Delirium, Anxiety and Terminal Agitation

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Case History 1– W.W.

- 57 yr old male, Lung adenocarcinoma with widespread bone metastases and pathological fracture right femur
- Phx – Alcohol Excess and polysubstance misuse/dependence
- Lives alone, socially isolated, house barley habitable, many years in prison (for violent offences)
- Issues with uncontrolled pain, constipation and decreasing mobility
- Initially no cognitive impairment, AMT 4/4 although obnoxious and irritable
- Behavioural change over 1 week with increasing agitation, hostility, episodes of paranoia Fluctuating lucidity, unable to rationalise decisions, altered sleep/wake cycle

What are your thoughts?
How would you manage this situation?
Could this be managed at home?
Medication

Oxycodone 200mg/24 hours via csci
Midazolam 5mg/24 hours via csci
Diclofenac 150mg/24 hours via csci
Oxynorm 50mg PRN 4-5 times daily

Paracetamol 1g qds
Seretide and Tiotropium Inhalers
Thiamine 100mg tds
Paroxetine 30mg od
Dexamethasone 8mg daily
Omeprazole 40mg
Nicotine Patch
Nitrazepam 10mg nocte
Differential Diagnosis

Anti-social personality disorder
Alcohol related brain injury
Hypercalcaemia
? Brain Metastases
? Terminal Agitation
Delirium

• Latin term meaning “going off the ploughed track.”
Delirium - What do we know?

- Common
- Under recognised and under treated
- Bad outcome – 25% mortality and high morbidity
- Preventable and treatable
- But can persists for weeks or months after cause treated
## Incidence

<table>
<thead>
<tr>
<th>Setting</th>
<th>Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine In patient</td>
<td>11-14%</td>
</tr>
<tr>
<td>Old Age Medicine In patient</td>
<td>20-29%</td>
</tr>
<tr>
<td>Intensive Care</td>
<td>19-82%</td>
</tr>
<tr>
<td>In patients with dementia</td>
<td>56%</td>
</tr>
<tr>
<td>In patients with palliative care needs</td>
<td>47%</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>20-22%</td>
</tr>
</tbody>
</table>

Risk factors for delirium?

- Acute Illness
- Sensory Impairment
- Recent Discharge from hospital
- Dementia
- Polypharmacy
- Depression
- Patients approaching end of life

- Age > 70 years
- Recent Surgery
- Use of Opioids, benzodiazepines, anti-cholinergics
- Frailty
- Catheterised
- Acute or Chronic Pain
Diagnosis v’s screening

Delirium Syndrome
ICD 10

Perceptual Disturbance
Disturbance of Consciousness
Disturbance of Cognition
Sleep/Wake Disturbance
Fluctuations

Sudden Onset
## Delirium v’s Dementia

<table>
<thead>
<tr>
<th>Feature</th>
<th>Delirium</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode of onset</td>
<td>Acute/ subacute</td>
<td>Chronic</td>
</tr>
<tr>
<td>Poor attention</td>
<td>Characteristic</td>
<td>Late feature</td>
</tr>
<tr>
<td>Conscious Level</td>
<td>Often affected, fluctuates</td>
<td>Normal</td>
</tr>
<tr>
<td>Hallucinations</td>
<td>Common</td>
<td>Late feature</td>
</tr>
<tr>
<td>Fear, agitation, aggression</td>
<td>Common</td>
<td>Not common in early stages</td>
</tr>
<tr>
<td>Speech</td>
<td>Slurred</td>
<td>Normal</td>
</tr>
<tr>
<td>Motor signs</td>
<td>Postural Tremor, myoclonus, asterixis</td>
<td>None, or late feature</td>
</tr>
</tbody>
</table>
Subtypes:

- **Hypoactive** - slowed motor function, lethargy, decreased awareness and interaction, misdiagnosed as depression

- **Hyperactive** – increased arousal agitation

- **Mixed** - features of both, fluctuates (worse at night, lucid intervals during the day)
Assessment if clinical suspicion

SQID

- Single Question to Identify Delirium
- “Do you think (name of patient) has been more confused lately”?
Identifying Delirium

Table 6: Confusion Assessment Method (CAM) Diagnostic Algorithm

1) Acute onset and fluctuating course
2) Inattention, distractibility
3) Disorganized thinking, illogical or unclear ideas
4) Alteration in consciousness

The diagnosis of delirium requires the presence of both features 1 AND 2, plus EITHER feature 3 or 4.

Assessment test for delirium & cognitive impairment

[1] ALERTNESS
This includes patients who may be markedly drowsy (e.g. difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. Ask the patient to state their name and address to assist rating.

- Normal (fully alert, but not agitated, throughout assessment) 0
- Mild sleepiness for <10 seconds after waking, then normal 0
- Clearly abnormal 4

[2] AMT4
Age, date of birth, place (name of the hospital or building), current year.

- No mistakes 0
- 1 mistake 1
- 2 or more mistakes/untestable 2

[3] ATTENTION
Ask the patient: “Please tell me the months of the year in backwards order, starting at December.” To assist initial understanding one prompt of “what is the month before December?” is permitted.

- Months of the year backwards
  - Achieves 7 months or more correctly 0
  - Starts but scores <7 months / refuses to start 1
  - Untestable (cannot start because unwell, drowsy, inattentive) 2

[4] ACUTE CHANGE OR FLUCTUATING COURSE
Evidence of significant change or fluctuation in: alertness, cognition, other mental function (e.g. paranoia, hallucinations) arising over the last 2 weeks and still evident in last 24hrs

- No 0
- Yes 4

Tester:
Abbreviated Mental Test (AMT 4) – assess baseline cognition

- Age
- Date of Birth
- Place
- Year

- Little loss of accuracy in detecting marked cognitive impairment when compared to the AMT 10
Causes:

- Drugs (new or withdrawal)
- Ethanol
- Electrolytes
- Infection
- Respiratory (02/CO2)
- Intracranial (bleed / infarct / tumour)
- Urinary retention (and Constipation)
- Myocardial Infarction
- Sugar
Assessment of Delirium

- Medication Review – changes, concordance, rationalise
- Investigations – as appropriate with aims of care
- Optimise Management of Co-morbidity

- Often multiple causes but in up to 30% no cause found

- ‘Time Bundle’ – being used in GRI
Multi-component intervention to manage and prevent delirium

- Medical and Nursing Management – pain assessment, prevent hypoxia, treat constipation etc, person centred care e.g. “Getting to know me document”

- Environmental and General Measures – orientation, mobilisation, sleep hygiene, avoid inappropriate interventions

- Assessment of Capacity – is AWI section 47 needed for basic care?

- Treatment of Delirium Symptoms
dignity & rights

GOOD PRACTICE GUIDE

Covert Medication
Treatment of Delirium Symptoms

- Only consider medication if essential to control symptoms
- First Choice: Haloperidol 0.5-1mg orally
  Haloperidol 0.5mg S/C/IM
- Avoid if signs of Parkinsonism or Lewy Body Dementia
- Second Choice: Lorazepam 0.5-1mg orally
  Midazolam 2-5mg s/c
- Benzodiazepines do not improve cognition but may help anxiety, use with caution.
- Higher doses may be required
- Other antipsychotics may be considered - Risperidone, Olanzapine, Quetiapine
# Dementia and Delirium

**What we do know:**

1. Delirium often does not fully resolve
2. After delirium dementia is more common
3. People with dementia get delirium more

**Theories**

1. Delirium as a marker
2. Delirium as a trigger
3. Delirium as a cause
4. Treatment of Delirium as a cause

- 69% of patients with delirium will have dementia with 5 years

Follow Up - Whose job is delirium?

• High risk of further episodes of delirium
• Can persist for weeks or months after cause treated
• Progression to Dementia
Managing Anxiety in Palliative Patients
Case History 2 – W.P.

- 72yr old lady Pleural Mesothelioma initially diagnosed Jan 2014
- Worked for MOD before retiring, contracted mesothelioma when Clerical Worker in factory that made asbestos panels
- Always been a very fit and active person – walking groups etc. Lives alone, widowed, very supportive daughter.
- Initial MDT decision ‘watchful waiting’
- Dec 2014 Progressive chest wall disease
- Jan 2015 Completed Palliative Radiotherapy
- March 2015 Acute Hospital Admissions – Septic shock, AKI, HDU briefly – responded well to treatment and discharged
- Since discharge – anxiety a major issue, on wakening in the morning very anxious and episodes during the day when become very emotional and distressed

- What are your thoughts?
- How would you manage this situation?
Medications

- Bendroflumathiazide 2.5mg
- Carbocisteine 750mg tds
- Latanoprost
- Laxido 1 sachet daily
- MST 20mg bd
- Oramorph 10mg prn

- Paracetamol 1g qds
- Salbutamol 2 puffs prn
- Symbicort 2 Puffs bd
- Zopiclone 3.75mg nocte
Anxiety in Advanced Illness

- Not inevitable
- Acute or Chronic
- Prevalence increases with advancing disease
- Often presents as complex mix of physical and psychological symptoms
Symptoms of Anxiety

**Psychological**
- Apprehension
- Cannot distract self
- Depersonalisation
- Derealisation
- Indecisiveness
- Irritability
- Intrusive thoughts of death
- Tense, unable to relax
- Poor Concentration
- May be associated depressive illness

**Physical**
- CNS – headache, tremor, fatigue, dizziness, paraesthesia, panic attacks
- GI - nausea, dry mouth, indigestion, diarrhoea
- CVS – Palpitations, chest pain
- RESP – Hyperventilation
- GU – Urinary frequency, impotence
- SKIN – rash, sweating
"It is much more important to know what sort of a patient has a disease than what sort of a disease a patient has."

William Osler
Complex relationship with other symptoms

**Physical:**
- Pain, other symptoms general decline

**Social:**
- Relationships with family, role in family, work role, financial concerns

**Psychological:**
- Grief, depression, anger, adjustment, future fears, regrets

**Spiritual:**
- Existential Issues, Religious faith, Meaning of Life and Illness, Personal Values

Anxiety
# Causes of anxiety

<table>
<thead>
<tr>
<th>Uncontrolled Symptoms</th>
<th>Physical Disorders</th>
<th>Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Insomnia</td>
<td>• Brain tumour</td>
<td>• Corticosteroids</td>
</tr>
<tr>
<td>• Breathlessness</td>
<td>• Cardiac Arrhythmias</td>
<td>• Benzodiazepines</td>
</tr>
<tr>
<td>• Nausea</td>
<td>• Hyperthyroidism</td>
<td>• Opioids</td>
</tr>
<tr>
<td>• Severe Pain</td>
<td>• Hypoglycaemia</td>
<td>• Bronchodilators</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Drug Withdrawal (inc. Nicotine)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• SSRIs</td>
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</tbody>
</table>
Serotonin Syndrome

- Mydriasis
- Agitation
- Diaphoresis
- Increased bowel sounds; may have diarrhea
- Hyperreflexia (greater in lower extremities)
- Clonus (greater in lower extremities)
- Tremor (greater in lower extremities)
- Tachycardia
- Autonomic instability; often hypertensive
Assessment

• Need to look for it!

• Careful listening

• Open questions – How are you are coping? It seems a lot has happened in a short space of time? How are you in your mood and your spirits?

• Don’t normalise it / give false reassurance! – Common obstacle to evaluation and treatment

• Corroborative history from relatives/carers often helpful
Management - Non Pharmacological

- Regular Contact
- Correct any misconceptions
- Allow patients own coping strategies
- Support from the Hospice – Day Therapy, Complimentary Therapies, Patient and Family Support Team for counselling/support
- Support for carers as well - Confident Caring Programme
- External Agencies - Maggies, Beatson Psychology Team
- CBT, Solution Focused Therapy, Music Therapy
Management Pharmacological

Benzodiazepines e.g.
- Lorazepam 0.5-1mg po prn (Max 4mg daily)
- Diazepam 2-5mg regularly or prn

Antidepressants
- Particularly if anxiety-depression
- Mitazapine 15mg nocte and titrate up to 45mg if needed
- Sertraline 50mg od
- Pregabalin 75mg bd – Generalised Anxiety Disorder

Antipsychotics
- If associated hallucinations/paranoia
Terminal Agitation
Case History 3 J.D.

- 45 yr old lady NSCLC Right Upper Lobe invading chest wall
- Severe neuropathic pain complex management – including multiple neuropathic agents and Ketamine
- Palliative Radiotherapy
- Ex IVDA on Methadone
- Multiple bereavements – both parents died young age, brother died in hospice, other brother died aged 12 RTA
- No partner, 3 children daughter Emma due to have first grandchild
- Stoical and denies being frightened of dying.
- Atheist
- Increasingly agitated with pain, restless at night “can’t settle”
Medications

- Gabapentin 900mg tds
- Amitriptyline 75mg nocte
- Clonazepam 1.5mg nocte
- Lidocaine Patch 5%
- Dexamethasone 2mg od
- Naproxen 500mg bd

- Longtec 40mg bd
- Oxynorm 15mg prn
- Methadone 120mg od
- Omeprazole 40mg od
- Nicotine Patch

What are your thoughts?
How would you manage the situation?
Could you keep her at home with escalating agitation?
Alfentanil 4mg /24hrs via csci
Haloperidol 5mg/24hrs via csci
Midazolam 20mg/24 hrs

Felt to be dying. Still agitated, sleeping for short periods, then becoming very restless trying to get out of bed.

What would you do now?
Diamorphine 60mg/24hrs via csci
Midazolam 50mg/24hrs
Levomepromazine 100mg/24hrs

Diamorphine 10mg s/c prn
Midazolam 10mg s/c prn
Levomepromazine 25mg s/c prn
Phenobarbitone 100mg s/c prn
Terminal Agitation

• Terminology Confusing and open to misinterpretation – Terminal Agitation/Restlessness, Palliative Sedation, Deep Continuous Sedation

• Use of appropriate sedative drugs carefully titrated to the cessation of symptoms, not the cessation of life

• Helping somebody when they are dying not Helping somebody to die

Notes: further details here (or delete)
Source: details here (or delete)
Sentenced to death on the NHS

Treatment of seriously ill patients ‘withdrawn too soon’  Palliative care is in crisis, warn leading doctors

By Kate Devlin  Medical Correspondent

PATIENTS with terminal illnesses are being treated too soon under an NHS scheme to help end their lives, leading doctors claim.

In a letter to The Daily Telegraph, a group of experts who care for the terminally ill claim some patients are being wrongly judged as close to death.

Under NHS guidance introduced in England, medical staff can withdraw fluid and drugs from dying patients and many are put on continuous sedation until they pass away. But this approach can also mask signs of improvement, the experts say.

As a result, the scheme is causing a “national crisis” in palliative care, the letter states.

It has been signed by palliative care specialists including Peter Millear, Emeritus Professor of Geriatrics, University of London, and Peter Hargreaves, a consultant in palliative medicine at St Luke’s cancer centre in Guildford, and four others.

“Forecasting death is an inexact science,” they say. Patients are being assessed as close to death “without regard to the fact that the diagnosis could be wrong. As a result, a national wave of discontent is building up, as family and friends witness the denial of fluids and food to patients.”

The warning comes a week after a report by the Patients Association estimated that up to one million people had received poor or cruel care on the NHS.

The scheme at the centre of the new wave of terminally ill claims the lives of patients in the final hours.

Developed for cancer patients in a Liverpool hospice by Marie Curie, the cancer charity, it has been extended to other life-threatening conditions. It was modelled as a model by the National Institute for Health and Clinical Excellence (NICE), the Government’s health scrutiny body, in 2004, and is in use in more than 360 hospitals, 126 hospices and 500 care homes.

Under the guidelines, the assessment that a patient is close to death is made by the entire medical team, including a senior doctor.

They look for signs that can include losing consciousness or whether the patient is having difficulty swallowing medication.

However, doctors say that these signs can point to other medical problems.

Patients can become severely dehydrated and confused as a side effect of painkilling drugs such as morphine if they are also dehydrated, for instance.

When a decision has been made to place a patient on the pathway, doctors are then recommended to consider removing medication or invasive procedures, such as intravenous drips, which are no longer of benefit.

The patient could still be offered food and water if able to eat and drink as this is considered simple nursing care.

Dr Hargreaves said that the system is dependent, however, on constant assessment of a patient’s condition.

He said some patients were being “wrongly” put on the pathway, which created a “self-fulfilling prophecy” that they would die.

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Prof Millear said that it was “worrying” that patients were being “terminally” sedated, using syringe drivers which continued in...
Treatment

• Prevent the preventable – identify high risk groups

• Early recognition of delirium – prevent escalation

• Reverse the reversible – relieve physical symptoms, treat constipation, look for urinary retention

• Review medication - opioids, steroids etc

• Communication and Support for carers
First line drugs
• Midazolam 2-5 mg prn
• Maintain with syringe pump (10-30 mg/24hrs) if required

Second line drugs
• Levoamphetamine 12.5 - 25mg s/c if established agitation
• Maintain with 50 – 200mg/24hrs csci

Third Line Drugs
• Phenobarbitol
• 100-200mg s/c,
• Maintain with 600-1200mg/24 hrs
Learning Resources:

NES Learn Pro Modules
‘An introduction to Delirium’
‘Delirium: Prevention Management and Support’

www.scottishdeliriumassociation.com
www.palliativecareguidelines.scot.nhs.uk