Are the current pain assessment tools used by paramedics in Ireland, suitable for use with cognitively impaired (dementia) patients?

Liam Rooney^{1,2}

¹ Advanced Paramedic, Dublin Fire Brigade
² Graduate Entry Medical School, University of Limerick, Ireland

Background

- Dementia is a disease affecting 55,000 Irish people (1)
- Characterised by progressive cognitive impairment, ranging from mild impairment, which may affect memory, to severe impairment where the ability to communicate may be absent
- These people are at risk of having their pain underassessed and undermanaged (2)
- A survey exploring Irish Paramedics and Advanced Paramedics views on the current pain assessment tools available to them, and whether these tools are suitable for use with dementia patients is proposed
- Existing observational pain assessment tools used with dementia patients are examined and their suitability for pre-hospital use discussed

Introduction

- Adults with cognitive impairments, such as dementia, are at a much higher risk of not receiving adequate analgesia for their pain (3)
- Estimated between 40% and 80% of dementia patients regularly experience pain (4)
- Current pain assessment tools used pre-hospital in Ireland

- Numerical Rating Scale for patients >8yrs

- Wong Baker Scale for pediatric patients

- FLACC Scale for infants

FLACC scale (Face, Legs, Cry, Activity Consolability scale)	Score
Face 0- No particular expression or smile 1- Occasional grimace or frown, withdrawn, disinterested 2- Frequent to constant frowns, quivering chin, clenched jaw	
Legs 0- Normal position or relaxed 1- Uneasy, restless, tense 2- Kicking or legs drawn up	
Activity 0- Lying quietly, normal position, moves easily 1- Squirming, shifting back and forth, tense 2- Arching, rigid, or jerking	
Cry 0- No cry (awake or asleep) 1- Moans or whimpers; occasional complaint 2- Crying steadily, screams or sobs, frequent complaints	
Consolability 0- Content, relaxed 1- Reassured by occasional touching, hugging, or being talked to; distractible 2- Difficult to console or comfort	
Total score (0-10)	

- No specific pain assessment tool for use with patients who are not capable of self-reporting their level of pain

Objective

- This research aimed to identify observational pain assessment tools used in this cohort. The most consistently recommended tools were identified. The suitability of these tools for use in the pre-hospital setting assessed

References

- Pierce, M., Cahill, S. and O'Shea, E. (2014). Prevalence and Projections of Dementia in Ireland, 2011 - 2046. Dublin: Trinity College Dublin, National University of Ireland Galway and Genio.
- Hwang, U., Richardson, L., Harris, B. and Morrison, R. (2010). The Quality of Emergency Department Pain Care for Older Adult Patients. Journal of the American Geriatrics Society, 58(11), pp.2122-2128.
- Somes, J. and Donatelli, N. (2013). Pain Assessment in the Cognitively Impaired or Demented Older Adult. Journal of Emergency Nursing, 39(2), pp.164-167.
- Jones, J., Sim, T. and Hughes, J. (2017). Pain Assessment of Elderly Patients with Cognitive Impairment in the Emergency Department: Implications for Pain Management—A Narrative Review of Current Practices. Pharmacy, 5(2), p.30.
- Panel on Persistent Pain in Older Persons (2002). The Management of Persistent Pain in Older Persons. Journal of the American Geriatrics Society, 50(5), pp.205-224.
- Lichtner, V., Dowling, D., Esterhuizen, P., Closs, S., Long, A., Corbett, A. and Briggs, M. (2014). Pain assessment for people with dementia: a systematic review of systematic reviews of pain assessment tools. BMC Geriatrics, 14(1).
- McAuliffe, L., Nay, R., O'Donnell, M. and Fetherstonhaugh, D. (2008). Pain assessment in older people with dementia: literature review. Journal of Advanced Nursing, 65(1), pp.2-10.

Findings

- Literature review identified 29 observational pain assessment tools
- Lack of literature relating to pre-hospital setting
- American Geriatric Society (AGS) identified six pain behaviors in dementia patients (5)
 - Changes in facial expression, activity patterns, interpersonal relationships and mental status
 - Negative vocalisation
 - Body language
- These six criteria should be the foundation of any pain assessment tool
- Three most consistently recommended tools identified

Abbey Pain Scale

- 6 items assessed
- Meets AGS criteria
- Quick and easy to implement
- Moderate to good reliability and validity (6)

Doloplus 2

- 15 items assessed
- Meets 5 of 6 AGS criteria
- Requires observation over time
- Prior knowledge of patient required
- Moderate to good reliability and validity (6)

PAINAD

- 5 items assessed
- Meets 3 of 6 AGS criteria
- Less than 5 minutes to implement
- May be influenced by psychological distress
- Good reliability and validity (6)

Conclusion

- Ability to self report pain is deemed “gold standard”
- Patients with mild to moderate disease, and indeed, some with severe disease, may retain the ability to self report
- An observational tool is required when dementia has progressed to the point of being unable to self report or become non-verbal
- It is in these patients where undetected, misinterpreted or inaccurate assessment of pain becomes frequent (7)
- Aim of any tool is to gain a good assessment of pain, however, pain scale should be suited to the clinical setting they are being used in
- The feasibility of an assessment tool is an important factor along with reliability and validity
- No one assessment tool could be recommended over another
- Abbey and PAINAD have potential for use pre-hospital, however, further research, clinical evaluation and trial in an ambulance service is required