

METHODS: We compared baseline and 1-month post-intervention scores from the SF-36 from two previously reported study groups: headache patients at a headache clinic (individualized therapy group) and headache sufferers attending headache seminars at their workplaces (education group). Research using the SF-36 determined that the domains of role—physical, bodily pain, role—emotional, and social functioning are most impacted by chronic headache. For ethical reasons, the individualized treatment group was not treated with education alone, therefore their scores are shown for comparison only. No statistical analysis was performed.

RESULTS: In this study 461 consecutive new patients seeking headache care at the Cleveland Clinic Headache Center were compared with 368 headache sufferers attending headache seminars at their workplaces. Both groups had similar ages, gender mix, and duration of headache. The individualized therapy group had significantly lower SF-36 scores at baseline.

CONCLUSIONS: The patient education component of headache treatment has a measurable and clinically significant impact on health-related quality of life as measured by the SF-36. Patient education appears to have as significant a role as comprehensive treatment in the key headache domain of role—emotional. In other mental health domains, education alone appears to have a major influence on improvement. In physical domains such as bodily pain and role—physical, the impact of pharmacologic therapy appears to have a greater impact.

Change from baseline SF-36 score

Domain	Education	Individualized therapy
Physical functioning	0.3	2.5
Role—Physical	6.1	11.4
Bodily pain	3.9	9.1
General health	1.8	1.8
Vitality	4.4	2.8
Social functioning	5.5	9.2
Role—Emotional	7.5	7.5
Mental health	1.9	3.2

PCP3

THE ECONOMIC COST OF ACETAMINOPHEN-RELATED LIVER TOXICITY TO THE CALIFORNIA MEDICAID PROGRAM

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Awareness of acetaminophen-related liver toxicity has been growing. However, its frequency and cost have not been well documented on a population basis.

OBJECTIVE: To estimate the incidence and costs of hepatotoxicity related to acetaminophen use for the California Medicaid program (Medi-Cal).

METHODS: This study was based on administrative claims data for a 10% random sample of Medi-Cal recipients in 1996. Individuals with one or more inpatient or outpatient claims in 1996 with ICD-9-CM diagnoses of

acetaminophen-related liver toxicity were selected for inclusion in this analysis. An episode of treatment was defined as the period of time between the dates of hospital admission and discharge for which at least one qualifying diagnosis was listed, or as a day of outpatient treatment on which a patient had a qualifying diagnosis. All services occurring during an episode were assumed to be related to acetaminophen liver toxicity.

RESULTS: A total of 244 recipients in our 10% sample had one or more treatment episodes of acetaminophen-related liver toxicity during 1996 (approximately 41 persons per 100,000 eligibles), and over half of these occurred in persons under 21 years of age. Approximately 20% of patients required admission to a hospital for treatment. The average cost per patient with liver toxicity was estimated to be approximately \$1070.

CONCLUSIONS: Based on our estimates of incidence and per-person expenditures, annual spending by the Medi-Cal program for acetaminophen-related hepatotoxicity is projected to be approximately \$2.6 million in 1996. The actual incidence of this problem is likely to be greater than that reported here, since this study only includes poisonings that led to a medical encounter rather than all possible occurrences.

PCP4

LINGUISTIC VALIDATION OF THE PATIENT PERCEPTION OF MIGRAINE QUESTIONNAIRE (PPMQ) IN 16 LANGUAGES

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Measuring quality of life (QoL) has become a vital part of assessing effects of migraine treatment in many international studies. However, only recently have measures assessing patients' perceptions of and satisfaction with migraine treatment been available and none with linguistically validated translations. Prior to use in an international trial, the PPMQ (developed in US English) underwent linguistic validation in 16 languages.

METHODS: A QOL specialist coordinated the translation process of the PPMQ in each target country using the following methodology: 1) two forward translations by professional, native speaking translators of the target language who were fluent in English; 2) comparison and reconciliation of the translations by a QOL specialist and translators; 3) backward translation by a native English speaker; 4) comparison of the source and backward version; 5) review of the translation by a clinician in each country; 6) international harmonization.

RESULTS: Linguistic, conceptual, and cultural issues emerged when translating idiomatic phrases and response scales. "How consistently the medication prevented pain from coming back" had to be expressed through "reliably" or "constantly." Cultures less used to completing questionnaires had difficulty understanding instructions inviting respondents to express satisfaction with medica-