Causes and Diagnosis of Depression in Elderly People

Depression is common and under-recognised in older adults

Depression is common in older adults, although not as prevalent as in younger adults.[1] This may be partly due to under-recognition as the diagnosis of depression can be confounded by other disorders associated with ageing, or depression may be incorrectly accepted as a normal part of the ageing process.

It has been estimated that the 12 month prevalence of depressive disorders is approximately 2% for men and 5% for women, among adults aged over 65 years, living in the community in New Zealand.[2] Older people in residential care are at significantly higher risk of depression. One study in low-dependency care facilities in Australia reported a prevalence of depression of 18%, with only half of these residents receiving any intervention.[3]

Presentation and symptoms of depression may be different in older people

More than half of cases of depression in older people represent the first lifetime presentation. The symptoms of depression in an older adult can be subtly different to those in younger people. For example, older people are less likely to display affective symptoms, e.g. dysphoria, worthlessness and guilt, and more likely to show cognitive changes, somatic symptoms, e.g. sleep disturbance, agitation and general loss of interest.[1] These symptoms and their patterns of presentation can be attributed to other disorders and this often presents a challenge in differential diagnosis (see "Causes and risk factors").

Causes and risk factors of depression in older people

The fact that at least half of older adults who present with depression have no previous history, suggests that different pathological mechanisms may be involved compared to in those who have experienced depression earlier in life. **Late onset depression may be associated with age–related factors** such as specific co-morbid diseases, poor physical health, cognitive impairment and structural changes in the brain. Older people with depression who have experienced an episode earlier in life are more likely to have a family history of mental illness.[1]

Any **pathological differences** that exist do not have a bearing on the approach to treatment, which fundamentally follows a similar pathway as in younger adults. It is important to remember that a long life with no history of mental health disorder does not preclude or protect from the development of a first episode of depression in later life.

Psychological and social risk factors for depression in older adults are similar to those that increase vulnerability to depression in younger adults. For example, neurotic and ruminative personality traits, stressful life events, grief and loss, change in social status and reduced participation in enjoyable or physical activities may all increase the risk of depression. Bereavement over loss of a partner and reduced social/physical activities appear to be particularly strong risk factors in older people.

Co-morbidities and age related disorders increase the vulnerability to depression although it is not clear whether the pathological changes involved are actually causal for depression. The psychological or physical adjustment to a chronic illness may be a trigger for the onset of depression. Some conditions associated with depression include;

Cerebrovascular disease (e.g. stroke, vascular dementia) – depression is very common after a stroke (20–25% of patients) and all post-stroke patients should be screened for depression. Even a minor stroke or Transient Ischaemic Attack (TIA) can precipitate a severe bout of depression. A proportion of patients post stroke may develop bipolar like symptoms with elevated mood as well as depression.

Parkinson's Disease – often co-exists with depression, and depressive symptoms can sometimes be a prelude to the onset of Parkinson's disease.

Coronary Heart Disease – prevalence rates of depression in people with heart disease have been estimated at approximately 20–25%.[4]

Endocrine disorders (including diabetes, thyroid disease and adrenal insufficiency) – the prevalence of depressive symptoms in people with Type II diabetes has been reported at approximately 20%.[5]

Sleep disturbance – insomnia and sleep disturbance are recognised symptoms of depression, but among older adults insomnia also appears to be a risk factor for both the onset and persistence of depressive symptoms.[1] This association is an important consideration as the prevalence of insomnia increases with age, and also stresses the importance of managing insomnia when associated with depression.

Medicines can cause or aggravate depression

A number of medicines, which tend to be prescribed more in older adults, can cause or aggravate depressive symptoms.

These medicines include:

- Benzodiazepines, zopiclone and other central nervous system depressants
- Opioids prescribed for chronic pain syndromes
- Antipsychotics prescribed for agitation
- Beta-blockers, especially lipid soluble agents such as propranolol
- Corticosteroids (can cause a range of psychiatric reactions from psychosis to depression)
- Anticonvulsants, including gabapentin and carbamazepine, when used to treat pain syndromes
- NSAIDs – perhaps under-recognised, but most NSAIDs have been associated with depressive symptoms
- Antiparkinson agents, especially levodopa
- Histamine-2 receptor antagonists, such as ranitidine

Diagnosis can be challenging

The diagnosis of depression in older people is often overlooked as symptoms can be mistakenly attributed to normal "old age" or co-morbid conditions such as dementia

or delirium. When diagnosing and assessing depression in older adults, it is important to consider variations in the typical presentation and also the possibility of confounding co-morbidities.

Depression can present with similar symptoms to delirium and dementia. A schema of differential features is presented in Table 1.

Assessment of cognitive impairment is important

Memory impairment is common in elderly people and this may be due to normal age related forgetfulness, mild cognitive impairment or dementia

See "Having a senior moment?", BPJ 23, Sep, 2009.

Depression is also a common cause of memory impairment but it is important to differentiate this from the early stages of dementia. Late onset depression is thought to be a risk factor for the development of dementia and the two conditions frequently co-exist.

An older adult presenting with possible cognitive impairment should be assessed for both depression and dementia using tools such as the GPCOG and the GDS, PHQ-9 or Kessler-10 (see "Screening and assessment tools", Page 6). It may be difficult to use depression assessment tools in people with marked cognitive impairment.[7] If significant depressive symptoms are present in a person with cognitive impairment, a trial of antidepressant treatment should be considered. This could result in an improvement of cognitive function.

Table 1: Some differential features of the 3Ds; Delirium; Depression and Dementia (adapted from CCMSH, 2006).[6]

Feature	Delirium	Dementia	Depression
Onset	Usually sudden, often at twilight	Chronic and generally insidious	Often abrupt and coinciding with life changes
Duration	Hours to less than one month, rarely longer	Months to years	Months to years
Progression	Abrupt, fluctuating	Slow but even	Variable and uneven
Thinking	Disorganised, slow, incoherent	Scarcity of thought, poor judgment; words hard to find	Intact with themes of helplessness, generally negative
Memory	Impaired, sudden (immediate memory loss may be noticeable)*	Impaired	Selective or patchy
Sleep	Nocturnal confusion	Often disturbed; nocturnal wandering	Early morning wakening
Awareness	Reduced	Clear	Clear
Alertness	Fluctuates; lethargic or hypervigilant	Generally normal	Normal
Attention	Impaired, fluctuates	Generally normal	Minimal impairment but easily distracted

* Immediate memory – The ability to recall numbers, pictures or words immediately following presentation. People with immediate memory problems have difficulty learning new tasks because they cannot remember instructions. It relies on concentration and attention.

Where there is a rapid change in cognitive status in an older person, delirium should be excluded by clinical examination. Delirium is characterised by a sudden and fluctuating onset of confusion, change in cognition over a short period, disturbances in attention, disorganised thinking and a decline in level of consciousness.

Best Practice Tip:

In an older person with depressive symptoms consider:

- The 3Ds – delirium, depression and dementia
- A complete physical examination
- Adverse effects of medicines
- CBC and thyroid function tests
- Sodium, Creatinine, B12 and folate levels

Screening and assessment Tools for older people with depression

As with younger adults, psychosocial assessment tools can be used as an adjunct to clinical assessment. Targeted screening is particularly indicated for older adults in groups with high prevalence rates of mental disorders, such as those:[7]

- In residential care
- With multiple symptoms
- With a history of mental disorder or suicide attempt
- Who have experienced a recent significant loss
- With poor physical health

Where there is clinical concern, routine psychosocial assessment should also include questions that screen for anxiety disorders and substance abuse, particularly alcohol.[7] A low threshold for intervention is required where there is evidence of suicidal ideation in older people, as there is a high rate of completed suicide in this group, particularly in men aged 75 years and older.[7]

The same short, verbal screening questions used in younger adults can be used in older adults to identify concern and the need for further assessment (see opposite).

Further Assessment

The Geriatric Depression Scale was developed as a screening and assessment tool for depression in older adults. The original scale consisted of 30 questions but was considered too time consuming by some patients and staff to use in everyday practice. A shorter version (GDS-15 – Appendix 1) keeps the most discriminating questions and the validity is similar to the original form. The GDS-15 is a useful adjunct to diagnosis for depressive illness but does not take the place of a full clinical assessment.

The Patient Health Questionnaire for Depression (PHQ-9 - Appendix 2) is used extensively in younger adults and has also been validated in older people.

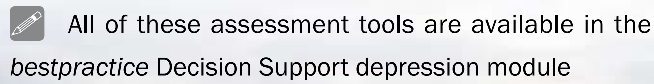
Both the GDS-15 and PHQ-9 give rating scores that can be used to assess the severity of depression and monitor the effects of treatment.

Other assessment tools include; Kessler-10 Psychological Distress Scale, GAD-7 for anxiety and AUDIT for alcohol misuse.

GPCOG - Assessment of Cognition

It is important to assess older people with any cognitive impairment, for the possibility of early dementia. The General Practitioner Assessment of Cognition (GPCOG) Test (Appendix 3) is a reliable, valid and efficient instrument to screen for dementia specifically in a primary care setting.[8] There are two components to GPCOG: a cognitive assessment conducted with the patient and an informant questionnaire (only considered necessary if the results of the cognitive section are equivocal, i.e. score 5–8 inclusive). It takes less than four minutes to administer the patient assessment and two minutes to interview the caregiver. The GPCOG performs at least as well as the standard screening tool, the Mini-Mental State Examination (MMSE), and unlike MMSE, GPCOG is not subject to copyright restrictions. Recent reviews of dementia screening tools for the primary care setting recommend the use of the GPCOG. Another study indicated that the GPCOG score is not influenced by the cultural and linguistic background of

a person making it an invaluable screening tool, especially in multicultural patient settings.[9]



All of these assessment tools are available in the *bestpractice* Decision Support depression module

Verbal screening tools

Verbal two to three question screening tools for common mental disorders.[7]

Questions for depression

- During the past month, have you been bothered by feeling down, depressed or hopeless?
- During the past month, have you been bothered by little interest or pleasure in doing things?

If **yes** to either question, ask Help question below

Question for anxiety

- During the past month have you been worrying a lot about everyday problems?

If **yes**, ask Help question below

Questions for alcohol and drug problems*

- Have you used drugs or drunk more than you meant to in the last year?
- Have you felt that you wanted to cut down on your drinking or drug use in the past year?

* These two questions have been shown to pick up about 80% of current drug and alcohol problems

Note: As the population ages, patients with a history of long-term cannabis use may present with dysphoria and depression.

If **yes** to either question, ask Help question below

The Help question

- Is this something that you would like help with?