ECONOMIC AND OUTCOMES ISSUES ON DIABETES

DISEASE MANAGEMENT PATTERNS OF TYPE 2 DIABETIC PATIENTS IN AN ACADEMIC FAMILY MEDICINE CENTER

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OBJECTIVE: Analyze diabetic management patterns in an academic family medicine center (FMC).
METHOD: Type 2 diabetics (N = 116) visiting FMC during January 1997 were included. Medical records from January–December 1997 were reviewed retrospectively. Data included self-monitoring blood glucose (SMBG), diet, exercise, and drug usage patterns.
RESULTS: The sample had a mean age of 61 years with 15% <45 years, 44% between 45–65 years, and 41% >65, with 53% African American, 45% white, and 69% female. Physicians reported SMBG in 76% of the patients at least once yearly with 28 patients not reporting. Dietary management was documented in 65% of the patients and exercise planning in 35%. Younger patients were more likely to receive diet recommendations (89% age <45, 65% age 45–64, 55% age >65), and exercise recommendations (55% age <45, 27% age 45–64, 23% age >65). Physicians prescribed 108 patients an antidiabetic drug with 8 patients on diet-exercise alone. Seventy-two percent were prescribed an oral hypoglycemic drug and 29% with insulin. Physicians treated 92 patients with a single drug, 23 patients used two drugs, and 1 patient received three drugs. Glyburide (23%), glipizide (36%), and NPH (19%) were the most frequent single agents prescribed; NPH with regular insulin was the most frequent combination. Sixty percent of patients were prescribed an angiotensin converting enzyme inhibitor (ACE-I). Fifty-six of 91 hypertensive patients were treated with an ACE-I. Eleven patients were prescribed a beta blocker (BB) drug. Of the four patients with history of MI, two were using a BB.
CONCLUSION: Disease management patterns varied. Future management strategies should address SMBG, diet, exercise, and potentially beneficial drug therapy, unless contraindicated.

PSYCHOMETRIC PROPERTIES OF THE PATIENT BENEFIT QUESTIONNAIRE (PBQ) IN A COHORT OF DIABETIC PERIPHERAL NEUROPATHY (DPN) PATIENTS

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OBJECTIVE: Assess the psychometric properties of a newly developed questionnaire (the PBQ) in a group of patients diagnosed with DPN.

METHODS: An instrument was developed to assess the effect of DPN on the patient's perception of symptoms, activities of daily living (ADL), and health related quality of life (QOL). Expert panel review and nine patient focus groups indicated that the instrument had face/content validity. In this study 222 patients being screened for inclusion into a clinical trial completed the instrument.
RESULTS: The rate of missing values was 3% to 5%, with Pain Severity Scale for Hands and Arms having the highest rate. Item-discriminant validity tests indicated that 98% of the items were scaling successes. The possible scaling failures are associated with two scales (Numbness and Tingling for feet and legs, and Numbness/Tingling for hands and arms). Cronbach's alpha ranged from 0.67 to 0.94. Scale correlations and Cronbach's alpha in parentheses for the partial symptom section are provided below.

Scale	Sen F/L	Sen H/A	N/T F&L	N/T H&A	Fq pain F/L	Fq pain H/A	Sev pain F/L	Sev pain H/A	6-mo Sx F/L
Sen F/L	(0.85)								
Sen H/A	0.69	(0.88)							
N/T F&L	0.43	0.29	(0.67)						
N/T H&A	0.27	0.49	0.48	(0.74)					
Fq pain F/L	0.35	0.27	0.63	0.26	(0.74)				
Fq pain H/A	0.33	0.46	0.45	0.70	0.49	(0.84)			
Sev pain F/L	0.56	0.45	0.53	0.38	0.54	0.443	(0.84)		
Sev pain H/A	0.47	0.62	0.23	0.53	0.20	0.53	0.64	(0.87)	
6-mo Sx F/L	0.76	0.62	0.57	0.38	0.46	0.42	0.73	0.53	(0.93)

Interscale correlations followed a priori patterns. Psychometric characteristics of the ADL and QOL sections were as predicted.
CONCLUSIONS: The newly developed PBQ in this cohort of DPN patients exhibits the psychometric properties of reliability, validity, and responsiveness.

A COST-OF-TREATMENT MODEL FOR TYPE 2 DIABETES

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Cost-effective management of diabetes is extremely important for MCOs; however, little is known regarding the short-term economic impact of oral antidiabetic agents.
OBJECTIVE: The purpose of the study was to compare, from an MCO perspective, the 3-year costs of three first-line monotherapy strategies in newly diagnosed type 2 diabetes patients: glipizide GITS, metformin, or acarbose.
METHODS: A literature-based Markov model using 10,000 Monte Carlo simulations (assuming triangular distributions for the variables) was developed to compare