Economics

1 of 2 quality improvement interventions for depression in managed care was more effective but more costly than usual care


QUESTION: In patients with depression, are either of 2 quality improvement (QI) interventions for improving the treatment of depression in managed care more cost effective than usual care?

Design
Cost effectiveness analysis from a societal perspective for a cluster randomised [allocation concealed†,†, unblinded,*]†*, controlled trial with 2 years of follow up.

Setting
46 primary care clinics in 6 community based managed care organisations (MCOs) in the USA.

Patients
1356 patients who were ≥18 years of age (mean age 44 y, 71% women‡), planned to use the primary care clinic over the next 12 months, and met the Composite International Diagnostic Interview criteria for depression. Follow up at 2 years was 85%.

Intervention
Matched clinics were allocated to 1 of 2 QI interventions or to usual care (ie, mailing of practice guidelines) (16 clinics, 443 patients). The QI interventions consisted of training for practice leaders and nurses, enhanced educational and assessment resources, and either nurses for medication follow up (QI-meds, 12 clinics, 424 patients) or access to trained psychotherapists (QI-treatment, 15 clinics, 489 patients).

Main cost and outcome measures
Outcomes were quality adjusted life years (QALYs), days with depression burden, and days of employment. Intervention costs (screening, intervention materials, and professional time) and healthcare costs (consultations and psychotropic medications) were assessed in 1998 US dollars. Indirect costs for patient time were included.

Main results
Intention to treat analyses were adjusted for baseline patient characteristics and practice randomisation blocks. Patients in the QI-treatment group had more QALYs (p=0.006), fewer days of depression burden (p=0.01), and more days of employment (p=0.03) than did those receiving usual care (table). QI-meds and usual care did not differ for any outcome (table). The groups did not differ for healthcare costs (including patient time) (table).

Conclusion
1 of 2 quality improvement interventions for depression in managed care was more effective but cost more than usual care.

*See glossary.
†Information provided by author.

2 quality improvement (QI) interventions v usual care for depression in primary care§

<table>
<thead>
<tr>
<th>Outcomes at 2 years</th>
<th>Usual care</th>
<th>Incremental effect of QI-meds (95% CI)</th>
<th>Incremental effect of QI-treatment (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality adjusted life years</td>
<td>1.7</td>
<td>0.01 (–0.00 to 0.03)</td>
<td>0.02 (0.01 to 0.04)</td>
</tr>
<tr>
<td>Days of depression burden</td>
<td>419.9</td>
<td>–25.0 (–63.1 to 13.2)</td>
<td>–46.7 (–83.1 to –10.3)</td>
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<tr>
<td>Days of employment</td>
<td>279.2</td>
<td>17.9 (–1.6 to 37.4)</td>
<td>29.5 (2.4 to 39.5)</td>
</tr>
<tr>
<td>Healthcare costs** (US$)</td>
<td>3835</td>
<td>419 (–467 to 1306)</td>
<td>485 (–293 to 1363)</td>
</tr>
</tbody>
</table>

QI-treatment and medication follow up by nurses; QI-meds – QI intervention and access to psychotherapists. ¶Comparison with usual care group is statistically significant. **Includes patient time.

COMMENTARY

The study by Schoenbaum et al joins many studies showing that standardised interventions improve depressed patients’ perceptions of wellbeing but are not cost effective. 1 2 The outcome measures in cost effectiveness studies of depression treatment are inherently subjective. Schoenbaum et al measured days of employment, modified QALYs, and depression burden as outcomes. The long study period and the clinical setting are other defining characteristics of this study.

Implicit in the study is that an academically rigorous QI programme can effectively improve the quality of depression care in an MCO setting; however, this improvement comes at a cost: the participating MCOs paid US $154 (CI –$305 to $1214) more over 2 years for the intervention group than for the usual care group. The positive ‘leak’ of the CI suggests that these interventions truly cost more than usual care. The range of cost per QALY was US $15 351 to $30 663 for QI-meds and US $94 783 to $18 953 for QI-treatment.

If the intervention cost per QALY can be kept under US $50 000, the cost for depression treatment is similar to that for high blood pressure. 3 As depression is the fourth leading cause of disease burden worldwide, ‘treatments proved to be effective and efficient can relieve suffering. But who is going to pay? Both patients and their employers can benefit from more stable employment status. Within MCOs, QI funding might be used.

The issue of financing needs further study. Furthermore, because concern exists that cost effectiveness findings are sensitive to the utility measure used, 5 research on the measure that reflects the value of mental health to the individual, employers, and society as a whole is needed.

Margretta Diener, MD, MPH
Christos Hatzigeorgiou, DO
Walter Reed Army Medical Center, Washington, DC, USA