

# **DEPRESSION IN LATE LIFE**

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**and**

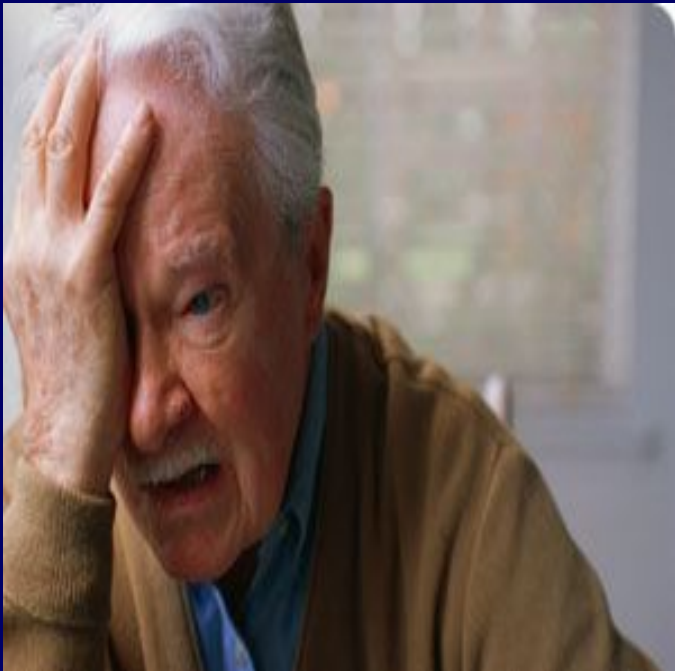
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# Questions of interest



- Does depression prevalence of vary in late life?
- Are the causes of late life depression different to those in younger years?
- Does the presentation of depression change with age?
- Is the treatment different?
- Is the outcome different?

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# Depression defined by DSM-IV

- **Major depression**
  - ≥ 5 symptoms
  - ≥ 2 weeks
  - impaired function
- **Minor depression**
  - 2- 4 symptoms
  - ≥ 2 weeks
  - impaired function
- **Dysthymia**
  - 2 years
  - most of time
  - not Major
- **Depressive symptoms**

# Epidemiology of depression in community 65 y.o.

	<b>median</b>
<b>Major depression</b>	<hr/> <b>3%</b>
<b>Minor Depression</b>	<b>8%</b>
<b>Dysthymia</b>	
<b>Dysphoria/depressive symptoms</b>	

# **Epidemiology of depression**

## **in the USA elderly<sup>1</sup>**

- 1. MDD found in 5.7% of US residents age 65+ (2 million people in total)<sup>1</sup> (Range 1-9%)**
- 2. MDD affects up to 12% of NH residents (USA)<sup>1</sup> and 36-46% of hospitalised elderly<sup>2</sup>**
- 3. Sub-syndromal depression (SSD) affects 15% of ambulatory elderly (5 million in USA)<sup>1</sup>**
- 4. SSD affects up to 30% NH residents<sup>1</sup>**

**7. VanItallie TB, Metabolism, 2005**

**8. Raj A, Postgraduate Medicine 2004**

# Epidemiology of depression in the elderly



- Depressive disorders affect 20% of patients with chronic medical conditions, but many remain undiagnosed<sup>1</sup>
- Risk of major depressive episode  $\uparrow 3$  x once a first degree relative is affected

# Epidemiology of depression in the elderly

- Prevalence of MDD ↓ as people age<sup>1</sup>
- BUT incidence of non-major depression ↑ steadily with age and rises steeply after age 85<sup>2</sup>
- Subjective ratings of depression decrease with age while objective, clinician-rated severity of depression increases steadily with age<sup>3</sup>

<sup>1</sup> VanItallie TB, Metabolism, 2005

<sup>2</sup> WHO World Health Report, 2001

<sup>3</sup> Brodaty et al, Am J Ger Psychiatry, 2005

# Older populations at risk for depression

- **Nursing home residents**
  - major depression ~ 15%
  - other depressive disorders ~ 35%
- **Medical outpatients ~ 15%**
- **Medical inpatients ~ 15%**
- **General practice patients**
- **Pts with neurological  $\Delta$**



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# Depression: risk factors in elderly

- Female (but gap narrows in v. late life)
- Divorce
- Poor social support
- Recent adverse and unexpected life events
- Bereavement
- Hypothyroidism
- Myocardial infarction
- Macular degeneration
- Medications
- Cancer
- Coronary artery  $\Delta$
- Severe disability from medical illness
- Neurological disease: stroke, Parkinson's, CVD, dementia, MS
- Endocrine disease
- COAD
- Myocardial infarct
- Neoplasm

**Social and  
environmental**

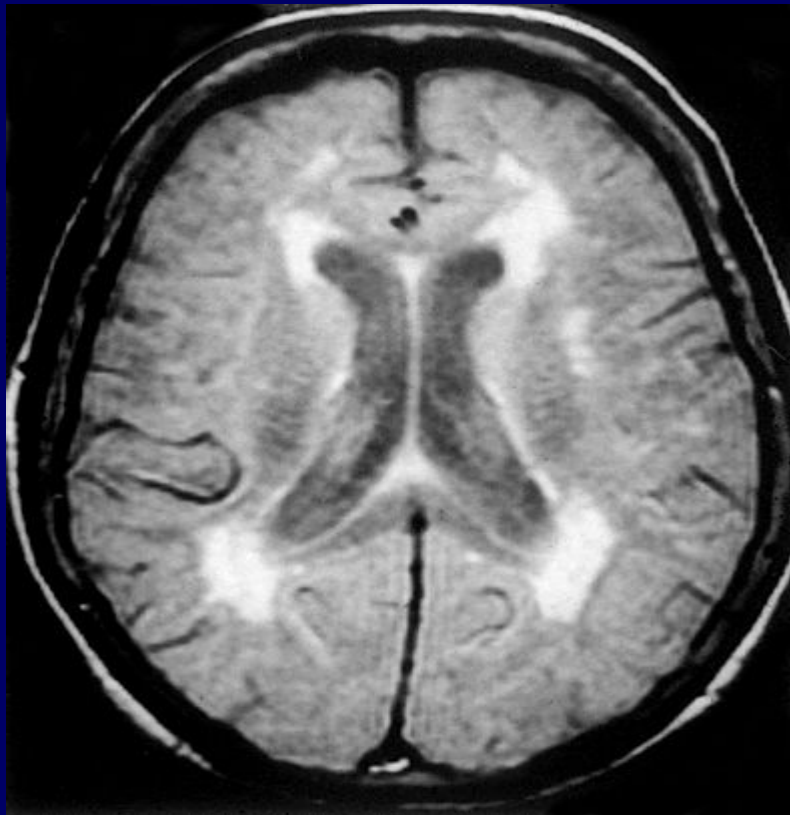
**Interpersonal**

**Biological**

**Psychological**

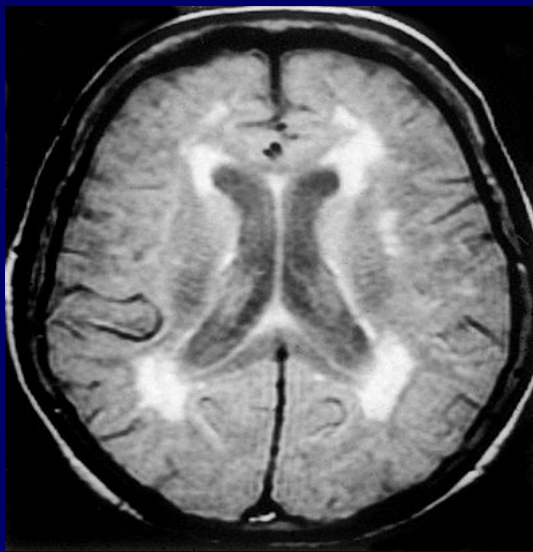
# BIOLOGICAL CAUSES

- **Biochemical**
  - Increase MAO levels with age and w. dementia
- **Structural**
  - DWMH
  - Basal ganglia
- **Cerebrovascular disease**
- **Secondary depression,**
  - eg thyroid  $\Delta$ , calcium XS, tumour, B12 deficiency, neurological  $\Delta$



# Vascular depression

- Phenomenology
- Family history
- Neurological exam
- Neuropsychology
- MRI
- Response to treatment
- Complications of Rx
- Prognosis
- Dementia
- Death
- Post mortem
- Implications for prevention



# Vascular depression<sup>1</sup>

- Depressive  $\Delta$  in old age
- 2<sup>o</sup> to microvascular lesions
- Subcortical and prefrontal

## Coronary heart $\Delta$ link

- Depressive disorders impact on CVS
- Depression and vascular disease may share common pathological process &/or genetic determinants

1. Camus V et al, 2004, J. Affective Disorders

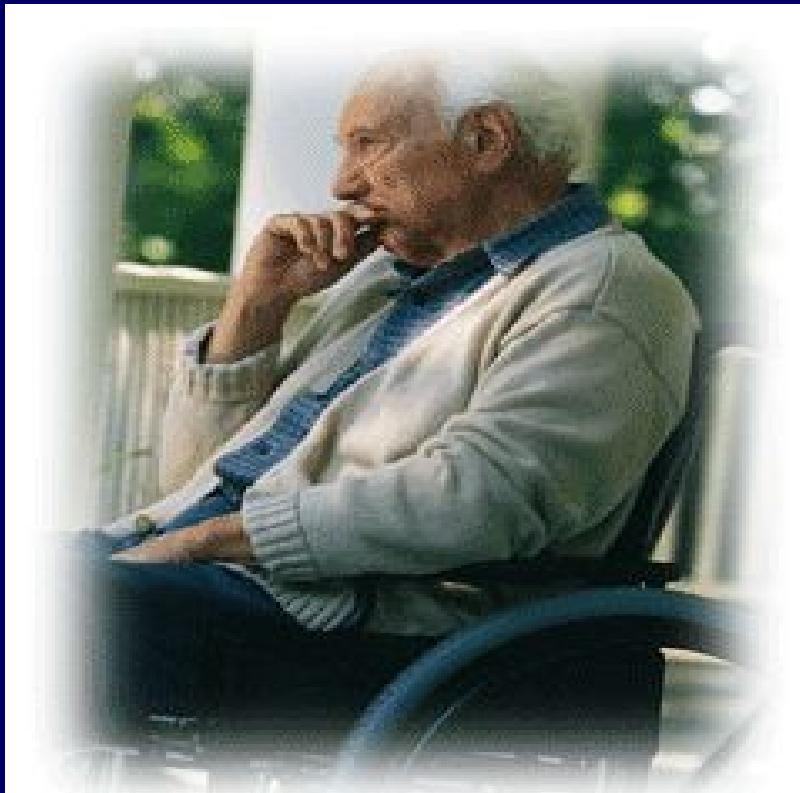
# **AETIOLOGY OF DEPRESSION IN OLD AGE: PSYCHOLOGICAL**

- **Season of loss**
  - **loved ones**
  - **physical**
  - **social**
- **Anxiety: about future, dependency, health**
- **Vulnerable personality**
  - **obsessional**
  - **narcissistic**
- **Loss of characteristic defence mechanisms**

# **AETIOLOGY OF DEPRESSION IN OLD AGE: INTER-PERSONAL**

- **Change in family dynamics**
  - **retirement**
  - **increased closeness**
  - **illness in one partner**
  - **adult child(ren) return(s) home**
- **Marital conflict**

# AETIOLOGY OF DEPRESSION IN OLD AGE: SOCIO-ENVIRONMENTAL



- Loss of role
- Loss of status
- Financial decline
- Change in residence
  - retirement
  - institutional setting

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# Phenomena more common in old age depression

- **Psychosis (1 in 3 in MDU sample<sup>1</sup>)**
  - delusions: nihilism, poverty, somatic, paranoid
  - hallucinations: auditory
- **Melancholia**
- **Psychomotor disturbance**
  - agitation or retardation<sup>2</sup>
- **Guilt, hypochondriasis, appetite, weight loss<sup>2</sup>**

<sup>1</sup> Brodaty et al, 1991, 1993, 2005

# Phenomena more common in old age depression<sup>1</sup>

Lifetime prevalence of depression in women 2x  
that in men

But this changes with age, possibly due to

- Mellowing effect of age
- Less co-morbid anxiety
- Depression being more common in older than  
in younger men

1. Brodaty et al, Am J Geriatric Psychiatry 2005

# Depression by “age of onset” in old age

- Early onset (before age 60 years)
- Late onset (first episode 60years +)
- Phenomenology: EO = LO
- Aetiology: EO > hereditary load
  - > personality disturbance
  - > life events
- LO > acquired organic brain disease

<sup>1</sup> Brodaty et al, 1991, 1993, 2005

# Assessment of depression in old age

- Difficulty differentiating depression from...
  - ... dementia
  - ... debilitation from medical conditions
- More often missed in general practice - seen to be normal for age by doctors *and patients*
- Self-report < clinician observed Sx
- Less likely to be referred to specialist
- Suicidal risk higher, especially men

# Somatic Markers of Depression

- Severe back and or neck pain in community dwelling elderly is a strong predictor of underlying depression
- Commonly, depressed elderly patients focus on bowel problems as a presenting complaint<sup>1</sup>

# **Atypical presentations of depression in old age**

- **Pseudodementia**
- **Paranoid states**
- **Physical disorders and pain**
- **Anxiety disorders**
- **Atypical depression**
- **Obsessions and compulsions**
- **Alcohol and substance abuse**

# Atypical presentations of depression

- **Unlawful behaviours**
  - shoplifting
  - Sexual
- **Accidental overdose**
- **Behaviour disturbance**
  - anorexia or weight loss
  - incontinence
  - screaming
  - loneliness or social withdrawal
- **Marital discord**

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# **Principles of management of late life depression**

- **Exclude secondary depression**
- **Bio-psycho-social model**
- **Outcome equal younger patients**
- **Resolution slower**
- **Higher rates of psychosis and melancholia**
- **Greater suicidal risk**
- **Assiduous follow-up**

# Management follows aetiology

**Social and  
environmental**

**Interpersonal**

**Biological**

**Psychological**

# Management of depression: biological



- Rx  
(pharmacotherapy)
- ECT  
(Electroconvulsive therapy)
- TMS ( Transcranial Magnetic Stimulation)



# Principles of pharmacotherapy of late life depression

1. Equal efficacy in group data
2. Side effects and past response determine choice
3. “Start low, go slow”
4. Increased likelihood of drug interactions
5. Medical co-morbidity is a risk factor for inferior Rx response<sup>1</sup>

# ECT



- At least as effective in elderly as in younger pts
- MDU study: 81 patients from Sydney Hospitals  
(1/3 <65, 1/3 65-74, 1/3 > 74yo)
- Efficacy =/slightly better in older groups<sup>1</sup>
- Generally safe<sup>2</sup>
- No increased rate of side effects *after* ECT
- “Side effects” not caused by ECT but by depression<sup>3</sup>

<sup>1</sup>Brodaty et al, 2000

<sup>2</sup>van der Wurff FB et al, International Journal of Geriatric Psych 2003

<sup>3</sup>Brodaty et al 2001

# **Choice of Rx for late life depression<sup>1</sup>**

- **No single class of drugs has been found to be more effective than any other**
- **Newer anti-depressants are not more effective but are better tolerated & safer in overdose**
- **SSRIs/ SNRIs may cause slightly fewer AEs than tricyclics**

**1. Petrovic M et al, Acta Clinica Belgica 2005**

# PROSPECT Algorithm

## Pharmacological treatment of depression in older primary care patients<sup>1</sup>

- Discontinuation rates lower with SSRIs than with TCAs and > likely to receive adequate trial
- Recommend SSRI as first line
  - citalopram = ltd drug interactions, absence of discontinuation syndrome, ltd CNS activation, well tolerated by OPs
- <sup>1</sup> Mulsant BH et al, IJGP 2001; 16:585-592

# PROSPECT Algorithm

- After Rx for 6 wks,
  - maintain dose if Hamilton reduced  $\geq 50\%$
  - increase dose if HAM reduced 30-50% or if HAM  $>10$
  - discontinue if HAM  $<30\%$
- Treatment for  $\geq 12$  weeks
- If HAM  $\leq 10$  continue Rx at previous dose
- If HAM  $>10$ , non-responder .....

# **PROSPECT Algorithm: non-responders<sup>1</sup>**

*Check diagnosis, exclude 2<sup>o</sup> depression*

- 1. If applicable optimise current agent**
- 2. Start with or switch to citalopram**
- 3. Switch to bupropion SR 100-200 mg bd**
- 4. Switch to venlafaxine XR 150-300 mg m**
- 5. Switch to nortriptyline usually 50-75mg/d  
[Plasma] = 80-120ng/ml)**
- 6. Switch to mirtazapine 30-45mg nocte**

<sup>1</sup> Mulsant BH et al, IJGP 2001; 16:585-592

# **PROSPECT Algorithm: augmentation for non-responders**

## **Mulsant et al 2001:**

- 1. Optimise trial of current agent**
- 2. Augment with bupropion**
- 3. Augment with nortriptyline**
- 4. Augment with lithium**

## **Sydney practice:**

- 1. Augment with lithium**
- 2. Venlafaxine + mirtazapine**

# Duration of Rx for late life depression<sup>1</sup>

- Following initial good response, anti-depressant Rx should be continued for  $\geq 6$  **or 9** months to prevent relapse/recurrence
- In patients with  $\uparrow$  risk of relapse, Rx should be continued for at least 2 years
- **Recommend treat for life 3 major episodes or 2 severe episodes, eg with hospitalisation**

<sup>1</sup> Petrovic M et al, Acta Clinica Belgica 2005; **HB practice**

# **Rx for late life depression<sup>1</sup>**

**Paucity of evidence for Rx in:**

- Very elderly, especially over 80**
- Patients with significant co-morbidity**
- Patients with dementia**

**<sup>1</sup>. Petrovic M et al, Acta Clinica Belgica 2005**

# **Choice of Rx for late life depression**

- **SSRIs eg sertraline, citalopram, fluvoxamine**
  - short-acting
  - linear pharmacokinetics
  - paroxetine has anticholinergic effects
- **SSRI/SNRI**
  - venlafaxine - watch BP
  - mirtazapine - helps with sleep, watch weight
- **Advantages of dual action antidepressants**

# Choice of Rx for late life depression

- **Cyclic**
  - secondary amine tricyclic: nortriptyline
  - tetracyclic - mianserin
- **Noradrenergic - reboxetine**
- **MAOI**
  - phenelzine
  - tranylcypromine
  - moclobemide

# **Adverse effects:**

## ***Venlafaxine* and SSRI**

- ***Hypertension,***  
**postural hypotension**
- **GIT diarrhoea,**  
**nausea, anorexia**
- **Sexual dysfunction**
- **Hyponatraemia**
- **Anxiety, agitation,**  
**insomnia**
- **Bradycardia**
- **Dizziness**
- **Fatigue, headache**
- **Halve dose in severe**  
**renal or hepatic**  
**impairment**

# Psychological therapies for depression in old age

- Supportive
- Insight directed
- Behavioural
- Cognitive-behavioural
  - efficacy = CBT with younger persons with depression; techniques differ
- Reminiscence
  - structured reminiscence therapy evidence
- Marital, family

# Psychological therapies

- All therapies used in younger patients can be offered to older patients
- 65+ 2.7x , and 75+ 3.6x less likely to receive office psychiatric consultation, &
- ... average visit 15 mins shorter<sup>1</sup>
- Elderly receive 1/4 of Medicare funds for office psychiatry consultations<sup>1</sup>
- Cognitive-behaviour therapy best researched psychological therapy

<sup>1</sup>Medicare data, Draper & Koschera, 2001

# Socio-environmental management



- Accommodation
- Stimulation
- Exercise; weights
- Social activities
- Sense of purpose
- Basic needs: shelter, food, fluid, warmth
- Financial, legal
- Environment in institutional settings

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# **Prognosis: rule of thirds (very roughly)**

- **< 1/3 well**
- **> 1/3 attacks and recoveries**
- **< 1/3 chronicity, with  
recurrent attacks**

# Compared to younger adults

- Same prognosis as regards depression, (except for vascular depression) <sup>1,2,3</sup>
- However, relapse rates are higher<sup>4</sup>
- > dementia (esp. vasc<sup>u</sup> dep<sup>n</sup>)
- > death (esp. vasc<sup>u</sup> dep<sup>n</sup>)

<sup>1</sup>Blazer DG et al, 1992

<sup>2</sup>Brodaty H et al, 1993 (from MDU data base)

<sup>3</sup>Brodaty et al, 1997

<sup>4</sup>Mitchell AJ et al, American J of Psychiatry 2005

# Prognosis of late life depression<sup>1</sup>

- **Elderly patients with early onset depression are more likely to have had a higher number of previous episodes, which adversely influences prognosis<sup>1</sup>**

# **25 year follow-up study<sup>1</sup>**

- **Only 12% of patients admitted to PHH remained well over 25 years**
- **People who had been chronically depressed for the first 15 years of follow-up could improve**
- **Higher rate of (vascular) dementia than expected but this restricted to a sub-group**

<sup>1</sup> Brodaty et al, 2001, Psychological Medicine

# **Depression in old age: Conclusions**

- **Depression is the most common problem seen in old age psychiatry**
- **Presentations may differ**
- **Multiple aetiologies**
  - **multiple treatment modalities**
- **Treatments effective, but take longer**
- **Assiduous long term follow-up necessary**

# Mania in old age

Can present atypically

- > irritability and surliness;
- > confusion
- quieter
- paranoia
- depressive admixture

# Challenges for management of depression in older people

- **Under-diagnosis**
  - Better self-identification
  - Better GP identification
- **Willingness to come for treatment**
- **Prevention of vascular depression**
- **Identification and prevention of suicide**
- **Under treatment**
  - Psychosocial
  - Medication

[www.med.unsw.edu.au/adfoap](http://www.med.unsw.edu.au/adfoap)



"Portrait Du Dr Gachet"  
by Vincent van Gogh

**THE END**