pain management in long-term aged care.

The seven quality indicators for pain management (*Table 18*) were defined after 7,297 publications were identified from a structured literature review and then considered by an expert panel. These indicators were further cross-referenced to additional quality indicators related to depression, end-of-life care, medication use and osteoarthritis.

SECTION 7  
QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 18**  
**QUALITY INDICATORS FOR PAIN MANAGEMENT  
IN VULNERABLE ELDERS**

- 1. Screening for chronic pain at new-patient visits**  
All vulnerable elders should be screened for chronic pain during the initial evaluation period because older people commonly have pain unrecognised by health care providers.
- 2. Regular screening for chronic pain**  
All vulnerable elders should be screened for chronic pain every two years because older people commonly have pain that goes unrecognised by health care providers.
- 3. History and physical examination for pain**  
If a vulnerable elder has a newly-reported chronic painful condition, then a targeted history and physical examination should be initiated within one month because appropriate treatment of the condition and pain management require that the nature of the condition be understood.
- 4. Addressing risks of nonsteroidal anti-inflammatory drugs**  
If a vulnerable elder has been prescribed a cyclo-oxygenase nonselective nonsteroidal anti-inflammatory drug (NSAID) for the treatment of chronic pain, then the medical record should indicate whether he or she has a history of peptic ulcer disease and, if a history is present, justification of NSAID use should be documented because older patients with a history of peptic ulcer disease who receive NSAIDs are at significant risk for recurrent disease and complications.
- 5. Preventing constipation in patients using opioid analgesia**  
If a vulnerable elder with chronic pain is treated with opioids, then he or she should be offered a bowel regimen. The medical record should document potential for constipation or explain why bowel treatment is not needed because opiate analgesics may produce constipation that may cause severe discomfort and contribute to inadequate pain treatment because patients may then minimise analgesic use.

**6. Treating pain**

If a vulnerable elder has a newly reported chronic painful condition, then treatment should be offered because treatment may provide significant relief and improve quality of life and health status.

**7. Reassessment of pain control**

If a vulnerable elder is treated for a chronic painful condition, then he or she should be assessed for a response within six months because initial treatment is often incompletely successful, and reassessment may be needed to achieve the most favourable outcome.

*Chodosh J, Ferrell BA, Shekelle PG, Wenger NS.  
Quality indicators for pain management in vulnerable elders. Ann Intern Med 2001;Oct 16,135(8 Pt 2):731-35.*

The second review focused specifically on 11 indicators for the management of osteoarthritis (a common source of pain among people in residential aged care) in vulnerable elders (*Table 19*).

**Table 19**  
**QUALITY INDICATORS FOR THE MANAGEMENT OF  
OSTEOARTHRITIS IN VULNERABLE ELDERS**

- 1 Assessment of pain and functional status**  
If a vulnerable elder is diagnosed with symptomatic osteoarthritis, then his or her functional status and the degree of pain should be assessed annually because this information is necessary to direct therapeutic decisions.
- 2 Aspiration of hot joints**  
If a vulnerable elder has monoarticular joint pain associated with redness, warmth, or swelling and the patient also has an oral temperature greater than 38.0°C and does not have a previously established diagnosis of pseudogout or gout, then a diagnostic aspiration of the painfully swollen red joint should be performed that day because this sign-symptom complex is common with joint infection, and it requires treatment that is different than that for osteoarthritis.

## SECTION 7

# QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### 3. Exercise therapy for newly diagnosed patients

If an ambulatory vulnerable elder is newly diagnosed with osteoarthritis of the knee, has no contraindication to exercise and is physically and mentally able to exercise, then a directed or supervised strengthening or aerobic exercise program should be prescribed within three months of diagnosis because such programs improve functional status and reduce pain.

### 4. Exercise therapy for patients with prevalent disease

If an ambulatory vulnerable elder has had a diagnosis of symptomatic osteoarthritis of the knee for longer than 12 months, has no contraindication to exercise, and is physically and mentally able to exercise, then there should be evidence that a directed or supervised strengthening or aerobic exercise program was prescribed at least once since the time of diagnosis because programs improve functional status and reduce pain.

### 5. Education for incident disease

If an ambulatory vulnerable elder is diagnosed with symptomatic osteoarthritis then education regarding natural history, treatment and self-management of disease should be offered at least once within six months of diagnosis because such education produces improvements in physical functioning and pain.

### 6. Education for prevalent disease

If a patient has had a diagnosis of symptomatic osteoarthritis for 12 months or longer then there will be evidence that the patient was offered education regarding the natural history, treatment and self-management of the disease at least once since the time of diagnosis because such education produces improvement in physical functioning and pain.

### 7. First-line pharmacologic therapy

If oral pharmacologic therapy is initiated to treat osteoarthritis in a vulnerable elder, then acetaminophen (paracetamol) should be the first drug used, unless there is documented contraindication to use, because this agent is as effective in treating osteoarthritis as other oral agents, and it is less toxic.

### 8. Treatment failure for first-line pharmacologic therapy

If oral pharmacologic therapy for osteoarthritis in a vulnerable elder is changed from acetaminophen (paracetamol) to a different oral agent, then there should be evidence that the patient has had a trial of maximum-dose acetaminophen (suitable for age and co-morbid conditions) because acetaminophen, in adequate doses, is as effective in treating osteoarthritis as other oral agents.

### 9. Informing patients about the risks of nonsteroidal anti-inflammatory drugs

If a patient is treated with a nonselective nonsteroidal anti-inflammatory drug (NSAID), then there should be evidence that the patient was advised of the risk for gastrointestinal bleeding associated with these drugs because this risk is substantial.

### 10. Gastrointestinal prophylaxis with use of nonsteroidal anti-inflammatory drugs

If a vulnerable elder is older than 75 years of age, is treated with warfarin, or has a history of peptic ulcer disease or gastrointestinal bleeding, and is being treated with a COX non-selective NSAID, then he or she should be offered concomitant treatment with either misoprostol or a proton-pump inhibitor because this will substantially reduce the risk for NSAID induced gastrointestinal bleeding.

### 11. Joint replacement

If a vulnerable elder with severe symptomatic osteoarthritis of the knee or hip has failed to respond to non-pharmacologic and pharmacologic therapy and has no contraindication to surgery, then the patient should be referred to an orthopaedic surgeon to be evaluated for total joint replacement within six months unless a contraindication to surgery is documented because hip and knee replacements markedly improve function and quality of life by reducing pain and / or improving range of motion.

*Grossman JM, MacLean CH. Quality indicators for the management of osteoarthritis in vulnerable elders. Ann Intern Med 2001; Oct 16,135(8 Pt 2):711-21.*

SECTION 7  
QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## Quality Indicators for Documenting Pain

Clearly defined indicators that enable objective, transparent, valid, reliable and quantifiable evaluation of pain documentation review have also been developed<sup>10</sup> (Table 20).

**Table 20**  
**PAIN ASSESSMENT INDICATORS FOR PAIN DOCUMENTATION REVIEW**

1. Location
2. Quality - description
3. Intensity
4. What makes pain worse?
5. What makes pain better?
6. Prior pain treatments
7. Response to prior pain treatments
8. Patient understanding of pain causality
9. Patient goals for pain treatment
10. Effects of pain on activities of daily living
11. Effects of pain on mood

*Weissman DE, Griffie J, Muchka S, Matson S. Building an institutional commitment to pain management in long-term care facilities. J Pain Symptom Manage 2000; Volume 20 No 1 July.*

The developers of these indicators considered the presence of eight of the Table 20 indicators represented an acceptable level of documentation. The 10th indicator, "effects of pain on activities of daily living", was regarded as obligatory for an acceptable outcome. Overall, the study found that the number of facilities meeting more than 51 per cent of the indicators, increased from 14 per cent at baseline to 74 per cent at completion of their systematic program of education, as outlined in Table 24. Similar collaborative quality indicator definition and evaluation programs warrant consideration in the Australian residential aged care setting.

## Systems Issues

A multidisciplinary, institution-wide approach to pain management is a desirable foundation<sup>11</sup> for quality pain management in residential aged care. An organisational framework for the care of residents with pain is provided opposite (Figure 1).<sup>11</sup> This summarises the designations, responsibilities and relationships of those who have a direct or indirect role in providing care for these residents.

This systematic outline relies upon a qualified nurse (or other clinician) in a central dedicated pain management co-ordination role: both within each facility and in triage with the external health providers (for example, general practitioners, pharmacists, physiotherapists and psychologists) who make up the multidisciplinary pain management team.

However, well-documented professional shortages, administrative demands, occupational stresses and funding complexities make the provision of the recommended individual inputs and their operational integration a challenge to the residential sector itself, as well as to the health sector and governments.

Systems issues relevant to quality pain management have recently been highlighted in a comprehensive Australia National Institute of Clinic Studies (NICS) international literature review<sup>12</sup> of "Institutional Approaches to Pain Assessment and Management". Only one of the review's acceptable studies had been conducted in the long-term care setting. This was a large study involving residents and staff of 57 long-term care facilities in the US.<sup>10</sup> It employed a multi-level strategy to achieve best practice for pain assessment and management and involved:

- A literature review of pain management in long-term care.
- An audit of one long-term care facility to gain insight into barriers in long-term care.
- Discussions with key experts within the health system.
- Baseline measurement of the existing approach.
- Staff seminars, lectures, small group case-based discussions, role playing exercises and panel discussions on pain management.
- Post-implementation measuring.
- Determination of quality indicators.

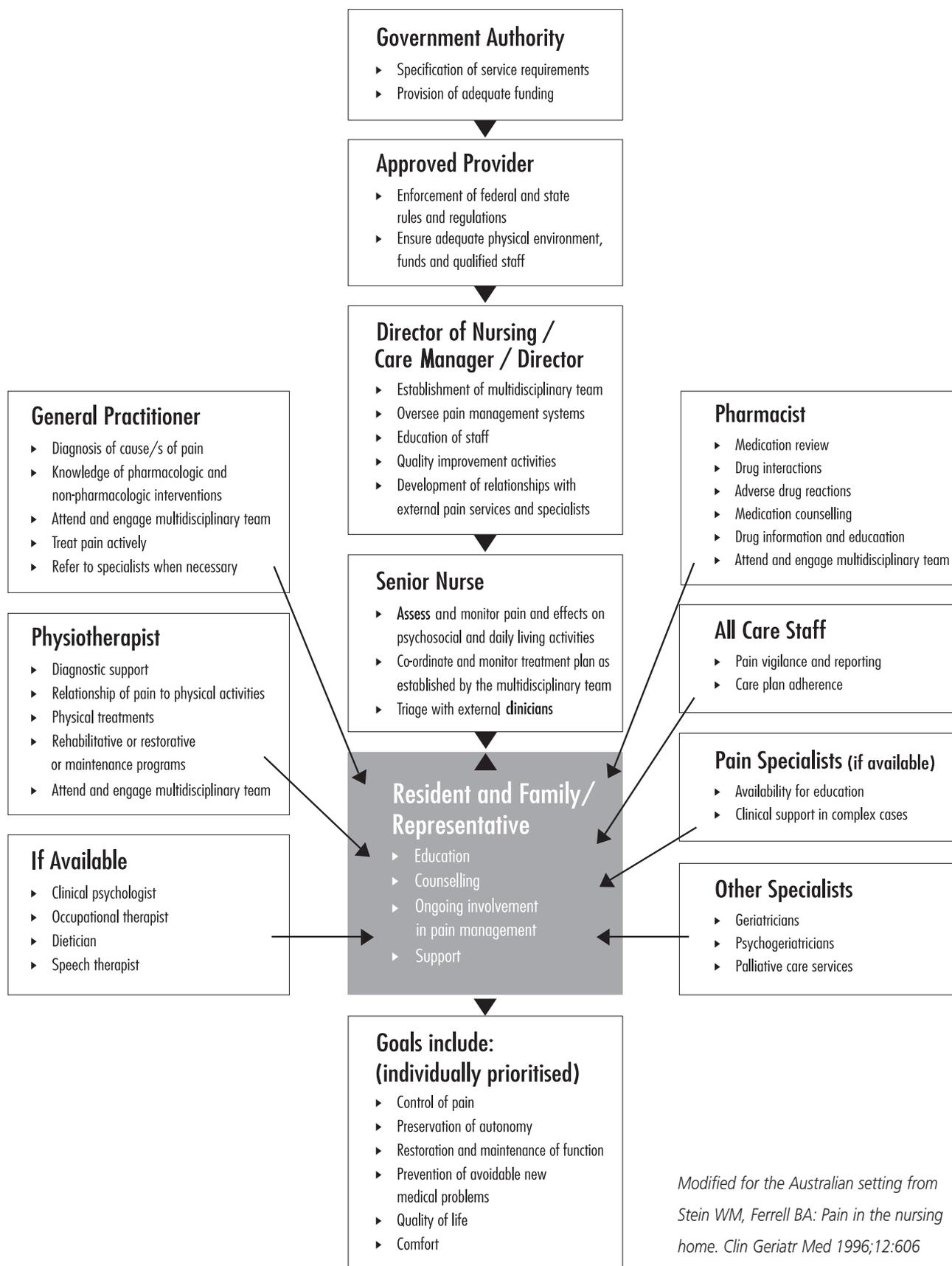
The target systems indicators for quality pain management practice that were defined in this study are outlined in Table 21.

## SECTION 7

# QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Figure 1 RECOMMENDED ORGANISATION, RESPONSIBILITIES AND RELATIONSHIPS FOR THE CARE OF RESIDENTS WITH PAIN**



*Modified for the Australian setting from Stein WM, Ferrell BA: Pain in the nursing home. Clin Geriatr Med 1996;12:606*

## SECTION 7

# QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 21**  
**TARGET INDICATORS FOR PAIN MANAGEMENT PRACTICE IN INSTITUTIONS**

1. Standardised facility assessment tool for cognitively intact residents
2. Standardised facility assessment tool for cognitively impaired residents
3. Standardised facility pain scale(s)
4. Standardised pain documentation flow sheet
5. Explicit pain assessment/management policies
6. Interdisciplinary pain management team
7. Explicit facility plan for assessing resident/family satisfaction
8. Pain management quality improvement process in place
9. Explicit education program for residents and families
10. Education plan for new facility registered nurses
11. Education plan for new facility nurse assistants
12. Education plan for new facility rehabilitation staff
13. Education plan for all new facility staff

*Weissman DE, Griffie J, Muchka S, Matson S. Building an institutional commitment to pain management in long-term care facilities. J Pain Symptom Manage 2000; Vol 20 No 1 July.*

Such indicators could be adapted as a starting point to systematise practice for the Australian residential aged care setting. *Further enhancements could add:*

- Target indicators that focus on pain treatment;
- An education plan for existing staff; and
- Involvement of a resident/representative in his or her own pain management.

Recent research has more comprehensively identified the attributes<sup>13</sup> of an ideal pain management system (*Table 22*) to guide multidisciplinary teams of medical practitioners, nurses, pharmacists, associated health professionals, quality improvement professionals, managers, clinical leaders and administrators.

The definition of these attributes involved a collaborative project between the Veterans Health Administration and the Institute for Healthcare Improvement in the US. The program evaluated pain management outcome variables in a major, national, multiple-campus health care service. Features of the project were team formation, goal identification, the testing and adaptation of recommended system changes, and shared feedback of process and outcome information.

Rapid and significant improvements in pain management resulted. The prevalence of severe pain was reduced by more than 25 per cent. As well, documented pain care plans increased by more than 20 per cent, patients receiving appropriate education on pain management improved by more than 50 per cent and pain assessment increased from 75 to 85 per cent.

With appropriate modifications, the systematic evidence-based multi-centre pain management system outlined in *Table 22* is likely to achieve equivalent benefits for people in Australia's residential aged care sector.

## SECTION 7

# QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 22**

### **ATTRIBUTES OF AN IDEAL PAIN MANAGEMENT SYSTEM**

#### **1. Routine and timely assessment**

- ▶ A pain assessment that includes a pain intensity rating is performed on all patients on admission and is included in the patient's medical record.
- ▶ Pain intensity ratings, like other vital signs, are recorded in the patient's medical record during every clinical encounter, including telephone follow-ups and after drug administration.
- ▶ Protocols for assessment are developed at the local level and (are) consistent with good clinical practice.

#### **2. Access to an appropriate level of treatment**

- ▶ Pain management is provided by a multidisciplinary team with the primary care provider as the central link in the system.
- ▶ Responsibility for action determined from pain assessment.
- ▶ Specialty consultations available to primary care provider.
- ▶ Referrals to specialized pain clinics made when needed.

#### **3. Treatment protocols in place and understood**

- ▶ Protocols, specific to the setting and useable by different providers, are available for most common conditions and are used to establish care plans. Protocols include recommended analgesics and, when possible, methods for the prevention of pain.
- ▶ When a diagnosis-specific protocol (for example, for post herpetic neuralgia or trigeminal neuralgia) is unavailable a general protocol is used that requires the use of pain management in the plan of care.
- ▶ Reminders for adherence to the care plan are built into the system. For example, medication forms may suggest pain drugs as required rather than at the usual recommended time intervals.
- ▶ Standards for time elapsed between assessment of pain and action and response time for medication requests are established.

#### **4. Health care providers knowledgeable regarding state-of-the-art-principles of pain management as consistent with their scope of practice**

- ▶ An educational plan is in place at institutional level.
- ▶ Different strategies including one-on-one consultations, ward-based programs and hospital rounds considered.
- ▶ Health care providers have the competencies to manage 80 per cent of the conditions they see.

#### **5. Patients and families knowledgeable regarding pain management**

- ▶ A plan for educational interventions is in place.
- ▶ Educational pain information supplied to all patients.
- ▶ Education includes caregiver (usually spouse or child).
- ▶ Educational information is provided prior to admission or surgery.
- ▶ The impact of the education is monitored and the need for additional interventions determined.

#### **6. Pain management standards in place**

- ▶ A facility-wide policy for pain is established that meets Joint Commission on Accreditation of Healthcare Organizations USA (JCAHO) standards (*Table 23*).
- ▶ A standard nursing policy established for pain that includes pain management definitions and beliefs.
- ▶ Limits set for acceptable variation for key parameters within the system. Standards should be considered even though resources (for example, epidurals) may not be currently available.

#### **7. Outcomes monitored, reviewed and a plan for specific improvements in place**

- ▶ System goals for key outcomes are agreed upon.
- ▶ A schedule for review of progress is established.
- ▶ Necessary improvements to the system are identified and implemented.

*Cleeland CS. Rapid improvement in pain management: The Veterans Health Administration and the Institute for Healthcare Improvement Collaborative. Clin J Pain 2003;19:298-305.*

# SECTION 7 QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Table 23**  
**JOINT COMMISSION ON ACCREDITATION OF HEALTHCARE ORGANIZATIONS (JCAHO) REQUIREMENTS**

- ▶ All patients are screened for pain at initial assessment

---

- ▶ Standardized measures are used to assess pain

---

- ▶ Affiliated clinics, hospitals, home health and hospice programs, and nursing homes should adopt the same pain intensity tools

---

- ▶ Pain assessment should be modified for special populations:
  - Infants, children, older adults
  - Cognitively impaired
  - Developmental stage, chronologic age, functional status, cognitive status and emotional status should be considered

## Education

A systematic education program for staff at all levels is an essential component of any large scale initiative to enhance pain management in the residential sector. Studies on the content and efficacy of staff education in this setting are limited. The US study<sup>10</sup> researchers reported details of their education topics and format, as shown in Table 24. As noted above, this program produced a very significant improvement in quality indicators for pain documentation.

A recent Australian pilot study<sup>14</sup> employed a combination of small group education sessions for supervisors, with dedicated 1:1 practical training for care staff, and demonstrated that this was an effective method of implementing a best practice guideline, at least to the extent of ensuring competency in the use of the pain identification and assessment tools recommended in Sections 1 and 2 of this document. The sector-wide feasibility and sustainability of this approach is unknown. Group and electronic learning programs also warrant consideration and testing.

**Table 24**  
**EDUCATION TOPICS AND FORMAT**

Program	Education Format
<b>1. (8 hours)</b>	
Pain assessment – basic concepts	L, S, RP, AP
Non-pharmacological interventions	L, D
Analgesic pharmacology	L, S, RP, AP
State/federal drug relations in long-term care	L, D, RP
<b>2. (4 hours)</b>	
Pain assessment:	
Cognitively-impaired residents	L
Analgesic policy implementation	L, AP
Interdisciplinary pain teams	PD
<b>3. (4 hours)</b>	
Staff competencies in pain management	L
Pain education programming	L, S, AP
<b>4. (4 hours)</b>	
Quality improvement for pain	L, AP

**L** = Lecture                      **S** = Small Group,  
**D** = Demonstration            **PD** = Panel Discussion  
**RP** = Role Play                   **AP** = Action Planning

*Weissman DE, Griffie J, Muchka S, Matson S. Building an institutional commitment to pain management in long-term care facilities. J Pain Symptom Manage 2000;Volume 20 No 1 July.*

Further studies, similar to the one examining the practicability of implementation of Sections 1 and 2<sup>14</sup>, will be needed to evaluate the crucial issue of feasibility and sustainability of the management strategies outlined in Sections 3 to 6. Plans for a user-friendly aged care staff "toolkit package", with simplified hand-out materials to reinforce the key messages, are being developed.

SECTION 7  
QUALITY & SYSTEMS ISSUES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

REFERENCES

1. Medicare: the official US government site for people with Medicare. [www.medicare.gov/glossary](http://www.medicare.gov/glossary) Accessed 1 July 2005.
2. Steinhauser KE, Christakis NA, Clipp EC, et al. Factors considered important at the end of life by patients, family, physicians and other care providers. *J Am Med Assoc* 2000;284:2476-2482.
3. McClean WJ, Higginbotham NH. Prevalence of pain among nursing home residents in rural New South Wales. *Med J Aust* 2002;177:17-20.
4. Regulation of quality in service industries. Report by the Allen Consulting Group. September 2003. Aged Care Price Review Taskforce – Consultants' Reports. [www.health.gov.au/internet/wcms/publishing.nsf/Content/ageing-rescare-acprtask-acprcltrpt.htm](http://www.health.gov.au/internet/wcms/publishing.nsf/Content/ageing-rescare-acprtask-acprcltrpt.htm) Accessed 30 June 2005.
5. Medicare: a strategy for quality assurance. Washington DC: Institute of Medicine/National Academy Press. 1990. In: Phillips C, Zimmerman D, Bernabei R, Vonsson P. Using the Resident Assessment Instrument for quality enhancement in nursing homes. *Age and Ageing* 1997;26-52:77-81.
6. Kane R. Assuring quality in nursing home care. *J Am Geriatr Soc* 1998;46:232-237.
7. Standards and guidelines for residential aged care services manual. [www.health.gov.au/internet/wcms/publishing.nsf/Content/ageing-manuals-sgr-contents-foreword.htm](http://www.health.gov.au/internet/wcms/publishing.nsf/Content/ageing-manuals-sgr-contents-foreword.htm) Accessed 30 June 2005.
8. Chodosh J, Ferrell BA, Shekelle PG, Wenger NS. Quality indicators for pain management in vulnerable elders. *Ann Intern Med*. 2001;Oct 16:135 (8 Pt 2),731-5.
9. Grossman JM, MacLean CH. Quality indicators for the management of osteoarthritis in vulnerable elders. *Ann Intern Med* 2001;Oct 16:135 (8 Pt 2):711-21.
10. Weissman DE, Griffie J, Muchka S, Matson S. Building an institutional commitment to pain management in long-term care facilities. *J Pain Symptom Manage* 2000;Vol. 20,No.1.
11. Stein WM, Ferrell BA: Pain in the nursing home. *Clin Geriatr Med* 1996;12:606.
12. Literature review. Institutional approaches to pain assessment and management. Conducted for the Australian National Institute of Clinical Studies (NICS) by the Health Technology Assessment Unit, University of Adelaide. October 2003.
13. Cleeland CS, Reyes-Gibby CC, Schall M, Nolan K, Paice J, Rosenberg JM, Tollett JH and Kerns RD. Rapid improvement in pain management: The Veterans Health Administration and the Institute for Healthcare Improvement Collaborative. *Clin J Pain* 2003;19:298-305.
14. Gibson SJ, Scherer SC, Goucke CR. Preliminary field testing and preparations for implementation of Australian Pain Society and the Australian Pain Relief Association pain management guidelines for residential care. November 2004. [www.apsoc.org.au/PDFs/APRA-finalreport7.doc](http://www.apsoc.org.au/PDFs/APRA-finalreport7.doc)



# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## APPENDIX 1

### Acknowledgements

The authors of *Pain in Residential Aged Care Facilities - Management Strategies* are most appreciative of the suggestions and advice received in response to the initial draft published in January 2004. *Thank you:*

**Professor Jennifer Abbey**

Professor and Chair of Nursing (Aged Care), Queensland University of Technology and the Prince Charles Hospital, Qld

**Associate Professor Leigh Atkinson**

Faculty of Pain Medicine,  
Australian and New Zealand College of Anaesthetists, Vic

**Dr Geoff Booth**

Area Director, Rehabilitation/Pain Medicine,  
Hunter New England Area Health Service, NSW

**Associate Professor David Bruce**

Geriatric Medicine, University of Western Australia, WA

**Rosemary Bryant**

Executive Director, Royal College of Nursing - Australia, ACT

**Ms Christine Burt**

Palliative Care Clinician and Educator, NSW

**Mr Peter Cleasby**

CNC, Central Coast Palliative Care Service, NSW

**Dr David Gronow**

Pain Medicine, Sydney Pain Management Centre  
and Westmead Hospital, NSW

**Dr Kate Grundy**

Palliative Medicine Specialist,  
Australasian Chapter of Palliative Medicine

**Dr Merelie Hall**

General Medical Practitioner,  
Royal Australian College of General Practitioners

**Joseph Halwagy**

Product Manager, Neurosciences,  
Pfizer Pty Ltd, NSW

**Professor Robert D. Helme**

Consultant Neurologist,  
Barbara Walker Centre for Pain Management, Vic

**Ms Rochelle Kooperman**

Clinical Psychologist, Pain Help, WA

**Professor Irena Madjar**

School of Nursing and Midwifery,  
Faculty of Health, University of Newcastle, NSW

**Dr William McClean**

Geriatrician, Hunter New England Health Service, NSW

**Eva Mehakovic**

Advisor, Ageing and Aged Care Division,  
Department of Health and Ageing

**Ms Dea Morgain**

Project Officer, Wide Bay Division of General Practice, Qld

**Mr Greg Mundy**

Chief Executive Officer, Aged & Community Services Australia

**Jill Pretty**

Manager, Policy and Consultancy,  
Aged & Community Services Association, NSW & ACT

**Dr Kay Price**

Senior Lecturer, School of Nursing and Midwifery,  
University of South Australia

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Ms Robin Quinn**

General Manager, Sydney Pain Management Centre, NSW

**Dr Joanne Ramadge**

Senior Clinical Advisor, Ageing and Aged Care Division,  
Department of Health and Ageing

**Mr Glenn Rees**

National Executive Director, Alzheimer's Australia

**Dr John Whitlam**

Director of Medical Affairs, Mundipharma Pty Ltd, NSW

**Dr Robert T.H. Yeoh**

Australian Divisions of General Practice Canberra and National  
President of Alzheimer's Australia

*A special Thank You to the following people  
who provided material and assistance:*

**Dr Bruce Barber**

National Ageing Research Institute (NARI), Melbourne  
(photographs, section 1)

**Dr Stephen Malkin**

Clinical Psychologist, Melbourne Extended Care and  
Rehabilitation Service (MECRS) Pain Clinic  
(case study, section 4)

**Veronica Roux**

Clinical Pharmacist, Melbourne Extended Care and  
Rehabilitation Service (MECRS)  
(information for figure 1)

**Lydia Vass**

Massage Therapist, Palliative Care Unit,  
St Vincent's Hospital, Melbourne  
(case study, section 6)

## APPENDIX 2

## Components of Initial Pain Assessment

Recommended by the American Geriatrics Society panel on persistent pain in older persons (2002):

### A. History

- Initial evaluation should include a thorough analgesic history, including current and previously used prescription medications, over-the-counter medications, complementary or alternative remedies, and alcohol use or abuse. The effectiveness and any side effects of current and previously used medications should be recorded. (IIIB)
- The patient's attitudes and beliefs regarding pain and its management, as well as knowledge of pain management strategies, should be assessed. (IIB)
- Effectiveness of past pain-relieving treatments (both traditional and complementary or alternative) should be evaluated. (IIIB)
- The patient's satisfaction with current pain treatment or health should be determined and concerns should be identified. (IIIB)

### B. Physical examination

- Physical examination should include careful examination of the site of reported pain, common sites for pain referral, and common sites of pain in older adults. (IIIA)
- Physical examination should focus on the musculoskeletal system (eg, myofascial pain, fibromyalgia, inflammation, deformity, posture, leg length discrepancy). Practitioners skilled in musculoskeletal examination should be considered for consultation (eg, physical therapy,

occupational therapy, psychiatry). (IIIA)

- Physical examination should focus on the neurologic system (eg, search for weakness, hyperalgesia, hyperpathia, allodynia, numbness, paresthesia, other neurologic impairments). (IIIA)
  - Initial assessment should include observation of physical function (eg, measures of ADLs, performance measures such as range of motion, get-up-and-go test, or others). (IIA)
- C. Comprehensive pain assessment should include results of pertinent laboratory and other diagnostic tests. Tests should not be ordered unless their results will affect decisions about treatment. (IIIB)
- D. Initial assessment should include evaluation of psychologic function, including mood (eg, depression, anxiety), self-efficacy, pain-coping skills, helplessness and pain related fears. (IIA)
- E. Initial assessment should include evaluation of social support, caregivers, family relationships, work history, cultural environment, spirituality and healthcare accessibility. (IIB)
- F. Cognitive function should be evaluated for new or worsening confusion. (IIA)
- G. For the older adult who is cognitively intact or who has mild to moderate dementia, the practitioner should attempt to assess pain by directly querying the patient. (IIA)
- Quantitative estimates of pain based on clinical impressions or surrogate reports should not be used as a substitute for self-report unless the patient is unable to reliably communicate his or her pain. (IIA)
  - A variety of terms synonymous with pain should be used to screen older patients (eg, burning, discomfort, aching, soreness, heaviness, tightness). (IIIA)

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

- A quantitative assessment of pain should be recorded by the use of a standard pain scale that is sensitive to cognitive, language, and sensory impairments (eg, scales adapted for visual, hearing, foreign language, or other handicaps common in elderly persons). A variety of verbal descriptor scales, pain thermometers, numeric rating scales, and facial pain scales have acceptable validity and are acceptable for many older adults (*see figure 1 for examples of some commonly used pain-intensity scales*). (IIA)
  - The use of a multidimensional pain instrument that evaluates pain in relation to other domains (eg, the Pain Disability Index<sup>43</sup> or the Brief Pain Inventory<sup>44</sup>) should be considered. (IIB)
  - Elderly persons with limited attention span or impaired cognition should receive repeated instructions and be given adequate time to respond. Assessment may be done in several steps; it may require assistance from family or caregivers, and planning in advance of the visit. (IIIB)
  - Patients should be queried about symptoms and signs that may indicate pain, including recent changes in activities and functional status; they should also be observed for verbal and nonverbal pain-related behaviours and changes in normal functioning (*see Table 3 for some common pain indicators*). (IIA)
  - Patients can also be asked about their worst pain experience over the past week. (IIB)
  - With mild to moderate cognitive impairment, assessment questions should be framed in the present tense because patients are likely to have impaired recall. (IIB)
- H. For the older adult with moderate to severe dementia or who is nonverbal, the practitioner should attempt to assess pain via direct observation or history from caregivers (*see figure 2 for an algorithm for assessing pain in cognitively impaired persons*).
- Patients should be observed for evidence of pain-related behaviours during movement (eg, walking, morning care, transfers). (IIA)
  - Unusual behaviour in a patient with severe dementia should trigger assessment for pain as a potential cause. (IIA)
- I. The risks and benefits of various assessment and treatment options should be discussed with patients and family, with consideration for patient and family preferences in the design of any assessment or treatment strategy. (IIIC)
- J. Patients with persistent pain should be reassessed regularly for improvement, deterioration, or complications. (IIIA)
- The use of a pain log or diary with regular entries for pain intensity, medication use, mood, response to treatment and associated activities should be considered. (IIIC)
  - The same quantitative pain assessment scales should be used for initial and follow-up assessments. (IIIA)
  - Reassessment should include evaluation of analgesic and non-pharmacologic interventions, side effects and compliance issues. (IIIA)
  - Reassessment should consider patient preferences in assessment and treatment revisions. (IIIB)

*American Geriatrics Society Panel Guidelines on Persistent Pain in Older Persons. Journal of the American Geriatrics Association. 50:S205-S224, 2002. [www.americangeriatrics.org](http://www.americangeriatrics.org)*

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## APPENDIX 3

### The Brief Pain Inventory (BPI) Background

The Brief Pain Inventory (BPI)<sup>1</sup> was originally developed as an assessment tool for cancer patients by the Pain Research Group of the World Health Organisation's Collaborating Center for Symptom Evaluation and Cancer Care and has been used as an outcome measure in advanced cancer patients.

The BPI is a multidimensional assessment tool which looks at both pain severity and its impact. The first question in the BPI is suited to preliminary pain identification. It differentiates between minor and bothersome pain and determines the need for further assessment. The BPI's second question uses a body map to answer the question: where does it hurt? This information is important because pain in a single site raises different diagnostic possibilities to pain at multiple sites, while the location of the pain is a key to working out its cause and applying effective local treatments. The size of the area in which pain is felt, the shape (distribution) and travel path (radiation) of the pain also often suggest a certain cause (for example, sciatica).

The BPI then proceeds to establish the severity of the pain. However, before any of its pain scales are used, staff should initiate a discussion with carefully worded questions about a resident's pain (as outlined in Section 1).

Next, the BPI looks at various pain impact variables including sleep, mood, activity, mobility, socialisation and quality of life. Depression and anxiety levels (unrelated to pain) are also incorporated. Screening scores for these can be used to point the way to issues that need more comprehensive assessment.

#### REFERENCE

1. Cleeland CS. Measurement of pain by subjective report. In Chapman CR and Loeser JD (editors). Issues in pain measurement. New York: Raven Press, 1989.

## APPENDIX 4

### The Brief Pain Inventory (BPI) Translations & Validations

<b>Already validated</b>	Chinese	Cebuano
	Dutch / Flemish	English
	Filipino	French
	German	Greek
	Hindi	Italian
	Japanese	Korean
	Norwegian	Spanish
	Swedish	Taiwanese
	Vietnamese	
	<b>Currently undergoing validation</b>	Arabic
Czech		Portuguese
Russian		Slovak
Slovenic		
<b>Yet to be validated</b>	Afrikaans	Finnish
	Hmong	Polish
	Sepedi	Serbian
	Thai	Tswana
	Turkish	Urdu
	Xhosa	Zulu

*From the Quality of Life Instruments Database developed by the Information Resources Centre of Mapi Research Institute in collaboration with Dr Marcello Tamburini, Director, Unit of Psychology, National Cancer Institute, Milan, Italy.*  
[www.proqolid.org/public/BPI.html](http://www.proqolid.org/public/BPI.html)

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## APPENDIX 5

### The Present Pain Inventory (PPI)

The Present Pain Inventory (PPI) is a five-category Verbal Descriptor Scale, presented vertically, from the McGill Pain Questionnaire.<sup>1</sup>

A five-category Verbal Descriptor Scale (such as the one below) was found<sup>2</sup> to have the highest completion rate (65 per cent) in a comparison of different kinds of scales in nursing home residents with cognitive impairment that was not so severe as to prevent communication (the mean MMSE was 12 with most residents between four and 20).

#### PRESENT PAIN INVENTORY

0	No Pain
1	Mild
2	Discomforting
3	Distressing
4	Horrible
5	Excruciating

*Modified Present Pain Inventory from the McGill Pain Questionnaire. Melzack R. The McGill Pain Questionnaire. Major properties and scoring methods. Pain. 1:277,1975.*

#### REFERENCES

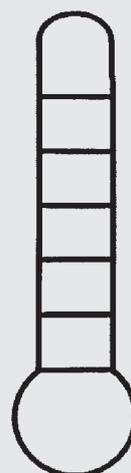
1. Melzack R. The McGill Pain Questionnaire. Major properties and scoring methods. *Pain.* 1:277,1975.
2. Ferrell BA, Ferrell BR, Rivera L. Pain in cognitively impaired nursing home patients. *Journal of Pain and Symptom Management.* 1995. 10. 591-598.

## APPENDIX 6

### Pain Thermometer

A Verbal Descriptor Scale (VDS) can be shown vertically in the form of a Pain Thermometer. For some people at the margin of comprehension, the verbal descriptors shown in a Pain Thermometer are useful.<sup>1</sup>

#### A SEVEN-CATEGORY VDS SHOWN VERTICALLY IN THE FORM OF A PAIN THERMOMETER:



- 7 - PAIN AS BAD AS IT COULD BE
- 6 - EXTREME PAIN
- 5 - SEVERE PAIN
- 4 - MODERATE PAIN
- 3 - MILD PAIN
- 2 - SLIGHT PAIN
- 1 - NO PAIN

#### REFERENCE

1. Herr KA, Garand L. Assessment and measurement of pain in older adults. In Ferrell B, Editor. *Pain management in the elderly. Clinics in Geriatric Medicine.* WB Saunders Company. 2001.

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## APPENDIX 7

### The Pain Assessment In Advanced Dementia (PAINAD) Scale

Recent Australian research<sup>1</sup> has shown the Pain Assessment in Advanced Dementia (PAINAD) Scale<sup>2</sup> to have acceptable utility, validity and reliability as a pain assessment tool for non-communicative aged care facility residents. The PAINAD scale had previously only been validated<sup>2</sup> in a US group of 25 male nursing home residents. All had dementia and had been diagnosed with painful conditions but were unable to report them. Their mean PAINAD Scale score was 6.7 before PRN analgesic medication and 1.8 half an hour later.

The PAINAD Scale is derived from the Discomfort Scale for Dementia of the Alzheimer's Type (DS-DAT)<sup>3</sup> but is easier to administer (taking between four and eight minutes)<sup>1</sup> and to score. It is specifically targeted at pain and incorporates behaviours from a paediatric observational pain scale.<sup>4</sup> Low scores are associated with low pain and higher scores indicate greater pain.

PAINAD Scale scores should be regarded as a statement about the probability of pain: the higher the score, the greater the probability. The authors of the scale acknowledge that this is a very imprecise area of practice and factors other than pain, such as resistance to care, negative emotions and anxiety need to be excluded if possible to improve the precision of the scale as a pain instrument.

#### COMPONENTS & SCORING OF THE PAIN ASSESSMENT IN ADVANCED DEMENTIA (PAINAD) SCALE

	0	1	2	Score
Breathing independent of vocalisation	Normal	Occasional, laboured breathing. Short period of hyperventilation.	Noisy, laboured breathing. Long period of hyperventilation. Cheyne-Stokes respiration*.	
Negative vocalisation	None	Occasional moan or groan. Low level speech with a negative or disapproving quality.	Repeated, troubled, calling out. Loud moaning or groaning. Crying.	
Facial expression	Smiling or inexpressive.	Sad. Frightened. Frowning.	Facial grimacing.	
Body language.	Relaxed.	Tense. Distressed pacing. Fidgeting.	Rigid. Fists clenched. Knees pulled up. Pulling or pushing away. Striking out.	
Consolability	No need to console.	Distracted or reassured by voice or touch.	Unable to console, distract, or reassure.	
<b>TOTAL</b>				

\* Cheyne-Stokes respiration is often produced by conditions other than pain.

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## Item Definitions for the PAINAD Scale

### Breathing

**1. Normal breathing.**

DESCRIPTION: Normal breathing is characterized by effortless, quiet, rhythmic (smooth) respirations.

**2. Occasional labored breathing.**

DESCRIPTION: Occasional labored breathing is characterized by episodic bursts of harsh, difficult or wearing respirations

**3. Short period of hyperventilation.**

DESCRIPTION: Short period of hyperventilation is characterized by intervals of rapid, deep breaths lasting a short period of time.

**4. Noisy labored breathing.**

DESCRIPTION: Noisy labored breathing is characterized by negative sounding respirations on inspiration or expiration. They may be loud, gurgling, wheezing. They appear strenuous or wearing.

**5. Long period of hyperventilation.**

DESCRIPTION: Long period of hyperventilation is characterized by an excessive rate and depth of respirations lasting a considerable time.

**6. Cheyne-Stokes respirations.**

DESCRIPTION: Cheyne-Stokes respirations are characterized by rhythmic waxing and waning of breathing from very deep to shallow respirations with periods of apnea (cessation of breathing).

### Negative Vocalization

**1. None.**

DESCRIPTION: None is characterized by speech or vocalization that has a neutral or pleasant quality.

**2. Occasional moan or groan.**

DESCRIPTION: Occasional moaning is characterized by mournful or murmuring sounds, wails or laments. Groaning is characterized by louder than usual inarticulate involuntary sounds, often abruptly beginning and ending.

**3. Low level speech with a negative or disapproving quality.**

DESCRIPTION: Low level speech with a negative or

disapproving quality is characterized by muttering, mumbling, whining, grumbling, or swearing in a low volume with a complaining, sarcastic or caustic tone.

**4. Repeated troubled calling out.**

DESCRIPTION: Repeated troubled calling out is characterized by phrases or words being used over and over in a tone that suggests anxiety, uneasiness, or distress.

**5. Loud moaning or groaning.**

DESCRIPTION: Loud moaning is characterized by mournful or murmuring sounds, wails or laments in much louder than usual volume. Loud groaning is characterized by louder than usual inarticulate involuntary sounds, often abruptly beginning and ending.

**6. Crying.**

DESCRIPTION: Crying is characterized by an utterance of emotion accompanied by tears. There may be sobbing or quiet weeping.

### Facial Expression

**1. Smiling or inexpressive.**

DESCRIPTION: Smiling is characterized by upturned corners of the mouth, brightening of the eyes and a look of pleasure or contentment. Inexpressive refers to a neutral, at ease, relaxed, or blank look.

**2. Sad.**

DESCRIPTION: Sad is characterized by an unhappy, lonesome, sorrowful, or dejected look. There may be tears in the eyes.

**3. Frightened.**

DESCRIPTION: Frightened is characterized by a look of fear, alarm or heightened anxiety. Eyes appear wide open.

**4. Frown.**

DESCRIPTION: Frown is characterized by a downward turn of the corners of the mouth. Increased facial wrinkling in the forehead and around the mouth may appear.

**5. Facial grimacing.**

DESCRIPTION: Facial grimacing is characterized by a distorted, distressed look. The brow is more wrinkled as is the area around the mouth. Eyes may be squeezed shut.

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## Body Language

### 1. *Relaxed.*

DESCRIPTION: Relaxed is characterized by a calm, restful, mellow appearance. The person seems to be taking it easy.

### 2. *Tense.*

DESCRIPTION: Tense is characterized by a strained, apprehensive or worried appearance. The jaw may be clenched (exclude any contractures).

### 3. *Distressed pacing.*

DESCRIPTION: Distressed pacing is characterized by activity that seems unsettled. There may be a fearful, worried, or disturbed element present. The rate may be faster or slower.

### 4. *Fidgeting.*

DESCRIPTION: Fidgeting is characterized by restless movement. Squirming about or wiggling in the chair may occur. The person might be hitching a chair across the room. Repetitive touching, tugging or rubbing body parts can also be observed.

### 5. *Rigid.*

DESCRIPTION: Rigid is characterized by stiffening of the body. The arms and /or legs are tight and inflexible. The trunk may appear straight and unyielding (exclude any contractures).

### 6. *Fists clenched.*

DESCRIPTION: Fists clenched is characterized by tightly closed hands. They may be opened and closed repeatedly or held tightly shut.

### 7. *Knees pulled up.*

DESCRIPTION: Knees pulled up is characterized by flexing the legs and drawing the knees up toward the chest. An overall troubled appearance (exclude any contractures).

### 8. *Pulling or pushing away.*

DESCRIPTION: Pulling or pushing away is characterised by the person yanking or wrenching him or herself free or by shoving someone else away.

### 9. *Striking out.*

DESCRIPTION: Striking out is characterized by hitting, kicking, grabbing, punching, biting or other form of personal assault.

## Consolability

### 1. *No need to console.*

DESCRIPTION: No need to console is characterized by a sense of well being. The person appears content.

### 2. *Distracted or reassured by voice or touch.*

DESCRIPTION: Distracted or reassured by voice or touch is characterized by a disruption in the behavior when the person is spoken to or touched. The behavior stops during the period of interaction with no indication that the person is at all distressed.

### 3. *Unable to console, distract or reassure.*

DESCRIPTION: Unable to console, distract or reassure is characterized by the inability to sooth the person or stop a behavior with words or actions. No amount of comforting, verbal or physical, will alleviate the behavior.

Warden, Hurley, Volicer, *JAMDA* 2003; 4(1):9-15.

Developed by the Geriatric Research Education Clinical Center (GRECC), VAMC, Bedford, MA.

## REFERENCES

1. Gibson SJ, Scherer SC, Goucke CR. Preliminary field testing and preparations for implementation of Australian Pain Society and Australian Pain Relief Association pain management guidelines for residential care. November 2004. [www.apsoc.org.au/PDFs/APRA-finalreport7.doc](http://www.apsoc.org.au/PDFs/APRA-finalreport7.doc)
2. Warden V, Hurley A, Volicer L. Development and psychometric evaluation of the Pain Assessment in Advanced Dementia (PAINAD) Scale. *Journal of the American Medical Directors Association* 2003 4:9-15.
3. Hurley AC, Volicer BJ, Hanrahan PA, Houde S, Volicer L. Assessment of discomfort in advanced Alzheimer patients. *Research in Nursing and Health* 1992 15 369-377.
4. Merkel M, Shayevitz JR, Voepel-Lewis T, Malviya S. The FLACC (Face, Legs, Activity, Cry, Consolability) Scale. A behavioural scale for scoring postoperative pain in young children. *Pediatric Nursing* 1997.23:293-297.

## APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### APPENDIX 8

## Visual Analogue Scale

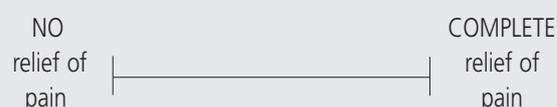
A Visual Analogue Scale (VAS) is a pain intensity assessment instrument that may be preferred by some aged care residents. The VAS is simply a 10 cm horizontal line. The left end of the line is labelled "no pain" and the right end is labelled "most intense pain imaginable" as represented below.

#### VISUAL ANALOGUE SCALE



The Visual Analogue Scale (VAS) has evidence<sup>1</sup> of validity in the residential care setting and may be useful for people who have difficulty with language due to cognitive impairment or cultural factors. However, comparative studies<sup>2</sup> have revealed a higher failure rate for the VAS than for other pain intensity scales such as a Verbal Descriptor Scale and a Numeric Rating Scale, especially in those with reduced cognitive and motor abilities or low educational levels. A vertically-displayed VAS may be more useful in that population.<sup>1</sup> A VAS can also be used to evaluate the effectiveness of pain treatment as represented by the pain relief scale below.

#### PAIN RELIEF SCALE



#### REFERENCES

1. Herr KA, Garand L. Assessment and Measurement of pain in older adults. In Ferrell B, Editor. Pain management in the elderly. Clinics in Geriatric Medicine. WB Saunders Company. 2001.
2. Ferrell BA, Ferrell BR, Rivera L. Pain in cognitively impaired nursing home patients. Journal of Pain and Symptom Management. 1995. 10. 591-598.

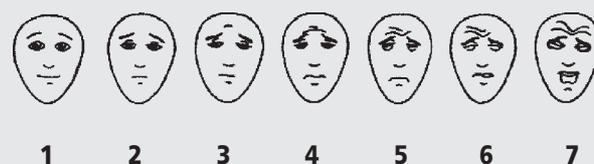
### APPENDIX 9

## Pictorial or Faces Pain Scales

Pictorial or faces pain scales were originally developed for use with children. They ask a person to communicate their current pain intensity from a series of progressively distressed facial expressions. A widely used pictorial scale is the Faces Pain Scale (below) although research evidence about it is limited.

However, the Faces Pain Scale has been described as a useful alternative instrument for assessing pain intensity in older people, including those with mild to moderate cognitive impairment<sup>1</sup> and those with whom communication is adversely affected by linguistic and cultural backgrounds or limited education. The faces depicted range from **1**, a contented pain-free face to **7**, a face which demonstrates severe pain.

#### FACES PAIN SCALE



Source: Bieri D, Reeve R, Champion GD, Addicoat L and Ziegler J. The Faces Pain Scale for the self-assessment of the severity of pain experienced by children: Development, initial validation and preliminary investigation for ratio scale properties. Pain (1990) 41: 139-150. [www.dal.ca/~painsrc/pdfs/pps92.pdf](http://www.dal.ca/~painsrc/pdfs/pps92.pdf)

#### REFERENCE

1. Herr KA, Garand L. Assessment and Measurement of Pain in Older Adults. In Ferrell B, Editor. Pain management in the elderly. Clinics in geriatric medicine. WB Saunders Company. 2001.

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## APPENDIX 10

### Other Review Instruments

Some of the multidimensional progress checklist tools<sup>1</sup> developed for use in cancer sufferers may be adaptable for communicative residents although few have good research evidence of application to the residential aged care population. These include the Memorial Symptom Assessment Scale (MSAS) and the Memorial Pain Assessment Card (MPAC):

#### **The Memorial Symptom Assessment Scale (MSAS)**

The MSAS<sup>2</sup> was developed as a multidimensional scale to measure quality of life in advanced breast cancer patients receiving chemotherapy. The scale asks about prevalence, severity and distress for 32 symptoms or conditions over the previous week. It includes subscales for emotional symptoms, pain and gastrointestinal discomfort. The MSAS has been used in other cancer and AIDS patient groups. It has been recommended as a suitable tool for general end of life care.<sup>3</sup> A brief subscale of the MSAS is considered a clinically useful measure of global symptom distress. The 10-item Global Distress Index is easy to interpret and stands alone. However, the main focus is on distressing symptoms other than pain.

#### **The Memorial Pain Assessment Card (MPAC)**

The MPAC<sup>4</sup> is a self administered card that may be useful for a small number of selected alert aged care residents although it has not been used in elderly residential care or terminally ill populations. It uses a verbal descriptor scale and three visual scales to measure pain intensity, pain relief and psychological distress in cognitively able people. Its main advantage is that it can be completed in less than 20 seconds by experienced patients. It is available only in English.

#### REFERENCES

1. Toolkit of Instruments to Measure End-of-Life Care [TIME] TIME Toolkit Pain and Physical Symptoms 2003.
2. Portenoy RK, Thaler HT, Kornblith AB, et al. The Memorial Symptom Assessment Scale: an instrument for the evaluation of symptom prevalence, characteristics and distress. *Eur J Cancer* 1994. 30A:1326-1336.
3. TIME: Toolkit of Instruments to Measure End-of-Life Care. (2004). Centre for Gerontology and Health Care Research, Brown University. [www.chcr.brown.edu/pcoc/Physical.htm](http://www.chcr.brown.edu/pcoc/Physical.htm) Accessed 13 December 2003.
4. Fishman B, Pasteranak S, Wallenstien SL, et al. The Memorial Pain Assessment Card: a valid instrument for the evaluation of cancer pain. *Cancer* 1987;60:1151-1158.

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## APPENDIX 11

### The Geriatric Pain Assessment Sheet (GPAS)

The one-page Geriatric Pain Assessment Sheet (GPAS) is probably best suited to a low-level residential care (hostel) setting. It can be used whenever verbal communication is feasible and a valid pain report can be obtained.

The GPAS has been administered by nursing aides in the US. It has the advantage of brevity while incorporating a summary of diagnoses, current medication and non-pharmacological treatments. It also includes a numeric rating scale, body map and visual analogue scale.

Prompts for the consideration of the effects of pain on mood, sleep and daily living activities are included. The GPAS remains partially applicable in residents with moderate severe cognitive impairment. Its reliability and validity have not been established.

#### GERIATRIC PAIN ASSESSMENT SHEET (GPAS)

NAME: \_\_\_\_\_

AGE: \_\_\_\_\_

PRIMARY DIAGNOSES: \_\_\_\_\_  
\_\_\_\_\_

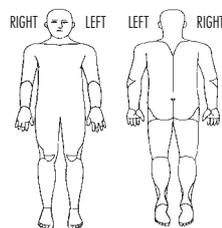
MEDICATIONS AND SCHEDULE: \_\_\_\_\_  
\_\_\_\_\_

NON-PHARMACOLOGIC PAIN TREATMENTS: \_\_\_\_\_  
\_\_\_\_\_

SUCCESS OF ABOVE: \_\_\_\_\_  
\_\_\_\_\_

PAIN INTENSITY: **Now:** 0 1 2 3 4 5  
*(circle appropriate number)* None Moderate Severe

**Worst in 24 Hours:** 0 1 2 3 4 5  
*(circle appropriate number)* None Moderate Severe



Pain Location

PAIN DESCRIPTORS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MANOEVRES THAT EXACERBATE: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MANOEVRES THAT ALLEVIATE: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EFFECTS OF PAIN ON MOOD: \_\_\_\_\_

EFFECTS OF PAIN ON SLEEP: \_\_\_\_\_

ADLS / IADLS \_\_\_\_\_

MMSE SCORE: \_\_\_\_\_

DEPRESSION SCALE SCORE: \_\_\_\_\_

GAIT AND BALANCE ASSESSMENT: \_\_\_\_\_

*From Stein WM, Ferrell BA. Pain in the nursing home. Clinics in Geriatric Medicine 1996; 12(3): 601-613*

## APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### APPENDIX 12

## Checklist of Nonverbal Pain Indicators (CNPI)

The Checklist of Nonverbal Pain Indicators (CNPI)<sup>1</sup> is another potential pain assessment scale for non-communicative people. It involves observation of vocalisations, grimaces, bracing, rubbing, restlessness and vocal complaints, both at rest and during movement. The CNPI shows promise in trials in the acute care setting but needs additional refinement in larger studies in the residential care setting.<sup>2</sup>

#### REFERENCES

1. Feldt KL. The Checklist of Nonverbal Pain Indicators (CNPI). *Pain Management Nursing*. 1:13,2000.
2. Herr KA, Garand L. Assessment and measurement of pain in older adults. In Ferrell B, Editor. *Pain Management in the Elderly*. Clinics in Geriatric Medicine. WB Saunders Company 2001.

### APPENDIX 13

## Tips for better sleep: Things you can do for yourself

In general, be prepared to experiment with a number of different strategies. You may find that a combination of strategies works best for you.

- Lie down to go to sleep only when you are sleepy.
- Avoid naps. Keep them to less than 45 minutes if they are unavoidable.
- There are only two things you should do in bed. Sleeping is one of them.
- Ensure you are comfortably warm in bed, including your feet.
- Take a warm shower or bath about two hours before bedtime. Visit the toilet before retiring.
- Avoid consuming significant amounts of food (especially rich or salty food) and drink after the evening meal.
- If hunger is a problem – have a small carbohydrate snack before bed; for example, a sandwich.
- Cut down drinks containing caffeine (for example, coffee, tea, chocolate and cola), especially in the two hours before bed.
- Avoid smoking for the couple of hours before bed.
- Experiment with ways to make your bed and/or bedroom more comfortable.
- Try listening to music or talk-back radio in bed (you may need to get earphones if you have a partner who objects).
- Use a relaxation tape just before bed, or in bed.
- Get regular physical exercise during the day ( you might like to talk to a physiotherapist about this).
- Learn to control excessive thinking and worrying in bed.

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## If too much thinking and worrying in bed is interfering with your sleep:

- Set aside a "worry" time during the day. In bed tell yourself as often as necessary that you are going to put off your worrying or serious thinking until tomorrow. It may be helpful to write down any worrying topic so that you can then let go until tomorrow.
- Try not to overestimate the chances of something bad happening – remind yourself that most of the things we worry about never happen.
- Get into the habit of telling yourself that worrying about it in bed is not likely to solve anything so it is best put off until tomorrow.
- Remind yourself that there is no use worrying about things you cannot change.
- Try switching to more pleasant, peaceful or relaxing subjects. You could even keep a list of such topics so that you will always be able to think of something pleasant.
- Try focusing on what you do have that is good.
- Try not to worry too much about not sleeping. Sure you will be tired tomorrow, which is not great, but this is usually all that will happen. Get into the habit of telling yourself this every time you find yourself worrying about your sleep. You can also remind yourself that calmly lying in bed awake is nearly as restful as sleep.
- Keep in mind that it is normal to wake up a few times at night. So, don't worry if you do.
- Try to make the couple of hours before bedtime a work-free and worry-free and conflict-free time.
- Be patient and persistent. You will probably have to apply some or all of these strategies for four to eight weeks before significant changes are noted.

## Things to talk to your doctor about:

- Sleeping medications.
- Antidepressant medications.
- Medicines or conditions that may interfere with your sleep.

## APPENDIX 14

# Complementary & Alternative Medicine Glossary

These CAM descriptions are further elaborated in the following Victorian Government health care website: [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)

### Acupuncture

is a component of traditional Chinese medicine, involving the insertion of slender needles into specific points on the skin.

### Alexander technique

is a method to achieve self-carriage. This is usually defined in terms of a certain balance of the neck and head, a suppleness in the back that makes it seem long and wide, and co-ordination of the limbs so they seem to function from the back.

### Aromatherapy

is the use of essential oils made from plants and flowers. The aromas and chemical constituents of the oils are believed to bring about emotional and physical changes. The oils can be massaged into the skin, added to bath water or vapourised in an oil burner. Essential oils used for pain include lavender, eucalyptus, black pepper, ginger, chamomile, rosemary and myrrh.

### Ayurveda

is an ancient Indian healing system with the central philosophy that illness is caused by an imbalance of the body's vital energy forces. It uses treatments including yoga, massage, acupuncture and herbal medicine.

### Bowen therapy

is a remedial body technique that is gentle and relaxing. It helps the body's own healing resources to achieve balance and harmony, which can result in lasting relief from pain and discomfort.

# APPENDICES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## **Chinese herbal medicine**

is part of a larger healing system called Traditional Chinese Medicine. Herbs are prescribed to restore balance to the opposing forces of energy, Yin and Yang, which run through invisible channels in the body.

## **Chiropractic therapy**

generally considers spinal misalignment as a major cause of disease. Treatments tend to focus on spinal adjustment.

## **Herbal medicine**

uses plants to treat disease and enhance wellbeing. Herbs can act on the body as powerfully as pharmaceutical drugs and need to be treated with the same care and respect.

## **Homeopathy**

is based on the Law of Similars, meaning the treatment is like the disease. Homeopathic medicine is based on the principles of the single remedy and the minimum dose. It deliberately mimics or provokes the symptoms of a patient's disease to strengthen the body's ability to heal itself.

## **Kinesiology**

is a form of therapy that uses muscle testing (bio-feedback) to look at imbalances causing disease in the body. Particular muscles are shown to be connected to certain organs and tissues, so a muscular change may represent an imbalance in the corresponding body system.

## **Massage**

has been practiced as a healing tradition in many cultures for thousands of years. Modern studies show massage can successfully treat a range of disorders including back pain, anxiety and high blood pressure.

## **Meditation**

involves deliberately focusing attention on some subject, object or process. Results can include feeling more alive, an enhanced feeling of calmness and heightened awareness. Regular practice of meditation offers many long-term health benefits such as reduced stress and blood pressure.

## **Naturopathy**

helps the body to heal itself by using non-invasive treatments such as nutrition, massage and herbal medicine. Many of the basic beliefs of naturopathy, such as the importance of diet and exercise, have been adopted by conventional medicine.

## **Osteopathy**

According to osteopaths, the body cannot function at its best if the musculoskeletal system is misaligned. This manual medicine works on soft tissue (such as muscles and ligaments) to relieve pain, improve joint mobility and enhance general wellbeing.

## **Qi-gong**

Sometimes referred to as Chinese yoga, it includes meditation, breathing exercises, and physical movements similar to tai chi.

## **Reflexology**

is a non-conventional method for diagnosis and treatment of physical and medical problems by touching or applying pressure on certain areas on the foot surface.

## **Reiki**

is based on the premise that illnesses can be cured by removing energy blockages in the body. Practitioners remove the blockages by channelling energy through their hands and into the patient.

## **Shiatsu**

is a type of massage of Japanese origin. It involves pressure to specific points on the body and is sometimes called acupressure.

## **Tai Chi**

originated in ancient China. It involves a series of gentle, graceful movements designed to exercise the body and clear the mind. Nowadays, tai chi is practiced as an effective exercise for health and well being.

## **Yoga**

is an ancient Indian philosophy which includes exercise and meditation. Originally designed as a path to spiritual enlightenment, in modern times the physical aspects of yoga have found huge popularity as a gentle form of exercise and stress management. The benefits of regular practice include increased fitness and lower levels of stress and anxiety.

## USEFUL WEBSITES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

### Australia

Aged Care Standards and Accreditation Agency	<a href="http://www.accreditation.aust.com">www.accreditation.aust.com</a>
Australian Government Department of Health and Ageing	<a href="http://www.health.gov.au">www.health.gov.au</a>
Australian Council on Healthcare Standards	<a href="http://www.achs.org.au">www.achs.org.au</a>
Australian Pain Society	<a href="http://www.apsoc.org.au">www.apsoc.org.au</a>
Australian Society for Geriatric Medicine	<a href="http://www.asgm.org.au">www.asgm.org.au</a>
National Institute of Clinical Studies	<a href="http://www.nicsl.com.au">www.nicsl.com.au</a>
National Palliative Care Program (Guidelines for a Palliative Approach in Residential Aged Care)	<a href="http://www.palliativecare.gov.au">www.palliativecare.gov.au</a>
Therapeutic Goods Administration	<a href="http://www.tga.gov.au">www.tga.gov.au</a>
Victorian Government Better Health Channel	<a href="http://www.betterhealth.vic.gov.au">www.betterhealth.vic.gov.au</a>

### International

American Geriatrics Society	<a href="http://www.americangeriatrics.org">www.americangeriatrics.org</a>
American Medical Directors Association	<a href="http://www.ama.com">www.ama.com</a>
Center for Gerontology & Health Care Research, Brown University	<a href="http://www.chcr.brown.edu/">www.chcr.brown.edu/</a>
Cochrane Collaboration	<a href="http://www.cochrane.org">www.cochrane.org</a>
International Association for the Study of Pain	<a href="http://www.iasp-pain.org">www.iasp-pain.org</a>
Joint Commission on Accreditation of Healthcare Organizations	<a href="http://www.jcaho.org">www.jcaho.org</a>
National Center for Complementary and Alternative Medicine	<a href="http://www.nccam.nih.gov">www.nccam.nih.gov</a>
National Institutes of Health	<a href="http://www.nih.gov">www.nih.gov</a>
US Department of Health and Human Services	<a href="http://www.cms.hms.gov">www.cms.hms.gov</a>
US National Library of Medicine (PubMed)	<a href="http://www.nlm.nih.gov">www.nlm.nih.gov</a>

# PAIN MANAGEMENT GUIDELINES

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

**Guideline** Acute Pain Management: Scientific Evidence  
**Source** Australian & New Zealand College of Anaesthetists  
**Website** [www.anzca.edu.au/publications/acutepain.htm](http://www.anzca.edu.au/publications/acutepain.htm)

---

**Guideline** Management of Persistent Pain in Older Persons  
**Source** American Geriatrics Society  
**Website** [www.americangeriatrics.org](http://www.americangeriatrics.org)

---

**Guideline** Chronic Pain Management in the Long-term Care Setting  
**Source** American Medical Directors Association  
**Website** [www.amda.com](http://www.amda.com)

---

**Guideline** Acute Low Back Problems in Adults  
**Source** Agency for Healthcare Research and Quality  
**Website** [www.ahrq.gov](http://www.ahrq.gov)

---

**Guideline** Acute Pain Management  
**Source** Agency for Healthcare Research and Quality  
**Website** [www.ahrq.gov](http://www.ahrq.gov)

---

**Guideline** Management of Cancer Pain  
**Source** Agency for Healthcare Research and Quality  
**Website** [www.ahrq.gov](http://www.ahrq.gov)

---

**Guideline** Sickle Cell Disease  
**Source** Agency for Healthcare Research and Quality  
**Website** [www.ahrq.gov](http://www.ahrq.gov)

---

**Guideline** Guideline for the Management of Pain in Osteoarthritis Rheumatoid Arthritis and Juvenile Chronic Arthritis

**Source** American Pain Society

**Website** [www.ampainsoc.org](http://www.ampainsoc.org)

---

**Guideline** Principles of Analgesic Use in the Treatment of Acute Pain and Cancer Pain

**Source** American Pain Society

**Website** [www.ampainsoc.org](http://www.ampainsoc.org)

---

**Guideline** Guideline for the Management of Acute and Chronic Pain in Sickle-Cell Disease

**Source** American Pain Society

**Website** [www.ampainsoc.org](http://www.ampainsoc.org)

---

**Guideline** Practice Guidelines for Cancer Pain Management

**Source** American Society of Anesthesiologists

**Website** [www.asahq.org](http://www.asahq.org)

---

**Guideline** Analgesic Ladder

**Source** World Health Organisation

**Website** [www.who.org](http://www.who.org)

---

# INDEX

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

Page references to tables and figures are in **bold**

## A

Abbey Pain Scale, xiii, 7, 14, **15**, 16  
activity patterns & pain, 5  
Accreditation Standards, 52, **52**  
acupuncture, 46, 47, 76 (Appendix 14)  
Aged Care Standards & Accreditation Agency, 52  
agitation, 11, 23, 24  
alcohol intake, 22  
Alexander technique, 76 (Appendix 14)  
allodynia, 42  
alternative medical systems, 47  
Alzheimer's disease, 38  
ambulation, impaired, 11  
amitriptyline, 23, 25  
amputations, 10  
analgesics, 7, 24-6, 47  
angina, 10  
anaesthetic blocks, 19  
analgic movements, 43  
Angiotensin Converting Enzyme inhibitor, 23  
anorexia, 21  
antiarrhythmic pain, 8  
anticonvulsants, 8, 24  
antidepressants, 8, 21, 24  
antiemetic treatment, 23  
antiepileptic drugs, 21, 24  
anti-inflammatory medication, 7, 47  
    *see also* Non-Steroidal Anti-Inflammatory Drugs  
anxiety, 11, 29, 45  
aromatherapy, 45, 47, 76 (Appendix 14)  
arthritis, 7, 45  
Asians, & pain relief, 23  
aspirin, 47  
assessment of pain, xii, 7-16  
    assessment tools, 11-16  
    components of initial assessment 65-6 (Appendix 2)  
    good practice principles, 7  
    relevant factors, **9**  
assessment procedures, 8-9  
ataxia, 23, 26  
Australian Pain Society, vi, 11, 52  
Australian Pharmaceutical Advisory Council, 22  
Australian Registration of Therapeutic Goods, 47  
ayurveda, 76 (Appendix 14)

## B

back disorders, 47  
behaviour, change in, 14  
behaviour reactivation, 18, 31  
behavioural social learning theory, 33  
bioelectromagnetic-based therapies, 48  
biofeedback, 18, 30  
biofield therapies, 48  
biological CAM therapies, 47  
blood pressure, 22  
body-based methods and CAM, 48  
body language, 71 (Appendix 7)  
body movements & pain, 5, 14  
bowel regimen for constipation, 22, **22**, 23  
Bowen therapy, 76 (Appendix 14)  
breathing, 43, 70 (Appendix 7)  
Brief Pain Inventory, 67 (Appendix 3)  
    translations & validations, 67 (Appendix 4)  
bulking agents, 22  
burning, 8

## C

calcium pyrophosphate deposition disease, 10  
CAM medications, 47  
    *see also* complementary & alternative medicine  
cancer, terminal stages, 21  
    *see also* chronic pain  
capsaicin, 26  
carbamazepine, 25  
cardiac failure, 22  
care, residential care standards, **52**  
    organisation, responsibilities & relationships, 56, **57**  
    *see also* quality health care  
carers, & promotion of education message, 31  
carpal tunnel syndrome, 10  
Caucasians, & pain relief, 23  
central post-stroke pain, 8  
Checklist of Nonverbal Pain Indicators, 16, 75 (Appendix 12)  
Chinese medicine, 47, 77 (Appendix 14)  
chiropractic manipulation, 48, 77 (Appendix 14)  
chronic heart failure, 38  
chronic pain, 10, 23, 24, 29, 54  
cimetidine, 23  
claudicant pain, 38  
claudication, 10  
Cochrane Collaboration, 45

# INDEX

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

codeine, 23  
cognitive & communication abilities & identification of pain, 1  
cognitive & communicative impairments, 2  
cognitive-behavioural therapy, 7, 29, 31, 48  
    components of, 34  
    delivery format, 32  
    good practice principles summarised, 29  
    interventions, 33-4  
    treatment, 31, 34  
cognitive dysfunction, 11  
cognitive impairment, 25  
    & exercise, 37  
cognitive learning models, 33  
cognitive therapy principles, 33  
cold, 18  
co-morbidity, 18, 38  
common medications, 22-6  
Complementary & Alternative Medicine Glossary, 76 (Appendix 14)  
Complementary & Alternative Medicine therapies, xv, 18, 45-9  
    defined, 45  
    Case Study, 48-9  
    good practice principles, 45  
    key messages, 46  
    types of, 47-8  
complementary medicines, 47  
confusion, 21, 23  
convulsions, 24  
coping skills, 18, 29, 30  
consolability, 71 (Appendix 7)  
constipation, 10, 21, 22, 23, 25, 54  
contractures, 10  
Cox-2 inhibitors, 21  
creative outlets, 48  
cultural diversity & pain management, 8  
Cyclo-Oxygenase, 22, 23

## D

dehydration, 22  
dietary supplements, 47  
delirium, 3, 23  
dementia, & staff observations of pain, 3  
dental pathology, 10  
depression, 11, 22, 29, 45  
desipramine, 25  
diabetic neuropathy, 8, 10, 25, 26, 40  
disability & pain, 11, 38

Discomfort Scale for Dementia of the Alzheimer's Type, 69 (Appendix 7)  
dizziness, 23, 26  
drowsiness, 21  
drug reactions, 18  
drugs, adjuvant, 8  
DS-DAT see Discomfort Scale for Dementia of the Alzheimer's Type  
dysphasia, 3  
dysarthria, 3  
dry mouth, 25

## E

education, 30, 55  
    systematic education program, 60  
education topics and format program, **60**  
educational approaches to treatment, 18  
electric pain, 8  
energy therapies, 48  
epidural corticosteroid injections, 19  
ethnic groups, 46  
exercise therapy, 18, 20, 37, 38-9, **38, 39**, 46, 55  
    types of, 37-9

## F

facet arthropathies, 10  
Faces Pain Scale, 72 (Appendix 9)  
facial expressions & pain, **3**, 5, 14, 43, 70 (Appendix 7)  
falls, 11, 21, 26  
fasting, 22  
fentanyl patches, 24  
fever, 23  
fluoxetine, 23  
fluvoxamine, 23  
fractures, 7

## G

gabapentin, 25, 26  
gait disturbances, 11  
gastrointestinal complications, 22  
gastrointestinal prophylaxis, 55  
Geriatric Pain Assessment Sheet, 16, 74 (Appendix 11)  
glomerular filtration rate, 22  
glucosamine, 46, 47  
gout, 10  
group activities, 31, 32  
Guidelines for Medication in Residential Aged Care Facilities, 22

# INDEX

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## H

healthcare & costs, 11  
haemorrhage, 22  
hallucinations, 23  
handicap, 11  
haloperidol, 23  
heart rates & exercise, 38-9  
heat, 7, 40  
headaches, 10, 23  
health care resources, 29  
    *see also* care  
herbal medicines, 47, 77 (Appendix 14)  
holistic perspective, 46  
homeopathic medicines, 47  
homeopathy, 46, 77 (Appendix 14)  
hostel residents, & dementia, 1  
hyperactivity, 23  
hyperalgesia, 42  
hypercalcaemia, 22  
hypertension, 22, 23  
hypomania, 23  
hypothyroidism, 22

## I

indicators *see* quality indicators; target indicators  
identification of pain, xii, 1-6  
    known barriers, 2  
imagery, 18  
immobility & pain, 10  
imipramine, 25  
Indian medical practice, 47  
Institute for Healthcare Improvement (USA), 58  
interpersonal interactions & pain, 5  
Interventional Pain Management, 19, 19  
insomnia, 22, 25  
intra-abdominal conditions, 7  
itching, 8, 23

## J

Joint Commission on Accreditation of  
    Healthcare Organizations (USA), 59, 60  
joint replacement, 55

## K

kinesiology, 77 (Appendix 14)

## L

laxatives, 22  
leg cramps, 10  
legal prescribing, 23  
linguistic diversity & pain, 8  
lithium, 23  
liver dysfunction, 22  
local anaesthetic blocks, 19

## M

malnutrition, 11  
manual handling, 42-3  
massage, 18, 45, 77 (Appendix 14)  
meditation, 48, 77 (Appendix 14)  
Memorial Pain Assessment Card, 16, 73 (Appendix 10)  
Memorial Symptom Assessment Scale, 16, 73 (Appendix 10)  
mental healing, 48  
mental status changes & pain, 5  
methadone, 24  
mind-body interventions, 48  
moclobemide, 23  
mono-amine oxidase inhibitors, 23  
mood disorders, 10, 29, 38  
morphine, 8, 23, 24, 47  
moving patients *see* manual handling  
multidimensional pain assessment, 11  
multidisciplinary treatment approach, 18-9, 46  
multidisciplinary pain clinics, 19  
musculoskeletal pain, 7, 22  
    Case Study, 41-2

## N

National Health & Medical Research Council, 46  
National Institute of Clinic Studies, 56  
National Institute of Health, (USA), 45  
naturopathic medicines, 21, 47 77 (Appendix 14)  
nausea, 21, 23  
neuropathic pain, 8, 10, 22, 24  
    Case Study, 24-5  
nociceptive pain, 7  
non-cancer pain, 10, 21  
non-drug treatments, 18  
non-pharmacological treatment therapies, 18, 18  
Non-Steroidal Anti-Inflammatory Drugs, 21, 22-3, 54, 55  
nortriptyline, 25  
Numeric Rating Scale, 13, 13  
nurses & pain management, 31  
nutrition, 22

# INDEX

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## O

occipital neuralgia, 10  
oedema, peripheral, 22  
opioid analgesia, 54  
opioid compounds, 7,  
opioid therapy, 22, 23-4  
    Case Study, 26-7  
orthodox therapies & CAM, 46  
orthostatic hypotension, 25  
osteoarthritis, 10, 38, 40, 47  
    quality indicators, **54-5**  
osteopathic manipulation, 48, 77 (Appendix 14)  
osteoporosis, 38  
oxycodone, 23, 24

## P

pain, & manual handling, 42  
    & mixed or unknown mechanisms, 8  
    benchmark of practice, 51  
    common causes of, 10  
    documenting, **56**  
    freedom from, 51  
    impact of, 10, **11**  
    informant reports, 4  
    persistent, 33, 34, 37  
    recommended organisation, responsibilities & relationships, **57**  
    sensitivity, 42, 43  
    severity of, 10  
    types of, 7-8  
    unrelieved, 11  
    see also quality indicators  
pain assessment see assessment of pain  
Pain Assessment in Advanced Dementia Scale, 14, 16, 69 (Appendix 7)  
    item definitions, 70-1  
pain identification see under identification  
pain management, attributes of management, **59**  
    expected outcomes for residents in care, **52**  
    guidelines, 79  
    see also quality indicators; systems issues  
Pain Management Standard 1998, 52  
pain management techniques, 19, **19**  
pain thermometer, 68 (Appendix 6)  
palpation, 43  
paracetamol, 21, 22, 47  
paroxetine, 23  
peptic ulceration, 22  
peripheral vascular disease, 10, 38

pethidine, 24  
phantom limb pain, 8, 10  
pharmacological treatments, xiii. 21-8  
    common medications, 22-6  
    good practice principles summarised, 21  
    key messages listed, 21-2  
phenytoin, 25  
physical changes, 14  
physical deconditioning, 11  
physical modalities, 37, 40-1  
physical therapies, xiv, 37-43  
    Case Study, 41  
    good practice principles summarised, 37  
physiological change, 14  
Pictorial (Faces) Pain Scale, 16, 72 (Appendix 9)  
polypharmacy, 11, 18, 45  
positioning of patients, 10  
post-herpetic neuralgia, 8, 10, 25, 26, 40  
post-stroke pain syndromes, 10  
prayer, 30, 48  
Present Pain Inventory, 68 (Appendix 5)  
problem solving, 18, **31**  
psychological-educational approaches to pain management, xiv, 29-35  
    good practice principles summarised, 29  
    cognitive-behavioural intervention, 33-4  
psychological educational therapy, common components of, **30-1**  
    Case Study, 32-3  
psychological & social stress, 11  
psychological/psychiatric factors of pain, 8  
psychopathology, 8  
psychosocial issues, 8

## Q

quality and systems issues, xv, 51-60  
quality assurance, good practice principles, 51  
quality health care, 51-2  
    definition of, 51  
quality indicators for:  
    documenting pain, **56**  
    evaluating pain management, 53  
    osteoarthritis management, **54-5**  
    pain management, 56  
        framework for care, 56, **57**  
    see also target indicators  
quality of life, 29, 46  
qi-gong, 48, 77 (Appendix 14)  
quinidine, 23

# INDEX

PAIN IN RESIDENTIAL AGED CARE FACILITIES • MANAGEMENT STRATEGIES

## R

radiculopathy, 19  
radiofrequency denervation, **19**  
reflexology, 77 (Appendix 14)  
rehabilitation, failed, 11  
reiki, 48, 77 (Appendix 14)  
relationships, 46  
relaxation, 18, 30, 45  
relaxation therapies, 31  
religious groups, 46  
renal impairment, 22  
residential care, standards & guidelines, **52-3**,  
residents, & identification of pain, 3, **4**  
    & pain, 2  
    communicative, 2, 16  
    non-communicative, & pain, 2, 14, 16  
    with borderline communicative capacity, 16  
Resident's Verbal Brief Pain Inventory, xii, 11, **12**, 13  
restraints, 10  
restlessness, 23  
Rofecoxib, 23  
rheumatic pain, 47  
rheumatoid arthritis, 10, 38, 47  
routines changes in, 5

## S

safety & effectiveness of CAM therapies, 46  
sciatica, 8  
sedation, 23, 25, 26  
Selective Serotonin Reuptake Inhibitors, 23  
Serotonergic Syndrome, 23  
shiatsu, 77 (Appendix 14)  
shingles, 42  
shooting pain, 8  
skin ulcers, 7, 10  
sleep, tips for, 75-6 (Appendix 13)  
sleep disturbance, 11  
social diversity, 2  
social skills, 29  
socialisation, decrease of, 11  
socio-economic groups, 46  
sodium retention, 22  
sodium valproate, 25, 26  
spinal canal stenosis, 10  
spiritual healing, 46  
staff in nursing homes, observation of pain-related behaviours, 3, 5  
    promotion of education message, 31  
staff workloads, 2  
St John's wort, 23  
stress management, 46  
stump pain, 10

superficial cold, 40  
    see also cold  
superficial heat, 18  
    see also heat  
sweating, 23  
systems issues, xv, 56-60

## T

tachycardia, 23  
tai chi, 77 (Appendix 14)  
target indicators, 58  
    for pain management practice, **58**  
thoughts, 30  
    restructuring of, 18  
Therapeutic Goods Administration, 45  
tingling, 8  
topical agents, 26  
touch therapy, 48  
tramadol, 23  
Transcutaneous Electrical Nerve Stimulation 18, 37, 40-1  
tremor, 23, 24  
tricyclic antidepressants, 8, 23, 25  
    see also antidepressants  
trigeminal neuralgia, 8, 10, 25  
twitching, 24

## U

uni-dimensional pain intensity scales, 13, **13**  
urinary retention, 25

## V

venlafaxine, 23  
Verbal Descriptor Scale, 14  
    see also Checklist of Nonverbal Pain Indicators  
verbal descriptors, 13  
verbal pain inventory, **12**  
verbalisation & pain, 5  
vertebral compression fractures, 10  
Veterans Health Administration, 58  
vibration, 18, 40  
Vioxx, 23  
Visual Analogue Scale, 16, 72 (Appendix 8)  
vocalisation & pain, **5**, 14, 43, 70 (Appendix 7)  
vomiting, 23

## W

walking, 38, 39  
water retention, 22  
websites, 78

## Y

yoga, 46, 77 (Appendix 14)