Costing statement:
‘Depression: the treatment and management of depression in adults (update)’ and
‘Depression in adults with a chronic physical health problem: treatment and management’

Summary

It has not been possible to estimate the national cost impact of the two clinical guidelines on the treatment and management of depression that have been issued by NICE:

- ‘Depression: the treatment and management of depression in adults (update)’ (NICE clinical guideline 90 [CG90])
- ‘Depression in adults with a chronic physical health problem: treatment and management’ (NICE clinical guideline 91 [CG91]).

Factors that make determining the incremental cost impact of these guidelines difficult include:

- local variability in the implementation of the previous NICE clinical guideline on depression 'Depression: management of depression in primary and secondary care’ (NICE clinical guideline 23 [CG23]; published December 2004, revised April 2007)
- the influence of other programmes, such as Improving Access to Psychological Therapies (IAPT), on mental health services in England
- the limited data available on the numbers of people offered different treatment options for depression.
This costing statement discusses possible areas of cost and resource shift relating to the implementation of the recommendations in CG90 and CG91. Local managers and commissioners should consider these when planning and commissioning services for the treatment of people with depression (with or without a chronic physical health problem).

**Background**

CG90 is a partial update of CG23 and replaces it. CG90 makes recommendations on the identification, treatment and management of depression in adults aged 18 years and older in primary and secondary care, covering people whose depression occurs as the primary diagnosis.

CG91 is published alongside CG90. It makes recommendations on the identification, treatment and management of depression in adults aged 18 years and older who also have a chronic physical health problem (such as cancer, heart disease, diabetes, or a musculoskeletal, respiratory or neurological disorder).

Because of the significant overlap between CG90 and CG91, they are considered together in this costing statement. Additionally CG23 did not exclude those with a chronic physical health problem from diagnosis and treatment options for depression. It should also be noted that:

- section 1.10.4 of CG90 updates recommendations made in ‘Guidance on the use of electroconvulsive therapy’ (NICE technology appraisal guidance 59 [TA59])\(^1\) for the treatment of depression only
- recommendation 1.4.2.1 in both CG90 and CG91 updates recommendations made in ‘Computerised cognitive behavioural therapy for depression and anxiety (review)’ (NICE technology appraisal guidance 97 [TA97])\(^2\) for the treatment of depression only.

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\(^1\) Available from: www.nice.org.uk/TA59
\(^2\) Available from: www.nice.org.uk/TA97
Patient numbers affected and cost of ill health

A review using Psychiatric Morbidity Survey (PMS)\(^3\) data to predict future mental health expenditure in England\(^4\) estimated that the number of people with depression would rise by 17% (from 1.24 million to 1.45 million) between 2006 and 2026. Other key findings based on this review of figures for England were as follows:

- The total service costs for depression (see figure 1 for a breakdown) were estimated to be £1.7 billion for 2007, and projected to rise to £3 billion by 2026.

- Lost employment was estimated to increase the total cost to the economy of depression to £7.5 billion for 2007, and this total cost was predicted to reach £12.2 billion by 2026.

Figure 1 Distribution of service costs for depression in 2007\(^4\)

Another study by Thomas and Morris\(^5\) (2003) estimated that antidepressant medication accounted for 1% of total service costs, with inpatient and outpatient care accounting for over 50%. The proportion of lost employment costs (78–90% of the total cost) was similar across both studies. The key

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point from these two studies is that the indirect costs of depression far outweigh the health service costs. Therefore any additional costs incurred in the health service are likely to be more than offset by savings and benefits to the wider economy. However, whilst there is plenty of published evidence on the economic burden of depression alone, there is less evidence on the combined economic impact of depression in patients with chronic health problems, especially within the UK setting. One study based on a small population of 69 patients with chronic obstructive pulmonary disease found 3 patients had a diagnosis of depression and 13 had previously undiagnosed depression, though this study predates CG23 that recommended screening for depression in high-risk groups.

**Previous NICE guidance**

CG23 was accompanied by a costing report and costing template. The headline cost of implementing the recommendations in that guideline was estimated at £54.5 million in England, after allowing for savings in antidepressant prescribing costs. The breakdown of these costs and savings is outlined in table 1.

The costs and savings associated with the use of electroconvulsive therapy (ECT) for the treatment of depression were not established at the time of publication of TA59 (April 2003) because this predated the costing of NICE guidance.

TA97, published in February 2006, was accompanied by a costing report and costing template that estimated the cost savings of using computerised cognitive behavioural therapy (CCBT) for depression to be £76 million in the second year (see table 2). These savings were estimated to be achieved through people receiving CCBT rather than therapist-led cognitive behavioural therapy (CBT).

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7 Available from www.nice.org.uk/CG23
8 Available from www.nice.org.uk/TA97

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Table 1 Costs and savings of implementing NICE guideline CG23

<table>
<thead>
<tr>
<th>Type of depression/intervention</th>
<th>Cost for England (£000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mild depression</strong></td>
<td></td>
</tr>
<tr>
<td>Watchful waiting</td>
<td>900</td>
</tr>
<tr>
<td>Exercise</td>
<td>4,700</td>
</tr>
<tr>
<td>Guided self-help</td>
<td>1,400</td>
</tr>
<tr>
<td>Brief psychological interventions</td>
<td>10,400</td>
</tr>
<tr>
<td>Reduction in number of people taking antidepressants</td>
<td>−5,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>12,400</strong></td>
</tr>
<tr>
<td><strong>Moderate and severe depression</strong></td>
<td></td>
</tr>
<tr>
<td>Psychological interventions</td>
<td>13,200</td>
</tr>
<tr>
<td>Reductions in number of people taking antidepressants and number of GP visits</td>
<td>−2,600</td>
</tr>
<tr>
<td>Change in unit cost of antidepressants</td>
<td>−4,400</td>
</tr>
<tr>
<td>Telephone support service</td>
<td>4,800</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>11,000</strong></td>
</tr>
<tr>
<td><strong>Recurrent/chronic depression</strong></td>
<td></td>
</tr>
<tr>
<td>Extended treatment for recurrent depression</td>
<td>3,700</td>
</tr>
<tr>
<td>Psychological interventions for treatment-resistant depression</td>
<td>19,400</td>
</tr>
<tr>
<td>Psychological interventions for chronic depression</td>
<td>8,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>31,100</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54,500</strong></td>
</tr>
</tbody>
</table>

Table 2 Estimated savings from implementing NICE guidance on CCBT from TA97

<table>
<thead>
<tr>
<th>Number of adults receiving CBT</th>
<th>CCBT costs (£000s)</th>
<th>Cost of therapist-led CBT for equivalent numbers of adults (£000s)</th>
<th>Potential additional costs avoided (£000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-year costs</td>
<td>186,591</td>
<td>£24,300</td>
<td>£66,000</td>
</tr>
<tr>
<td>Second-year costs</td>
<td>200,165</td>
<td>£21,300</td>
<td>£76,000</td>
</tr>
</tbody>
</table>
Guidance recommendations

CG90 contains 107 recommendations, eight of which are key priorities for implementation. CG91 contains 78 recommendations, eight of which are key priorities for implementation.

After careful review of the diagnostic criteria for depression and the evidence, the Guideline Development Groups (GDGs) for CG90 and CG91 decided to adopt the DSM-IV classification system\(^9\) for these guidelines rather than the ICD-10 system, which was used in CG23.

This is because DSM-IV is used in nearly all the evidence reviewed and it provides definitions for atypical symptoms and seasonal depression. Its definition of severity also makes it less likely that a diagnosis of depression will be based solely on symptom counting. In practical terms, clinicians are not expected to switch to DSM-IV but should be aware that the threshold for mild depression is higher than ICD-10 (five symptoms instead of four) and that degree of functional impairment should be routinely assessed before making a diagnosis. Using DSM-IV enables the guideline to target better the use of specific interventions, such as antidepressants, for more severe degrees of depression.

After discussions with clinical experts it is not clear if, or to what extent, the use of the DSM-IV classification system in CG90 and CG91 will increase the number of people diagnosed with depression.

Areas of resource and cost impact

Discussions with clinical experts confirmed that it would not be possible to quantify with confidence the numbers of people nationally that will follow particular care pathways for a given level of depression, and that data concerning regional practice are not available. Because of this uncertainty, areas of potential resource and costing changes are considered here.

\(^9\) Classificatory systems are agreed conventions that seek to define different severities of depression in order to guide diagnosis and treatment.
Additionally, anecdotal evidence suggests that in some cases people with a chronic physical health problem are excluded from treatment for depression as a result of their physical condition. However, CG23 and the costing work conducted for that guideline did not specifically exclude those people with chronic physical health problems.

A data collection exercise is currently being undertaken as part of the IAPT programme; the first annual data collection for that programme was completed in September 2009. Because this programme did not collect data by diagnosis, the impact on people with depression is not known\textsuperscript{10}. However, this information may provide managers and commissioners with a valuable insight into the demand for services in local areas and inform resource and budget planning.

**Principles for assessment, coordination of care and choosing treatments**

Section 1.1.4 in CG90 and section 1.1.3 in CG91 cover the need to consider diverse cultural, ethnic and religious backgrounds and any learning difficulties or acquired cognitive impairments when working with people with depression. The GDG felt that these issues were not specific to depression and suggested that training should be provided to professionals as part of ongoing continuing professional development programmes. This should not be restricted to GPs and practice nurses in primary care, but should embrace a wider range of service providers, including district nurses and health visitors.

**Step 2: recognised depression – persistent subthreshold depressive symptoms or mild to moderate depression\textsuperscript{11}**

CG90 and CG91 recommend offering CCBT as a low-intensity psychosocial intervention for people with persistent subthreshold depressive symptoms or mild to moderate depression (with or without a chronic physical health

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\textsuperscript{10} For information on the IAPT programme, including details of the data collection programme from primary care trusts, see [www.iapt.nhs.uk](http://www.iapt.nhs.uk) (accessed 21 October 2009).

\textsuperscript{11} CG90 and CG91 use the same stepped-care model to determine the nature of the intervention. This provides a framework in which to organise the provision of services, and supports patients, carers and practitioners in identifying and accessing the most effective interventions (see figure 1 in CG90 and CG91).

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problem), and for patients with subthreshold depressive symptoms that complicate the care of their chronic physical health problem (see recommendation 1.4.2.1 in both guidelines\textsuperscript{12}).

‘Beating the Blues’ was the only CCBT package recommended in TA97. However, 73% of the cost of this intervention is a licence fee\textsuperscript{13}. Other CCBT packages may not require a license fee and could therefore incur greatly reduced intervention costs. If other CCBT packages have similar effectiveness to ‘Beating the Blues’ (as indicated in the clinical review for the guidelines) and incur lower intervention costs, then they could also be more cost effective than usual care. Therefore this recommendation may result in savings where ‘Beating the Blues’ is currently the package in use, although the number of people offered CCBT may increase and offset these savings.

Recommendation 1.4.2.1 in CG91 includes offering a group-based peer support (self-help) programme. Managers and commissioners will need to consider resourcing such a programme to accommodate people whose physical health problem previously deterred them from undertaking a low-intensity intervention. This is likely to lead to an increase in costs. Consideration should also be given to the settings in which this intervention may be required.

**Step 3: persistent subthreshold depressive symptoms or mild to moderate depression with inadequate response to initial interventions, and moderate and severe depression**

The choice of high-intensity interventions has been broadened in step 3 of the stepped-care model in each guideline (see recommendations in section 1.5 in both guidelines). Along with CBT, other options now include behavioural couples therapy (both guidelines) as well as interpersonal therapy (IPT) and behavioural activation (CG90).

CG90 also includes a recommendation (recommendation 1.5.1.4) to consider counselling (for people with persistent subthreshold depressive symptoms or

\textsuperscript{12} This recommendation in CG90 and CG91 updates the recommendations on depression only in TA97.

mild to moderate depression) or short-term psychodynamic psychotherapy (for people with mild to moderate depression) for people who decline an antidepressant, CBT, IPT, behavioural activation or behavioural couples therapy.

Clinical experts considered that the costs involved in providing the additional options would be no different from those for providing CBT because these options were already available in some local areas. Where there are currently no alternative options to CBT, the incremental cost is expected to be negligible because both CBT and the alternative options require a therapist to conduct the sessions. An exception is short-term psychodynamic psychotherapy, which is currently unavailable, although the numbers expected to seek this intervention were thought to be low. However, there may be a resource shift because of demand for one form of intervention over another as a result of local circumstances.

The duration of the delivery of high-intensity psychological interventions has been specified in CG90 and CG91 (within section 1.5.3 in both guidelines) but a recommendation has been added to indicate that this can be flexible to meet the needs of individual patients (recommendation 1.5.3.1 in both guidelines). It is thought that in some cases access to high-intensity interventions has been limited as a result of recommendations in CG23. However, the opinion of clinical experts was divided on this point, so any costs or savings resulting from recommendations in CG90 and CG91 are likely to be based on local practice.

**Sequencing treatments after initial inadequate response**

Combining or augmenting an antidepressant drug with an antipsychotic such as aripiprazole, olanzapine, quetiapine or risperidone is a new recommendation in CG90 (recommendation 1.8.1.6). These antipsychotics are not currently licensed for depression. Discussions with clinical experts highlighted that while there may be cost implications, the use of these antipsychotics would be largely limited to secondary care settings.
Continuation and relapse prevention
The opinion of clinical experts differed on the current provision of CBT and mindfulness-based cognitive therapy for relapse prevention. Commissioners and managers should determine local practice before establishing whether there are cost implications associated with recommendations in section 1.9 of CG90.

Step 4: complex and severe depression
Previously, TA59 recommended ECT for people with severe depressive illness. However, the categorisation of the severity of depression has been updated in CG90, meaning that many people previously defined as having severe depression would now be included in the moderate depression category.

Therefore recommendation 1.10.4.2 in CG90 has been updated to allow practitioners to consider ECT for people with moderate depression that has not responded to multiple drug treatments and psychological treatment. However, ECT is not recommended for routine use in people with moderate depression and the GDG expect that the number of people who receive ECT will remain the same. Therefore there is not expected to be a cost impact associated with this recommendation.

Conclusion
It has not been possible to determine the national cost impact of the two NICE clinical guidelines (CG90 and CG91) on the treatment and management of depression. Therefore this costing statement discussed areas of possible costs and savings that should be considered locally.