Economic outcomes associated with the use of risperidone in a naturalistic group practice setting


Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

Health technology
Risperidone versus haloperidol in a naturalistic setting.

Type of intervention
Treatment.

Economic study type
Cost-effectiveness analysis.

Study population
Patients over the age of 18 years suffering from either schizophrenia, schizoaffective disorder, or major depression with psychotic features.

Setting
The practice setting was primary care. The economic analysis was carried out by Applied Health Outcomes, Inc, Oklahoma City, USA.

Dates to which data relate
Both prospective and retrospective effectiveness and resource data were obtained between June 1994 and November 1996. No prices were stated.

Source of effectiveness data
Effectiveness data around risperidone and haloperidol consuming subjects was derived from a single pilot project.

Link between effectiveness and cost data
Costing was undertaken retrospectively on the effectiveness study sample.

Study sample
No power calculations were reported. Patients were over the age of 18 years and suffering from either schizophrenia, schizoaffective disorder, or major depression with psychotic features and were monitored for at least 6 consecutive months prior to the start of the study (with obtainable medical records). Subjects must have initially scored 50 or below on the Global Assessment of Functioning (GAF) scale. Further, at some time during the final 3 months of the study time frame, patients must have registered a GAF score. No exclusions were reported. There were 28 subjects in the risperidone group (average age 50.0 years, 67.9% female) and 24 in the haloperidol group (average age 54.3 years, 58.3% female). Mean initial GAF scores were 41.4 (risperidone) and 38.3 (haloperidol).
Study design
This was a cohort study. A matched control group was used within a longitudinal design.

Analysis of effectiveness
The analysis of the clinical study (intention-to-treat or completers) was not stated. Primary health outcomes used were length of follow-up, monthly hospital visits, length of stay, monthly physician visits, monthly day hospital visits, day hospital length of stay and total daily dose. No confidence intervals were reported.

Effectiveness results
Primary outcome results were as follows:

- length of follow-up, risperidone 17.2 months versus haloperidol 16.0 months, (p=0.6085);
- monthly hospital visits, risperidone 0.023 versus haloperidol 0.084, (p=0.0040);
- length of stay, risperidone 19.8 days versus haloperidol 16.64 days, (p=0.5827);
- monthly physician visits, risperidone 0.441 versus haloperidol 0.244, (p=0.0005);
- monthly day hospital visits, risperidone 0.03 versus haloperidol 0.003;
- day hospital length of stay, risperidone 14.31 days versus haloperidol 42 days);

and total daily dose, risperidone 4.88 mg versus haloperidol 9.61mg.

Clinical conclusions
Patients treated with risperidone had significantly fewer hospitalisations and inpatient days than their haloperidol controls. However, patients in the risperidone cohort used more outpatient services.

Measure of benefits used in the economic analysis
Economic benefits were measured in terms of resource utilisation comparisons and resulting cost comparisons. The perspective used was that of the payer.

Direct costs
Discounting was not applied due to the short period of analysis. Direct costs included medication, inpatient, day hospital utilisation, and clinician costs (source: local charge rates/billing data). No price year was stated.

Statistical analysis of costs
Confidence intervals and P values were completed for estimated resource costs.

Indirect Costs
Not included.

Currency
US dollars ($).
Sensitivity analysis
Not stated.

Estimated benefits used in the economic analysis
Economic benefits were measured in terms of resource utilisation comparisons and resulting cost comparisons. These were based on the effectiveness results reported above.

Cost results
The adjusted mean monthly cost totals were $1,636.11 for risperidone and $1,759.45 for haloperidol.

Synthesis of costs and benefits
Not performed.

Authors' conclusions
The significant reductions in hospital costs in the risperidone cohort offset higher medication and physician costs. However, total monthly costs for each group were similar.

CRD COMMENTARY - Selection of comparators
The selection of haloperidol and risperidone as comparators within the study was justified and, as a reflection of current practice, was appropriate for the study question.

Validity of estimate of measure of benefit
Appropriate statistical analyses were carried out, although the within-subject variances cannot be assumed to be equal in the regression analysis as the number of observations per patient were not the same. The study sample was representative of the study population and patient groups appeared to be comparable at analysis, although only age, gender and initial GAF scores were shown. Inadequate health benefits were used in the economic analysis with costs replacing them. The study was of cost-consequences design.

Validity of estimate of costs
All categories of cost relevant to the perspective adopted were included in the analysis. Limitations of the cost analysis included the points that costs and quantities were not reported separately, charges were used to proxy costs, no statistical analysis of quantities was performed, and no price year was given. These factors limit the generalisability of the results.

Other issues
The authors made some reference to findings from other studies in comparison with their own results. The authors did not appear to have presented their results selectively. The authors' conclusions reflect the scope of the analysis. The authors reported that the sample sizes used within the analysis were another limitation on the conclusions drawn.

Implications of the study
Although the study conclusions reflect the growing findings around risperidone and haloperidol treatment, methodological issues within the study have produced limitations on the findings therein.

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