Managing physical co-morbidities in dementia

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How to identify and diagnose co-morbid conditions in acutely ill patients with Alzheimer's disease
Real World

CONFUSION
What’s going wrong?

‘Typical of the circumstances was illustrated when on three occasions when I visited my wife, she was sitting in the corridor, half dressed sometimes, and nobody seemed concerned or aware’

Counting the Cost: Alzheimer’s Society, 2009
Outcomes are poor

Six month outcomes amongst patients over 70 with cognitive impairment admitted to a general hospital (n=195)

- Return to previous residence 73%
- Mortality 31%
- Readmission 42%
- Return to pre-illness function 20%

Bradshaw et al, 2012
Possible explanations

• Hospitals are harmful
• Medical treatments and rehabilitation are not given
• Medical treatments do not work
• Progressive underlying disease
Medicine in dementia

Antibiotic sensitivities don’t change because the patient has dementia
Some staff lack expertise

‘In all my years of training, I have never, ever, ever, been taught how to look after patients with dementia’ [hospital consultant physician]

Gladman et al 2012
Assessing a patient who appears to be muddled

Keep an open mind. When confused old people are referred to hospital, minds snap shut ...
People with dementia in hospital are complex

Presenting problems amongst 53 patients over 70 with cognitive impairment admitted to a general hospital

- Falls 42 (81%)
- Immobility 38 (73%)
- Pain 28 (54%)
- Incontinence 24 (46%)
- Breathlessness 12 (23%)
- Dehydration 11 (21%)
- Delirium 11 (21%).

Harwood et al, 2012
A huge variety of acute medical diagnoses

Final diagnoses amongst 53 patients over 70 with cognitive impairment admitted to a general hospital

- fractured neck of femur 7 (1 peri-prosthetic)
- other fractures 6
- pneumonia 4
- multi-factorial fall 4
- multi-factorial functional problem 3 (immobility, pain, confusion, incontinence)
- fast AF 3 (2 syncope, 1 heart failure)
- dehydration/renal failure 3
- urinary tract infection 1 (+ 3 contributory)
- alcohol intoxication 2
- adverse drug reactions 2 (amantadine, sedatives)
- seizures 2 (alcohol excess, brain metastases)
- unresponsive episode/syncope 2
- painful hip post fall 2
- unexplained delirium 2
- cancer 2 (gastric, lung)
- infective exacerbation of COPD 1
- infected leg ulcer 1
- gastroenteritis 1 (+ dehydration + syncope)
- stroke 1
- ruptured Achilles tendon 1
- rheumatoid arthritis 1
- progression of vascular dementia 1 (+ immobility + poor oral intake)
- acute urinary retention 1 (with a fall)
- anxiety, old stroke 1

Harwood et al, 2012
People with dementia in hospital are very dependent

Prevalence amongst 195 patients over 70 with cognitive impairment admitted to a general hospital

- Barthel <5/20 31%
- help to transfer 65%
  (hoist 13%)
- help feeding 58%
  (unable 15%)
- incontinent of urine 67%
- sleep problems 34%
- MMSE <10/30 30%
- delusions 14%
- hallucinations 11%
- agitated 18%
- depressed 34%
- anxious 35%
- apathetic 38%
- disinhibited 10%

Goldberg et al, 2012
Dementia in crisis

• Super-added delirium
• Physical illness in person with dementia
• Progression of dementia especially vascular
• Behavioural problem, disability, coping, misjudgment

... physician role may be to exclude physical disease
Dementia in acute hospitals is different

- Physically ill and dependent
- 2/3 have added delirium
  - … which is difficult to diagnose and manage
  - … and slows things down
- Vascular dementia predominates
Why does delirium matter?

• Common
• Atypical presentation of illness in older people
• Unpleasant
• Serious consequences
• It’s on the health policy agenda
Difficulties diagnosing delirium

- Overlap with normality (cat naps, insomnia) and dementia
- 6-10 x commoner in dementia
- Variability, fluctuation, broad range of features
- Poorly understood words (attention, disordered thinking)
- Unfamiliar features not recognised by doctors or nurses
- Cognition can be difficult to assess in an ill person
A useless differential diagnosis

### TABLE 3. Putative causes of delirium

<table>
<thead>
<tr>
<th>Medications</th>
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<tbody>
<tr>
<td>Psychotropics</td>
<td>(anxiolytics, sedative-hypnotics, barbiturates, antidepressants, antipsychotics, lithium)</td>
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<tr>
<td>Anticonvulsants</td>
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<td>Antiepileptics</td>
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<tr>
<td>Anticholinergics</td>
<td>(antihistamines, antispasmodics, antiparkinsonian agents)</td>
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<td>Antihypertensives</td>
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<tr>
<td>Antimicrobial</td>
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<tr>
<td>Miscellaneous</td>
<td>(clindamycin, steroids, nonsteroidal antiinflammatory drugs, salicylates)</td>
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<tr>
<td>Drugs of abuse</td>
<td>(phenytoin and phenothiazines)</td>
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<tr>
<td>Alcohol</td>
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<tr>
<td>Poisons</td>
<td>(heavy metals, organic solvents, methyl alcohol, ethylene glycol, insecticides, carbon monoxide)</td>
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<tr>
<td>Withdrawal syndromes</td>
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<tr>
<td>Alcohol</td>
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<td>Sedatives and hypnotics</td>
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<tr>
<td>Cardiovascular</td>
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<td>Congestive heart failure</td>
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<td>Cardiac arrhythmia</td>
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<td>Myocardial infarction</td>
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<td>Neurologic</td>
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<td>Head trauma</td>
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<td>Space-occupying lesions: tumor, subdural hemotoma, abscess, aneurysm</td>
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<tr>
<td>Cerebrovascular diseases: thrombosis, embolism, artery, hemorrhage, hypertensive encephalopathy</td>
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<tr>
<td>Degenerative disorders: Alzheimer disease, multiple sclerosis</td>
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<tr>
<td>Epilepsy</td>
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<td>Infection</td>
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<tr>
<td>Intracranial: encephalitis and meningitis: viral, bacterial, fungal, protozoal</td>
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<tr>
<td>Systemic: Pneumonia, sepsis, subacute bacterial endocarditis, influenza, typhoid, typhus, infectious mononucleosis, infectious hepatitis, acute rheumatic fever, malaria, mumps, diphtheria, AIDS</td>
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<td>Metabolic</td>
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<td>Hypoxia</td>
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<td>Hypoglycemia</td>
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<td>Acid-base imbalance: acidosis, alkalosis</td>
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<td>Electrolyte imbalance: elevated or decreased sodium, potassium, calcium, magnesium</td>
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<td>Water imbalance: inappropriate antidiuretic hormone, water intoxication, dehydration</td>
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<td>Failure of vital organs: liver, kidney, lung</td>
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<td>Inborn errors of metabolism: porphyria, Wilson disease, carcinoid syndrome</td>
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<td>Remote effects of carcinoma</td>
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<tr>
<td>Vitamin deficiency: thiamine (Wernicke encephalopathy), nicotinic acid, folate, cyanocobalamin</td>
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<td>Endocrine</td>
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<td>Thyroid: thyrotoxicosis, myxedema</td>
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<td>Parathyroid: hypo- and hyperparathyroidism</td>
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<td>Adrenal: Addison disease, Cushing syndrome</td>
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<td>Pancreas: hyperinsulinism, diabetes</td>
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<td>Pituitary hypofunction</td>
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<td>Hematologic</td>
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<td>Pernicious anemia</td>
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A useful differential diagnosis

• meds
• meds
• meds
• infections
• hypoxia
• metabolic
• some combination
• something else

Rockwood 2001
Delirium management

• Find the cause and treat it
• Anti-psychotics, maybe
• Explain to relatives and engage patient
• Keep your nerve, don’t make the wrong plans too soon
• Post episode debrief?
Delirium - slow recovery

Persistence

- 61% after 24h
- 45% at discharge
- 33% at 1 month
- 26% at 3 months
- 21% at 6 months

Cole 2009 systematic review
Diagnostic problems

- Information gathering
- Non-specific presentations
- Multiple pathologies
- Investigative burden
Management problems

- Complexity: physical, mental and social
- Complications and adverse events
- Effects of a hostile environment
- Understanding and compliance
- Nihilism
- Multiple stakeholders: relationship-centred care
An illness career

- Primary care
- Community mental health teams
- Intermediate care
- Social care
Specifics

- Falls
- Continence
- End of life care
- Pain
Cohen-Mansfield agitation inventory scores, with 95% confidence intervals, over study period.

Husebo B S et al. BMJ 2011;343:bmj:d4065

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How to put things right

- Leadership
- Attitudes and skills
- Resources

Care Quality Commission, 2011
Right place, wrong person

A key message echoed by staff at all levels in the organisations involved in this study was that the acute hospital is not the ‘right place’ for older people.

This chapter examines how the prevalence of this view has resulted in the physical environment, staff skills and education and organisational processes acting as barriers to delivering dignified care to older people.

Tadd W, Dignity in Practice 2011
Practical steps

- MH professionals
- Environment, systems
- Communication, relationships, empathic understanding
- Purposeful activities, occupational profiling
- Partnership working with family carers
Domain 1: Preventing people from dying prematurely

Domain 2: Enhancing quality of life for people with long-term conditions

Domain 3: Helping people to recover from episodes of ill health or following injury

Domain 4: Ensuring that people have a positive experience of care

Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm
Summary

• Confused older people are core business for acute hospitals
• Most are admitted for good reason
• But they are complex and difficult to manage
• Our job is to do the medicine well
• Providing better quality of care is possible with good leadership, skills and resources