



HOLLYWOOD PRIVATE HOSPITAL	
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EVALUATING PAIN in those who have DEMENTIA

Comparison of a **PHYSICIANS EXAMINATION** with **OBSERVATIONAL PAIN TOOLS**
(**ABBEY PAIN SCALE [1]** & **PAINAD[2]**)



Research team:

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Funded by Hollywood Private Hospital

BACKGROUND

- Pain is frequently undetected and poorly managed in the elderly population who have dementia [3]
- Pain is common in the elderly (Australian research)
 - up to 86% of NH residents had pain[4]
 - greater than 40% were unable to report pain secondary to poor cognition [5]

BACKGROUND

- Cognitive impairment is the strongest predictor not to self report pain [2, 6]
- Cognitive impairment can mask pain and is also worsened by the presence of pain [7]

BACKGROUND

- Guidelines have been developed to help guide practitioners in the evaluation of pain in the elderly with cognitive impairment:
 - American Geriatric Society [8]
 - Australian Pain Society [9]
- A multidisciplinary approach between staff is suggested as well as history & physical examination by medical staff.

MAIN AIM OF THIS PILOT WORK

To describe any correlations among pain scores in people with dementia obtained with:

- a targeted physical examination (*Physicians Pain Examination Tool: PPET*)
- the Abbey Pain Scale [1]
- the PAINAD [2]

SECONDARY AIMS

- to determine if other ways of reporting pain in people who have dementia are useful
 - Global impression of pain by physician examiner
 - Self reporting of pain
 - Reports of pain by others (from staff or relatives as recorded in medical notes)
- To determine if details of medical diagnosis in notes match with findings on physical examination

METHODS

- Convenience sample
- Recruitment from 3 high care residential facilities
- Exclusion criteria: Folstein's MMSE [10] \neq $>$ 18

METHODS

- PPET (Physicians Pain Examination Tool):
 - based on a routine physical examination
 - emphasis on common painful conditions in the elderly (based on literature findings)
 - input from an expert panel
- Concurrent administration of the Abbey [1] & PAINAD [2] (research assistant) with the PPET (principal researcher); blinded
- MMSE [10] & GDS [11] (Global Deterioration Scale)

Scoring system of the PPET

- The maximum score on examination determines the pain on examination
 - e.g. on examination, if max score = 2; the PPET score = 2
- Score:
 - 0 = no pain
 - 1 = mild pain
 - 2 = moderate pain
 - 3 = severe pain

PARTICIPANTS

- 22 residents
- 16 (72.7%) female
- Mean age 86.2yrs (range 65-99yrs)



PARTICIPANTS

- Primary diagnosis in all = dementia
- MMSE [10] median = 2, range = 0-17
- Global Deterioration Scale [11] median = 6 (severe cognitive decline), range = 4-7

RESULTS: Methods of assessing pain

	No pain	Mild pain	Mod pain	Severe pain
PPET score				
ABBEEY				
PAINAD				

RESULTS: Methods of assessing pain

Reliability analysis - intraclass correlation co-efficient (ICC):

- Abbey & PAINAD: **ICC 0.92** (95% CI: 0.81-0.96)
- PPET score & Abbey: **ICC 0.44** (95% CI: 0.03-0.72)
- PPET score & PAINAD: **ICC 0.49** (95% CI: 0.10-0.75)

RESULTS: Methods of assessing pain

weighted kappa score 0.67 (95% CI 0.38-0.96)
percentage agreement= 68.2%

		7			
			5		
				3	
					0

PPET examination

- Average time to complete: 8.7 mins
- Completeness of the examination
 - Fully; 4 (18.2%)
 - Half to majority; 15 (68.2%)
 - Partially; 3 (13.6%)

SELF REPORT	MEDICAL NOTES	FREQUENCY	PERCENT (%)
YES			
NO			
NO ANSWER			

Slide 17

c2 was this to true completion?
ctoye, 5/11/2008

PPET vs. self report

PPET score	Self report: yes	Self report: no	Unable to self report
0 (no pain)			
1 (mild pain)			
2 (mod pain)			
3 (severe pain)			

- ### Medical history
- Mean number of medical problems = 7.82 (range 3-13)
 - Mean number of **active** medical problems = 5.73 (range 2-9)
 - Most common medical diagnosis
 - Dementia n=22 (100%)
 - Visual impairment n=18 (81.8%)
 - Musculoskeletal n=12 (54.5%)
 - Genitourinary n=12 (54.5%)
 - Gastrointestinal n=10 (45.5%)

Known medical conditions vs. pathology on examination

	<i>Present in medical notes</i>	<i>Active in medical notes</i>	<i>Detected on physical examination</i>	<i>Pain on examination</i>

- ### Treatment: Pharmacological
- In 5 participants it was mentioned that there was non compliance with taking medication
 - All participants were charted at least one analgesic
 - Regular analgesics charted in 15 (68.2%)
 - PRN analgesic charted in 14 (63.6%)
 - Other medications commonly prescribed but not analgesics per se:
 - Laxatives n=13
 - PPI n=5
 - Prednisolone, allopurinol, recent completion antibiotic course

Treatment: Non Pharmacological

Therapy	PPET categorised score			
	0	1	2	3
<u>Complementary therapy</u>				
<u>Active physical therapy</u>				
<u>Passive physical therapy</u>				

- ### SUMMARY
- Pain assessment:
 - Observational pain tools underestimate the number of people with pain and the intensity of pain compared to a physicians examination
 - Good statistical correlation between Abbey [1] & PAINAD [2] and only moderate correlation between the PPET and the observational pain tools

Slide 21

c4 Hi Paula

could we condense these two slides to include only the most relevant conditions do you think please?

ctoye, 5/11/2008

SUMMARY

- Pain assessment
 - PPET had good agreement with the 'Physicians Global impression of pain'
 - However, the physician's impression tends to underestimate pain compared to PPET: supported by other studies in people who have dementia
 - Self reporting of pain still achievable in people who have dementia: self reporting of pain is supported by pain detected by the PPET despite the degree of dementia

SUMMARY OF PPET

- | | |
|--|---|
| <ul style="list-style-type: none"> • ADVANTAGES • Routine examination • Determines aetiology • Subtle changes: resistance to movement / guarding determined • Incorporates other assessment of pain: self report, others reporting, physicians impression | <ul style="list-style-type: none"> • DISADVANTAGES • Not been previously used • Scoring system • Poor compliance in completing the full examination • Self report too limiting: only asked about 'pain' not 'sore', 'discomfort' etc |
|--|---|

LIMITATIONS OF THE STUDY

- Only a pilot study - small numbers
- More work required assessing physical examination
- Compliance an issue in those with dementia: realistically repeated examination over time would be more useful
- Ethnicity not reported and may be a factor in pain expression

RECOMMENDATIONS

- Education is important for all involved in the care of elderly people with dementia
- Better initial documentation and assessment on arrival using a proforma similar to the PPET by a health professional
- Multidisciplinary input encouraged plus documentation of findings
- Repeated formal examination regularly : ?3 monthly intervals
- Observational pain tools do have a role- not to be used in isolation

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Expert Panel

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- Dr Roger Goucke (Pain Specialist)
- Prof Stephan Schug (Pain Specialist)
- Assoc Prof Kirsten Auret (Palliative Care Specialist)
- Assoc Prof Chris Toye (Nurse Researcher)

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REFERENCES

1. Abbey J, Piller N, De Bellis A et al. The Abbey pain scale: a 1 minute numerical indicator for people with end stage dementia. *International Journal of Palliative Nursing*. 2004; 10: 6-13
2. Horgas AL, Dunn MS. Pain in Nursing Home Residents: Comparison of Residents' Self Report and Nursing Assistance' Perceptions. *J Gerontological Nurs* 2001;27:44-53
3. Warden V, Hurley AC, Volicer L. Development and Psychometric evaluation of the Pain Assessment in Advanced Dementia (PAINAD) Scale. *JAMDA*. 2003; 4: 9-15.
4. Horgas AL, Dunn MS. Pain in Nursing Home Residents: Comparison of Residents' Self Report and Nursing Assistance' Perceptions. *J Gerontological Nurs* 2001;27:44-53
5. Major I, Higgings IJ. Unrecognised pain in nursing home residents. *Veterans Health*. 1997; autumn 60:13-15.
6. McClean WJ, Higginbotham NH. Prevalence of pain among nursing home residents in rural NSW. *Med J Aust*.
7. Weiner DK, Perterson BL, Logue P & Keefe FJ. Predictors of pain self report in nursing home residents. *Aging Clinical and Experimental Research* 1998; 10(5): 411-420.

References cont...

7. Ferrell Bruce. Pain Evaluation and Management in the Nursing Home. *Annals of Internal Medicine*. 1995; 123(9): 681-687
8. AGS Panel on Persistent Pain in Older Persons: The Management of Persistent Pain in Older Adults. *JAGS* 2002; 50:S205-S224.
9. The Australian Pain Society. Pain in Residential Aged Care Facilities: Management Strategies. 2005. www.apsoc.org.au
10. Folstien MF, Folstein S, McHugh PR. *Mini-Mental State: a practical method for grading the cognitive state of patients for the clinicians*. *Journal of Psychiatric Research*. 1975;12(3):189-198
11. Reisberg B, Ferris SH, de Leon MJ et al. The Global Deterioration Scale for assessment of Primary Degenerative Dementia. *American Journal of Psychiatry*. 1982; Sept: 1136-1139.