Approaches to Pain Management in Dementia

DR. PRAVIN KUMAR
M.B.B.S, D.P.M, D.N.B, MRCPsych (UK), FRANZCP

CONSULTANT PSYCHIATRIST
MENTAL HEALTH ACT, Canberra
Declaration of interest

None
Areas covered

• Why this topic important
• Prevalence of pain
• Assessment scales
• Management of pain

Not covered: pain management in terminal dementia
Epidemiology of Chronic Pain

Pain in Europe survey
• one in five adults (20%) suffers from chronic pain.
• 35% experienced pain every day of their lives
• 26% the pain had affected their careers
• 21% developed depression
• 16% said that some days the pain was so bad that they wanted to die.

• www.paineurope.com 2003 online
Chronic Pain in the Elderly

- 30 - 70% of older people in the community

- 60 - 80% in the residential settings

  - Elliott et al, Lancet 1999
  - Brochet et al, Age and Ageing 1998
PAINFUL CONDITIONS IN OLD AGE

- Arthritis – multiple joints
- Compression fracture & chronic back pain
- Neuropathic & post herpetic pain
- Recurrent falls & injury
- Peripheral Vascular disease(ischaemic pain)
- Leg ulcers & pressure sores
- Cancer, metastasis
- Pleurisy, dental
- constipation, urinary retention, UTI
Burden of Pain

- Impaired mobility
- Poor ADL skills
- Sleep disturbance
- Depression
- Anxiety
- Social isolation
- Poor quality of life
Burden of Pain

• Distress to the Carers

• Frequent visits to the G.P surgery / ED

• Use of over the counter medications with associated side effects
“Pain is a more terrible lord of mankind than even death himself.”

(Albert Schweitzer, 1865-1965)
Chronic pain causes significant suffering, poor QOL and disability in the elderly.

Are we good at managing pain in the elderly?
Pain management in the elderly

- Elderly patients with cancer pain are treated effectively
- Only 50% of the elderly patients with chronic non-malignant conditions are treated for pain
- Less attention towards non-cancerous pain
Pain management in the elderly

• Fewer analgesics

• Less opioid analgesics

• Reluctance to refer patients to ‘Pain Clinic’
“THE FORGOTTEN MAJORITY”

Too Many Elderly Suffer Needlessly from Untreated Pain

Why?

• Misconception
• Problems with pain assessment
Common Misconceptions

- Pain is an inevitable consequence of ageing
- Elderly residents say they are in pain in order to get attention
- Older people cannot tolerate opiate analgesics
- Dementia patients don’t experience pain
- Failure to express pain = absence of pain
Barriers to Pain Assessment in Elderly

- Under-reporting of pain
- Impaired communication due to stroke or dementia
- Atypical presentation of pain in cognitively impaired patients
ASSESSMENT & MANAGEMENT OF PAIN IN PERSONS WITH DEMENTIA
PAIN IN DEMENTIA

**Why pain assessment is important**

- Painful conditions cause/worsen the behavioural problems (BPSD) in dementia
- Pain is under-diagnosed and under-treated in dementia
- Poor pain management = poor QOL
PAIN IN DEMENTIA

• Patients with dementia experience pain just like other people”

• Manifestation of pain depends on severity of dementia
DEMENTIA – Pain Manifestations

• Mild to moderate dementia patients report pain and express their distress
• Easy to assess and treat

• Severe & advanced dementia patients do not report their symptoms
• Difficult to assess and treat
Pain pathway

- Pain receptor → spinal cord → thalamus

Limbic system ← parietal cortex

Pain is perceived, localized & interpreted
DEMENTIA - PAIN

- Pain threshold – normal
- Pain tolerance – increased

Pain intensity is less

- Difficulty localizing & understanding the meaning of sensation

‘Atypical behavioural response’

Scherder et al, BMJ 05
Comorbid depression reduces the pain threshold and increases the pain intensity.

20% dementia patients suffer from depression.
Pain manifestation in severe dementia

- Screaming, calling out
- Irritability & aggression
- Distress, mainly during transfer & mobility
- Restless on the chair: rocking/to & fro movements
- Agitation
- Absence of relaxed body posture
- Frowning or fearful or sad expression
- Withdrawal
- Clenched teeth, sweating
ASSESSMENT OF PAIN

Verbal Scales (for patients who can communicate)
&

Behavioral Scales (for patients who cannot communicate)
### Pain Assessment Scales

#### Verbal Rating Scale

<table>
<thead>
<tr>
<th>None</th>
<th>0</th>
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</thead>
<tbody>
<tr>
<td>Slight</td>
<td>1</td>
</tr>
<tr>
<td>Moderate</td>
<td>2</td>
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<tr>
<td>Severe</td>
<td>3</td>
</tr>
</tbody>
</table>
Pain Assessment Scales

Visual Analogue Scale

Patient measures themselves on a scale of 'no pain' through to 'worst pain imaginable'.

No =====================worst
Pain

pain
Pain Assessment Scales

Faces pain scale

- A happy face represents 'no hurt'
- A sad face represents 'a lot of pain'.
Pain Assessment Scales

• **Colour scale:**

This scale uses colours from a *cool blue* to a *burning red* to indicate the intensity of pain.
Behavioural Scales

- ABBEY (Abbey et al)
- PAINAD (Warden et al)
- DOLOPLUS 2 (Wary et al)
- DS-DAT
- PADE
- CNPI
- NOPPAIN
- PACSLAC
- Mahoney pain scale
Abbey Pain Scale – 0 to 3

- Developed in Australia
- Patients are assessed for
  - **Vocalisation** *(groaning, crying)*,
  - **Facial expression** *(looking tense, frightened, frowning, grimacing)*,
  - **Change in body language** *(fidgeting, rocking, withdrawn)*
  - **Behavioural change** *(increasing confusion, refusing to eat, alteration in usual pattern)*
  - **Physiological change** *(flushing, pallor, autonomic dysfunction)*
  - **Physical change** *(skin tear, pressure areas, contractures, previous injuries)*
# Abbey Pain Scale

**Name of resident**

*For measurement of pain in people with dementia who cannot verbalise*

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

**Name/designation of person completing the scale**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
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**Latest pain relief given was** at **hours**

| Q1 Vocalisation
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<tbody>
<tr>
<td>eg. whimpering, groaning, crying</td>
</tr>
<tr>
<td>Absent 0</td>
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</table>

| Q2 Facial expression
<table>
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<th></th>
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</thead>
<tbody>
<tr>
<td>eg. looking tense, frowning, grimacing, looking frightened</td>
</tr>
<tr>
<td>Absent 0</td>
</tr>
</tbody>
</table>

| Q3 Change in body language
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<tbody>
<tr>
<td>eg. fidgeting, rocking, guarding part of body, withdrawn</td>
</tr>
<tr>
<td>Absent 0</td>
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</tbody>
</table>

| Q4 Behavioural change
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</thead>
<tbody>
<tr>
<td>eg. increased confusion, refusing to eat, alteration in usual patterns</td>
</tr>
<tr>
<td>Absent 0</td>
</tr>
</tbody>
</table>

| Q5 Physiological change
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>eg. temperature, pulse or blood pressure outside of normal limits, perspiring</td>
</tr>
<tr>
<td>Absent 0</td>
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</tbody>
</table>

| Q6 Physical changes
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</thead>
<tbody>
<tr>
<td>eg. skin tears, pressure areas, arthritis, contractures, previous injuries</td>
</tr>
<tr>
<td>Absent 0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Now tick the box that matches the total pain score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–2 No pain</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finally, tick the box that matches the type of pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic</td>
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Pain Assessment Scale in Dementia (PAINAD)

- Pain Assessment in Advanced Dementia Scale – PAINAD

- Patients are assessed for breathing, vocalization, facial expression, body language, and consolability
# PAINAD

1-3 = mild, 4-6 = moderate, 7-10 = severe

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breathing</strong></td>
<td>Normal</td>
<td>Occasional labored breathing. Short period of hyperventilation</td>
<td>Noisy labored breathing. Long period of hyperventilation. Cheyne-stokes respirations</td>
<td></td>
</tr>
<tr>
<td><strong>Independent of vocalization</strong></td>
<td>None</td>
<td>Occasional moan or groan. Low level speech with a negative or disapproving quality</td>
<td>Repeated troubled calling out. Loud moaning or groaning. Crying</td>
<td></td>
</tr>
<tr>
<td><strong>Negative Vocalization</strong></td>
<td>Smiling, or inexpressive</td>
<td>Sad. Frightened. Frown</td>
<td>Facial grimacing</td>
<td></td>
</tr>
<tr>
<td><strong>Facial expression</strong></td>
<td>Relaxed</td>
<td>Tense. Distressed pacing. Fidgeting</td>
<td>Rigid. Fists clenched, Knees pulled up. Pulling or pushing away. Striking out</td>
<td></td>
</tr>
<tr>
<td><strong>Body Language</strong></td>
<td>No need to console</td>
<td>Distracted or reassured by voice or touch</td>
<td>Unable to console, distract or reassure</td>
<td></td>
</tr>
<tr>
<td><strong>Consolability</strong></td>
<td></td>
<td></td>
<td></td>
<td>TOTAL</td>
</tr>
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</table>

TOTAL
DOLOPLUS 2 (Wary et al)

- Behavioural pain assessment scale for the elderly presenting with verbal communication disorders
- Observation form consisting of 10 items - 5 somatic items, 2 psychomotor items and 3 psychosocial items.
- Each item is scored from 0 to 3
- Pain is present if a score is > 5 out of 30
somatic reactions

- **Somatic complaints**: expresses pain by word, gesture, cries, tears or moans.
- **Protective body postures adopted at rest**: Unusual body positions intended to avoid or relieve pain.
- **Protection of sore areas**: protection of his/her body by a defensive attitude or gestures when approached.
- **Facial Expression (showing pain)**: grimaces, drawn, blank, staring etc
- **Sleep pattern**: disturbed sleep
Psychomotor reactions
- **Washing & dressing**: impaired abilities
- **Mobility**: poor or no mobility

Psychosocial reactions
- **Communication**: demand attention or no communication
- **Social life**: refusal or inability to participate
- **Problems of behaviour**: Aggressiveness, agitation, confusion, indifference, regression, asking for euthanasia, etc
DIFFICULTIES WITH CURRENT BEHAVIOURAL SCALES

- No behaviour is unique to pain
- Behaviour is unique to the individual
- Do carers pick up all the behaviours?
SUSPECT PAIN
when dementia patient is not taking prescribed analgesics for a known painful condition & behaviourally agitated and restless
SUSPECT PAIN

when

behavioural problems in dementia do not respond to conventional treatment

(Diagnosis of Pain by Exclusion)
Pain detection in dementia depends on

CLOSE OBSERVATION

&

HIGH INDEX OF SUSPICION
Pain management in dementia
WHO analgesic ladder

- **Step 1**: Non-opioid ± adjuvant analgesic
- **Step 2**: Opioid for mild to moderate pain ± non-opioid ± adjuvant analgesic
- **Step 3**: Opioid for moderate to severe pain ± non-opioid ± adjuvant analgesic
PAIN MANAGEMENT

**Paracetamol**

- **Mild analgesia**
- **Well tolerated**
PAIN MANAGEMENT

**NSAIDs**
- Analgesics & anti-inflammatory
- High risk of gastric side effects, sometimes gastric bleed
- Risk of renal & hepatic dysfunction

**COX – 2 Inhibitors**
- Minimal gastric side effect
- Risk of cardiac side effect
Opioids

- Effective in moderate – severe pain

**WEAK OPIOIDS**
- Codeine & Tramadol (in low dose)

**Strong Opioids:**
- Buprenorphine (Norspan patches)
- Fentanyl, Methadone, Pethadine
- Morphine, Diamorphine
- Oxycodone, Tramadol in high dose
S/E of Opioids

- Nausea, vomiting
- constipation
- Sedation & falls
- Hallucinations in the elderly
Adverse effects of opioids in dementia patients

• Sudden worsening of confusion, low BP, bradycardia
• Respiratory depression – try oral opioids first
  (Dementia is a neurodegenerative disease & patients also take other centrally acting medications)
• Addiction – not a major problem with dementia patients
• Tolerance – less common for analgesic effect & many patients stabilise on long term use.
Difficulties in Pain Management in dementia

Medication management issues

Compliance issue

Swallowing problems
Difficulties in Pain Management in dementia

- High frequency of adverse reactions
- Polypharmacy & drugs interaction

‘Start Low Go Slow approach’
Approach to pain management

- Full physical examination – head to toe
- Look for any signs of infection or inflammation
- Obtain history from family members and GP for any known painful conditions
- Necessary Investigations:
- Try to understand the “individual” and how s/he reacts in distress
Approach to pain management

• Exclude depression & anxiety
• Consider trial of analgesia if the behavioural problem persists in dementia patients
  Explain to family & document the reason
• Pain assessment & management must be part of the comprehensive BPSD management plan
Approach to pain management

- Trial of paracetamol tab/liquid – 1G QID
- Assess for efficacy

- Trial of Panadeine (8/500) 1-2 tabs QID
- Assess for tolerability and efficacy
Approach to pain management

- Trial of Buprenorphine patch 5 microgram/hr release - weekly
- Stop Panadeine 2 days after applying the patch
Advantages of low dose Opioid transdermal patch

• G.I. Side effects are less
• Good absorption through the skin
• Avoids first pass metabolism in the liver
• Easy to administer
• Constant analgesic cover
• 1 Buprenorphine patch/week ~ 56 paracetamol or panadeine tablets /week
Conversion factors

- Buprenorphine 5 microgram/hour
  \( \approx 40 - 60 \text{ mgs of codeine per day} \)
  \( \approx 2.5 - 5 \text{ mgs of Oxycodone per day} \)
  \(< 50 \text{ mgs of Tramadol per day} \)
  \( = 6 - 10 \text{ mgs of Morphine per day} \)
Non-pharmacological methods

- Relaxation
- Acupressure
- Therapeutic massage & reflexology
- mild exercise & physiotherapy
- Music
- Religious and spiritual coping strategy

Lu et al 2012
Challenges to pain management in dementia
Challenges in Pain management in dementia

- Pain is difficult to detect sometimes
- Numerous assessment tools – How useful are they in practice?
- Pain management is difficult: swallowing & compliance issues
- Non-opiate Transdermal patch not available
- Duration of treatment – short or long term?
Recommendations

• Understanding the person is crucial—behaviour, mood, facial & bodily expression
• Use multiple methods of assessment – scales, behavioural observation, family input, talk to GP, medication trial
• When pain is detected start treatment soon
• Use regular medications rather than PRN
• Combine with non-pharmacological methods
CONCLUSION

• Pain is potentially a large problem in dementia patients
• Pain should be the 5th vital sign in the assessment of elderly & dementia patients (T,P,R, BP & Pain assessment)

“Their comfort rests with us”
THANK YOU

FOR LISTENING