Costs and cost-effectiveness of the nursing programme 'Coping with itch' for patients with chronic pruritic skin disease

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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.

CRD summary
This study examined the cost and cost-effectiveness of the “coping with itch” programme for patients with chronic pruritic skin disease. The authors concluded that the programme was cost-effective. Overall, the study methodology was very good, with satisfactory presentation of the methods and results and the authors’ conclusions appear to be appropriate.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
This study examined the cost and cost-effectiveness of the “coping with itch” programme for patients with chronic pruritic skin disease.

Interventions
The usual dermatologist care plus nursing care according to the “coping with itch” programme was compared with usual dermatologist care alone. In the “coping with itch” programme, nurses provided individual sessions at the dermatology department, including patient education and cognitive behavioural interventions, such as awareness training and habit reversal, and relaxation exercises.

Location/setting
Netherlands/primary care.

Methods
Analytical approach:
This economic evaluation was based on a randomised controlled trial (RCT). The time horizon was consistent with the nine month follow-up period. The authors did not state the study perspective.

Effectiveness data:
The clinical estimates were derived from the RCT carried out at a dermatology outpatient department. Of the 120 patients involved in the study, 63 were randomised to the intervention group, and 57 to the control group. Both groups were comparable. The length of follow-up was nine months. The main clinical end point was the frequency of itching and scratching, this being recorded at baseline, and at the third and ninth months.

Monetary benefit and utility valuations:
Not relevant.

Measure of benefit:
The summary benefit measure was days with a low frequency of itching and scratching. The frequency of itching and scratching was defined to be low if it was less than or equal to four and high if it was greater than four times that the patient felt itchy or scratched themselves in a day.

Cost data:
The economic analysis included the cost of visits to a GP, dermatology outpatient department and other health care
professionals, days off work, hospitalisations, and medications. The data on resource utilisation were gathered during the RCT. The costs were estimated based on the guidelines for cost studies published by the Dutch College of Health Insurance. The lost days off work were valued using overall mean hourly productivity costs for men and women. The price year was not reported and the costs were expressed in Euros (EUR).

**Analysis of uncertainty:**

: Bootstrapping was performed to assess the probability of the intervention being cost-effective.

**Results**

Compared with the control group, the intervention group experienced a gain of six days with low frequency of itching and scratching (34.3 versus 28.4 days) at three months and 35 days at nine months (123.0 versus 87.6 days).

The mean cost for the intervention group was EUR 793.8 more than that for the control group (EUR 2,602.6 versus EUR 1,808.0) at three months and EUR 582.0 more (EUR 5,040.6 versus EUR 4,476.7) at nine months.

The incremental cost-effectiveness ratio was EUR 129.9 per low frequency day at three months and EUR 16.6 per day at nine months.

The bootstrapping analysis indicated that 70% of patients experienced benefit from the intervention and 14% of them had lower costs at three months. At nine months, 87% experienced benefit and 31% had lower costs.

**Authors' conclusions**

The authors concluded that the “coping with itch” programme was cost-effective.

**CRD commentary**

Interventions:

: The interventions were clearly reported and their selection was justified. The study was thorough in its coverage of the interventions in its setting.

Effectiveness/benefits:

The analysis was based on a RCT. The methods of randomisation, length of stay and loss to follow-up were all reported, suggesting that the internal validity of the study is likely to be reasonably good. However, power calculations were not performed to ensure that the size of the study sample was adequate. In fact, the authors acknowledged that the small sample size was a limitation to their study. Nevertheless, the groups were comparable.

Costs:

: The sources for the data on costs and resource quantities were provided. However, it is hard to assess whether all relevant categories of costs had been included as the authors did not state the study perspective. In addition, the price year was not given, which will limit the possibility of replicating the analysis in other settings and time periods.

Analysis and results:

: The results of the base-case analysis were presented clearly, and the graphical presentation of the results of the bootstrapping analysis was also clear. The synthesis of costs and benefits was appropriate. The authors acknowledged and discussed a few limitations to their study.

Concluding remarks:

: Overall, the study methodology was very good, with satisfactory presentation of the methods and results. The authors’ conclusions appear to be appropriate.

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