### Falls in the Community

**• Risk factors**
- Balance
- Gait
- Eyesight
- Tactile sensation
- Certain medications
- Environment / footwear
- Impaired cognition

### Literature - delirium

**• Delirium in older persons** *(Inouye 2006. NEJM.354:11)*
- Common, life threatening, potentially preventable and reversible
- In hosp prevalence 14-24%, incidence 6-66%
- Correlates with lower quality of hospital care

- >49% of all USA hospital bed days on care for delirium
- Melbourne study all patients eligible >65 (n=104) – general med ward
- Prevalent del 49%; incident 2%
- Pre existing cognitive impairment strong predictor

**• ‘In particular, the prevention of, or appropriate management of delirium can save up to $2.5 million per 1000 cases’** *(Lipski, P. 2007. White Paper on Geriatric Medical Services on The NSW Central Coast 2007).*
Disturbance of consciousness, attention, cognition, and perception that develops over a short period of time (usually hours or days) and tends to fluctuate during the course of the day.

Delirium Definition

Delirium is characterized by a disturbance of consciousness and a change in cognition that develops over a short period of time.

ICD-10-AM Disease Tabular 2003

- F05 - Delirium, not induced by alcohol and other psychoactive substances
  - non specific organic cerebral syndrome
    - concurrent disturbances of consciousness and attention, perception, thinking, memory, psychomotor behavior, emotion, and the sleep-wake schedule.
  - F05.1 Delirium superimposed on dementia

Pathophysiology of Delirium

Poorly understood

- decreased cerebral oxidative metabolism causing altered neurotransmitter levels
- stress-induced increased plasma cortisol levels causing altered neurotransmitter activity
- cerebral hypo-perfusion in the frontal, temporal & occipital cortex

PREDISPOSING CAUSES OF DELIRIUM

- Brain disease - dementia, stroke, past severe head injury
- Use of brain-active drugs - sedatives, anticholinergics
- Impairments of special senses - sight, hearing
- Multiple severe illnesses
- Malnutrition

PRECIPITATING CAUSES OF DELIRIUM

- Iatrogenic - unpleasant environmental change, invasive procedures, new medications, trauma, dehydration, ongoing malnutrition, elimination malfunction
- Illnesses - infections, intracranial pathologies, impaired organ function, abnormal metabolite function, pain, drug withdrawal

Delirium Risk Assessment

Predisposing

- Visual impairment
- Severe illness
- Cognitive deficit (AMTS <7/10; MMSE < 25/30)
- Malnutrition

Precipitating

- mechanical restraint
- malnutrition
- 3 new medications
- IDC
- Unpleasant event (e.g., surgical procedure, medication toxicity, falls, infections, faecal impaction etc)

Delirium: What does it mean for the patient?

- Trapped in incomprehensible experiences
  - a turmoil of past & present
  - being in 'borderland'
  - being a victim & not in control
  - feeling threatened

Quotes

Factors associated with delirium severity among older patients


- Aim: investigate factors associated with severity of delirium
- Method: secondary analysis of insti. older patients admitted to acute care  n = 104
- Results:
  - nurses have important role in
    - preventing mild → severe delirium
    - reassuring/supporting environment
  - reducing severe delirium
  - role of pain management important

Delirium

- Is a medical emergency
- Incidence of up to 56% in hospitalized elderly
- Independent predictor of adverse outcomes
  - increased falls
  - incontinence
  - pressure sores
  - increased LOS in acute care
  - decreased functional levels
  - increased mortality

Prevention of Delirium

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<tr>
<th>Cognitive Impairment</th>
<th>Orientation, therapeutic activities</th>
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<td>Sleep deprivation</td>
<td>Pain relief, non-pharmacological sleep enhancement protocol</td>
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<td>Immobility</td>
<td>early mobilisation, minimal use of immobilising equipment</td>
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<td>Sensory impairment</td>
<td>vision &amp; hearing protocols</td>
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<td>Dehydration</td>
<td>volume repletion</td>
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Delirium: What does it mean for the staff?

- Recognising
- Protecting
- Strain
  - feelings of adequacy / inadequacy
- Follow up care


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Is your patient confused?

1. **How do you know?**
   (state how you came to this decision in the Integrated Notes)
   - 4 question AMTS
   - SiS – 3 item recall, day, month, year.
   - MiniCog – 3 item recall, Clock
   - AMTS
   - CLOCK
   - MMSE
   - GCS questions
   - RUDAS
   - Other (state)

Is your patient confused?

2. **Why are they ‘confused’?**
   - can't speak the language
   - can’t speak or express themselves
   - can’t hear
   - can’t see
   - delirium (CAM)
   - and/or dementia?

Is your patient confused?

3. **What is causing the ‘confusion’?**
   e.g. UTI, pneumonia, pain, cellulitis, constipation, medications, ETOH withdrawal, changed environment, hyponatraemia, unknown, etc?

Is your patient confused?

4. **What are you doing to try to reduce the ‘confusion’ (delirium, dementia, other)?**
   - Treat cause
   - Ask family to
     - visit often and filled in the Communication & Care Cues form
     - bring in toiletries, dressing gown, slippers
     - bring in reassuring/orienting mementos – photos, books, music, cuddly things, etc
   - Talk with patient often &
     - referred to the information in the Communications Cues form
     - including: time / day / month / season etc

   eg
   - Mary is looking after Rover your dog – you must miss him
   - I bet you would much rather be going fishing now its autumn
   - Fred knows you are here and will be here soon to see you … etc

Is your patient confused?

5. **How have you made sure that the staff can continue these actions?**
   - Noted cause and gave instructions at handover
   - Placed CCC form in end of bed notes
   - Noted the CCC form in the patient notes and care plan
   - Role modelled reassuring, orientating communication skills
   - Displayed reassuring information on the bed notice boards
**SIS (Six Item Screen)**


1. Say to your patient: “I am going to name 3 objects remember what they are because I am going to ask you to name them again in a few minutes.”
   - “Please say the 3 items for me” (Say clearly & slowly – 1 second for each word)
   - **APPLE TABLE PENNY**
   - Keep giving trials for the 3 words until the patient has said all 3 (up to 6 trials)

2. Then ask the patient to name the current:
   - day
   - month
   - year
   - Give 1 point for each correct answer

3. Say: “Now what were the 3 objects I asked you to remember?”
   - Give 1 point for each correct answer

**Abbreviated Mental Test Score (AMTS)**


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**Mini-Cog**


1. **Say to your patient** “I am going to name 3 objects. After I have said them I want you to repeat them. Remember what they are because I am going to ask you to name them again in a few minutes.”
   - Please say the 3 items for me. (Say clearly & slowly – 1 second for each word)
   - **APPLE TABLE PENNY**
   - Keep giving trials for the 3 words until the patient has said all 3 (up to 6 trials)

2. **Clock Drawing Test**
   - Say to the subject: “Put the numbers on the clock and set the hands at ten minutes past two.”

**Normal** [ ]

**Abnormal** [ ]

All numbers present in correct sequence & position and hands readily displayed the requested time
• Behaviour is a means of communication

• Any sudden change in behaviour warrants a careful medical review
  – AND a review of the FALL RISK