The treatment of depression in old age

A missed opportunity?
Old age Psychiatry
an evolving specialty

- Bismark 1890
  - Introduced pensions as a consequence of left wing social pressure. The age of 65 was chosen as very few people live to this age.

- Establishment of Psychiatry as a Royal College and subsequent development of Section and then Faculty of Old Age Psychiatry
  - Dementia assessment and long term care
  - Looking after people aged 65 and over

- Variable acceptance of ‘graduates’; people with functional illness with initial onset prior to the age of 65, taking them on when they reached the age of 65

- Taking on people with dementia under the age of 65

- Recent Increasing amalgamation of functional services for age groups.
  - Same wards, day hospitals and crisis intervention teams in areas.
  - Increasing demise of specialist day hospitals
What are the issues?

NICE GUIDANCE
What NICE depression guidance has to say about older people.

- Where age is mentioned:
  - Increased GI bleeding with SSRIs
  - Prescribe at an age-appropriate dose taking into account the effect of general physical health and concomitant medication on pharmacokinetics and pharmacodynamics
  - The risks associated with ECT may be greater in older people; exercise particular caution when considering ECT treatment in this group.
  - When deciding whether to continue maintenance treatment beyond 2 years, re-evaluate with the person with depression, taking into account age, co morbid conditions and other risk factors.
  - the need for haematological monitoring with mianserin in elderly people.
NICE age related issues

- Drug interactions
  - Fluoxetine, fluvoxamine and paroxetine are associated with a higher propensity for drug interactions than other SSRIs.
  - Consult appendix 1 of the BNF for information on drug interactions
- Drug side effects
  - Carefully monitor for side effects.
  - The specific cautions, contraindications and monitoring requirements for some drugs. For example:
    - the potential for higher doses of venlafaxine to exacerbate cardiac arrhythmias and the need to monitor the person’s blood pressure
    - The possible exacerbation of hypertension with venlafaxine and duloxetine
    - the potential for postural hypotension and arrhythmias with TCAs
- Physical health problems
  - People with depression on long-term maintenance treatment should be regularly re-evaluated, with frequency of contact determined by:
    - comorbid conditions.
- Longevity/history
  - People with depression on long-term maintenance treatment should be regularly re-evaluated, with frequency of contact determined by:
    - comorbid conditions
    - risk factors for relapse
    - severity and frequency of episodes of depression.
Some things that need addressing

- Duration of antidepressant management
- The role of old age psychiatry in treatment of older frail depressed people.
- Treatment of depression in people with vascular disease
Length of treatment

A missed opportunity?
Duration of treatment

HAM-D Score
week 0-52

95% CI:

Week
The longer the therapeutic trial, the better the outcome

Nelson et al, 2008 Am J Ger Psychiatry, 16(7): 558-567
How long do you treat for after 1 episode? (NICE; 6 months)

• Klysner 2 years
• Georgotas 1 year
• Reynolds 3 years
• Wilson 2 years*
• OADIG 2 years
Random sample of older people in the community
Untreated depression

Outcome at three year followup

Long term treatment
1-3 years
Maybe for life in the very old or high risk groups
Specific treatment issues.

- Older people may take up to three months to reach optimal improvement with an antidepressant.
- The natural history of depression in older people can be as long or longer than three years.
- What trials there are indicate that long term treatment is effective for up to three years.
- Depression is more likely to relapse as one gets older; consequently treatment for remainder of life may be called for (considering risk factors; particularly physical ill health and handicap)
Physical frailty and handicap

- Relationship between antidepressants, side effects and physical illness
- The missed patient
## Inpatient settings

<table>
<thead>
<tr>
<th>Author</th>
<th>Prevalence</th>
<th>Setting</th>
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<tbody>
<tr>
<td>Rapp</td>
<td>15.6%</td>
<td>Medical inpatients</td>
</tr>
<tr>
<td>Fenton</td>
<td>25%</td>
<td>Community hospital (&gt;75)</td>
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<tr>
<td>Balestrieri</td>
<td>32.5%</td>
<td>General hospital physicians</td>
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<tr>
<td>Ramsey</td>
<td>10% depressive diagnosis, 40% depressive symptoms</td>
<td>Elderly medical admissions</td>
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The under-managed problem in acute inpatient settings

• What is likely to happen to depressed older people?
• 53 hospitalised older, depressed men with medical illness.
  – Followed up for 2.3 months
  – No evidence of depression in notes in 44%
  – Depression on ‘active list’ in 32%
  – Follow-up and management in 29%
  – 64% had on-going depression 3 months later
  – 18% improved and 18% in remission

*Koenig et al 2004 (USA)*
What happens when discharged home from acute inpatient care?

Design

- Prospective cohort study
- Medical inpatient for more than 24 hours
- Remained at home for at least one month prior to re-admission
- Aged 75 and over
- Discharged to own home/sheltered accommodation
- Followed up for 18 months
- Instruments
  - Psychiatric diagnosis (GMS/AGECAT)
  - GDS depression rating
  - Social network scale
  - London handicap scale
  - McGill pain scale
  - Record of social service and medical input
Survival analysis

mean survival time of 18.45 months for well (CI 16.42, 20.48) and for depressed 12.74 (CI 10.89, 14.58). (significant difference)
Prediction of re-admission/death

• Base line variables entered into analysis:
  – Handicap
  – Pain
  – Social network
  – Vital capacity
  – Depression

• Agecat Depression case level independently predicted reduced survival in the community
  – Cox’s (Exp(B); 2.050, 95%CI 1.097, 3.832)
Qualitative study

- Henry-Wnewy 2009
- 30 re-admitted patients,
- Across 5 PCTs
  - depression
  - loneliness
  - poor self care
  - lack of ‘patient empowerment ‘in care planning
  - inadequate care packages.
What are these people experiencing?

I've not been able to walk since I come out of hospital, so why wasn't I sent for therapy you know, to get my legs going. Why wasn't I sent there because I do know about people that have gone there and it has done them good., you see. But my hands are stuck because of the arthritis and I cant move them the same, so if I had gone there it might have done me the world of good. Whereas its getting worse, I'm getting worse now, The centre, I've never been there, I don't know what it is like. I do a bit of exercise myself in here but its not the same as going to one of them. Its not the same. Probably if I feel to ill any day, I’d dial 999 ambulances I get stuck sometime

My sons working all day and I don't like to ask him to take me out, I don't go out. I love a game of Bingo, cant have it, I've got nothing in life now, what am I living for? (crying). I get myself upset because I am missing the best years of my great-grandchild’s life..it cant be helped....

**NICE Guidelines**

**Treatment in physically ill**

**STEP 1**: All known and suspected presentations of depression

**STEP 2**: Persistent subthreshold depressive symptoms; mild to moderate depression

**STEP 3**: Persistent subthreshold depressive symptoms or mild to moderate depression with inadequate response or severe

**STEP 4**: Severe and complex depression; risk to life; severe self-neglect

- **STEP 1**: diagnosis and monitor
- **STEP 2**: Low-intensity psychosocial interventions, psychological interventions, medication and referral for further assessment and interventions
- **STEP 3**: Medication, high-intensity psychological interventions, combined treatments, collaborative care and referral for further assessment and interventions
- **STEP 4**: Inpatient care, medication, high-intensity psychological interventions, electroconvulsive therapy, crisis service, combined treatments

*Diagrams illustrate progression from STEP 1 to STEP 4.*
Collaborative care

- Collaborative care, which should form part of a well-developed stepped-care programme, could be provided at the primary or secondary care level. The interventions, which involve all sectors of care, require a coordinated approach to mental and physical healthcare, as well as a dedicated coordinator of the intervention located in and receiving support from a multi-professional team, joint determination of the plan of care, and long-term coordination and follow-up.
Collaborative care
(impact study)

• Collaboration
  – Primary care manager and GP implement treatment plan
  – Consultation with psychiatrists if care plan not working
• Stepped care approach
• Depression care manager
  – Educates the patient about depression
  – Supports antidepressant treatment
  – Coaches patients in behavioural activity and pleasant events scheduling
  – Offers brief course of counselling; e.g. problem solving (6-8 sessions)
  – Monitors depression
  – Completes relapse prevention plan with patient.
• Designated psychiatrist
  – Consults the primary care manager and primary care physician in patients who do not respond to treatments
Implications for older person’s services

• Problem:
  – A large number of frail, elderly, depressed people have unmet needs and have very high use of primary and secondary care
  – Potentially treatable with possible cost savings
  – Should we be specifically target these people in the community and work towards establishing collaborative care arrangements with primary care?
Care of depressed people with cognitive deficits

• Depression treatment in dementia
• Depression treatment in ‘vascular depression’
Depression in the context of cognitive dysfunction/disease

Nice Guidelines for treatment of depression in dementia

- Antidepressant drugs with anticholinergic effects should be avoided because they may adversely affect cognition. The need for adherence, time to onset of action and risk of withdrawal effects should be explained at the start of treatment.
‘Vascular’ Depression and brain changes
The concept of vascular depression

  - Summary: white and deep grey matter changes are associated with depression
  - Cerebral sulcal widening
  - Lesions are vascular in nature
  - Structural brain changes associated with depression are consistent with functional brain changes.
  - The evidence suggests that depression is specifically related to vascular lesions affecting the L frontal and striatal-frontal connections
Overview

• Epidemiological evidence indicates that depression in older people is of a heterogenous nature
• There is epidemiological and clinical evidence demonstrating close links between vascular disease and depression
• These links are further confirmed through studies of cortical imaging and function
• This is a two-way relationship between vascular disease and depression
• The evidence suggests that vascular depression is associated with lesions of the fronto-striatal pathways
Clinical presentation and vascular depression
Executive dysfunction

Organisation of basic functions into complex and goal directed behaviour in the face of both internal and external distractions.

• Tests
  – Initiation/perseveration tests
  – Stroop colour/word test (30 words in a minute; 3 different letters) 12 animals in a minute (response inhibition)
  – Card sorting
  – Visual spatial defects
  – Information processing speed (Trail making test)
Proposed criteria for vascular depression subtype specifier
Steffans and Krishnan1998 developed from Alexopoulos 1997

- Can be applied in MDD of depression in bipolar disorder
- Depressive episode in context of clinical/neuroimaging evidence of cerebrovascular disease
- One of the following:
  - History of stroke, TIA, neurological signs (deep tendon reflexes, pseudobulbar palsey, gait disturbance, weakness)
  - White matter hyperintensities (>2 or lesion >5mm in diameter, infarcts), executive dysfunction (planning, organisation, sequencing, abstraction) memory problems and speed of processing
- Supported by:
  - Onset after 50 or depression and vascular disease before 50
  - Marked loss of interest or pleasure
  - Psychomotor retardation
  - Lack of family history
  - Diminished ADLs
Vascular depression

Implications for treatment
Vascular depression response to treatment

- failure to sustain remission (Warren et al 2003)
- poor response to citalopram (Alexopoulos, 1999, 2005) and fluoxetine (Dunkin et al 2000; younger people) and nortriptyline (Alexopoulos)
- respond better to problem solving therapy than supportive therapy (Alexopoulos et al 2003)
- Primary care studies (IMPACT study) show no differences
  - However more recent studies (in press) demonstrate that people with executive dysfunction respond better to depression care management as opposed to treatment as usual
Innovative treatments

• Taragno et al 2005, Calcium channel blocker (Nimodopine) augmentation with fluoxetine improved remission
• Fabre et al (Paris), 2004 used TMS (Transcranial magnetic stimulation) Antidepressant effect correlated with prefrontal atrophy; Verbal fluency improved, visuo-spatial memory improved but delayed recall deteriorated in the treated group.
• Alexopoulos 2001: a specific target for D3 agonists.
• Structured behavioural rehabilitation as an augmentation
Overview

• There is complex relationship between vascular disease and depression
• Epidemiological, clinical and functional and structural studies tend to support a relationship between fronto-striatal vascular damage and depression
• There appears to be both cognitive and presentational characteristics of ‘vascular depression’ and some attempts at describing this as a syndrome have been made.
• There may be treatment and prognostic implications relating to the syndrome, including
  – Response to specific psychotherapeutic approaches
  – Delayed response to antidepressant treatment
  – Possibly good response to drugs targeting the vascular system
Summary

1. The fail-safe cut-off of 65 years and above is entrenched in history and is becoming progressively difficult to defend in the context of changing society.

2. Both this and the last government have prioritized dementia care of all ages; this is rightly the domain of specialists such as the faculty of old age psychiatry.

3. The older depressed, frail person is at increasing risk of being left out of the equation.

   1. We need to highlight the unmet need
   2. Emphasize the role of specialization in management of depression in frail older people