Symptom Management in Palliative Care

Delirium and Pain

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Delirium - outline

- What delirium is and why it is important
- How to recognise it
- What to do about it
Delirium = acute brain failure

- *Delirare*: “to go off track”
- Acute confusional state
Diagnosis of delirium

• American Psychiatric Association (DSM IV) - four essential features:
  – Inattention: inability to focus, sustain or shift attention appropriately
  – A sudden change in cognition (orientation, memory, perception, language)
  – An acute and fluctuating disturbance in consciousness
  – An underlying medical cause

DSM IV, American Psychiatric Association
Sudden and fluctuating: hallmark sign

- sudden onset and fluctuating change in patient’s ability to focus and sustain attention
- Typically worsens at night, with lucid periods in the morning
Inattention

• Inability to direct, focus and sustain attention
  – distractable

• Serial 7’s
• Count down 20-1
• ‘WORLD’—‘DLROW’
Sudden change in cognition

Disorganised thinking:
- Memory deficit
- Disorientation
- Language disturbance
- Perceptual disturbance
Subtypes of delirium

1. Hyperactive (21%): agitation (pulling lines and catheters, risk of falling), psychosis (disruptive behaviour, refusal of medications, food and fluids), aggression

Hypoactive delirium

2. **Hypoactive** (29%): lethargy, decreased alertness, non-interactive/staring and slow speech

NB - often missed by healthcare staff
Mixed delirium

3. Mixed delirium (43%): components of both
Delirium Subtypes

- Hyperactive Delirium
  - Combative
  - Agitated
  - Restless

- Hypoactive Delirium
  - Lethargic
  - Sedated
  - Stupor

Mixed Delirium
Prevalence is high

• 30% - 40% of hospitalised elderly
• Up to 85% in advanced/terminal cancer

• But under-recognised: not detected in 22-50% cases

Economic burden

• Increased hospital stay and morbidity
  – More hospital-acquired complications e.g. falls & pressure sores
  – Increased risk of long term cognitive decline
  – Loss of independent living, may require long term care

• Mortality: 10 – 65%

• However 30 - 50% cases are potentially reversible
Why is delirium under-recognised?

- Hypoactive delirium undetected
- Fluctuating nature of delirium
- Pre-existing dementia
- Misdiagnosed as depression or fatigue
- Confusion attributed to hearing or visual difficulties
- Mental health problems common in elderly
- Presumed cognitive impairment – lack of collateral history
**Delirium or dementia?**

<table>
<thead>
<tr>
<th>DELIRIUM</th>
<th>DEMENTIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>Chronic</td>
</tr>
<tr>
<td>Often remitting &amp; reversible</td>
<td>Usually progressive &amp; irreversible</td>
</tr>
<tr>
<td>Physiological</td>
<td>Structural</td>
</tr>
<tr>
<td>Attention deficit</td>
<td>Memory deficit</td>
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</tbody>
</table>

- Delirium and dementia can coexist; in fact delirium is **very** common in demented patients
Baseline risk factors

- Age 65 yrs or older
- Cognitive impairment
- Brain injury
- Severe illness
- Cancer
Acute risk factors

- Medications/withdrawal
- Infection
- Surgery
- Hypoxia
- Constipation or urine retention
- Organ failure
- Electrolyte or metabolic disturbance
- Change of environment
- Sleep deprivation
- Primary CNS disorders
- Hip fracture
Baseline risk factors + acute risk factors = risk of delirium
Diagnosis: The Confusion Assessment Method (CAM)

• Diagnosis requires presence of items 1 and 2 and either 3 or 4:
  – 1. Acute onset and fluctuating course
  – 2. Inattention
  – 3. Disorganised thinking
  – 4. Altered level of consciousness

• MMSE is a screening tool
## Management of delirium: medical

<table>
<thead>
<tr>
<th>Cause</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying cause</td>
<td>Treat if possible, e.g., antibiotics</td>
</tr>
<tr>
<td>Drug toxicity</td>
<td>Stop or reduce dose of suspected medication</td>
</tr>
<tr>
<td></td>
<td>Stop unnecessary medication</td>
</tr>
<tr>
<td>Opioid toxicity</td>
<td>Decrease dose or switch to alternative opioid</td>
</tr>
<tr>
<td>Dehydration</td>
<td>Correct if appropriate</td>
</tr>
<tr>
<td>Metabolic or electrolyte</td>
<td>Correct</td>
</tr>
<tr>
<td>disturbance</td>
<td></td>
</tr>
<tr>
<td>Elimination problems</td>
<td>Treat constipation, catheterise bladder</td>
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</tbody>
</table>
Medications to suspect

- Anticholinergics
- Steroids
- Opioids
- Benzodiazepines
- Anti-emetics
- GABA-ergic medications
- Withdrawal (sudden) from psychototropic drugs
- Chemotherapy
Management of delirium: environmental

- Keep physical and human environment as consistent as possible
- Maintain patient routines, promote daytime activity
- Limit vital sign monitoring and investigations
- A quiet and well-lit room
- Orientate patient frequently (clock, calendar), provide eye-glasses or hearing aids if worn

Environmental interventions contd.

- Explanations to patient: simple and reassuring, separate past and present
- Acknowledge and respect mood
Environmental interventions contd.

- Avoid unnecessary confrontation
- Encourage visits from trusted family member or friend
- Clear explanation to family: what delirium is, goals of treatment and possible outcomes (e.g. information leaflet)
Pharmacological interventions

• Haloperidol is first line drug, it is effective in both hyperactive and hypoactive delirium
• Non-sedative but risk of parkinsonian effects
• Contraindications: Parkinson’s disease, Lewy Body dementia, delirium tremens – benzodiazepines recommended (at adequate doses)
• Dose 0.5 - 1mg BD and PRN
Pharmacological interventions

- Levomepromazine (Nozinan) where sedative effects desired
- Dose 12.5mg BD, 6.25 – 12.5mg PRN
- Newer antipsychotics: olanzapine, risperidone or quetiapine have less parkinsonian side effects
- Caution in dementia: *all* antipsychotics associated with increased risk of stroke

• “Tailored intervention delivered by a multidisciplinary team”
• About one third of all episodes could be prevented
• Prevention would be cost-effective
• Assess persons at risk within 24 hours of admission
## Prevention of delirium: NICE guidelines (2010)

<table>
<thead>
<tr>
<th>Prevention of Delirium</th>
<th>Non-pharmacological Approaches to Sleep</th>
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</thead>
<tbody>
<tr>
<td>Pain management</td>
<td>Non-pharmacological approaches to sleep</td>
</tr>
<tr>
<td>Medication review</td>
<td>Maintaining nutrition and hydration</td>
</tr>
<tr>
<td>Infection control</td>
<td>Adaptive equipment for vision and hearing impairment</td>
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<tr>
<td>Preventing hypoxia</td>
<td>Therapeutic activities</td>
</tr>
<tr>
<td>Orientation strategies</td>
<td></td>
</tr>
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<td>Early mobilization and walking</td>
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PAIN
Pain: outline

- Definition
- Concept of total pain
- Management of cancer pain
Pain in Advanced Cancer

• Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage
  – IASP, 2008

• “Pain is what the patient says hurts”
  – Cecily Saunders, 1918-2005

• 30-50% patients with cancer will have pain during treatment, rising to 70-90% in advanced cancer
## Factors affecting pain threshold

<table>
<thead>
<tr>
<th>Increase pain threshold:</th>
<th>Decrease pain threshold:</th>
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</thead>
<tbody>
<tr>
<td>Lack of understanding</td>
<td>Explanation</td>
</tr>
<tr>
<td>Anger</td>
<td>Acceptance</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Reduction in anxiety/relaxation</td>
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<tr>
<td>Boredom</td>
<td>Creative activity</td>
</tr>
<tr>
<td>Depression</td>
<td>Elevation in mood</td>
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<tr>
<td>Insomnia</td>
<td>Sleep</td>
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<tr>
<td>Isolation</td>
<td>Companionship</td>
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Total Pain

• “Tell me about your pain.”
• “Well doctor, the pain began in my back but now it seems that all of me is wrong”.
• She gave a description of several symptoms and went on to say, “My husband and son were marvellous but they would have to stay off work and lose their money. I could have cried for the pills and injections but I knew I mustn't. Everything seemed to be against me and nobody seemed to understand”. She paused before she said, “But it is so wonderful to begin to feel safe again”.

• C. Saunders, Care of patients suffering from terminal illness at St. Joseph’s Hospice, Hackney London, 1964
Total pain: four components

• PHYSICAL – “The pain began in my back but now it seems that all of me is wrong”
• MENTAL/EMOTIONAL – “Everything seemed to be against me and nobody seemed to understand”
• SOCIAL – “My husband and son were marvellous but they would have to stay off work and lose their money”
• SPIRITUAL – “It is so wonderful to begin to feel safe again”
Total pain: four components

• So, out of what one patient said, very neatly describing her pain to me, developed the idea of “total pain” with these four components

• Then, as now, I know that listening to a patient’s own tale of their troubles can be therapeutic in itself. As another patient said, “It seemed the pain went with me talking.”

  – C. Saunders, A voice for the voiceless, 2003
Pain management: EEMMA

- Evaluation: diagnose the cause
- Explanation (communication): uncertainty causes anxiety
- Management: individualised treatment
- Monitoring: review impact of treatment
- Attention to detail: no unwarranted assumptions
Evaluation: diagnose the cause

• History: site of pain, quality, onset and duration, what makes it better or worse, severity and interference with activities/self-care

• Cancer or non-cancer causes

• Mechanism: e.g. Neuropathic vs tissue damage (or both)

• Non-physical factors: psychological, social, spiritual
Four types of cause

• The cancer itself: soft tissue, bone, visceral, neuropathic
• Treatments, eg mucositis from chemotherapy
• Debility/deconditioning: posture, muscle tension, constipation
• Other condition, eg osteoarthritis
Management of pain

• Aim for progressive relief
• If possible, treat underlying cause, eg chemotherapy
• Non-drug treatments for pain: radiotherapy, physical treatments, psychological, occupational therapy
• Analgesic medication
• Combination of above often necessary
Broad-spectrum analgesia

- 3 classes of analgesia: non-opioid, opioid, co-analgesics (adjuvants)
- Non-opioid: paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs) – can be used together with additive effect
- Opioids: weak opioids, e.g. codeine, tramadol; strong opioids, e.g. morphine, oxycodone
- Co-analgesics such as antiepileptic drugs, e.g. pregabalin (Lyrica)
WHO analgesia ladder
WHO analgesia ladder

- Mild to moderate pain: non-opioid analgesics alone or in combination with step 2 (weak) opioids
- Moderate pain: start with low doses of step 3 (strong) opioid
- Severe pain: step 3 (strong) opioids
- Co-analgesics can be used at any step

- By the mouth
- By the clock: persistent pain requires preventive therapy – analgesics should be given around-the-clock and also as needed (PRN)
- By the ladder: if dose on one step has been optimised and pain persists, move to next step
- Individualised treatment: the right dose is the one that relieves the pain
Non-pharmacological treatments

• Four domains of total pain
  – Physical (including TENS) and occupational therapy
  – Chaplaincy
  – Role of medical social worker
  – Complementary therapy, art therapy, music
• Promote factors that decrease pain
• Consider interventional methods (nerve block)
Breakthrough Pain

• A transient exacerbation of pain despite adequately relieved background pain
• Fast onset, severe, peaks within minutes, average duration 30 minutes
• 2 types:
  – Incident pain is brought on by particular activities (voluntary or involuntary)
  – Spontaneous pain occurs unexpectedly
• Huge impact on daily lives
• Severity does **not** reflect severity of cancer or lack of response to treatment
• Non-drug treatment/prevention
• Medications: opioids, non-opioids, co-analgesics
• Opioids: breakthrough dose varies – 5 to 20% of total daily dose
• Mismatch between duration of breakthrough pain and drug effect, eg oral morphine has slow onset (30 mins) and long duration of effect (3-6 hours)

• If breakthrough pain is predictable, give dose 30 mins beforehand

• Alternatively, use faster route of administration: buccal, sublingual, intranasal