Depression in hospitalized elderly people

Introduction

There is a tendency among both health professionals and the general public to view low mood in the elderly as a normal reaction to ageing instead of the pathological process that it is. With the World Health Organization (2012) estimating that depression affects more than 350 million people worldwide and a meta-analysis finding the point prevalence of major depression in those over 75 years of age to be 4.6–9.3% (Meeks et al, 2011), the importance of effective diagnosis and treatment of depression is clear. Yet depression in the elderly continues to be under-diagnosed and inadequately treated by clinicians.

This article reviews the recognition and treatment of depression in hospitalized elderly people, with particular focus on screening tools that can be used in a hospital setting, first-line management, and when to refer for specialist intervention.

Diagnosing depression

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) (American Psychiatric Association, 2000) developed criteria to define major depressive disorder (*Table 1*) and these are referenced in the latest National Institute for Health and Care Excellence (2009) guidance. Depression can be categorized as mild (with only minor functional impairment) to severe (marked functional impairment plus possible psychotic symptoms), and it is for this reason that depression should be viewed as a spectrum disorder with a wide range of symptoms having variable impact on an individual. In order to diagnose a major depressive disorder, symptoms must be both persistent (present on most days) and prolonged (present for more than 2 weeks).

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Recognizing signs and symptoms of depression in the elderly

Unfortunately, as a result of much nihilism surrounding the elderly, depression is far too frequently overlooked; while unhappiness and grief are accepted reactions to difficult and unpleasant life events, the elderly are less likely to complain of sadness or to overtly display emotion. Instead they may present with anxiety or medically unexplained symptoms; screening for depression should therefore always be considered for those presenting to clinicians with multiple complaints where no clear pathological cause is found. In addition, a study by Beekma et al (2000) found that almost half of those with a major depressive disorder also met the criteria for an anxiety disorder.

It is also not uncommon for the elderly to present with symptoms overlapping both a physical illness and depression. These symptoms may include loss of appetite, fatigue, memory loss, sleep disturbance and psychological slowing. In order to diagnose any underlying conditions, a thorough history, examination and appropriate investigations including urinalysis, full blood count, vitamin B_{12} and thyroid function tests should be performed. Drug and alcohol use should also be explored. Early referral to liaison psychiatry teams should be made where diagnosis is not clear.

Table 1. *Diagnostic and Statistical Manual of Mental Disorders* (4th edition) (DSM-IV) criteria for a major depressive episode

At least five of the following have been experienced on most days of the preceding 2 weeks:	Depressed mood or irritability
	Decreased interest or pleasure in most activities for most of the day
	Weight loss or weight gain (>5%) or decreased appetite
	Altered sleep pattern (either too much or not enough)
	Objective psychomotor agitation or retardation
	Fatigue or loss of energy
	Feelings of worthlessness or guilt
	Poor concentration
	Thoughts of death or suicide

From American Psychiatric Association (2000)

The challenge of concomitant physical and psychological illnesses

It is frequently very challenging to disentangle symptoms of depression, dementia and delirium in the elderly and this is reflected by the lack of clear studies in this field. Depressed mood may be the first symptom of those diagnosed with early dementia. Conversely, it is not unusual for those presenting with memory loss to have a degree of depression masquerading as cognitive impairment. Where these diagnostic difficulties arise, a specialist psychiatry review is invaluable. In addition, those with moderate or severe dementia may not be able to verbalize depressive symptoms so behavioural changes should always be explored for underlying depression as well.

Prevalence rates of depression are higher in those elderly with comorbid physical conditions including dementia, stroke and Parkinson's disease (Colasanti et al, 2010). Covinsky and colleagues (1999) recorded a significant positive relationship between the number of depressive symptoms on admission and comorbid illness and functional impairment. They also noted an independent 34% higher rate of mortality in those with more than six depressive symptoms, reinforcing the importance of effective screening and treatment.

Risk factors for depression in the elderly

Chronic physical illnesses, cognitive impairment, functional impairment, bereavement, isolation and a past history of depression are recognized risk factors for depression in the elderly (Baldwin et al, 2002), the majority of which are non-modifiable. To date, there have been no studies positively identifying ageing as an independent risk factor for depression. Institutionalization is also a recognized risk factor, with depression affecting 1 in 5

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older people living in the community and 2 in 5 living in care homes (Benbow, 2002).

Using scales to screen for depression

The assessment of depression in a hospital setting is frequently difficult; common difficulties experienced include hearing and visual impairment, language barriers and cognitive impairment. Validated, useful tools to screen for depression in the hospitalized elderly include the Geriatric Depression Scale (GDS), the Hospital Anxiety and Depression Scale (HADS), the Cornell Scale for Depression (Burns et al, 2002) and the Brief Assessment Schedule Depression Cards (BASDEC) (Adshead et al, 1992). Both GDS and HADS should be answered directly by the patient while the Cornell Scale for Depression is used to objectively assess those with cognitive impairment. BASDEC cards can be beneficial where patients show limited concentration or are unable to write (*Table 2*).

Management of depression in the elderly

When treating hospitalized elderly people with depression, the management approach should be multidisciplinary and include both drug-based and non-pharmacological treatments.

Although psychological interventions such as cognitive behavioural therapy and interpersonal therapy are recommended first line in patients with both mild and moderate depression to improve emotional wellbeing (Adshead et al, 1992), generally these services are unavailable in the acute hospital setting. Increased social contact including befriending schemes, day centres and a structured, regular care package are recognized to improve mood, and clinicians should consider referral to social services and charities such as the Red Cross on discharge to instate these services. In addition, physical exercise programmes have been shown to improve symptoms of depression (Blake et al, 2009). However, unfortunately, because of a lack of resources and funding, holistic care is frequently fragmented and sub-optimal.

While it is recognized that pharmacological treatment should be reserved for those with more severe cases of depression, a review by Coupland and colleagues (2011) found that almost 90% of those in primary care with depression were treated with a pharmacological agent. If pharmacological treatment is deemed necessary, a selective serotonin-receptor inhibitor (SSRI) should be first line (Benbow, 2002). Electroconvulsive therapy should only be considered for those with severe, life-threatening depression when other treatments have failed or where rapid improvement is required such as in patients who refuse all food and drink or who are a high suicide risk (National Institute for Health and Care Excellence, 2009).

Role of liaison psychiatry teams

The benefits of psychiatric liaison services have become increasingly clear through studies such as the RAID model. Reduced length of stay and readmissions, and up to 50% reduction in discharge to care homes are particularly relevant to elderly people (Tadros et al, 2013). Referral to these liaison teams should be made where diagnostic uncertainty exists, in particular when disentangling depression from adjustment to adverse events and when concomitant delirium or dementia exists. Referral should be considered for all cases of self-harm for a thorough risk assessment, regardless of the perceived lethality of the attempt. Liaison teams can also advise where first-line treatments fail, where complex comorbidities exist or when a rapidly deteriorating physical state requires a fast intervention.

Common side effects of antidepressants

Although hospital physicians may not regularly initiate prescribing of antidepressants, an understanding of commonly used therapies and their potential side effects is important (*Table 3*). Before prescribing, the potential risks and benefits of medication should be discussed with patients or their next of kin and documented clearly. Physiological comorbidities and polypharmacy should be considered and a clear summary provided for the GP on discharge to enable appropriate monitoring.

The National Institute for Health and Care Excellence (2009) recommends that, as in younger people, SSRIs such as citalopram and sertraline should be considered first-line antidepressants. SSRIs are associated with increased risk of bleeding therefore concomitant prescribing of warfarin, heparin, aspirin and non-steroidal anti-inflammatory drugs should be avoided where possible, and proton-pump inhibitors considered. A study in Nottingham

Table 2. Validated screening tools for depression

Tool	Description
Geriatric Depression Score (GDS)	Self-rating scale of 30 questions with a yes / no answer that can be completed by patients without a trained individual; each answer holds a score of either 0 or 1
	A combined score of 11–12 out of 30 indicates depression
Hospital Anxiety and Depression Score (HADS)	Self-rating scale of 14 questions with subjective answers ranging from 'never' to 'always'
	A score of 11 or more indicates either anxiety or depression
Brief Assessment Schedule Depression Cards (BASDEC)	A set of 19 cards printed in many different languages. Question cards should be placed in 'true', 'false' or 'don't know' piles
	A score of 6 or 7 is suggestive of depression
The Cornell Scale for Depression	Observer-rated scale of 19 questions with observational answers of either 'absent', 'mild or intermittent' and 'severe'. Can be assessed over a period of time for more accurate results
	A score of 8 or more is suggestive of depression

Table 3. Common side effects of antidepressants

Antidepressant	Side effects
Selective serotonin-receptor inhibitors	Gastrointestinal bleeding
	Falls
	Hyponatraemia
Mirtazapine	Weight gain
	Sedation
Tricyclic antidepressants	Dry mouth, dry eyes
	Urinary retention
	Cognitive impairment

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also found that SSRIs were associated with the highest risk of hyponatraemia and falls, (Coupland et al, 2011). However, the anticholinergic effects of tricyclic antidepressants including dry mouth, urinary retention and cognitive impairment still make SSRIs more favourable in the elderly. Interestingly, Coupland and colleagues also found that tricyclic antidepressants were unexpectedly associated with the lowest adjusted hazard ratio for attempted suicide. Mirtazapine is sometimes preferred in those with reduced oral intake because of its anxiolytic properties and side effect of weight gain.

Depression and suicide

The Office for National Statistics (2014) states that suicide rates in those over 60 years range from 4–13 per 100 000 people. Risk factors include not being married, unemployment, physical ill health, pain and institutionalization (Cattell, 2000). These high rates of suicide in the elderly are partly the result of more planned and more lethal methods of self-harm with greater fatal intention (Conwell et al, 1997).

Eddleston and colleagues (2006) also hypothesized that increased physical vulnerability and a reduced tolerance to poisons have resulted in a greater number of successful suicides, even with seemingly more minor overdoses. Indeed, Cattell and Jolley's (1995) study found that 5% of recorded suicide deaths were a delayed result of their index event. This highlights that even seemingly trivial overdoses should have a full and thorough psychiatric assessment, especially as the repetition rate of suicide attempts in the elderly stands at 5.4% per year (Hepple and Quinton, 1997).

Although suicide in the elderly is fortunately rare, one review of 100 consecutive suicides in those over 65 years found that 65% had physical illnesses and almost one quarter had been hospitalized within the past year (Cattell and Jolley, 1995). Only 14% of these people were in contact with psychiatric services. This raises the question as to whether hospital clinicians are doing enough to diagnose depression.

It should also be considered that when one is deliberately non-compliant with medication or refusing further treatment knowing that life expectancy will be dramatically reduced, it could be considered a case of indirect suicide. Depression should always be screened for in these individuals.

Conclusions

With an ever-ageing population and a recognized increase in morbidity and mortality associated with depression in the elderly, the benefits of an accurate diagnosis and early intervention are unquestionable. While improvements can be made regarding adequate resources for psychological therapies, physicians can strive to diagnose accurately and to prescribe optimal pharmacological therapy, while liaising with psychiatry teams for optimal care.

Clinical experience shows that higher rates of depression are both detected and successfully treated in the elderly by clinicians who actively seek to diagnose it and that treatment of depression can dramatically improve an individual's quality of life. It should never be assumed that low mood is a normal reaction to ageing. BJHM

Conflict of interest: none.

KEY POINTS

- Depression is a pathological process and not a normal reaction to ageing.
- Depression in the elderly is often under-recognized and therefore under-treated.
- There are many screening tools for depression that can be used to assess those with and without cognitive impairment.
- Selective serotonin-receptor inhibitors should be considered first line in those requiring pharmacological treatment of depression.
- A risk assessment for self-harm should be performed in all with depressive disorders and those deemed 'high risk' should be urgently referred to mental health services.
- Integrated liaison psychiatry teams can improve diagnosis, management and continuity of care.

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