

Elements of care quality in a cohort of urban adult asthmatics

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Abstract

Rationale: Most studies of asthma care quality come from a clinically derived sample of from a homogenous care system. We describe the care features of a large sample of adult asthmatics recruited from the community.

Methods: Baseline adult sample of the Chicago Initiative to Raise Asthma Health Equity cohort, 18-40 years of age with persistent asthma. All subjects underwent a structured interview in the community. The quality score was the sum of 8 elements of asthma care.

Results: 353 adults were recruited. 159 (45%) had private insurance, 145 (41%) Medicaid, 45 (13%) no insurance. 284 (80%) had a personal doctor. 297 (84%) had seen a physician in the past 6 months; they had more symptoms and lower quality of life scores than those who had not. Of those who saw a doctor, the average number of elements of asthma care provided was 4.4 (SD 2.0). The most frequent quality element was review of mechanical skills (73%), the least frequent a written action plan (26%). 199 (67%) recalled a discussion of the role of controller medicines, but only 53% had an inhaled corticosteroid. There was not a meaningful difference in quality of asthma care in those who identified a personal doctor and those who did not, nor between subjects with different types of insurance. Correlations were seen between asthma severity (quality of life, urgent visits) and quality scores. This correlation may confound an unexpected trend toward higher quality scores in minority subjects (p<.08).

Conclusions: Quality of asthma care likely requires many elements of good care, though it is not clear which elements are essential for good patient outcomes. It is likely that being sicker with asthma leads to more frequent interactions with care, with a gradual increase in the skills and care quality elements a person receives.

Background and Objectives

Measuring quality of care for chronic illnesses is a complex modern challenge.

There is increasing expectation of care systems to provide measures perceived to be useful in chronic disease states, including asthma. In this study we describe elements of care received by a cohort of young, urban adults with chronic asthma who are not part of a single care system.

Methods

Setting and Design:

Cross-sectional baseline survey, face-to-face interviews
Population proportionate sampling of Chicago elementary schools to identify children and adult household members with asthma

Eligibility:

Age: 18-40 years, English language, agree to periodic interviews over 2 years
Physician-diagnosed asthma requiring medication use >8 weeks in the past 12 months

Methods-continued

Predictor variables:

Demographics-age, sex, self-described ethnicity
Insurance status-self-pay, public aid, private insurance
Identifiable personal physician
Visit to physician in past 6 months
Health care utilization in past 12 months, inc. ER and urgent clinic visits, hospitalization

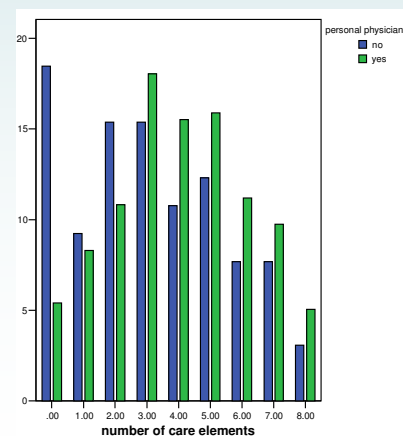
Care quality/process elements (8):

- patient has a peak flow meter
- patient has a spacer
- patient currently has inhaled corticosteroids
- In past 6 months, patient has
 - been taught mechanical skills of using inhaled medicines
 - been taught signs of worsening asthma control (symptoms or peak flow)
 - been taught about trigger avoidance
 - been taught about need for/role of controller medicines
 - Been given/had reviewed a written action plan

Results

Sample Characteristics-353 adults

	N	(%)
Female	276	(78)
Age: median in years (range)	32	(18-41)
Race/Eth:		
African-American	184	(52)
Hispanic	99	(28)
Other	54	(12)
Insurance status:		
Self pay	45	(13)
Medicaid	145	(41)
Private	159	(45)
Education:		
< High School	60	(17)
≥High School graduate	292	(83)
Household Annual Income:		
<\$30K	176	(50)
≥\$30K	163	(46)
Severity:		
Hospitalized with asthma, past yr	46	(13)
ER/urgent care visit, past yr	212	(60)



Results

Care measures

measure	no personal physician (N=69) %	with personal physician (N=284) %	p
Inhaled corticosteroids	33	55	.001
Peak flow meter	36	46	.10
Spacer	33	32	.50
Education in past 6 months			
-inhaler skills	48	65	.006
-signs of asthma activity	51	58	.16
-trigger avoidance	54	58	.31
-role of controllers	39	61	.001
-written action plan	13	24	.03

Higher number of care elements was associated with
 -urgent asthma visits and hospitalization in past 12 months
 -female sex
 -having a personal physician
 -ethnicity (African-American 4.1>Hispanic 3.7>Other 3.3, p=.078)
 The number of care elements received was **not** associated with
 -better insurance
 -employment status
 -income
 -having other family members in household with asthma
 -current asthma control (NAEPP classification)

Conclusions

In this community-derived cohort of diverse young adult asthmatics, care processes/services provided varied with frequency and intensity of medical visits, and were not associated with better health status per se. Sicker patient were more likely to have a personal physician and to receive a higher number of care

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