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114

Non-pharmaceutical management of depression in adults

A national clinical guideline

January 2010

KEY TO EVIDENCE STATEMENTS AND GRADES OF RECOMMENDATIONS

LEVELS OF EVIDENCE	
1^{++}	High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias
1^{+}	Well conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias
1^{-}	Meta-analyses, systematic reviews, or RCTs with a high risk of bias
2^{++}	High quality systematic reviews of case control or cohort studies High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal
2^{+}	Well conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal
2^{-}	Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal
3	Non-analytic studies, eg case reports, case series
4	Expert opinion

GRADES OF RECOMMENDATION	
Note: The grade of recommendation relates to the strength of the evidence on which the recommendation is based. It does not reflect the clinical importance of the recommendation.	
A	At least one meta-analysis, systematic review, or RCT rated as 1^{++}, and directly applicable to the target population; or A body of evidence consisting principally of studies rated as 1^{+}, directly applicable to the target population, and demonstrating overall consistency of results
B	A body of evidence including studies rated as 2^{++}, directly applicable to the target population, and demonstrating overall consistency of results; *or* Extrapolated evidence from studies rated as 1^{++} or 1^{+}
C	A body of evidence including studies rated as 2^{+}, directly applicable to the target population and demonstrating overall consistency of results; *or* Extrapolated evidence from studies rated as 2^{++}
D	Evidence level 3 or 4; or Extrapolated evidence from studies rated as 2^{+}

GOOD PRACTICE POINTS	
☑	Recommended best practice based on the clinical experience of the guideline development group.

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Contents

1 Introduction

1.1 BACKGROUND

Depression is a significant health problem. It affects men and women of all ages and social backgrounds. Around one in five of the population of Scotland will experience depression at some point in their lives.[1] Prevalence is higher in women than men.[1] It can range in severity from a mild disturbance to a severe illness with a high risk of suicide. The impact of the disorder will also be experienced by family, friends and colleagues.[2] In Scotland in 2006/07 there were around 500,000 general practitioner consultations with depression and other affective disorders.[3] Over half of those with depression do not seek formal treatment.[4]

As well as the personal and social consequences of depression there are also negative economic effects. Depression is associated with sickness absence and prevents many people seeking, maintaining or returning to employment. In an economic analysis the total loss of output due to depression and chronic anxiety in England in 2002/3 was estimated at £12 billion.[5]

The most common intervention for depression is prescribed antidepressant medication. A total of 3.65 million items of antidepressant medication were prescribed in Scotland during 2006/07 at a cost of £43.7m. It is estimated that 8.8% of the Scottish population aged 15 and over make daily use of antidepressant medication.[6]

1.2 THE NEED FOR A GUIDELINE

Depression Alliance Scotland proposed the development of this guideline based on feedback from service users who were seeking information about interventions, other than prescribed antidepressants, which could be helpful in treating depression. This highlighted the need for accessible and robust information about the alternatives to prescribed antidepressants to be available to both GPs and service users.

The Scottish Integrated Care Pathway (ICP) for depression sets standards for appropriate care and treatment of people with depression. This includes a standard that requires an offer of matched self help and signposting to other services. It also states that for those who choose a non-pharmacological approach, or for whom medication is not effective, there should be the offer of a brief depression-focused psychological intervention.[7]

A small qualitative primary care study (n = 60) of patients with depression found that almost two thirds had attempted to use self chosen therapies, although few had discussed their use with health practitioners. A broad range of therapies was identified. The most commonly reported were St John's wort, counselling, relaxation tapes and gym, walking or other leisure interests.[8]

1.3 REMIT OF THE GUIDELINE

The focus of the guideline is to examine the evidence for depression treatments which may be used as alternatives to prescribed pharmacological therapies. Interventions were prioritised for inclusion by the guideline development group if they were known to be delivered, or be under consideration for delivery, by NHS services in Scotland or if, based on the experience of group members, they were interventions which patients asked about or sought outside of the health service.

Depression is often a multifactorial illness with biological, social and psychological factors all contributing to the development, severity and length of a depressive episode. During a period of depression, people typically report symptoms in all three domains: at a biological level, eg sleep disruption, appetite changes; at a psychological level, eg impaired concentration and memory, increased negative thinking; and at a social level, eg loss of self confidence, withdrawal from social contact. Recovery in one of these domains may be reflected in concurrent improvement in the others; thus the interventions for depression examined in this guideline are wide ranging, covering both biological and psychosocial modes.

This guideline examines psychological therapies, exercise and lifestyle interventions, and complementary and alternative treatments, many of which are not routinely available within the NHS. This guideline provides an assessment of, and presents the evidence base for, the efficacy of these interventions for depression in adults aged 18 years and over. Therapies commonly available to patients without prescription in Scotland were selected for inclusion and are described in Annex 1. The key questions on which the guideline is based are outlined in Annex 2.

This guideline focuses on systematic review and randomised controlled trial (RCT) evidence of effectiveness, with searches extended to identify observational studies only where appropriate.

Unless otherwise stated, recommendations apply to adults aged 18 years and over with no upper age limit.

Depression in children and young people is a significant issue but is beyond the scope of this guideline development project.

1.4 DEFINING THE PATIENT GROUP

The evidence base for depression presents several difficulties including the wide range of diagnostic and severity definitions and the heterogeneity and lack of equivalence between measures. The guideline development group adopted a pragmatic definition of depression. Given the nature of the treatment approaches studied, study populations tended to be patients with mild to moderate depression. Many studies either do not make clear the severity of depression studied and/or use diagnostic systems that do not include severity descriptors.

Studies were excluded where there was no formal diagnosis by International Classification of Disease (ICD) 9, ICD 10, Diagnostic Statistical Manual (DSM)-III or DSM-IV, or use of a recognised, validated and reliable measurement scale specifically for depressive symptoms.

Studies in patient groups with clear indicators of severe depression or with significant psychological comorbidities were excluded as below:

- psychotic depression
- depression in the perinatal period (which includes postnatal depression)
- bipolar disorder
- personality disorder
- dysthymia
- seasonal affective disorder
- primary addiction
- significant cognitive impairment (brain injury or dementia)
- learning disability.

Studies in patients with significant physical comorbidities were also excluded.

A large number of studies of depression had mixed patient groups, typically with anxiety disorders and personality disorders. Individual studies were excluded unless there was clear analysis of the depression subgroup. Where recommendations were based on systematic reviews which included studies with mixed patient groups this was taken into account when grading recommendations.

The guideline development group recognised the limitations of adopting such specific diagnostic criteria in terms of applicability to routine care populations, but required a clear remit to assure rigour in study selection and analysis.

1.5 OUTCOMES

The primary outcome of interest was reduction in depressive symptoms as measured by a recognised depression scale. Short term outcomes and longer term benefits were examined.

Where appropriate, secondary outcomes including illness duration, relapse, quality of life, and patient satisfaction were considered.

1.6 TARGET AUDIENCE

This guideline will be of particular interest to those developing mental health services, healthcare professionals in primary and secondary care, and patients with depression and their carers. It may also be helpful to voluntary organisations and exercise professionals working in exercise referral schemes, public or private fitness centres, and promotion of physical activity.

1.7 STATEMENT OF INTENT

This guideline is not intended to be construed or to serve as a standard of care. Standards of care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge and technology advance and patterns of care evolve. Adherence to guideline recommendations will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgement must be made by the appropriate healthcare professional(s) responsible for clinical decisions regarding a particular clinical procedure or treatment plan. This judgement should only be arrived at following discussion of the options with the patient, covering the diagnostic and treatment choices available. It is advised, however, that significant departures from the national guideline or any local guidelines derived from it should be fully documented in the patient's case notes at the time the relevant decision is taken.

1.7.1 PATIENT VERSION

A patient version of this guideline is available from the SIGN website, **www.sign.ac.uk**

1.7.2 ADDITIONAL ADVICE TO NHSSCOTLAND FROM NHS QUALITY IMPROVEMENT SCOTLAND AND THE SCOTTISH MEDICINES CONSORTIUM

NHS QIS processes multiple technology appraisals (MTAs) for NHSScotland that have been produced by the National Institute for Health and Clinical Excellence (NICE) in England and Wales.

The Scottish Medicines Consortium (SMC) provides advice to NHS Boards and their Area Drug and Therapeutics Committees about the status of all newly licensed medicines and any major new indications for established products.

SMC advice and NHS QIS validated NICE MTAs relevant to this guideline are summarised in the section on implementation.

2 Summary of recommendations

2.1 PSYCHOLOGICAL THERAPIES

A **Behavioural activation is recommended as a treatment option for patients with depression.**

A **Individual CBT is recommended as a treatment option for patients with depression.**

A **Interpersonal therapy is recommended as a treatment option for patients with depression.**

B **Mindfulness based cognitive therapy in a group setting may be considered as a treatment option to reduce relapse in patients with depression who have had three or more episodes.**

B **Problem solving therapy may be considered as a treatment option for patients with depression.**

B **Short term psychodynamic psychotherapy may be considered as a treatment option for patients with depression.**

2.2 SELF HELP

A **Guided self help based on CBT or behavioural principles is recommended as a treatment option for patients with depression.**

A **Within the context of guided self help, computerised CBT is recommended as a treatment option for patients with depression.**

2.3 STRUCTURED EXERCISE

B **Structured exercise may be considered as a treatment option for patients with depression.**

3 Psychological therapies

3.1 INTRODUCTION

Although there are some studies comparing psychological therapies for depression, the majority of studies involve comparisons of psychological therapies with prescribed antidepressant medication treatment, waiting list control or care as usual.[9]

The evidence base was insufficient to support detailed recommendations on the number of therapy sessions required for efficacy, maintenance of effect or prevention of relapse.

See Annex 1 for definitions of interventions.

☑ Practitioners delivering psychological therapies should be trained to approved levels of competency, participate in continuing professional development and be registered with the appropriate governing body. They should be receiving ongoing supervision.

3.2 BEHAVIOURAL ACTIVATION

A meta-analysis of 16 studies found behavioural activation to be effective in reducing depressive symptoms in adults and older adults compared to treatment as usual and waiting list control, and as effective as cognitive therapy.[10] This is consistent with the conclusions of a study incorporating behavioural activation therapy as part of a larger meta-analysis specifically in patients aged over 50 with depression.[11] 1++

A **Behavioural activation is recommended as a treatment option for patients with depression.**

3.3 COGNITIVE BEHAVIOURAL THERAPY

There is robust and consistent meta-analysis and systematic review evidence that cognitive behavioural therapy (CBT) is more effective than either treatment as usual or waiting list control in the treatment of depression in adults and older adults and is at least as effective as antidepressant medication. For those studies where follow up was examined, CBT was at least as effective as antidepressant medication over six months to two years follow up. In some studies CBT was more effective than other psychological therapies whilst other studies suggest CBT has similar effectiveness to other systematic therapies such as psychodynamic therapy and interpersonal therapy.[11-16] 1++

One systematic review included a comparison of group versus individual CBT and found that patients receiving individual CBT were more likely to improve and had fewer symptoms at follow up than patients receiving group CBT.[12] 1++

A **Individual CBT is recommended as a treatment option for patients with depression.**

A systematic review of CBT in adults with major depressive disorder who had not responded to at least one course of antidepressant medication identified two studies providing adequate data for interpretation. Although there was benefit of CBT (15-30 sessions) in treatment-resistant depression, the evidence base is insufficient to support a recommendation in this patient group.[17] 1++

Computerised CBT is discussed in section 4.3

3.4 COUNSELLING

In the literature the term 'counselling' encompasses a variety of approaches.

An RCT compared GP treatment as usual (GPTAU) with GPTAU plus psychodynamic or cognitive behavioural counselling (average six sessions, range one to 16 sessions) in patients with depression. At 6, 12 and 36 months follow up there were no significant differences between the study groups in Beck Depression Inventory (BDI) scores. Diagnostic selection criteria were unclear and there were variations in the counselling intervention.[18-20] 1+

Another RCT had patient preference arms and compared randomised antidepressant treatment with randomised counselling, preference antidepressant and preference counselling. The recommended number of counselling sessions was six. GPs were guided to prescribe one of three antidepressants.[21,22] There was no clear superiority of any treatment approach at eight weeks. At 12 months follow up, generic counselling was as effective as antidepressants but antidepressants may result in more rapid recovery and are likely to be chosen by those who are more severely depressed. 1+

There is insufficient consistent evidence on which to base a recommendation.

3.5 COUPLE-FOCUSED THERAPY

A systematic review identified eight studies evaluating the effect of marital therapy on depression.[23] A variety of treatment models were subsumed within the marital therapy approach, including CBT, emotion-focused, interpersonal and systemic therapy. A variety of control comparisons were used, including CBT, interpersonal therapy, drug therapy, combined individual and drug therapy and waiting list. Duration of treatment ranged from 10-20 weeks and follow up ranged from post-test to two years. Studies were characterised by small sample size, lack of intention to treat analysis and high numbers lost to follow up. The review concluded there was no evidence to support marital therapy being any more or less effective than one to one therapies or drug therapy in the treatment of depression, even when associated with marital distress. In comparison to no/minimal treatment the outcome for depression was better in the marital therapy group, although this was based on only two small studies. 1+

There is insufficient consistent evidence on which to base a recommendation.

☑ A couple-focused approach should be considered where the current relationship is contributing to the depression, or where involvement of a partner is considered to be of potential therapeutic benefit.

3.6 FAMILY THERAPY

Studies of the effect of family therapy on depressive symptoms have been conducted in very specific patient populations and the results are not easily generalised.

In one poor quality study, twelve sessions of cognitive behavioural family intervention were as effective as 12 sessions of behavioural family intervention in alleviating depressive symptoms in mothers who have a child with conduct disorder.[24] 1-

There is insufficient evidence on which to base a recommendation.

3.7 HYPNOTHERAPY

One RCT with methodological limitations found that CBT supplemented by hypnotherapy produced a significantly larger reduction in depressive symptoms than CBT alone. This effect was sustained at six and 12 month follow up. It is unclear whether the interventions were equivalent in terms of duration of therapy offered to patients.[25] 1-

There is insufficient evidence on which to base a recommendation.

3.8 INTERPERSONAL THERAPY

A systematic review examining achievement of complete remission in major depression found that interpersonal therapy (IPT), CBT and medication were equally effective.[26] 1+

A further systematic review of nine studies reported consistent evidence that IPT, delivered according to the standard manual over 12-20 sessions, is superior to placebo and similar in effectiveness to antidepressant medication (prescribed at therapeutic doses) and to CBT in patients with depression.[27] A subsequent RCT comparing IPT with CBT concluded that the therapies are equally effective for depression. For severe depression CBT showed slightly higher levels of symptom reduction at end of treatment than IPT.[28] This study had no follow up. 1++ 1+

A Dutch study of major depressive disorder compared four interventions, IPT, placebo, IPT with medication (nefazodone) and medication alone. IPT performed as well as medication. Combined treatment offered no advantage over IPT alone.[29] 1+

Another Dutch study in adults aged over 55 years, based in primary care, found that IPT (10 sessions) was significantly more effective than care as usual in reducing the percentage of patients with a diagnosis of depression. A post hoc analysis showed that IPT was superior to care as usual in elderly patients in general practice with moderate to severe depressive disorder but not significantly so for mildly depressed patients.[30] 1+

One RCT compared maintenance treatment at three frequencies over a two-year period (weekly, fortnightly and monthly). For those patients who achieved remission with IPT alone, monthly IPT was effective in delaying relapse. There was no superiority for more frequent maintenance sessions.[31] 1+

A **Interpersonal therapy is recommended as a treatment option for patients with depression.**

3.9 MINDFULNESS BASED COGNITIVE THERAPY

A systematic review identified two RCTs showing that mindfulness based cognitive therapy conducted in a group setting (8 x 2-2.5 hour sessions) reduced relapse in chronic depression (three or more depressive episodes) by over 50% during a one-year follow-up period, compared to treatment as usual. There was no reduction in relapse for patients having experienced one or two episodes of depression.[32] 1++

B **Mindfulness based cognitive therapy in a group setting may be considered as a treatment option to reduce relapse in patients with depression who have had three or more episodes.**

3.10 MUSIC THERAPY

A Cochrane review of five small, diverse and poor quality studies concluded that music therapy on its own or as an adjunct to psychological therapies, is acceptable to people with depression and is associated with improvements in mood. The small number and poor methodological quality of studies mean that it is not possible to be confident about its effectiveness.[33] 1++

There is insufficient consistent evidence on which to base a recommendation.

3.11 PROBLEM SOLVING THERAPY

A well conducted meta-analysis of problem solving therapies (PST) in depression found that, in general, PST was more effective than control interventions. There was significant variation in the outcome measures used and there was large heterogeneity. Overall effect size (ES) varied according to the type of analysis: ES = 0.34 when it was assumed that all interventions were equivalent (fixed effects model), ES = 0.83 when it was assumed the interventions differed in some way (random effects model).[34] 1++

B **Problem solving therapy may be considered as a treatment option for patients with depression.**

3.12 PSYCHODYNAMIC PSYCHOTHERAPY

A number of variants of psychodynamic psychotherapy are used in studies, making comparisons difficult.

One systematic review identified six studies comparing short term psychodynamic psychotherapy with CBT for outpatients with major depression and found the two therapies to be equally effective in the treatment of depression, although results were considered to be preliminary due to the small number of trials.[14] 1+

B **Short term psychodynamic psychotherapy may be considered as a treatment option for patients with depression.**

3.13 REMINISCENCE THERAPY

Four studies of reminiscence therapy in older adults (aged 55-87) with depression were identified.[35-38] Reminiscence therapy was compared with problem solving training, goal-focused psychotherapy and no treatment control. Results were equivocal and studies were generally of poor methodological quality. 1-

There is insufficient consistent evidence on which to base a recommendation.

3.14 OTHER PSYCHOLOGICAL THERAPIES

No evidence specific to depression and meeting the guideline inclusion criteria was identified on the use of art therapy, cognitive behavioural analysis system of psychotherapy (CBASP) cognitive analytic therapy, eye movement desensitisation and reprocessing or neurolinguistic programming.

3.15 COMMON FACTORS IN PSYCHOLOGICAL THERAPIES

A number of common (non-specific) factors are likely to influence the effectiveness of psychological therapies.[9,39] These may not be fully addressed by randomisation. Factors include the quality of the therapeutic alliance (at various stages of treatment), therapist factors such as competence, genuineness, empathy and positive regard, and patient characteristics such as prior improvement of symptoms, readiness for change and belief in the therapy.

4 Self help

4.1 SELF HELP SUPPORT GROUPS

There is no standard definition of support groups in the literature. No studies were identified on self help groups as a stand-alone intervention for patients with depression.

☑ Practitioners referring patients to self help groups should consider the following parameters of good practice:

Groups should be:

- linked to an organisation or well established group that can offer the necessary resources, support and promotion of the groups
- subject to regular review and evaluation
- held in accessible, non-stigmatising and welcoming venues
- recovery-focused and with clear confidentiality policies maintained by members and facilitators
- led by facilitators who are trained in listening, conflict management and facilitation skills; and who are supervised and supported themselves. Facilitators should have Central Registered Body in Scotland disclosure checks carried out and updated.

4.2 GUIDED SELF HELP

A systematic review of self help interventions in depression found that greatest effectiveness is associated with supportive therapist monitoring, where there is input from a therapist to guide progress.[40] NICE reviewed nine RCTs and reported that guided self help based on either CBT or behavioural principles produces a clinically significant reduction in depressive symptoms when compared with no intervention.[41] A facilitated self help intervention was more effective than usual GP care in people aged 60 or older with depression.[42]

1++
1+

The majority of studies on guided self help in depression are modelled around the principles of CBT.

A **Guided self help based on CBT or behavioural principles is recommended as a treatment option for patients with depression.**

4.3 COMPUTERISED SELF HELP

A health technology assessment (HTA) identified ten studies on computerised CBT (CCBT) and reported consistent evidence of reduction in depressive symptoms. A range of interventions was examined in a broad range of patient groups making synthesis of results and identification of the most useful package of materials difficult. The 'Beating the Blues' package was identified as effective.[43] An RCT comparing an online interactive CBT course (Moodgym) with a written course of psychoeducation found that both were effective at reducing depression symptoms compared with a control (attention placebo).[44]

1++

Evidence for CBT as a therapy approach is outlined in section 3.3.

A **Within the context of guided self help, computerised CBT is recommended as a treatment option for patients with depression.**

Links to examples of computerised self help packages are given at the end of section 8.2.

5 Exercise and lifestyle modification

5.1 EXERCISE

Studies described relate to structured exercise interventions (*see Annex 1*).

The effects of both aerobic exercise (eg walking and jogging) and anaerobic exercise (eg weight training) have been examined in younger and older adults with depression, with a large variety of intervention types delivered across a range of settings.[45-58] There is a larger evidence base for aerobic exercise than for anaerobic exercise. Limitations of the evidence base include small sample sizes in many studies and the use of volunteer subjects who may be particularly motivated to adhere to an exercise programme.

A Cochrane meta-analysis of 23 trials from 1979-2007 (n = 907) found a large and statistically significant clinical effect of exercise (measured post-treatment) when compared to no treatment or control intervention. The effect was moderate when the five trials with long term follow up were analysed separately. Only three trials in the Cochrane review were assessed as high quality with respect to allocation concealment, intention to treat analysis and blinded outcome assessment. A meta-analysis of these trials (n = 216) found a moderate clinical benefit which was not statistically significant (standardised mean difference -0.42 (95% CI -0.88, 0.03).[59] 1++

Those trials which systematically reported adverse events found that adverse events were low in both the exercise and control groups. There was between 55% and 100% completion of exercise interventions.[59] 1++

In comparisons of effectiveness with antidepressant medication and CBT there was no difference between exercise and the established interventions.[59] 1++

The benefits of exercise have generally been shown to be independent of social group effect.[50-54] 1+

A small number of studies were identified which examined the duration, frequency and intensity of physical activity required to produce benefit. The results of one study support the following minimum requirements: three sessions per week; of 30-40 minutes duration each; and a total energy expenditure of 17 kcal/kg per week. Similar effects were also found for five sessions per week of 30 minutes at a lower intensity with similar total energy expenditure.[50,60] Other studies suggest a required intensity of exercise correlated to energy expenditure of 70-80% of heart rate reserve (*see Annex 1*).[45-47,49,56,61] 1+ 1++

B **Structured exercise may be considered as a treatment option for patients with depression.**

☑ Individuals who are interested in using structured exercise as a treatment intervention for depression should be referred to appropriate exercise counselling and activities in their local community that are relevant to the type of exercise they feel they will enjoy. This may include a range of community provision eg, local gyms, swimming pools, and voluntary walking groups. If there are doubts about the individual's physical health they should be referred back to the GP for health/cardiovascular assessment.

☑ The physical activity readiness questionnaire (PAR-Q) provides a validated tool to determine whether individuals require screening investigations ahead of commencing a structured exercise programme. (www.csep.ca/CMFiles/publications/parq/par-q.pdf).

☑ Patients should be made aware of factors which may improve and help maintain motivation. For example: setting realistic goals may allow individuals to monitor their progress; exercising with others; and an exercise class or buddy system can increase enjoyment.

Annex 3 outlines resources related to physical activity for health.

5.2 LIFESTYLE MODIFICATION

5.2.1 REDUCING ALCOHOL CONSUMPTION

No good quality evidence was identified on the effect of reducing alcohol consumption on depressive symptoms.

Examination of alcohol consumption as a causative factor in depression was outside the scope of the guideline.

Primary care interventions for patients with alcohol dependence, hazardous or harmful drinking are described in SIGN 74.[62]

5.2.2 REDUCING CAFFEINE INTAKE

No good quality evidence was identified on the effects of reducing caffeine intake on depressive symptoms.

5.2.3 RETURN TO WORK

No evidence applicable to the UK employment and benefits systems was identified on the effectiveness of return to work programmes in reducing depressive symptoms.

5.2.4 GOOD PRACTICE IN LIFESTYLE ADVICE FOR PATIENTS WITH DEPRESSION

☑ General advice on following a healthy lifestyle is relevant in the management of patients with depression. Advice should address:

- alcohol and drug use
- diet and eating behaviours
- maintenance of social networks and personally meaningful activities
- sleep problems.

6 Herbal remedies and nutritional supplements

6.1 INTRODUCTION

This section considers herbal remedies and nutritional supplements which have been subjected to RCT investigation to evaluate their efficacy in the treatment of depression. They are not licensed medications and have not been subjected to the rigorous regulatory approval process required for prescription medications. In addition to this there are issues around quality control and lack of standardisation of herbal remedies and nutritional supplements.

6.2 FOLATE

A well conducted systematic review of folate for depression was identified. There was only one study of folate as a stand-alone treatment for depression. This did not find significant benefit.[63] 1+

6.3 *HYPERICUM* EXTRACT (ST JOHN'S WORT)

Clinical trials have been conducted on specific *Hypericum* flower or leaf extracts. The composition of the extracts depends on both the raw material and the extraction methods used. Since there is no standard preparation or dose the amount of bioactive constituents can vary enormously.[64-66] In one study a number of products on the German market contained only minor amounts of bioactive constituents.[67]

Although most clinical trials have been carried out using 300 mg preparations of *Hypericum* extract taken three times daily, doses range from 600 mg to 1,800 mg daily.[64]

A good quality Cochrane systematic review identified 29 trials with a total of 5,489 (range 30 to 388) patients; 18 involving comparisons with placebo and 17 with synthetic antidepressants. Only good quality trials involving patients with depression meeting criteria for DSM IV or ICD 10 were included. The severity of depression was described as mild to moderate in 19 trials and as moderate to severe in nine trials (one trial did not classify severity). Trials examined treatment with *Hypericum* extracts for four to 12 weeks.[64]

Results of placebo-controlled trials showed marked heterogeneity. In nine larger trials the combined response rate ratio was 1.28 (95% confidence interval (CI), 1.10 to 1.49) and from nine smaller trials was 1.87 (95% CI, 1.22 to 2.87). The cumulative evidence suggests that *Hypericum* extract has a modest effect over placebo in the treatment of mild to moderate depression in a similar range as standard antidepressants. 1++

Results of trials comparing *Hypericum* extracts and standard antidepressants were statistically homogeneous with an RR of 1.01 (95% CI 0.93 to 1.09) showing no difference in efficacy between treatments.

Both in placebo-controlled trials and in comparisons with standard antidepressants, trials from German speaking countries (18 trials) reported findings more favourable to *Hypericum* than those conducted in other countries (11 trials). The reason for this is unclear.

The evidence base for *Hypericum* for severe major depression is insufficient to draw conclusions.[64]

No studies were identified comparing *Hypericum* extracts with psychological interventions.

Extracts of *Hypericum* may interact with other antidepressants, oral contraceptives and anticoagulants and may decrease the plasma level of a range of prescribed drugs such as anticoagulants, oral contraceptives, and antiviral agents.[68,69] There is evidence that the combination of *Hypericum* extract with SSRIs can lead to serotonin overload or serotonin syndrome, particularly in older people.[70] The number of drug interactions reported is increasing. These are updated in the BNF (http://bnf.org/bnf/bnf/current/41001i905.htm).

In overdose there may be serious consequences in terms of confusion, autonomic instability, renal damage and muscle damage, particularly in combination with other psychotropic serotonergic drugs.[71]

☑ Healthcare professionals should not advise use of extract of *Hypericum* (St John's wort) for patients with depression due to the lack of standardisation of dose and the risk of interactions with several common medications including the contraceptive pill.

Where individual patients are using extract of *Hypericum* (St John's wort) for treatment of depression, the general practitioner should facilitate full consideration of potential drug interactions.

6.4 INOSITOL

A good quality systematic review of small, short term RCTs reported that current evidence is unclear whether or not inositol is of benefit in the treatment of depression.[72] 1++

6.5 POLYUNSATURATED FATTY ACIDS

Five systematic reviews of the use of polyunsaturated fatty acids (PUFAs) in the treatment of patients with depression were identified. Most trials included in the reviews examined the use of PUFAs as supplements to antidepressant medication with only two small RCTs examining the use of PUFAs as a stand-alone treatment of depression.[73-77,78,79] 1+

There is insufficient consistent evidence on which to base a recommendation.

6.6 S-ADENOSYL-L-METHIONINE

One well conducted systematic review of 28 small and heterogeneous studies found a modest benefit of S-adenosyl-L-methionine (SAMe) over placebo in the treatment of depression. There were no significant differences in outcome when SAMe was compared with tricyclic antidepressants.[80] 1++

Limitations of studies included heterogeneity in patient groups and the short duration of intervention and follow up. A range of doses was used and differing routes of administration (oral, intramuscular and intravenous) employed. There was also a likelihood of publication bias.

There is insufficient consistent evidence on which to base a recommendation.

6.7 OTHER NUTRITIONAL SUPPLEMENTS AND HERBAL REMEDIES

No good quality evidence was identified for the use of chromium, *ginseng*, *ginkgo biloba* glutamine, or selenium as stand-alone treatments for patients with depression.

7 Complementary and alternative therapies

7.1 ACUPUNCTURE

Three good quality systematic reviews of poor quality RCTs of acupuncture in patients with depression were identified.[81-83] Results were inconclusive and studies had a number of methodological limitations. 1++ 1+

There is insufficient evidence on which to base a recommendation.

7.2 ANIMAL ASSISTED THERAPY

There is evidence from one systematic review that the introduction of animal assisted activities may have beneficial effects on the severity of depressive symptoms in older people resident in nursing homes and psychiatric institutions. The degree to which the benefits found are a result of animal contact or human contact with the animal facilitator is unclear and requires further investigation.[84] 1++

There is insufficient evidence on which to base a recommendation.

7.3 HOMEOPATHY

One good quality systematic review identified only two RCTs, one of poor quality and one in which only six patients completed the study.[85] 1++

There is insufficient evidence on which to base a recommendation.

7.4 LIGHT THERAPY

A Cochrane review of light therapy for non-seasonal depression identified 20 RCTs comparing bright light with inactive placebo treatments for non-seasonal depression. The review found that bright light may confer modest benefits on severity of depression symptoms in the very early stages of treatment of people with depressive disorder in hospital and long term care settings.[86] A subsequent good quality systematic review reported that trials evaluating light therapy as a stand-alone intervention in non-seasonal depression had inconsistent results.[87] 1++

There is insufficient consistent evidence on which to base a recommendation.

7.5 MASSAGE THERAPY

A systematic review of massage therapy for depression identified four RCTs. Three compared massage therapy with relaxation therapies but provided insufficient data for clear interpretation of trial results. The remaining study used massage therapy as a control condition in a comparison of two types of acupuncture and found massage therapy to be less effective than acupuncture.[88] 1+

There is insufficient evidence on which to base a recommendation.

7.6 YOGA

A systematic review of five RCTs examined the effectiveness of different forms of yoga in patients with depression ranging in severity from mild to severe.[89] All trials reported positive benefits of yoga interventions on the severity of self reported or assessor-rated symptoms of depression. Basic details of trial methodology were poorly reported and a meta-analysis was not attempted due to the diversity of outcome measures, absence of assessor blinding in all but one of the studies, and inadequate information on participant characteristics. There were no details on method of randomisation, compliance or attrition rates. 1+

There is insufficient evidence on which to base a recommendation.

7.7 OTHER COMPLEMENTARY AND ALTERNATIVE THERAPIES

No applicable evidence was identified on the use of aromatherapy, emotional freedom technique, reflexology, Reiki, T'ai Chi or thought field therapy as stand-alone treatments for patients with depression.

8 Provision of information

8.1 CHECKLIST FOR PROVISION OF INFORMATION

This section gives examples of the information patients/carers may find helpful at the key stages of the patient journey. The checklist was designed by members of the guideline development group based on their experience and their understanding of the evidence base. The checklist is neither exhaustive nor exclusive.

Presentation

- Explain to patients that depression is common and emphasise that it can be treated.
- Advise patients how depression is diagnosed using screening questions.
- Explain that biological, social and psychological factors all contribute to the onset of depression.
- Discuss suicidal thinking with patients and advise them where they can go for support should they feel this is an issue at any time.
- Explain the importance of matching treatment from a range of effective options to the individual's personality and lifestyle.
- Explore any treatments currently being used by the patient.
- The following quality of life issues should be discussed with patients:
  - stigma
  - employment worries
  - difficulties related to relationships.
- Consideration should be given to the impact that depression might have on the patient's children or dependants.

Management

- Provide patients with sufficient information on treatments (including the patient version of this guideline) to enable them to make an informed choice. The following information should be discussed with patients:
  - negative and positive aspects of all treatments
  - risk of patient not responding to treatments
  - timescale for symptom improvement.
- Inform patients of the waiting time for treatments and advise them of other sources of support while they are waiting (organisations listed in section 8.2).
- Advise patients how they can access treatments that are not routinely available in the NHS.
- Make patients aware of information held in local libraries/book prescribing schemes.
- Discuss treatment outcomes with patients and advise them how these can be measured.
- Advise patients that it may take time to find the right treatment.
- Advise patients of healthy lifestyle behaviours which are relevant.

Non–NHS treatment

- The following information should be discussed with patients who seek the help of a private therapist:
  - importance of choosing a registered therapist (through Health Professions Council or other accredited body)
  - the need to stop treatment if they don't feel that it's helping or if they are not comfortable with their therapist
  - the need to speak to someone if they become more distressed as a result of treatment from a therapist (section 8.2 lists organisations that can help).

Follow up

- Advise patients to return to their GP if symptoms are not improving or are becoming worse.
- Emphasise to patients not to give up at the first treatment they try and offer information on treatment options. In patients who are not responding, emphasise to them that they should not assume that this is their fault. (this holds for all treatments).
- Provide patients with information on useful organisations and websites (listed in section 8.2).
- Advise patients of where they can find information on financial issues (listed in section 8.2).

8.2 SOURCES OF FURTHER INFORMATION

HELPLINES

Breathing Space
0800 838 587

CarersLine
0808 808 7777

Depression Alliance Scotland
0845 123 2320

NHS24
08454 24 24 24

Samaritans
0845 790 9090

SAMH (Scottish Association for Mental Health)
0800 917 3466

SANEline
0845 767 8000

ORGANISATIONS

The following organisations provide information and undertake work in particular areas of mental health.

Age Concern Scotland
Causewayside House, 160 Causewayside
Edinburgh EH9 1PR
Tel: 0845 833 0200
Email: enquiries@acscot.org.uk • Website: www.ageconcernscotland.org.uk

Carers Scotland
The Cottage, 21 Pearce Street
Glasgow G51 3UT
Tel: 0141 445 3070
Email: info@carerscotland.org • Website: www.carerscotland.org

Citizens Advice Scotland
Website: www.cas.org.uk

Depression Alliance Scotland
11 Alva Street
Edinburgh EH2 4PH
Tel: 0845 123 23 20 (information and support line)
Website: www.dascot.org and www.lookokfeelcrap.org

Depression UK
Ormiston House, 32-36 Pelham Street
Nottingham NG1 2EG
Tel: 0870 774 4320 (Information line)
Website: www.depressionuk.org

Health Rights Information Scotland
Scottish Consumer Council
Royal Exchange House, 100 Queen Street
Glasgow G1 3DN
Tel: 0141 226 5261
Email: hris@scotconsumer.org.uk • Website: www.hris.org.uk

Mental Health Foundation Scotland
Merchants House, 30 George Square
Glasgow G2 1EG
Tel: 0141 572 0125
Email: scotland@mhf.org.uk • Website: www.mentalhealth.org.uk/about-us/scotland/

Penumbra
Norton Park, 57 Albion Road
Edinburgh EH7 5QY
Tel: 0131 475 2380
Email: enquiries@penumbra.org.uk • Website: www.penumbra.org.uk

Richmond Fellowship Scotland
3 Buchanan Gate, Buchanan Gate Business Park
Cumbernauld Road, Stepps
North Lanarkshire G33 6FB
Tel: 0845 013 6300
Email: info@trfs.org.uk • Website: www.trfs.org.uk

SAMH (Scottish Association for Mental Health)
Cumbrae House, 15 Carlton Court
Glasgow G5 9JP
Tel: 0141 568 7000
Email: enquire@samh.org.uk • Website: www.samh.org.uk

SANE
1st Floor, Cityside House
40 Adler Street
London E1 1EE
Tel: 020 7375 1002
Email: info@sane.org.uk • Website: www.sane.org.uk

'see me'
1/3 Great Michael House
14 Links Place
Edinburgh EH6 7EZ
Tel: 0131 554 0218
Email: info@seemescotland.org • Website: www.seemescotland.org.uk

VOX Scotland (Voices of Experience)
c/o Mental Health Foundation (Scotland)
5th Floor, Merchants House
30 George Square
Glasgow G2 1EG
Tel: 0141 572 1663
Email: voxscotland@yahoo.co.uk • Website: www.voxscotland.org.uk

WellScotland
National Programme Team
Scottish Government (3ER)
St Andrews House, Regent Road
Edinburgh EH1 3DG
Email: well@scotland.gsi.gov.uk • Website: www.wellscotland.info

FINDING A THERAPIST

Health Professions Council
Park House, 184 Kennington Park Road
London SE11 4BU
Tel: 020 7582 0866
Website: www.hpc-uk.org/index.asp

The Health Professions Council maintains a public register of properly qualified health professionals.

WEBSITES

SIGN accepts no responsibility for the content of the websites listed.

http://bluepages.anu.edu.au/

www.livinglifetothefull.com

www.moodjuice.scot.nhs.uk

http://moodgym.anu.edu.au/welcome

www.moodcafe.co.uk

www.smhfa.com/

FINANCIAL INFORMATION

www.dwp.gov.uk

www.direct.gov.uk

9 Implementing the guideline

This section provides advice on the resource implications associated with implementing the key clinical recommendations, and advice on audit as a tool to aid implementation.

Implementation of national clinical guidelines is the responsibility of each NHS Board and is an essential part of clinical governance. Mechanisms should be in place to review care provided against the guideline recommendations. The reasons for any differences should be assessed and addressed where appropriate. Local arrangements should then be made to implement the national guideline in individual hospitals, units and practices.

9.1 RESOURCE IMPLICATIONS OF KEY RECOMMENDATIONS

This guideline provides recommendations for a range of alternative treatments. Resource implications will depend on local availability of psychological services, support for guided self help and exercise referral schemes.

Current provision of psychological therapy services across Scotland is patchy, idiosyncratic and largely uncoordinated. NHS Education for Scotland is working in partnership with the Scottish Government, NHS Boards and other service providers to increase the capacity within the current NHS workforce to deliver psychological therapies, to support service change, and to ensure that the new resource is used effectively in practice.

9.2 AUDITING CURRENT PRACTICE

A first step in implementing a clinical practice guideline is to gain an understanding of current clinical practice. Audit tools designed around guideline recommendations can assist in this process. Audit tools should be comprehensive but not time consuming to use. Successful implementation and audit of guideline recommendations requires good communication between staff and multidisciplinary team working.

Audit of implementation of the guideline will be assisted through implementation and accreditation of local Integrated Care Pathways for management of patients with depression. Information on the pathways is available at www.icptoolkit.org/

The guideline development group has identified the following as key points to audit to assist with the implementation of this guideline:

- Have non-pharmaceutical treatment options been discussed/considered?
  - Psychological therapies
  - Guided self help
  - Structured exercise.
- If patient is using or contemplating using herbal remedies has there been careful consideration of potential drug interactions?
- Has the patient been made aware that although one therapy may not have been helpful trying another may be beneficial?

9.3 ADVICE TO NHSSCOTLAND FROM NHS QUALITY IMPROVEMENT SCOTLAND

NHS Quality Improvement Scotland has validated NICE Technology Appraisal Guidance 97, Computerised cognitive behaviour therapy (CCBT) for depression and anxiety.[90]

10 The evidence base

10.1 SYSTEMATIC LITERATURE REVIEW

The evidence base for this guideline was synthesised in accordance with SIGN methodology. A systematic review of the literature was carried out using an explicit search strategy devised by a SIGN Information Officer. Databases searched include Medline, Embase, Cinahl, PsycINFO, AMED, and the Cochrane Library. The year range covered was 1998-2008 with variations depending on topic. Internet searches were carried out on various websites including the US National Guidelines Clearinghouse. A complete search narrative, including search strategies and date ranges for each key question, is available on the SIGN website. The main searches were supplemented by material identified by individual members of the development group. Each of the selected papers was evaluated by two members of the group using standard SIGN methodological checklists before conclusions were considered as evidence.

10.2 RECOMMENDATIONS FOR RESEARCH

For many of the interventions described in this guideline there was little or no robust published evidence. This was particularly the case for complementary and alternative therapies, nutritional therapies, alcohol reduction and self help groups. In addition to a lack of primary studies on such interventions a number of wider research themes were identified:

- validity of trial designs for psychological therapies
- dose-response studies for effective psychological therapies
- factors which contribute to drop-out
- non-specific treatment factors including patient/therapist interaction
- patient selection for psychological therapies
- long term effectiveness of non-pharmaceutical interventions
- contribution of unstructured exercise to beneficial effects on mood
- optimum type of exercise (aerobic, mixed or strength)
- how exercise programmes can best be facilitated through primary care.

10.3 REVIEW AND UPDATING

This guideline was issued in 2010 and will be considered for review in three years. Any updates to the guideline in the interim period will be noted on the SIGN website: **www.sign.ac.uk**.

11 Development of the guideline

11.1 INTRODUCTION

SIGN is a collaborative network of clinicians, other healthcare professionals and patient organisations and is part of NHS Quality Improvement Scotland. SIGN guidelines are developed by multidisciplinary groups of practising clinicians using a standard methodology based on a systematic review of the evidence. Further details about SIGN and the guideline development methodology are contained in "SIGN 50: A Guideline Developer's Handbook", available at **www.sign.ac.uk**

11.2 THE GUIDELINE DEVELOPMENT GROUP

Mr Mike Henderson *(Chair)*	*Consultant Clinical Psychologist, NHS Borders Psychological Services, Galashiels*
Dr Lorna Champion	*Consultant Clinical Psychologist, Royal Edinburgh Hospital*
Mr John Coffey	*Project Manager, Practice and Development Centre, Wishaw General Hospital*
Dr George Deans	*Consultant Clinical Psychologist, Royal Cornhill Hospital, Aberdeen*
Professor Marie Donaghy	*Dean of the School of Health Sciences, Queen Margaret University, Edinburgh*
Dr Rob Durham	*Senior Lecturer in Clinical Psychology, Pathology and Neuroscience, Ninewells Hospital, Dundee*
Dr Yvonne Edmonstone	*Consultant Psychiatrist and Psychotherapist, Larch House, Inverness*
Ms Sharon Fegan	*Occupational Therapist/Cognitive Behavioural Therapist, Ballenden House, Edinburgh*
Ms Michele Hilton-Boon	*Information Officer, SIGN*
Ms Eileen Hughes	*Cognitive Behavioural Therapist, Behavioural Psychotherapy Service, Larbert*
Ms Ruth Lang	*Information and Support Officer, Depression Alliance Scotland*
Professor Margaret Maxwell	*Reader in Sociology, University of Stirling*
Dr Gary Morrison	*Consultant Old Age Psychiatrist, Crichton Royal Hospital, Dumfries*
Professor Kevin Power	*Area Head of Service, NHS Tayside Psychological Therapies Service, Dundee*
Dr April Quigley	*Chartered Clinical Psychologist, NHS Borders Psychological Services, Galashiels*
Dr Ian Ross	*Retired GP and Autogenic Therapist, Gullane*
Dr Neil Rothwell	*Consultant Clinical Psychologist, Falkirk and District Royal Infirmary*
Dr Cliff Sharp	*Associate Medical Director Mental Health, Huntly Burn House, Melrose*
Dr Mark Storey	*General Practitioner, Houston, Renfrewshire*
Dr Markus Themessl-Huber	*Senior Lecturer, Central Queensland University, Australia*
Dr Lorna Thompson	*Programme Manager, SIGN*

The membership of the guideline development group was confirmed following consultation with the member organisations of SIGN. All members of the guideline development group made declarations of interest and further details of these are available on request from the SIGN Executive.

Guideline development and literature review expertise, support and facilitation were provided by the SIGN Executive.

11.2.1 PATIENT INVOLVEMENT

In addition to the identification of relevant patient issues from a broad literature search, SIGN involves patients and carers throughout the guideline development process in several ways. SIGN recruits a minimum of two patient representatives to guideline development groups by inviting nominations from the relevant "umbrella", national and/or local patient-focused organisations in Scotland. Where organisations are unable to nominate, patient representatives are sought via other means, eg from consultation with health board public involvement staff.

Further patient and public participation in guideline development was achieved by involving patients, carers and voluntary organisation representatives at the National Open Meeting (*see section 11.3.1*). Patient representatives were invited to take part in the peer review stage of the guideline and specific guidance for lay reviewers was circulated. Members of the SIGN patient network were also invited to comment on the draft guideline section on provision of information.

11.3 CONSULTATION AND PEER REVIEW

11.3.1 NATIONAL OPEN MEETING

A national open meeting is the main consultative phase of SIGN guideline development, at which the guideline development group presents its draft recommendations for the first time. The national open meeting for this guideline was held on 10th September 2008 and was attended by 290 representatives of all the key specialties relevant to the guideline. The draft guideline was also available on the SIGN website for a limited period at this stage to allow those unable to attend the meeting to contribute to the development of the guideline.

11.3.2 SPECIALIST REVIEW

This guideline was also reviewed in draft form by the following independent expert referees, who were asked to comment primarily on the comprehensiveness and accuracy of interpretation of the evidence base supporting the recommendations in the guideline. The guideline group addresses every comment made by an external reviewer, and must justify any disagreement with the reviewer's comments.

SIGN is very grateful to all of these experts for their contribution to the guideline.

Mrs Ros Anderson	*Senior Pharmacist, Medicines Management, Borders General Hospital, Melrose*
Dr Tom Brown	*Consultant Liaison Psychologist, Western Infirmary, Glasgow*
Dr Chris Burton	*Senior Research Fellow, University of Edinburgh/ General Practitioner, The Health Centre, Sanquhar*
Dr David Clark	*Professor of Psychology, Institute of Psychiatry, Kings College, London*
Professor Mick Cooper	*Professor of Counselling, University of Strathclyde, Glasgow*
Dr Sara Davies	*Public Health Consultant, Scottish Government Health and Wellbeing Directorate, Edinburgh*
Dr Mike Dow	*Chartered Clinical Psychologist/Joint Course Director, University of Stirling*

Professor Robert Elliot	*Professor of Counselling, University of Strathclyde, Glasgow*
Dr Paul Farrand	*Improving Access to Psychological Therapies Lead, School of Psychology, University of Exeter*
Ms Diane Florence	*Patient Representative/Health Psychology Practitioner, Markinch*
Dr James Hawkins	*Cognitive Behavioural Psychotherapist, Good Medicine, Edinburgh*
Ms Jo Hilton	*Secretary, Person-Centred Therapy, Scotland*
Mr Derek Hollingsbee	*Associate Editor, National Prescribing Centre, Liverpool*
Ms Rachael King	*Council Member for Scotland, British Association of Art Therapists, London*
Mr Brian Magee	*Chief Executive, Counselling and Psychotherapy in Scotland, Stirling*
Dr Gerry McPartlin	*Retired General Practitioner*
Dr Gillian Mead	*Senior Lecturer in Geriatric Medicine, University of Edinburgh*
Ms Alison Meiklejohn	*Occupational Therapy Manager, Royal Edinburgh and Associated Services and Edinburgh Community Health Partnership, Royal Edinburgh Hospital*
Ms Rona Membury	*Patient Representative*
Mr Simon Miller	*Midlothian Wellbeing Interventions Network Coordinator/ Choose Life Development Worker, Bonnyrigg*
Professor Jill Morrison	*Head of the Undergraduate Medical School, University of Glasgow*
Professor Nanette Mutrie	*Professor of Exercise and Sport Psychology, Strathclyde University, Glasgow*
Dr Karen Pilkington	*Senior Research Fellow, School of Integrated Health, University of Westminster, London*
Professor Mick Power	*Professor of Clinical Psychology, University of Edinburgh*
Professor Ian Reid	*Chair in Mental Health, University of Aberdeen*
Professor Lewis Ritchie	*Mackenzie Professor of General Practice, Centre of Academic Primary Care, University of Aberdeen*
Ms Carolyn Roberts	*Research and Influence Manager, SAMH, Glasgow*
Dr Sheelagh Rodgers	*Head of Department of Psychological Service, NHS Highland, Inverness*
Ms Nancy Rowland	*Director of Research, Policy and Professional Practice, BACP, Lutterworth*
Mrs Christina Smiley	*Counsellor, The Relationship Centre, Glasgow*
Dr Michael Smith	*Consultant Psychiatrist, NHS Greater Glasgow and Clyde*
Dr George Stirling	*Retired Consultant Pyschiatrist*
Dr Linda Watt	*Medical Director, Mental Health Partnership, NHS Greater Glasgow and Clyde*
Dr Grant Wilkie	*Consultant Psychiatrist in Psychotherapy, South Lanarkshire Psychotherapy Department, Motherwell*

11.3.3 SIGN EDITORIAL GROUP

As a final quality control check, the guideline is reviewed by an editorial group comprising the relevant specialty representatives on SIGN Council to ensure that the specialist reviewers' comments have been addressed adequately and that any risk of bias in the guideline development process as a whole has been minimised. The editorial group for this guideline was as follows:

Dr Keith Brown	*Chair of SIGN; Co-Editor*
Ms Beatrice Cant	*SIGN Programme Manager*
Dr David Christmas	*Royal College of Psychiatrists*
Professor Ronan O'Carroll	*British Psychological Society*
Dr Vijay Sonthalia	*British Medical Association, Scottish General Practice Committee*
Ms Ruth Stark	*British Association of Social Workers*
Dr Sara Twaddle	*Director of SIGN; Co-Editor*

11.4 ACKNOWLEDGEMENTS

SIGN is grateful to the following former members of the guideline development group and others who have contributed to the development of this guideline

Mr Richard Bowen	*Lay Representative, Ayrshire*
Dr Rebeca Martinez	*Clinical Lecturer in Psychiatry, University of Glasgow*
Professor Alex McMahon	*Deputy Director, Strategic Planning and Modernisation, NHS Lothian*
Dr Chris Williams	*Director of Glasgow Institute for Psychosocial Interventions, University of Glasgow*

Abbreviations

BDI	Beck Depression Inventory
BNF	British National Formulary
CAT	Cognitive analytic therapy
CBASP	Cognitive behavioural analysis system of psychotherapy
CBT	Cognitive behavioural therapy
CCBT	Computerised cognitive behavioural therapy
CI	Confidence interval
DHA	Docosahexaenoic acid
DSM	Diagnostic statistical manual
DWPD	'Doing well by people with depression'
EMDR	Eye movement desensitisation and reprocessing
EPA	Eicosapentaenoic acid
ES	Effect size
GP	General practitioner
GPTAU	General practitioner treatment as usual
hr	Hour
HEAT	Health Efficiency Access and Treatment
HTA	Health technology assessment
ICD	International Classification of Disease
ICP	Integrated Care Pathway
IPT	Interpersonal therapy
MTA	Multiple technology appraisal
NHS QIS	NHS Quality Improvement Scotland
NICE	National Institute for Health and Clinical Excellence
NLP	Neurolinguistic programming
NNT	Number needed to treat
PAR-Q	Physical activity readiness questionnaire
PST	Problem solving therapy
PUFA	Polyunsaturated fatty acid
RCT	Randomised controlled trial
RR	Relative risk
SAMe	S-adenosyl-L-methionine
SIGN	Scottish Intercollegiate Guidelines Network
SMC	Scottish Medicines Consortium
SPSP	Short term psychodynamic supportive psychotherapy
SSRI	Selective serotonin reuptake inhibitor
TCA	Tricyclic antidepressant

Annex 1

Definitions of interventions

Section 3 Psychological therapies	
Art therapy	A form of psychotherapy that uses art media as its primary mode of communication.
Behavioural activation	A structured, goal-focused therapeutic approach which encourages engagement in rewarding activities rather than withdrawal and inactivity. Aims to increase the levels of positive reinforcement experienced by the client.
Cognitive analytic therapy	A brief integrative therapy comprising elements of cognitive behavioural and psychodynamic therapies in an active, structured and collaborative approach, based on written and diagrammatic reformulations of the presenting difficulty.
Cognitive behavioural therapy (CBT)	A structured and collaborative therapeutic approach requiring appropriate training and ongoing supervision. CBT aims to make explicit connections between thinking, emotions, physiology and behaviour, primarily through behavioural experiments and guided discovery, in order to achieve systematic change in underlying beliefs and behavioural patterns, which are thought to cause and maintain psychological problems.
Cognitive behavioural analysis system of psychotherapy (CBASP)	An integrative model that combines behavioural, cognitive, psychodynamic and interpersonal procedures. It was developed specifically for treatment of chronic forms of depression and focuses primarily on helping the depressed person to understand how their behaviour can influence the outcome of problematic interpersonal situations. Specific examples of such situations, including the therapeutic relationship are analysed in detail in order to improve interpersonal skills and teach more effective engagement with the social environment.
Counselling (supportive and person centred)	Counselling is the skilled and principled use of relationships which develop self knowledge, emotional acceptance and growth, and personal resources. The overall aim is to live more fully and satisfyingly. Counselling may be concerned with addressing and resolving specific problems, making decisions, coping with crises, working through inner feelings and inner conflict, or improving relationships with others. The counsellor's role is to facilitate the patient's work in ways that respect the patient's values, personal resources, and capacity for self determination.
Couple-focused therapy	Couple-focused therapy has the twofold aim of modifying negative interaction patterns and increasing mutually supportive aspects of couple relationships, thus changing the interpersonal context linked to depression.
Eye movement desensitisation and reprocessing (EMDR)	During EMDR treatment for post-traumatic conditions the client is asked to hold in mind the image of the trauma, a negative self cognition, negative emotions and related physical sensations. While doing so the client is instructed to move his or her eyes quickly and laterally back and forth. Other forms of left-right alternating stimulation (auditory) may be used. This procedure continues until desensitisation of troubling material is complete and positive self cognitions have replaced the previous negative self cognition.

Family therapy	Family therapy helps people in a close relationship help each other. It enables family members to express and explore difficult thoughts and emotions safely, to understand each other's experiences and views, appreciate each other's needs, build on family strengths and make useful changes in their relationships and their lives.
Hypnotherapy	Any therapeutic approach using hypnosis as a main technique, for example, to promote imaginal re-exposure or relaxation.
Interpersonal therapy	A time-limited intervention, which aims to reduce symptoms by working on improving the quality of the patient's interpersonal relationships. IPT focuses on specific interpersonal problem areas such as grief, role transition and interpersonal disputes. A positive therapeutic alliance is encouraged and a range of therapeutic strategies are employed to encourage the open expression of affect and problem resolution. Patient literacy is not required.
Mindfulness	Mindfulness has been defined as paying attention in a particular way: on purpose, in the present moment, and non-judgmentally (in contrast to being absorbed in ruminative thinking). Based on meditation principles, it is taught in a group course format over 8 weekly sessions. The emphasis is on formal practices such as meditation and mindful movement, as well as using mindfulness in everyday activities.
Music therapy	A therapeutic approach where music-making forms the primary basis for communication.
Neurolinguistic programming (NLP)	A therapeutic technique to detect and re-program unconscious patterns of thought and behaviour in order to alter psychological responses.
Problem solving therapy (PST)	A brief focused psychological intervention that is delivered by an individual trained in problem solving approaches. These are often highly individualised and have a pragmatic focus, in which the professional and individual work through a series of defined steps to clarify the person's problems, desired goals, generate potential solutions and help to implement the chosen solution.
Psychodynamic psychotherapy	Based on psychodynamic theories of development and of the mind and includes attention to unconscious as well as conscious mental processes. The approach places emphasis on the importance of the therapeutic relationship, including transference and counter transference, how difficulties from the past can be repeated in the therapeutic relationship as well as in current relationships and therefore understood and changed. The therapy involves both expressive and supportive elements. By allowing the patient to express thoughts and feelings freely in the sessions with the therapist the patient can become more objective and effect desired change.
Reminiscence therapy	Entails a progressive return to an awareness of past experiences, both successful and unsuccessful, so that salient life experiences may be re-examined and re-integrated. The life review process gives older people opportunities to place their accomplishments in perspective, to resolve lingering conflicts, and to find new significance and meaning in their lives, thereby relieving the despair and depression that often accompany ageing.

Section 4 Self help	
Computerised self help	Online or computer based packages of self help material.
Guided self help	Self help interventions which incorporate some form of therapist support.
Self help interventions	Self help interventions cover a range of interactive packages, paper or web-based written self help materials. Interventions supporting access to self help books may be termed bibliotherapy or books on prescription.
Section 5 Exercise and lifestyle interventions	
Exercise	Exercise is a subset of physical activity, which is any movement of the body that results in energy expenditure rising above resting level, and includes activities of daily living, domestic chores, gardening and walking.
Structured exercise	Exercise that is undertaken three or more times a week for 30-40 minutes at an intensity sufficient to provide an energy expenditure of 70-80% of heart rate reserve; this equates to the public health dose of accumulating 30 minutes of moderate intensity physical activity on most days of the week. Walking at a level of moderate intensity, slightly out of breath, most days of the week can achieve the public health dose. Heart rate reserve is a term used to describe the difference between a person's measured or predicted maximum heart rate and resting heart rate. Some methods of measurement of exercise intensity measure percentage of heart rate reserve. As a person increases their cardiovascular fitness, their resting heart rate will drop, thus the heart rate reserve will increase.
Section 6 Herbal remedies and nutritional supplements	
Chromium	A mineral that humans require in trace amounts.
Folate	Folic acid and folate (the anionic form) are forms of the water soluble vitamin B9. These occur naturally in food and can also be taken as supplements.
Ginseng	A perennial plant which grows in eastern Asia. The root extract is widely available as a herbal remedy.
Ginkgo biloba	*Ginkgo biloba*, also known as the Maidenhair tree, is a unique species of tree, the fruits and seeds of which are used in traditional Chinese medicine. Leaf extracts are available as supplements.
Glutamine	A naturally occurring, non-essential amino acid.
Hypericum extract (St John's wort)	A perennial herb of the genus *Hypericum*.
Inositol	An isomer of glucose. It is a naturally occuring compound which is widely available as a dietary supplement.
Polyunsaturated fatty acids (PUFAs)	"Essential fatty acids" that humans cannot synthesise de novo; intake is dependent on dietary sources such as fish and seafood. The examples most studied are the omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).
S-adenosyl-L-methionine (SAMe)	A coenzyme involved in methyl group transfers. It is available as a nutritional supplement.
Selenium	A non-metallic element which rarely occurs in its elemental state in nature.

Section 7 Complementary and alternative therapies	
Acupuncture	A family of procedures involving the stimulation of anatomical locations on or in the skin by a variety of techniques. There are a number of different approaches to diagnosis and treatment in acupuncture that incorporate medical traditions from China, Japan, Korea, and other countries.
Aromatherapy	A therapy based on the use of very concentrated "essential" oils from the flowers, leaves, bark, branches, rind or roots of plants with purported healing properties.
Animal assisted therapy	A therapy that uses dogs or other pets to improve the physical and mental health of patients with certain acute or chronic diseases.
Emotional freedom technique	Emotional freedom technique is an emotional, needle- free version of acupuncture.
Homeopathy	A system of medicine which is based on treating the individual with highly diluted substances given mainly in tablet form, which trigger the body's natural system of healing.
Light therapy	Therapeutic exposure to full-spectrum artificial light that simulates sunlight, used to treat various conditions such as seasonal affective disorder.
Massage therapy	The manipulation of the soft tissues of the body - the muscles, tendons and ligaments.
Reiki	A hands-on alternative healing technique that involves the exchange of energy between practitioner and patient to restore mental, physical, emotional, and spiritual balance.
Reflexology	Involves massage of reflex areas found in the feet and the hands.
T'ai Chi	A Chinese exercise system that uses slow, smooth, body movements to achieve a state of relaxation of both body and mind.
Thought field therapy	Involves tapping with the fingers at meridian points on the upper body and hands.
Yoga	An ancient system of breathing practices, physical exercises and postures, and meditation, intended to integrate the practitioner's body, mind, and spirit.

Annex 2

Key questions used to develop the guideline

This guideline is based on a series of structured key questions that, where possible, define the population concerned, the intervention under investigation, the type of comparison group, and the outcomes used to measure the effectiveness of the interventions. These questions form the basis of the systematic literature search.

THE KEY QUESTIONS USED TO DEVELOP THE GUIDELINE	
DELIVERY OF CARE/LIFESTYLE AND SELF DIRECTED INTERVENTIONS Compare with psychological therapies, pharmacological therapies, placebo or waiting list control. Consider short term effects and any longer term benefits.	
Key question	**See guideline section**
1. Do the following lifestyle changes reduce depressive symptoms, and are any reductions in symptoms sustained? ▪ reducing caffeine intake ▪ reducing alcohol consumption ▪ increasing physical activity ▪ return to work	5.2
2. What is the effectiveness of assisted return to work programmes in alleviating depression compared with no assistance? Include: ▪ assisted return to employment/education/meaningful activity ▪ back-to-work treatment ▪ condition management ▪ recovery-based treatment ▪ rehabilitation ▪ REMPLOY	5.2
3. What is the evidence for the effectiveness of the following on depressive symptoms? ▪ bibliotherapy ▪ self help support groups ▪ guided self help ▪ psychoeducation	4.1, 4.2, 4.3
4. What is the evidence for the effectiveness of exercise (any structured physical activity) alone or in combination with psychological therapies, on depressive symptoms?	5.1

COMPLEMENTARY AND ALTERNATIVE THERAPIES Compare with psychological therapies, pharmacological therapies, placebo or waiting list control. Consider short term effects and any longer term benefits.	
Key question	**See guideline section**
5. What is the efficacy of extract of *Hypericum* (St John's wort) in alleviating depressive symptoms?	6.3
6. What is the efficacy of the following dietary supplements in alleviating depressive symptoms? ▪ chromium ▪ fish oils ▪ folate ▪ ginkgo biloba ▪ ginseng ▪ glutamine ▪ inositol ▪ S-adenosyl-L-methionine ▪ selenium	6.2, 6.4, 6.5, 6.6, 6.7
7. What is the efficacy of the following alternative/ complementary therapies in alleviating depressive symptoms? ▪ acupuncture ▪ aromatherapy ▪ homeopathy ▪ hypnosis/hypnotherapy ▪ light therapy ▪ massage ▪ reflexology ▪ pet therapy ▪ Reiki ▪ T'ai Chi ▪ Yoga	7
8. What is the effectiveness of the following therapies in alleviating depressive symptoms? ▪ eye movement desensitisation and reprocessing (EMDR) ▪ neurolinguistic programming (NLP) ▪ thought field therapy ▪ emotional freedom technique	3.14

PSYCHOLOGICAL THERAPIES Compare with other psychotherapies, medication, treatment as usual and waiting list control. Consider effectiveness at the end of treatment and at follow up and average duration of treatment needed for effective outcome. Consider acute and chronic/permanent depression.	
Key question	**See guideline section**
9. What is the effectiveness of the following therapies in alleviating depressive symptoms? ▪ behavioural therapy/activation ▪ cognitive analytic therapy (CAT) ▪ cognitive behavioural therapy ▪ cognitive behavioural analysis system of psychotherapy (CBASP) ▪ counselling ▪ family therapy ▪ interpersonal psychotherapy ▪ marital/couple therapy ▪ mindfulness ▪ problem solving therapy ▪ psychodynamic psychotherapy/psychoanalysis ▪ reminiscence therapy ▪ solution focused therapy ▪ systemic therapy	3
10. What is the effectiveness of the following therapies in alleviating depressive symptoms? ▪ music therapy ▪ art therapy	3.10, 3.14

Annex 3

Physical activity resources

All activities should be started at a low level of intensity and duration gradually increasing as fitness improves. Physical activity can be accumulated over the course of the day in multiple small sessions (of at least 10 minutes duration each) and does not need to be performed in a single session. The aim should be to gradually increase levels of activity to meet the public health recommendations of 30 minutes of moderate intensity physical activity on most days of the week.

The following websites provide guidance on getting started, indicate the type and quantity of exercise for health benefits and provide information on available resources.

- Starting to exercise www.medicine.ox.ac.uk/bandolier/booth/hliving/startoex.html
- Scottish physical activity and health alliance www.paha.org.uk/
- The active Scotland website www.activescotland.org.uk/
- Physical activity and mental health www.healthscotland.com/uploads/documents/7901-RE025Final%20Report0708.pdf

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