

Symposium: Pain in Persons with Dementia

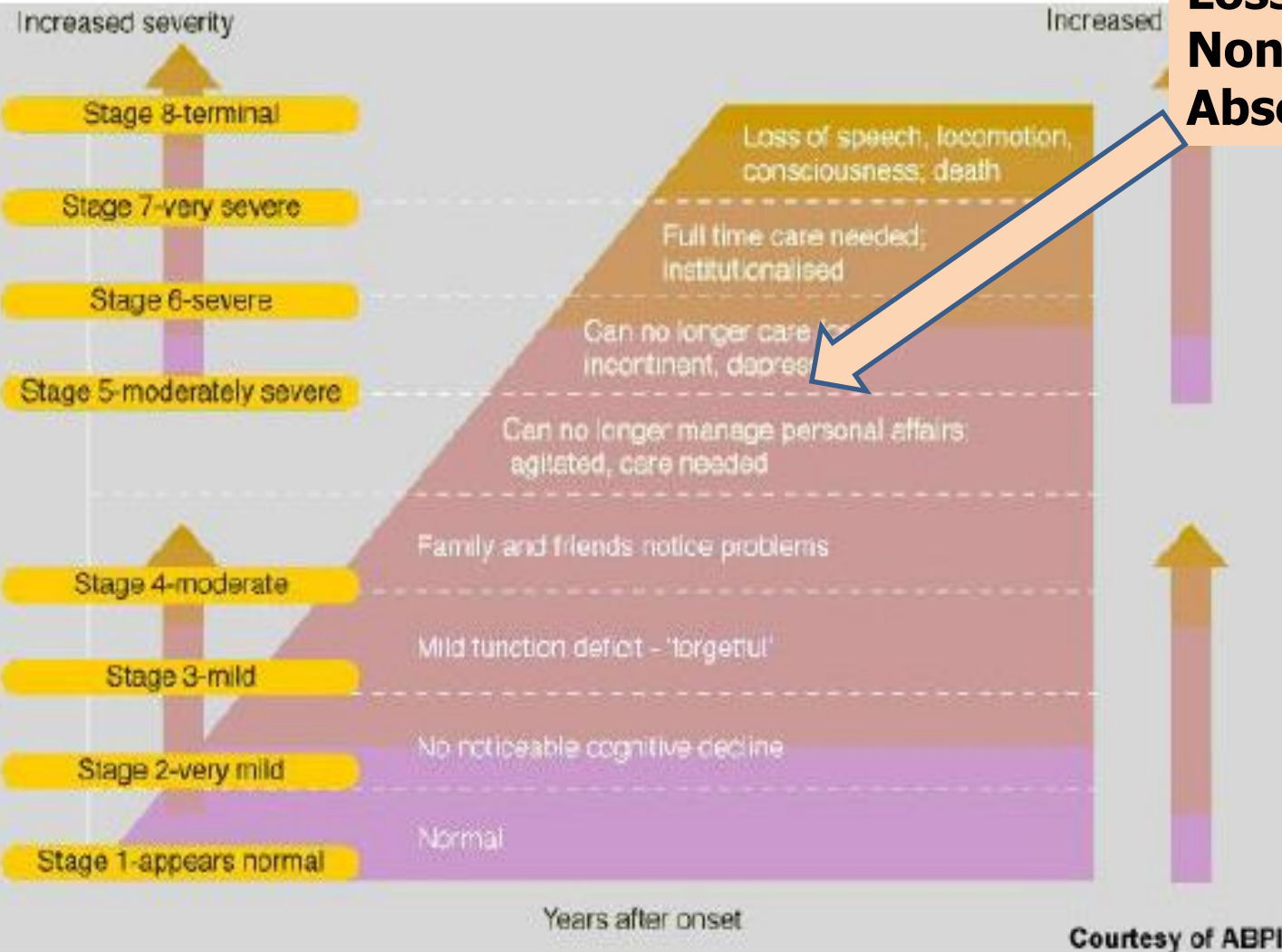
Part 3 Management

Assoc Prof Samuel Scherer

IFA Meeting
6th May 2010



Dementia: Stages of Severity



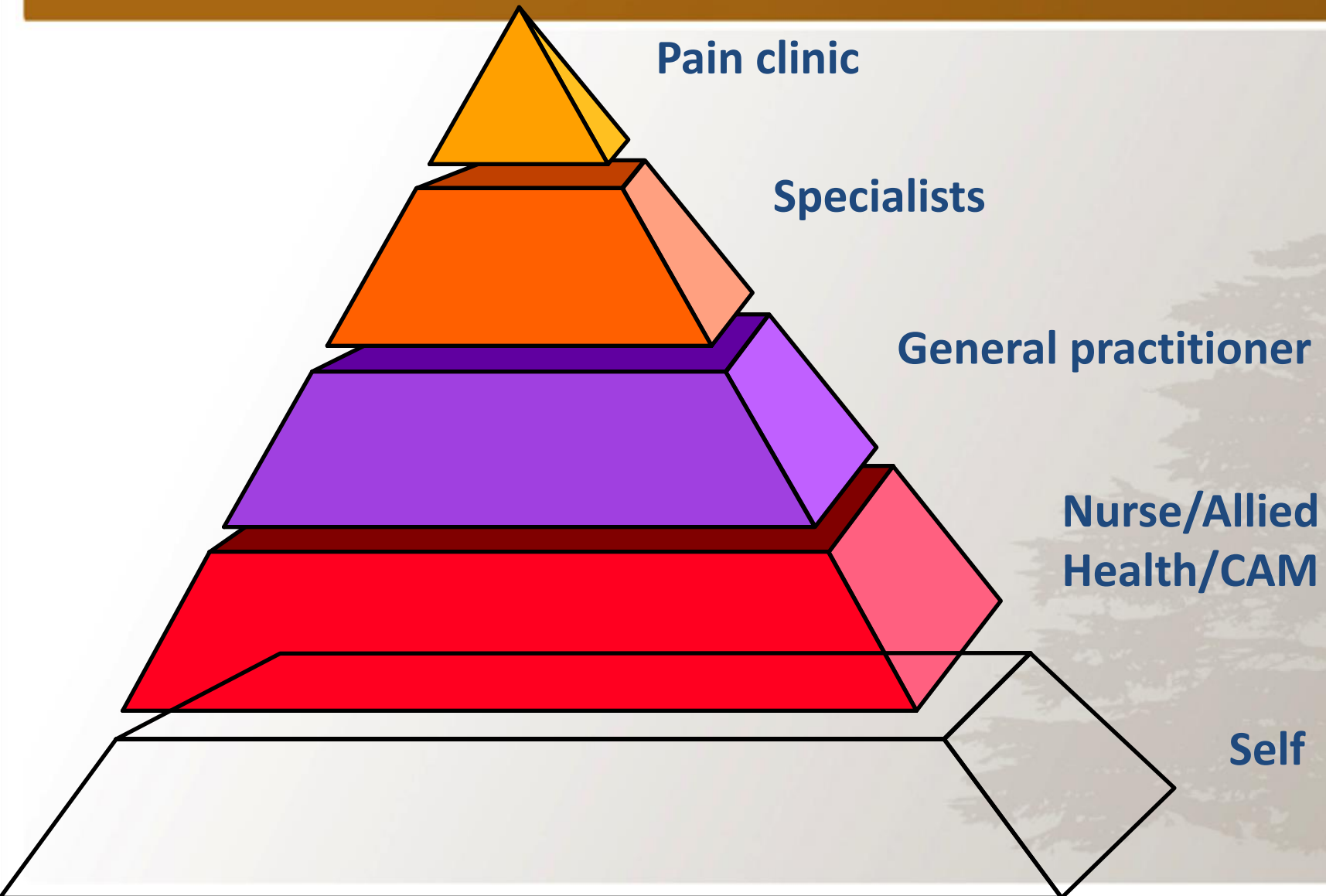
Loss of language
Non-communicative
Absence of pain report

Basic ADLs

Behavioural disorders

Cognitive
Apathy/depression

Assessment & Management of Pain

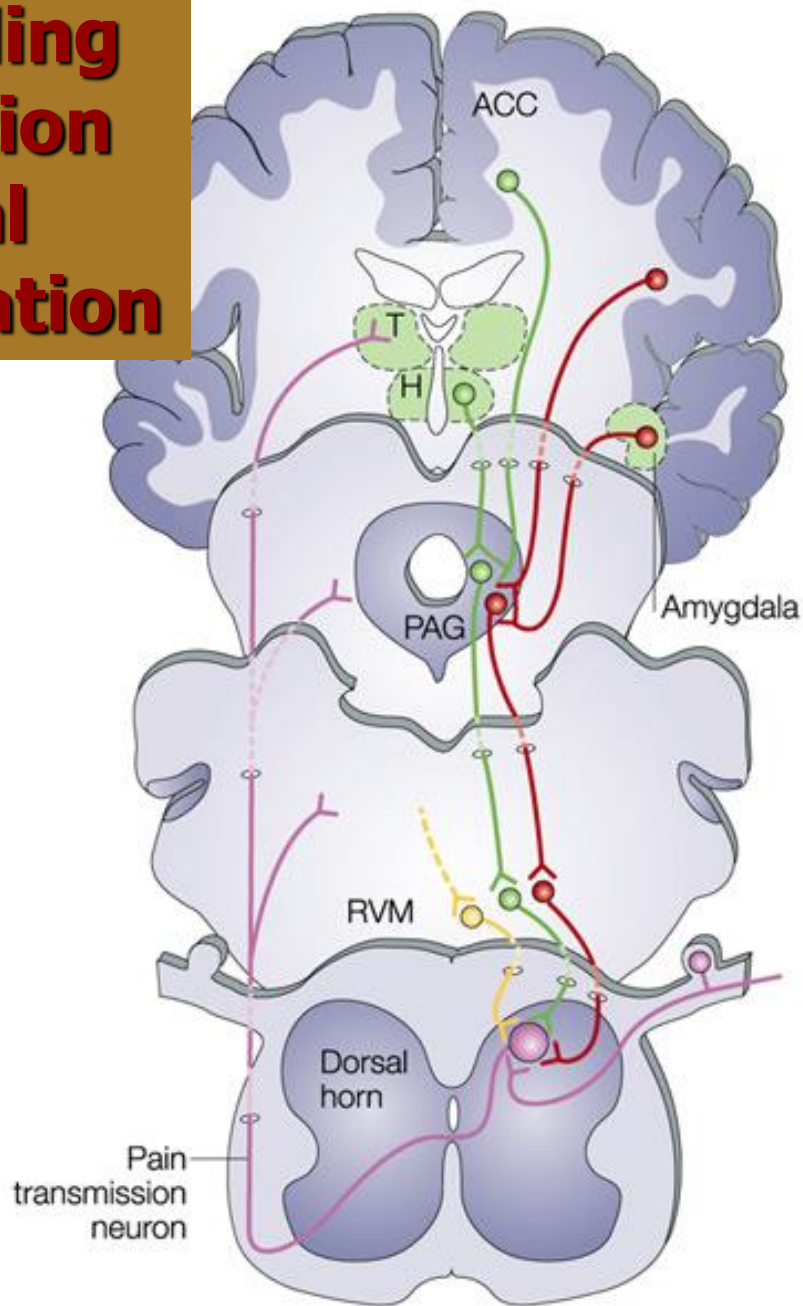


Comparison of Acute, Chronic and Cancer Pain

	Acute Pain	Chronic Pain	Cancer Pain
Duration	Hours/days	Months/years	Unpredictable
Associated pathology	Present	Not often	Present
Associated affective problems	Uncommon	Depression, anxiety, 2 ^o gain	Many
Biological Value	High	Low	Low
Social effects	Few	Profound	Variable but usually profound
Treatment <i>(Ashburn 1999)</i>	Analgesics	Multimodal, largely behavioural, moderate role for drugs	Multimodal, major role for drugs

Current best treatment provides < 30% of patients with moderate to good relief of chronic non-malignant pain (Jensen 2005)

Descending modulation & central sensitization



ACC - anterior cingulate cortex

T – thalamus

H - hypothalamus

PAG - periaqueductal grey

Green - inhibitory

Red - facilitatory

Yellow – serotonergic

RVM - rostral ventromedial medulla

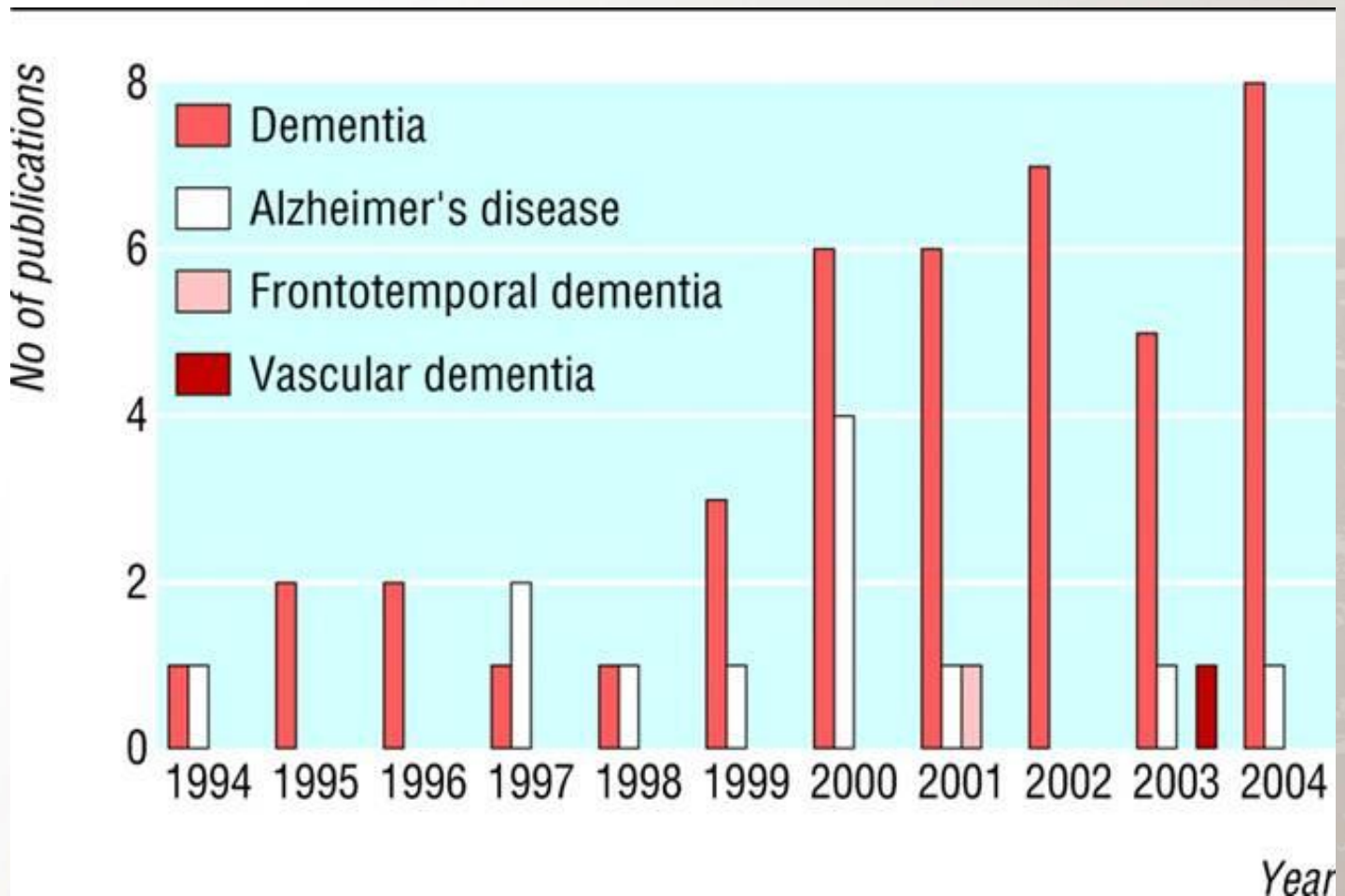
Fields H

Nature Reviews

Neuroscience

5, 565-575 (2004)

Experimental and Clinical Studies on Pain and Dementia



(Scherder 2005)

Influence of type of dementia on motivational-affective aspects of pain

Condition	Neuropathology	Experimental and clinical results
Alzheimer's disease	Degeneration of thalamic intralaminar nuclei	↓
Vascular dementia	De-afferentiation	↑
Frontotemporal dementia	Degeneration of prefrontal cortex	↓
Parkinson's disease	Degeneration of brain stem nuclei	↑

(Scherder 2005)

Medical characteristics of the RAC population

Condition	Prevalence %	Reference
Dementia (NH)	60	Rosewarne 1997
Dementia (Hostel)	28	Rosewarne 1997
Depression	30-40	Mann 2000
Sensory Loss (Vision/hearing)	80+	Worrall 1993
Sleep Disturbance	67	Ersser 1999
Falls	60	Rubenstein 1996
Osteoporosis	85	Zimmerman 1998

96% of people with dementia living in RACF in Australia have moderate or severe dementia (*AIHW 2006*)

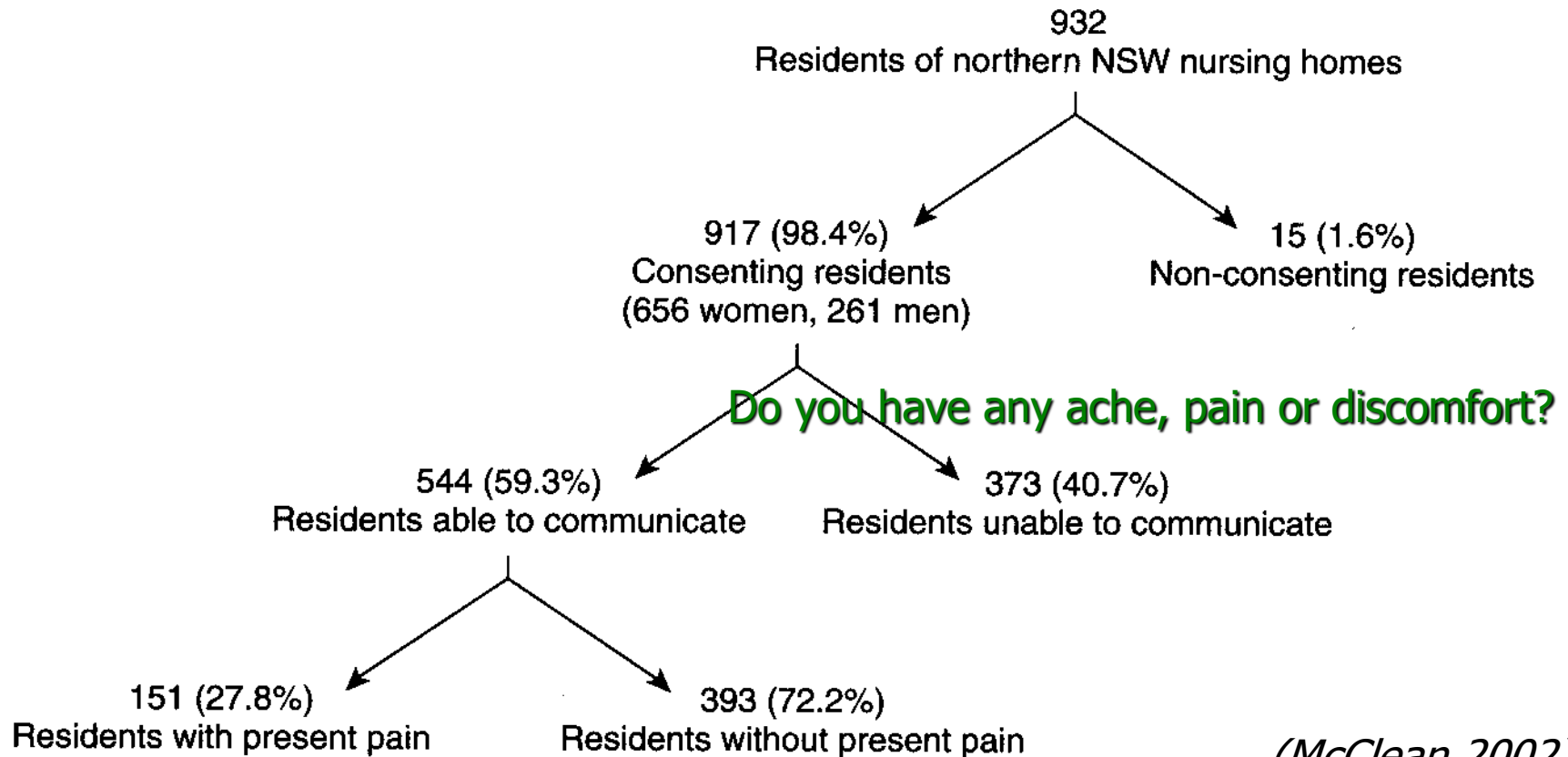
(*Scherer 2001*)

Pain Prevalence in Nursing Homes

Author	Number	Method	%
Roy (1986)	132	VAS "current"	83
Ferrell (1990)	92	VAS "1 week"	71
Parmelee (1993)	758	Verbal/NRS "several weeks"	80
Wagner (1997)	461	Staff: "everyday/last 30 days"	39
Weiner (1998)	158	Verbal/NRS "everyday/30 days"	58
Teno (2001)	2.2 miln	MDS "daily - moderate +"	15
Allcock (2002)	68 NH's	Staff: "chronic pain" Non malignant Malignant	37 2
McClellan (2002)	544	"Current - yes/no"	28
Tan (2003)	71	Chart audit/analgaesic/2 weeks	47

Prevalence of pain and capacity to report pain among NH residents

1: Participation and presence of pain among nursing home residents in our survey



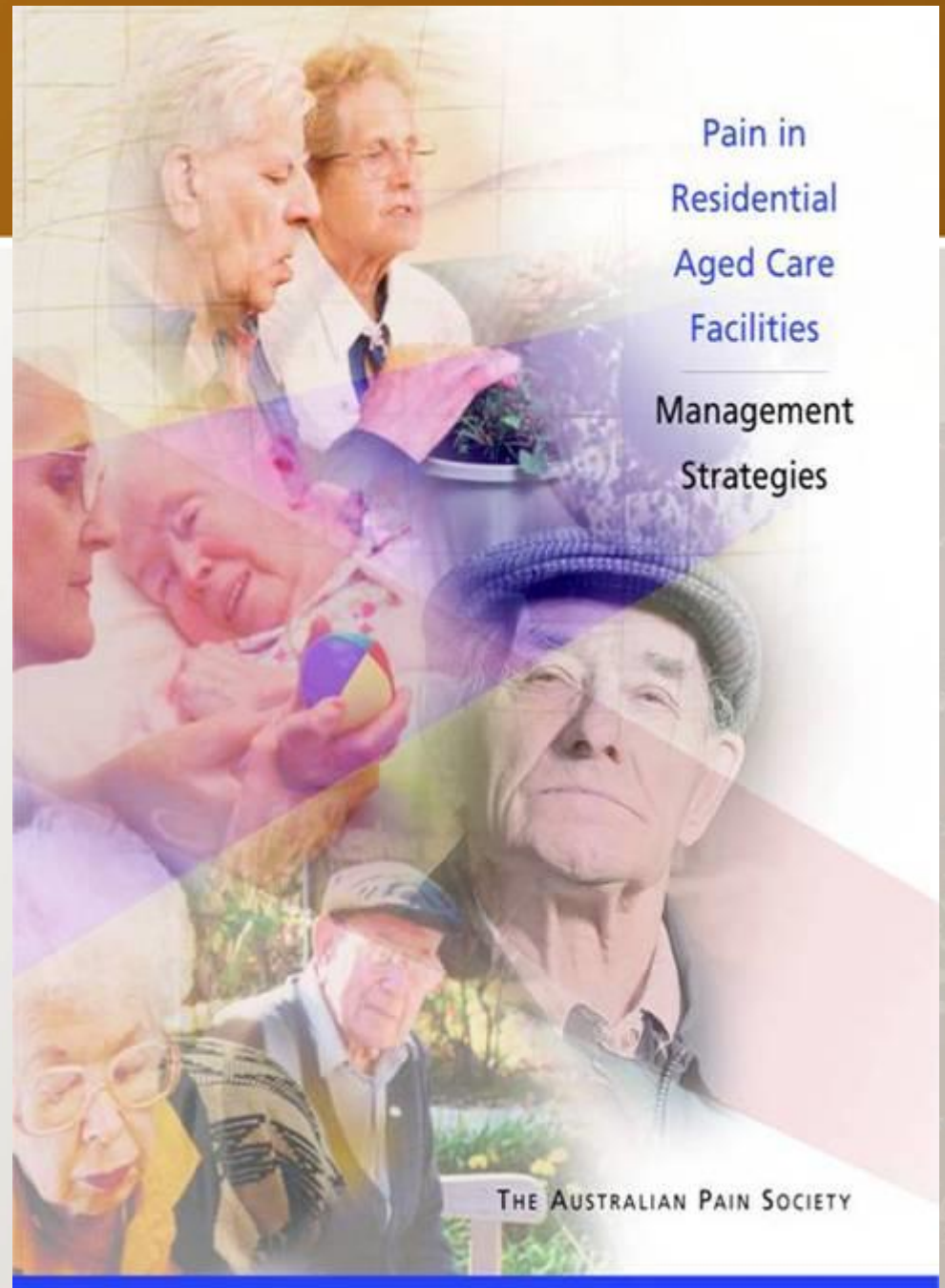
(McClellan 2002)



THE AUSTRALIAN PAIN SOCIETY August 2005

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<http://www.apsoc.org.au>



Encouraging Best Practice in Residential Aged Care

Pain Management

Final Edition

Issue 5 Nov 2009

In our final newsletter we would like to express our gratitude and appreciation to everyone who participated in and contributed to the EBPRAC Pain Management project over the past two years. To all the residents, facility staff and academic partners who have had a part in this project we say thank you. Without your time and efforts the success of this project would not have been possible.

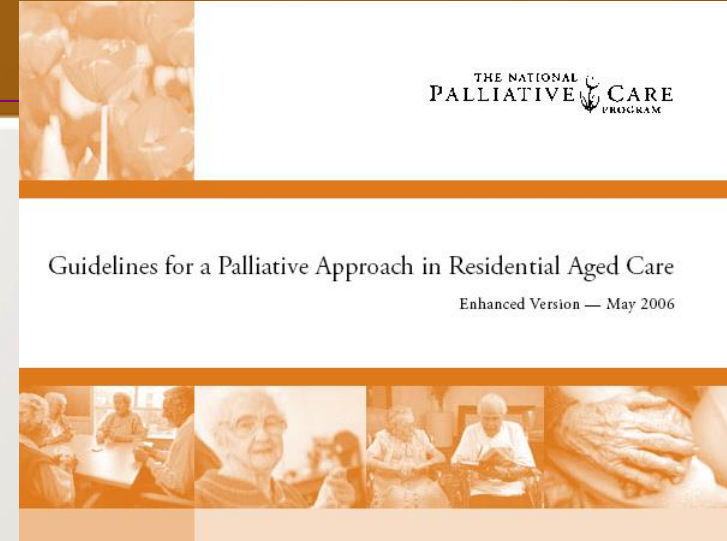
(Gibson 2009)

Palliative care and geriatric medicine approaches to pain

- ✓ Dignity and quality of life
- ✓ Advance care planning
- ✓ Advanced dementia
- ✓ **Symptom management**
- ✓ Psychological support
- ✓ Family and social support
- ✓ Cultural and Spiritual issues
- ✓ Volunteer, Staff support
- ✓ End of life Care
- ✓ Bereavement

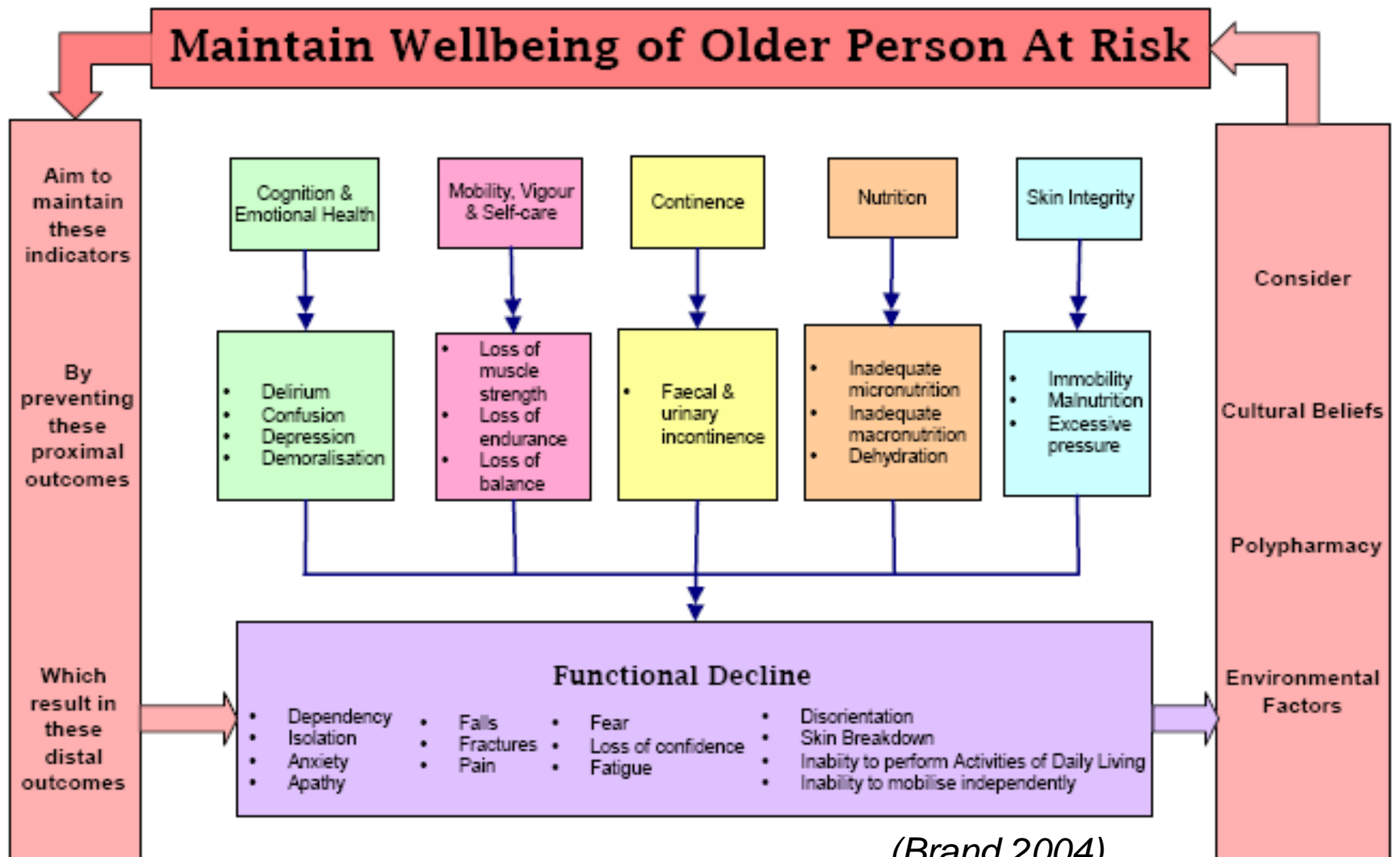
- ✓ Identification
- ✓ **Assessment (Diagnosis)**
- ✓ Pharmacological therapies
- ✓ Psychological therapies
- ✓ Physical therapies
- ✓ Complementary approaches
- ✓ Quality & Systems issues

Maintenance of function



Best Practice Approaches to Minimise Functional Decline in the Older Person across the Acute, Sub-acute and Residential Aged Care Settings

<http://www.health.vic.gov.au/acute-agedcare/>



Preventive Ethics



Overview

Identifying Potential Conflicts

Advance Directives

Managing Conflicts

(Donovan and Hyatt 2009)

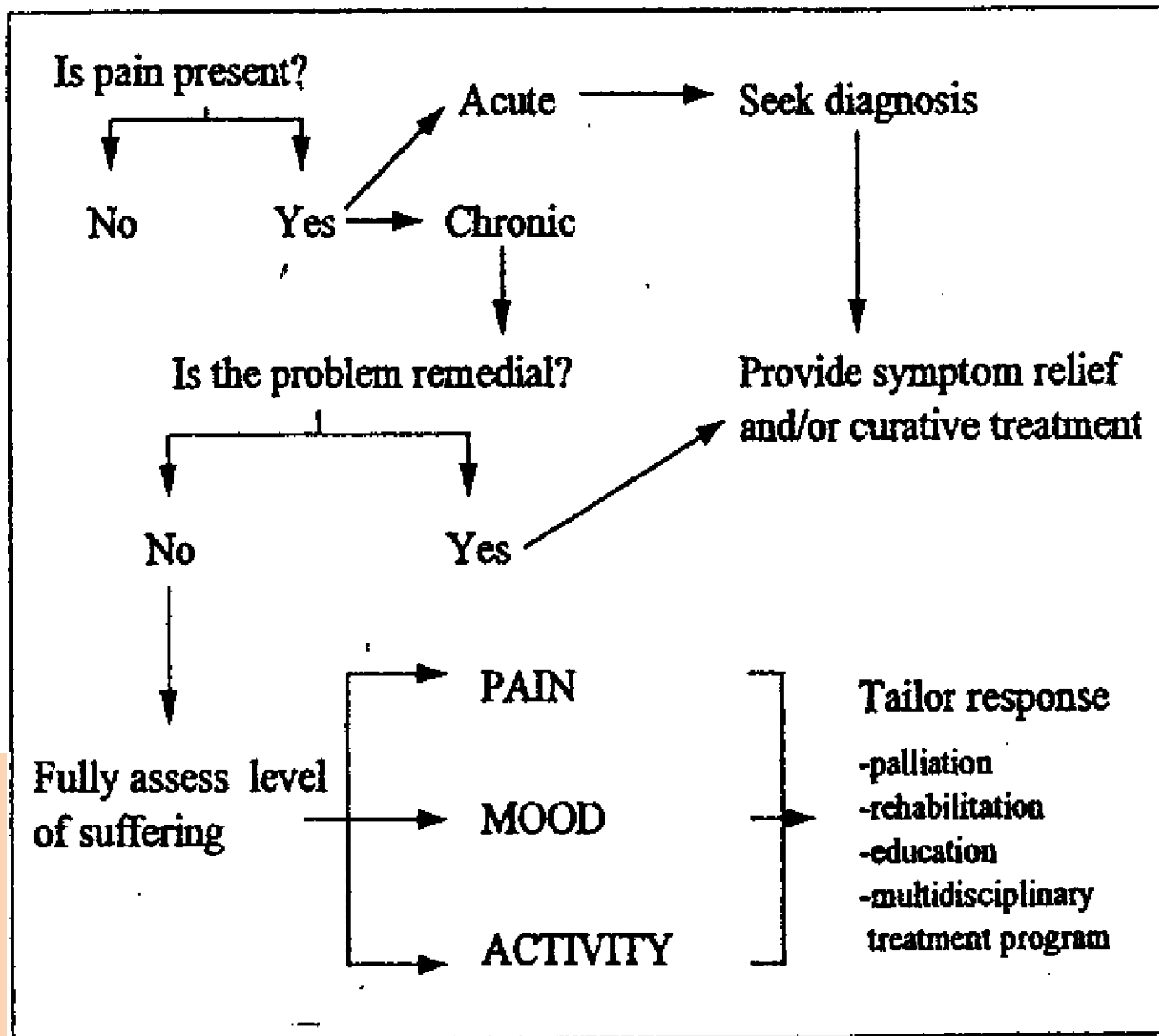
Management of Pain in Older People

(Helme 1998)

Make a diagnosis based on thorough history and examination

Treat definitively if possible

Multidimensional approach to further assessment and management



Model Resources for Assessment and Management of Severe Chronic Pain

- Multidisciplinary assessment
- Case conference
- Formulation



- Management plan
 - An individually tailored response to a bio-psycho-social disorder
 - “Selective, Tailored, Biopsychosocial Pain Treatment” (*Gallagher 2007*)

Non-Pharmalogical Treatments

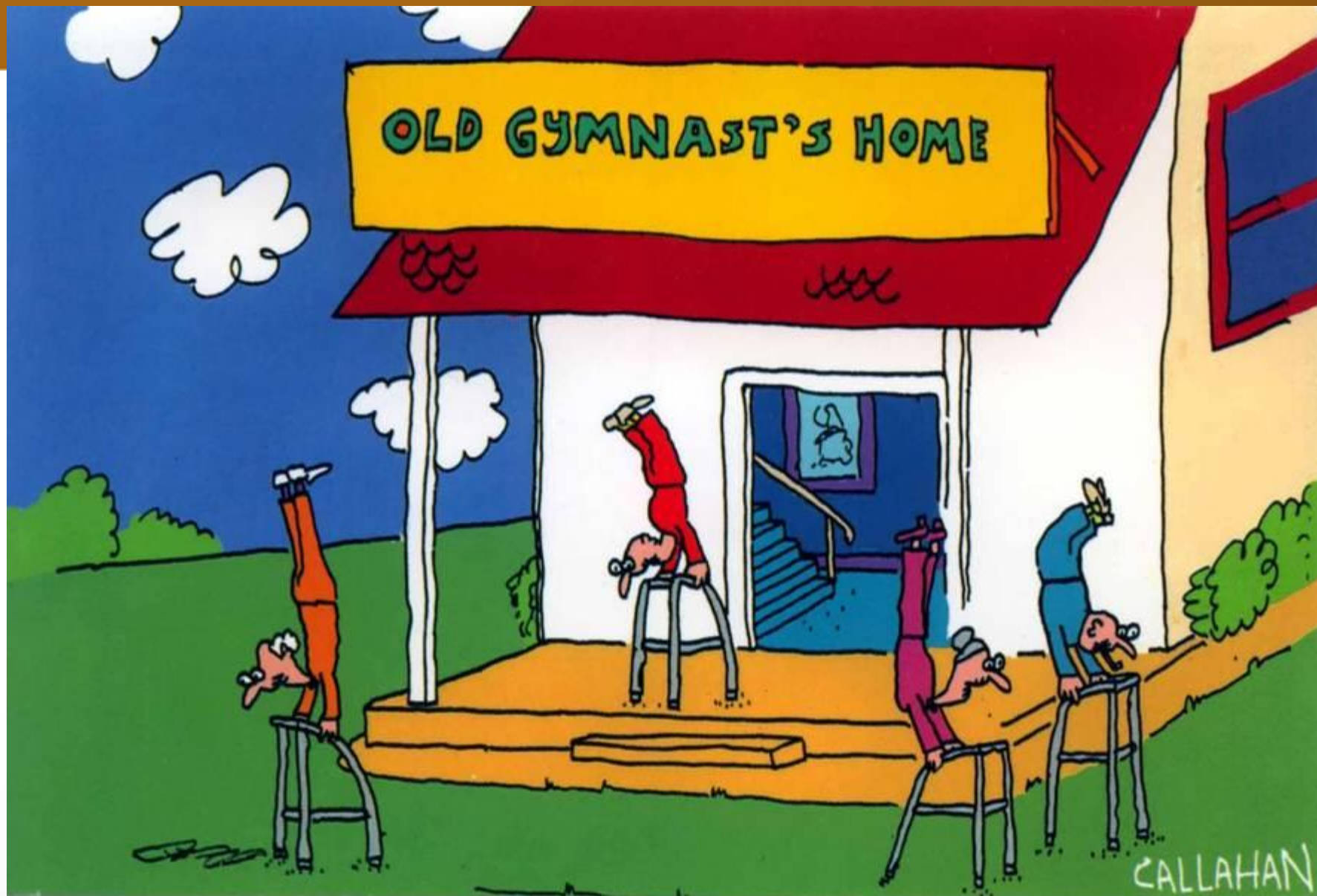
Physical

- Therapeutic Movement and Exercise
 - Aerobic
 - Strength workouts
- Physical Modalities

Educative - Cognitive – Behavioural

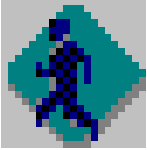

Complementary and Alternative

Therapeutic Movement and Exercise



Therapeutic Movement & Exercise

*Recommendations According to Mobility & Cognition (Farrell 2005)

Walking? 	Cognition? 	Therapeutic movement – exercise intervention for persistent pain
Yes	Yes	Walking Group Strength Training (Aquatic Therapy)
Yes	No	Walking Group
No	Yes	Strength Training
No	No	?? <i>(Partial approach)</i>

* Activity may be contraindicated for some types of pain and in some residents

Physical Modalities

- **Superficial heat or cold**
- **TENS**
- **Acupuncture**
- **Massage**

Other

- Posturing/repositioning
- Manipulation
- Vibration
- Ultrasound
- Diathermy

Assistive devices

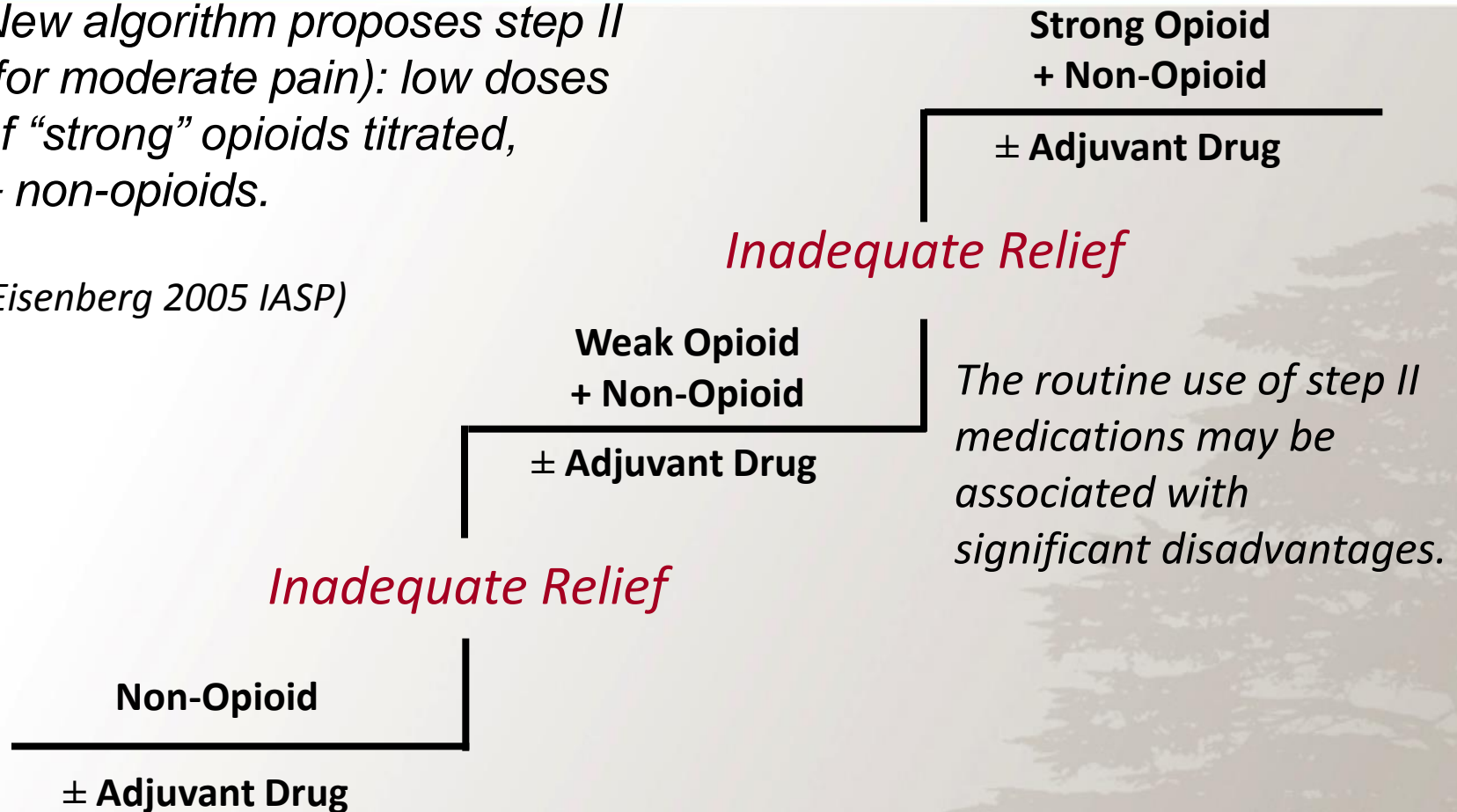
- Orthotic devices
- Environmental modification



Pharmacological Management of Pain: "WHO Ladder"

New algorithm proposes step II (for moderate pain): low doses of "strong" opioids titrated, ± non-opioids.

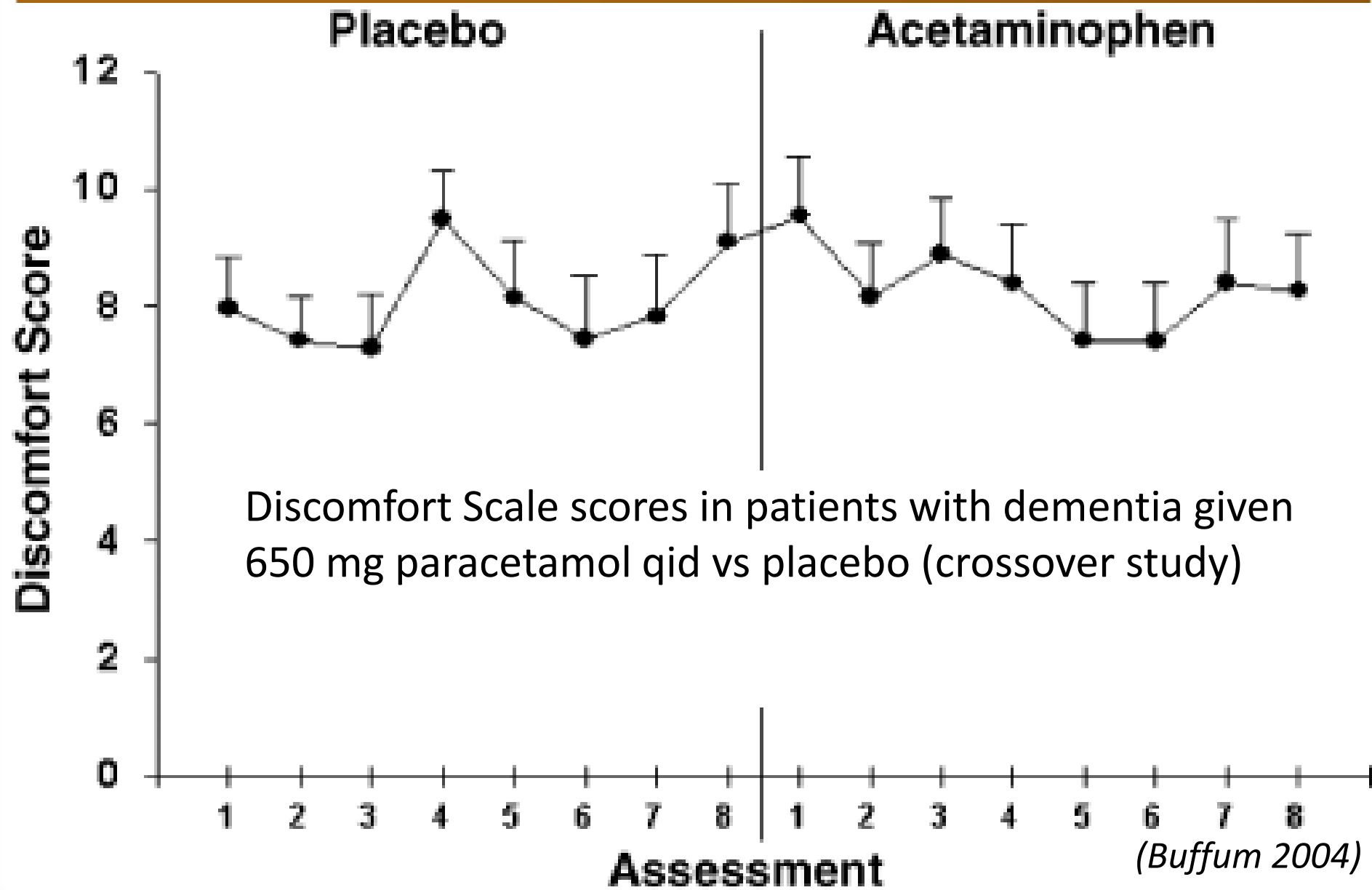
(Eisenberg 2005 IASP)



*World Health Organization. Cancer Pain Relief.
Geneva: World Health Organization, 1986.*

Paracetamol Efficacy?

Discomfort Scores in NH residents with dementia



Paracetamol Efficacy – Nursing home - dementia study

Method

- 25 residents with moderate-severe dementia, blinded crossover design
- 4 weeks paracetamol (3,000 mg/d) and 4/52 placebo

Results

- Active treatment group cf placebo increased:
 - Social interaction & engagement with media
 - Talking to themselves & work-like activity
- No effects on:
 - Agitation
 - Emotional well-being
 - PRN psychotropic medication



Conclusion

- “Untreated pain inhibits activity in nursing home residents with moderate-to-severe dementia”
- “Pain treatment in this group may facilitate engagement with the environment”
(Chibnall 2005)

NSAIDS

Cox-2 Inhibitors

- Risks: GI; Renal; Cardiovascular (1/100 – 1/500)
- Short ½ life agents safer in older people – eg ibuprofen
- Less reluctance to prescribe in palliative context eg bone pain
- Best used at low dose for short periods treatment for those without contraindications
- ? Low dose corticosteroids preferable for inflammatory arthropathies
- Topical use safer - ?efficacy

(Bochner 2007)

Opioid Efficacy Nursing Home - Dementia Study

Method:

- Placebo for 4/52 then long acting opioid (oxycodone 10mg bd)
- (plus aperients or placebo)
- for 4 weeks
- patients and nurses blinded
- measure agitation



Results:

- No difference between opioid & placebo in overall analysis
 - Both groups improved significantly & equally on CMAI
 - Those 85+ showed significantly lower scores for opioid cf placebo

Conclusion:

'Low dose, long acting opioids can lessen agitation that is difficult to control in very old (> 85) patients with advanced dementia''

(Manfredi 2003)

Opioid Side Effects



"I feel a lot better since I ran out of those pills you gave me."

Opioid Side Effects

Many side effects diminish or resolve with continued opioid use.

Conversely, some side effects are more apparent after long-term therapy

Major opioid-induced side effects and their principal treatments

Side Effect	Treatment
Nausea and vomiting	Antiemetics, metoclopramide, anticholinergics, opioid rotation
Pruritus	Antihistamines, opioid antagonists, propofol or 5-HT ₃ antagonists, nonpharmacological treatments
Sedation	Discontinuation of other sedating medications; opioid rotation, psychostimulants, donepezil
Myoclonus	Opioid rotation, benzodiazepines, skeletal muscle relaxants
Delirium	Opioid rotation, haloperidol, benzodiazepines, anticholinesterase
Respiratory depression	Naloxone (emergency situations only)
Constipation	Prophylactic treatment with a stool softener and bowel stimulant, nonabsorbable laxative (lactulose, polyethylene glycol), metoclopramide, opioid antagonists
Long-term side effects	Abnormal pain sensitivity: reduce opioid dose? Hypogonadism: testosterone or estrogen replacement

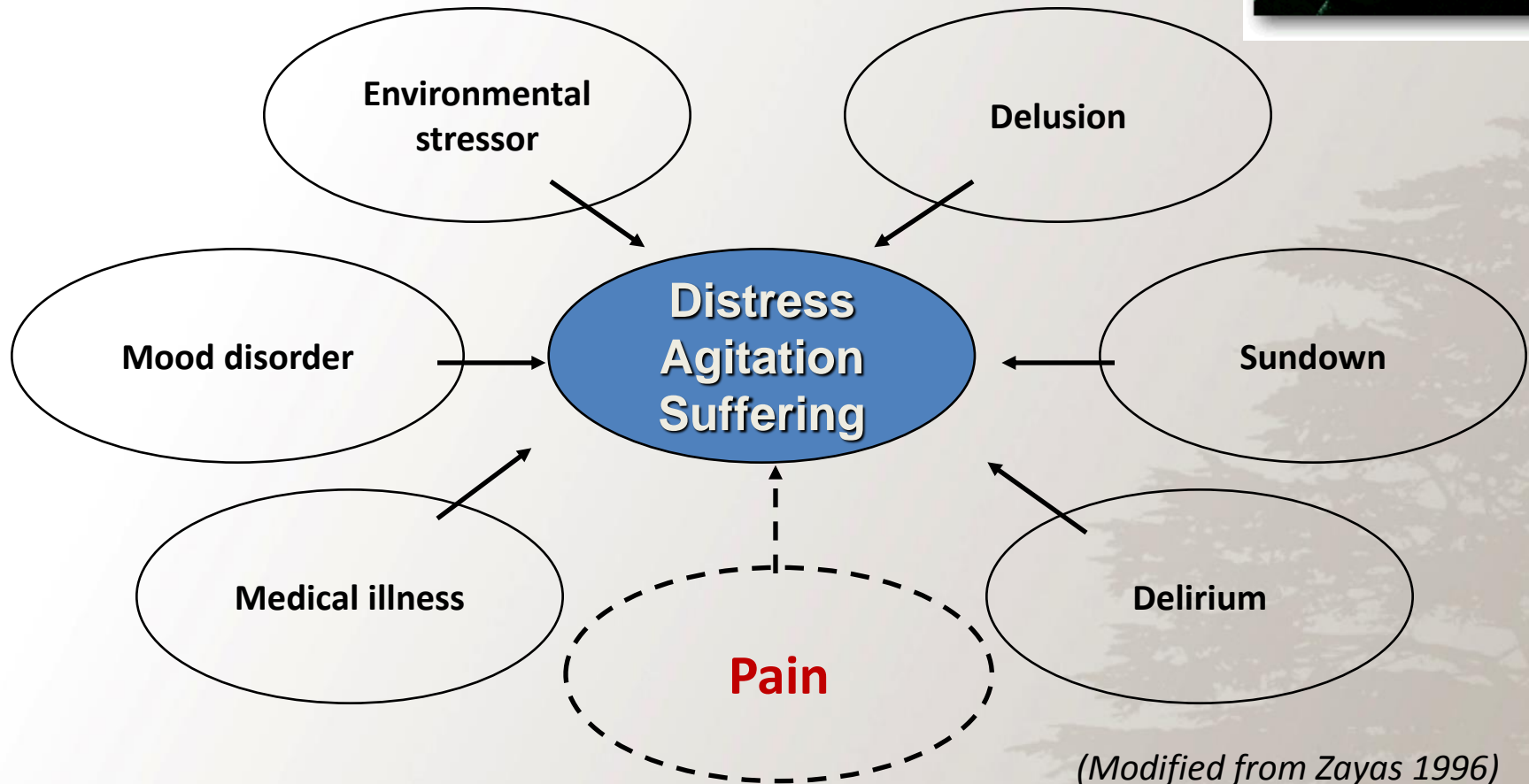
Opioids: Practice Points

- In non-cancer pain main goals: pain relief; &/or improved function &/or improved QOL
 - In relation to care status and aims
- Discuss & agree on specific goals of therapy with patient & or representative
- Document goals before embarking on opioid trial
- If goals not achieved with trial of reasonable dose for reasonable time - withdraw

Adjuvant Analgesics

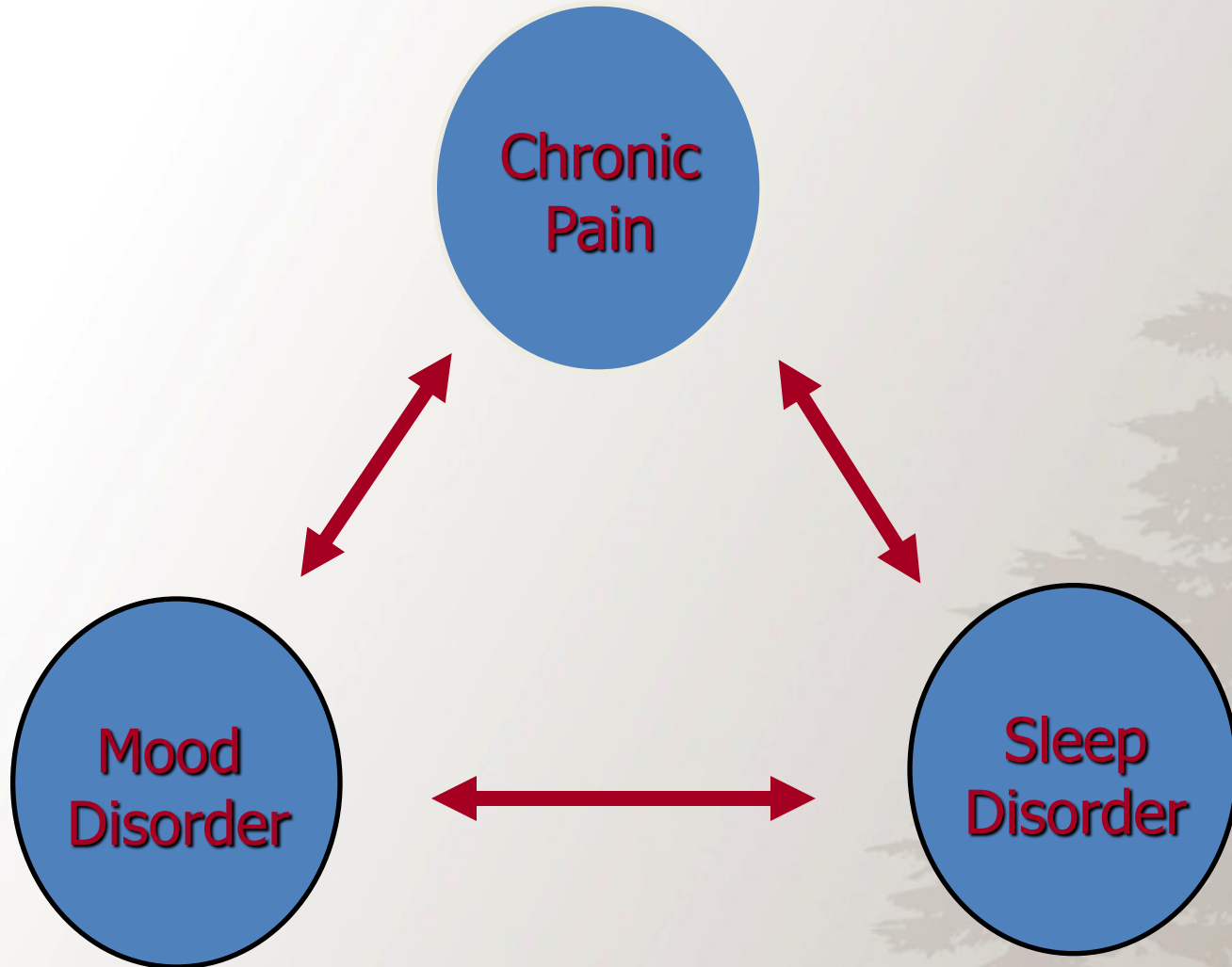
- Most anticonvulsants and antidepressants
 - Not SSRI's
- Other agents
 - Ketamine, Baclofen, Clonidine
- Good evidence in neuropathic pain
- NNT for 50% efficacy = 2 to 4
- Complex literature - agent and condition specific
- "Antihyperalgesia"
- Reduce opioid reliance and SE's
- Sequential and combined medication trials
- ? Tailor to a resident's symptom & comorbidity profile

Behavioural and Psychological Symptoms of Dementia



(Modified from Zayas 1996)

Associations of Chronic Pain



Potential remediable factors in those with insomnia	<i>N = 59 (%)</i>
Pain	8 (14)
Depression + BSD	5 (9)
Depression	4 (7)
BSD	4 (7)
Pain + depression + BSD	4 (7)
Pain + depression	3 (5)
Pain + BSD	3 (5)
Respiratory distress - orthopnea	2 (4)
Sleep disordered breathing + pain + depression	2 (4)
Restless Leg Syndrome/PLMS + pain	2 (4)
Frequent nocturia	1 (2)
No remediable factor identified	20 (35)

39% had +ve pain screen. 30% had +ve depression screen (Scherer 2007)

Correlations of insomnia with pain or depression in NH Cohort

	SII (n=32)	NPI - NB (n=44)
BPI	.54***	--
ABBEY	--	.39 **
GDS	.35 *	--
Cornell	--	.41 **

Pearson correlation coefficients

- * p < 0.05
- ** p < 0.01
- *** p < 0.001

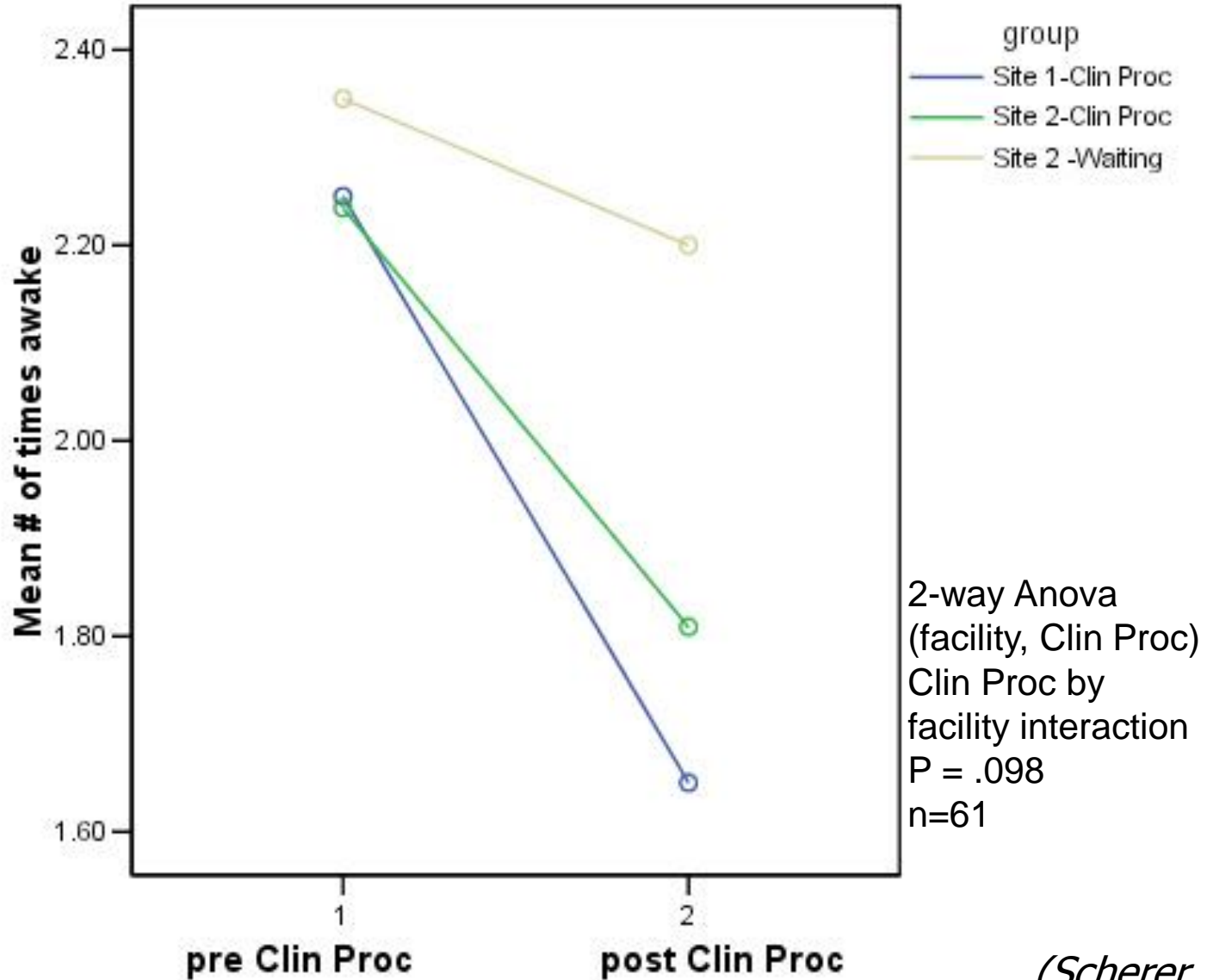
Cross correlations of pain with depression:

BPI – GDS: .48**

Abbey – Cornell: .52***

(Scherer 2005)

Mean # times awake overnight sleep log



(Scherer 2005)

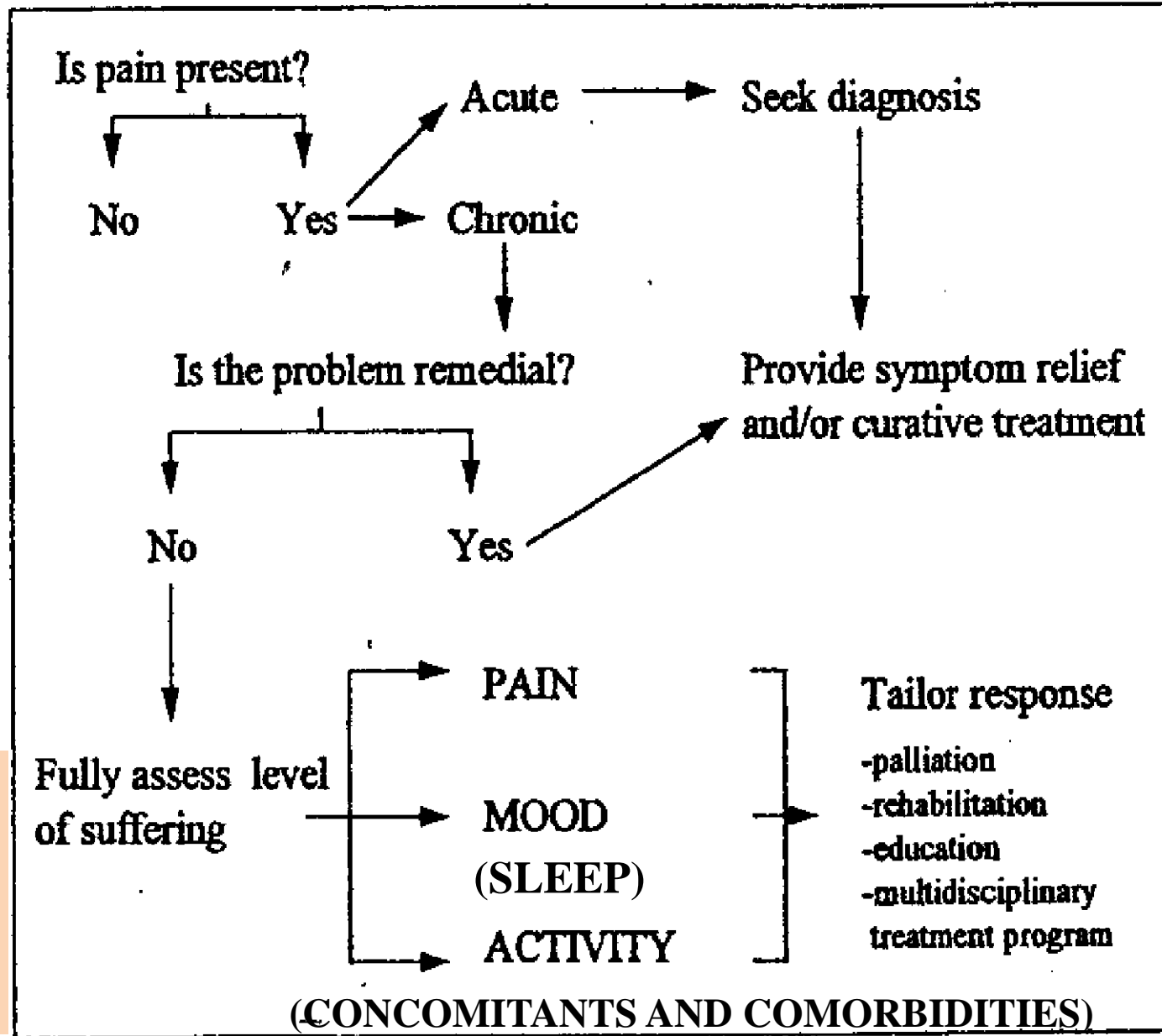
Management of Pain in Older Persons

Summary (Helme 1998)

Make a diagnosis based on thorough history and examination

Treat definitively if possible

Multidimensional approach to further assessment and management





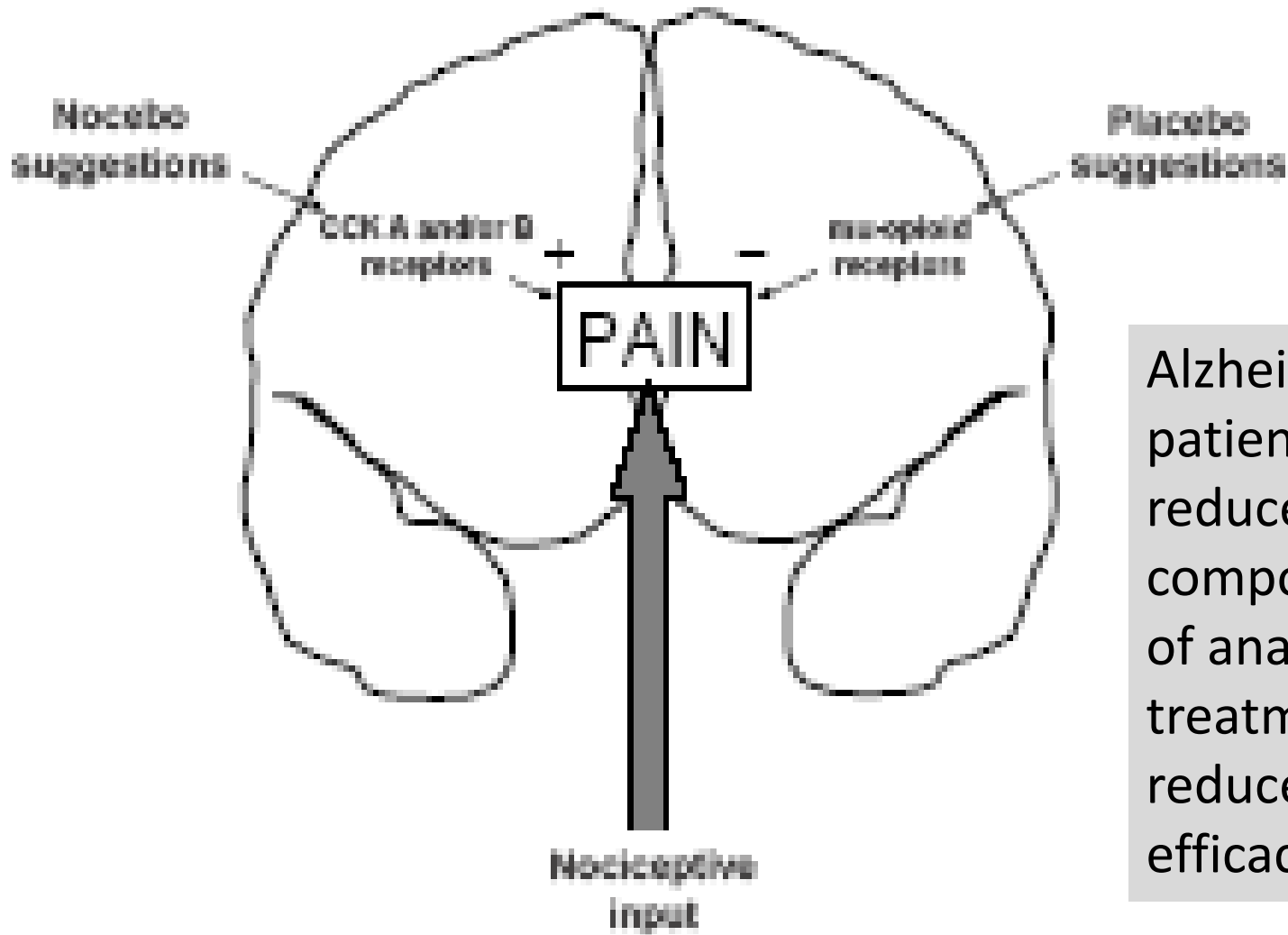
Thank You

Questions?

Chronic Pain in People with Moderate to Severe Dementia

(Farrell 1996; Pickering 2000; Frampton 2003; Scherder 2005; Stollee 2005; Benedetti 2006)

- **Loss of verbal pain self report**
- **May not exhibit normal protective and communicative pain behaviours**
- **May express atypical pain behaviours**
- **May not elicit empathy responses from caregivers**
- **May not receive treatment**
- **(May be less responsive to treatment)**

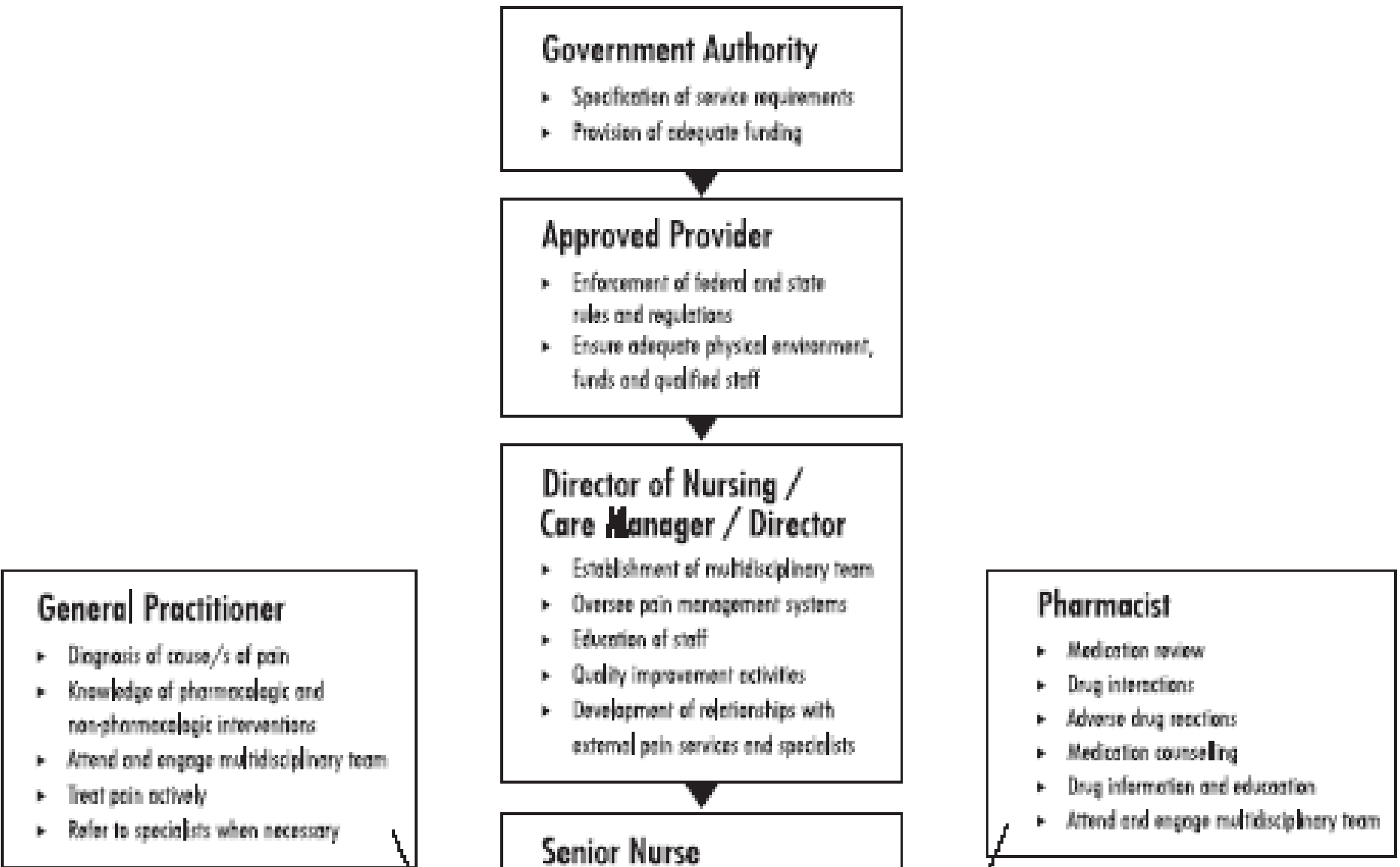


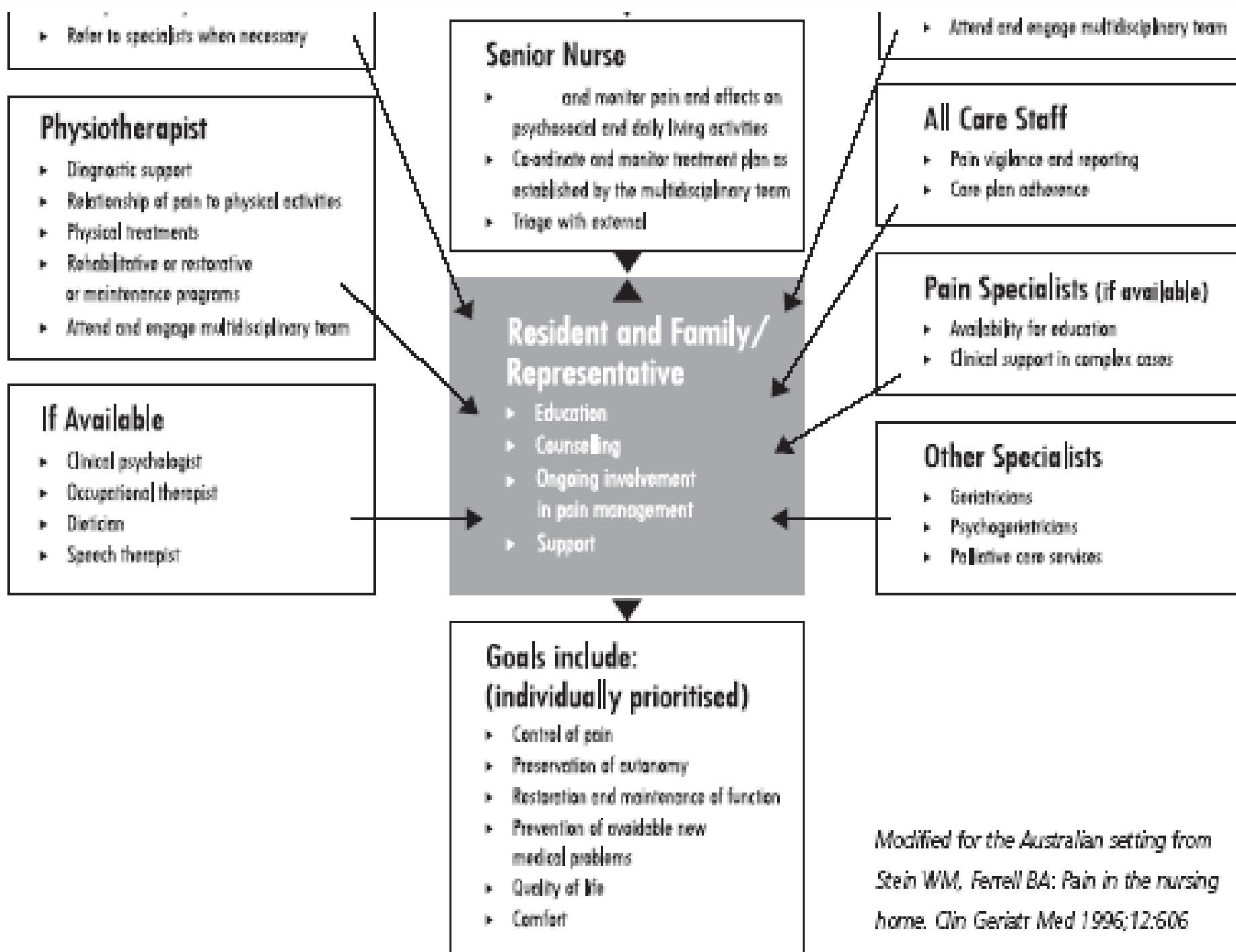
Alzheimer's disease patients show a reduced placebo component of analgesic treatment and reduced treatment efficacy (*Benedetti 2006*)

Fig. 1. Diagrammatic representation of the activation of functionally opposing endogenous opioidergic (placebo analgesia) and CCKergic systems (nocebo hyperalgesia) following placebo or nocebo suggestions.

(*Finniss 2007*)

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





Education for Clinicians and Care Staff

Dementia in residential care: education intervention trial (DIRECT). Randomised controlled trial.

- Christopher Beer, Barbara Horner, Osvaldo P Almeida, Samuel Scherer, Nicola T Lautenschlager, Nick Bretland, Penelope Flett, Frank Schaper, Leon Flicker
- The DIRECT study will determine if delivery of education to General Practitioners (GPs) and care staff improves the quality of life of residential care recipients with cognitive impairment.
- Education program includes pain management

Is paracetamol safe?

- Case reports of hepatotoxicity at therapeutic doses *if malnourished* (Vitolis 2003)
- Reported epidemiological associations between paracetamol and chronic renal disease
- Controlled clinical trials - no change or small increase in RR for major upper GI events
- Need dosage & toxicity studies & guidelines for frail elderly (Pickering 2007)