THERAPEUTICS

Review: SSRIs are as effective as tricyclics and have fewer
side effects, but their cost-effectiveness has not been established

Hotopf M, Lewis G, Normand C. Are SSRIs a cost-effective alternative to

Objective

To compare the cost-effectiveness of selective serotonin reuptake inhibi-
tors (SSRIs) with tricyclic antidepressants in patients with depression.

Data sources

Studies were identified using the ref-
erece lists from 3 meta-analyses
done on this subject. Additional ar-
ticles were identified by searching
MEDLINE and Index Medicus, and
by hand searching International Clinical
Psychopharmacology and Acta Psy-
chiatra Scandinavica.

Study selection

Studies were selected if they were
randomised controlled trials, meta-
analyses, or cost-effectiveness stud-
ies comparing SSRIs with tricyclic antidepressants in patients with
depression.

Data extraction

Data were extracted on patient char-
acteristics, drug studied, dropout
rates, physical illness, suicide rates,
and safety and tolerance.

Main results

105 trials met the selection criteria.
None of the randomised controlled
trials included an economic analysis,
and there were methodologic prob-
lems with most studies that made di-
rect comparisons of efficacy difficult.
The previous meta-analyses suggest
no differences between SSRIs and
tricyclics in terms of efficacy, but
show that slightly fewer patients re-
ceiving SSRIs drop out because of
side effects. For example, 1 previous
meta-analysis found that the discon-
tinuation rate caused by side effects
for patients taking SSRIs was lower
than for those taking triclyclics (odds
ratio for discontinuing SSRIs 0.90,
CI 0.84 to 0.97); this finding implies
that for every 100 patients, 3 more
patients receiving tricyclics would
drop out early than would those re-
ceiving SSRIs. Several cost-effective-
ness studies have been published
using data reported previously in
randomised controlled trials. These
studies all claim to show that SSRIs
are more cost-effective than tricyc-
lics, but all of the studies had recur-
rent shortcomings. For instance, data
were collected from nonrandomised
samples of patients with depression,
studies included in the reviews were
selected in a nonrandom fashion,
and most studies made assumptions
about the cost of treatment failure
on the basis of cost-of-illness studies
or estimates provided by experts in
the field. These shortcomings led to
cost-effectiveness studies that were
based on crude modeling approaches
and resulted in overestimating the
difference in attrition rates and the
cost of treatment failure.

Conclusions

Previous meta-analyses suggest
that SSRIs are as effective as tri-
cyclic antidepressants, but slightly
fewer patients drop out because of
side effects when taking SSRIs. The
cost-effectiveness of SSRIs has not
been established.

Sources of funding: Lilly Industries and
Medical Research Council.

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Commentary

The initial choice of which antidepressant
drug class to use in treating patients who
are depressed has important effects on
clinical and economic outcomes. This
comprehensive review by Hotopf and col-
leagues suggests that there are few mean-
ingful clinical differences in choosing
between a tricyclic antidepressant or an
SSRI for the treatment of depression.
Concurrent with this review, an economic
analysis of SSRIs compared with tricyclic antidepressants was reported by Simon and colleagues (1). Their report did not
identify a difference in cost between the
2 classes of antidepressants. Future stud-
ies of this issue should have longer fol-
low-up periods and should also assess
other outcomes.

In any economic comparison, in addi-
tion to the direct cost of medication, other
factors that must be considered are the
cost and frequency of provider visits,
other costs of monitoring, and other long-
term comparisons. For example, there
may be factors, such as slow-to-emerge
weight gain and as yet unknown long-
term differences in patterns of efficacy,
that may offset the financial and health
care advantages of treatment with a par-
ticular antidepressant agent (2-4).
Clinicians use individual patient and
situational factors to help guide the se-
lection of an antidepressant, such as the
experience that the patient had with ei-
ther class of antidepressant, the side-ef-
flect proclivities of a medication, and the
patient's age (5). Generally speaking, the
clinician must also consider "statistical
correlations (data from the literature),
physical laws, and default rules" (6).

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References

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_Evid Based Med_ 1996 1: 201
doi: 10.1136/ebm.1996.1.201

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