The Development of an "Episode of Care" Model for Assessing Access to Care for Type II Diabetics in a Managed Care Organization.

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Research Objective: Critics of managed-care argue that HMOs create an incentive, through capitation, to reduce the provision of needed services. A by-product of this process may be that physicians have little time to provide continuous surveillance of their patients with chronic illnesses, and instead, focus on episodes of acute care. Additionally, there is an on-going dispute as to whether the responsibility lies with the patient to self-manage their chronic disease, or whether it is the physician's responsibility to actively manage the patient. To enhance an organization's ability to assess the care process, it would be helpful to track a patient's navigation through the healthcare system during a period of illness. Evaluation of the patient's recent-past utilization may indicate whether non-compliance with diabetes self-management or lack of physician surveillance led to an unplanned emergency department (ED) visit or hospitalization. Similarly, analyzing the 30-day post-ED data would assess how the patient traversed the system after this unintended event occurred. This paper examines the type and extent of health services accessed (and conversely, not accessed) by diabetics 30 days prior to and 30 days after an emergency department visit, with an analysis of demographic characteristics.

Study Design: A retrospective cross-sectional design was used with claims data provided by a large HMO in California. Our "episode of care" model for diabetes used an emergency department (ED) visit, occurring in calendar year 1999, as the triggering event. All patient encounters for the 30 days prior to and after the ED visit were then analyzed. These encounters included: hospitalizations, outpatient services, office visits, and the filling of pharmacy prescriptions for diabetic medications. Type II diabetes was chosen for this study because as a chronic illness, an ED visit would indicate an acute severity level that should not have been reached if the patient had their blood sugar in control. Demographic variables included; gender, age, and ethnicity.

Population Studied: 2710 type II diabetics who presented to the ED during calendar year 1999 with a diabetic-related diagnosis. All patients were members of one large HMO in California.

Principal Findings: 827 of the 2710 patients (30.5%) presenting to the ED with a diabetes related diagnosis had no health service related encounters within 30 days prior to the that ED visit. Similarly, 847 of the 2710 patients

(31.3%) had no encounters within 30 days after the ED visit. A total of 764 patients (28.2%) had neither a pre- or post-ED health service related encounter. None of the demographic variables studied appeared to explain the variation in receiving a pre- or post ED visit encounter. Pre- and post-ED visit utilization will be presented graphically.

Conclusions: The results of this study indicate that a large proportion of type II diabetics did not access healthcare services when needed, possibly resulting in the ED visit. Conversely, there were many patients who did have a health service encounter, yet they still ended up in the ED within 30 days. Additionally, a high number of patients did not receive any follow-up after the ED visit. Most concerning is that nearly a third of diabetic patients had no contact with a healthcare provider within 30 days before or after the ED visit. There appeared to be no significant relationship between age, gender or ethnicity, and whether pre- or post-ED health services were accessed.

Implications for Policy, Delivery or Practice: This easily constructed "episode of care" model allows an organization to identify areas within its network that needs improvement in coordinating care. For example, contracted Emergency Departments should be required by the health plan to contact the patient's primary care physician (PCP) upon seeing the patient. This simple practice of including the PCP in the feedback loop may initiate the necessary follow-up care, whereas a PCP may otherwise never know of this visit. Additionally, evaluation of the services rendered within 30 days prior to the ED visit may elucidate whether the treatment provided was appropriate for the patient at the time. Finally, this episode of care model allows for the creation of patient utilization profiles to assist physicians in tracking their patient's utilization or non-utilization of important services on an on-going basis.

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