

A Review of the Emergency Medicine Literature on Access to Care

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ABSTRACT

The authors examine the development of the emergency medicine literature with regard to access to care and utilisation of emergency departments (ED) over the previous 20 years. They talk about how managed care and cost containment have changed how people think about using emergency rooms. The targeting of nonemergency ED care as a potential source

of savings began in the 1980s as a result of the classification of "nonurgent ED visits" as "inappropriate" and high ED charges.

The literature discloses numerous initiatives made in the 1990s to recognise "inappropriate" ED visits and to create plans to divert these visits from the ED. By the late 1990s, evidence of the dangers of withholding emergency care and more in-depth evaluations of actual costs had caused measures to restrict access to ED care to be re-examined and a fresh emphasis placed on the crucial function of the ED as a safety net provider. De facto rejections of emergency care as a result of lengthy ED wait times and other negative effects of ED overcrowding have started to predominate the emergency medicine health services literature in recent years. Key words: safety net, emergency department use, access to healthcare, and health services research.

Keywords: Disenfranchised populations, vulnerable, emergency care, substantial.

INTRODUCTION

In two ways, the emergency department (ED) is a special practise environment. First, regardless of the type of the presenting ailment, it may provide a comprehensive spectrum of medical care to acutely unwell or injured patients. The Emergency Department's unique accessibility is its second distinguishing feature; it offers care to everyone who requests it, regardless of their ability to pay, twenty-four hours a day, seven days a week. Federal law in addition to the professional and ethical norms of emergency physicians (EPs) provide access to emergency care. [1] These two distinguishing qualities may have an impact on a patient's choice to visit the ED, either one or both.

Every EP is aware that our healthcare system has failed to give everyone timely and efficient access to healthcare. Many people's inability to receive healthcare is a result of their lack of insurance. [2]

Many others face obstacles to receiving care because of insufficient insurance coverage, insufficient education, cultural or linguistic hurdles, logistical issues, emotional issues, environmental issues, institutional issues, or the nature of their medical issues. [2–5] The emergency department (ED) could be the sole readily available source of medical care for groups who are at risk and disenfranchised. Regardless of their poverty, race, ethnicity,

insurance status, or special requirements, we provide care to everyone who seeks it out. [6] For those who are turned away by other providers, we are the ultimate safety net.

The usage of the ED is dependent on two factors due to the special role that the ED plays in the healthcare system:

- 1) The nature, acuity, and severity of the presenting complaint; and
- 2) The patient's access to and experience with other healthcare settings before the ED visit.

The population's health status and information about alternative healthcare services offered in the community can both be learned through analysing and interpreting patterns of ED use. Many access-focused researchers in the field of health services have studied ED use. Patients without insurance, those on Medicaid, and those without primary care doctors, people from racial and ethnic minorities, and other so-called "vulnerable populations" visit the ED disproportionately. [7–14]

We examine the impact of managed care and cost control on prevailing ideas of ED utilisation as we evaluate the emergency medicine (EM) literature on access over the last 20 years. In light of mounting demands on all safety net providers caused by the rising number of uninsured, the shifting managed care market, and declining financing and payment for uncompensated care, we explore the role of the ED as a safety net provider and review the research on ED crowding. [2]

ED VISITS FOR NONEMERGENCY CARE

Longstanding worries about the health care industry's escalating prices started to fuel new cost-controlling techniques in the later half of the 1970s and the 1980s. The earlier systems, which mostly focused on regulating costs, were replaced by ones that now place more emphasis on managing how often people use healthcare services. Managed care started to gain popularity as a way to plan healthcare that reduced the needless utilisation of expensive services. There has been a lot of discussion about using the emergency department (ED) for issues that are not medical emergencies as a result of the emergency department's relatively high costs (reported to be up to five times that of the average charge for a clinic or doctor's office in the same community. [10,15].

It is undoubtedly true that some ED visits are for issues that are not urgent nor urgently needed, and which could be adequately treated elsewhere. However, it has been difficult to categorise and quantify these "nonurgent emergency visits." A notable lack of specificity and a general misunderstanding of the differences between retrospective and prospective assessments of the sharpness of the presenting problem characterise the literature in this field. In the EM and public health literature, published articles reporting ED visits based on urgency started to appear as early as 1980. [16–18] Over the following two decades, other authors published estimates of the percentage of ED visits for non-urgent issues; some for specific demographics, some for individual institutions, each using their own definition of "non-urgent." [11-13, 17, 19-26]

Analysts looked at the scant information on ED visits found in national databases from surveys like the National Health Interview Survey (NHIS) and the National Medical Care Utilization and Expenditures Survey. Several government papers on this subject were also published. [9,10,15,27] The National Hospital Ambulatory Medical Care Survey (NHAMCS), which provides the first comprehensive national data on emergency visits, started collecting data in 1992. [28–32] Unfortunately, there are no set standards or consistent classification procedures; the definition of a "nonurgent emergency visit" varies from source to source.

Government officials, policymakers, insurers, and managed care organisations have come to the conclusion that "the use of the emergency department for non-emergency care is frequent and costly" despite the fact that the term "nonurgent ED visits" has not yet been uniformly defined and that methods to validly and reliably quantify it have not yet been developed. [33] Concern over the high cost of emergency care led to the common assumption that shifting these "inappropriate ED visits" to doctor's offices or other primary care settings would save a lot of money in the early 1990s. According to retrospective assessments of appropriateness based on ED diagnoses, third-party payers started to refuse payment for emergency services, and some managed care organisations started to demand preauthorization for emergency visits. [36,37]

Many authors expressed concern that it might not be suitable to refer to "nonurgent ED visits" as "inappropriate ED visits." [11,38,39] The patient's perspective on "appropriateness" may differ greatly from the provider's; the EP's perspective differs from the insurer's; and

views among doctors vary depending on their training and experience. [40–42] Forgoing an ED visit for a non-urgent issue can result in a later occurrence of a life-threatening issue that demands an urgent ED visit in the midst of existing financial, temporal, and institutional barriers to proper primary care. [43,44] A non-urgent ED visit may be significantly more suitable than forgoing care altogether from the perspective of a person with little finances, for whom it may be the only source of healthcare accessible. [4,39]

Despite the voices of warning, cost-conscious gatekeepers started to create administrative and monetary hurdles to emergency care. The ED became a target for cost reduction because it was seen to be "the most expensive site of all," as President Bill Clinton stated in his televised address to the joint session of Congress in September 1993. Researchers tried to create criteria to decide who should receive emergency care and who shouldn't, while policymakers tried to come up with ways to delay or refuse emergency care.

DENYING CARE IN THE ED

To determine which patients are most in need of care, almost every ED in the nation employs a triage approach. Numerous academics started to consider triage as a potential method of limiting non-emergency ED care. The usefulness of several criteria for selecting which patients in the emergency department (ED) should be seen first was examined. A survey of the EM literature from the past ten years indicates numerous attempts to create a trustworthy way to predict who may need emergency treatment in the future. Specific clinical criteria, computer-driven algorithms, individual expert assessments, and screening examinations created by a diverse physician panel were only a few of the techniques explored by researchers. [45–54]

The effectiveness of computerised algorithm-directed triage to divert patients away from the ED and into the acute care clinic at Brooke Army Medical Center was assessed by Berman et al. in 1989 using a retrospective audit of 98,086 files. [45] Of the 58,282 patients who were triaged away, 733 patients (1.2%) were returned to the ED for treatment.

Based on these findings, it was determined that computerised algorithm-directed triage, employing individuals with minimal training, was a successful method for differentiating "walk-in" patients from emergency patients. The system was not recommended by the author as a reliable way to identify patients who could legitimately be denied medical care.

Derlet and Nishio from the University of California, Davis (UC Davis), documented their experiences with a policy that forbade providing care to patients who arrived at the emergency department (ED) after undergoing a thorough medical screening examination by specially trained triage nurses in 1990. [47] 19% (4,186) of the 22,390 patients who presented to the ambulatory triage area between July and December 1988 were determined to have nonemergencies using a protocol that was reviewed and approved by the institution's legal counsel. These patients were given a list of clinics (on- and off-site) or were directed to their personal doctors. Following up involved tracking down patients who visited the authors' emergency department again within 48 hours and surveying the clinics that the patients were sent to regarding "adverse effects" (either through letters or phone calls).

The conclusion reached by Derlet and Nishio that patients might be safely sent away from the ED caused a significant uproar among EM scholars. Patients were not followed individually, and specific patient health outcomes, rehospitalization rates, morbidity/mortality rates, or rates of patient subsequent presentation to another ED after referral to clinics, were not measured, which was criticised by critics. Nevertheless, UC Davis persisted in its practise of barring "nonemergencies" from receiving care in the emergency department (ED); in 1992, Derlet et al. released data for three years, revealing a subsequent hospitalisation rate of 0.02% among those patients. [55]

In separate experiments, Birnbaum et al. and Lowe et al. failed to confirm the results of Derlet et al. [46,48] 496 patients who presented to the emergency department at San Francisco General Hospital in July 1990 and who met the inclusion criteria used in the Derlet study were found in a historical cohort study by Lowe et al.; 106 of these patients would have been turned away from care according to the Derlet triage guidelines. [48] According to both of the definitions of "suitable," one were based on expert opinion and one that was based on precise clinical criteria, 33% (35) of the visits were assessed to be "appropriate" visits, and 3.8% (four) of them required hospitalisation.

In a prospective, observational, cohort study, Birnbaum et al. identified a convenience sample of 534 people who reported to the emergency department at Bronx Municipal Hospital Center in New York from July to mid-October 1992 using the Derlet published criteria for denial of care. [46] No patient was lost to follow-up; the ED disposition was the research outcome. 1.1% (n = 6, 95% CI = 0.4% to 2.4%) of the 534 patients who satisfied the Derlet criteria for

refusing care were hospitalised; this was more than 50 times the 0.02% hospitalisation rate reported by Derlet and colleagues.

Both of these studies, conducted by Lowe et al. and Birnbaum et al., questioned the propriety of rejecting ED patient care based on the Derlet triage standards. These authors emphasise that denying care to patients who are presenting to an ED can be contested on ethical, financial, and legal grounds in addition to the lack of sensitivity of such guidelines for forecasting significant medical outcomes. Both advised institutions against refusing care to ED patients if they were considering implementing triage rules.

The Derlet model was discredited by these investigations, but work on creating a method to accurately determine if a patient needs emergency treatment went on. In an established ED triage system at an urban hospital in Baton Rouge, Louisiana, Waldrop et al. made an effort to ascertain the sensitivity and specificity for predicting admission of a triage acuity of "nonemergency." 50 8.25% of their cohort was lost to follow-up, which had an impact on their results. In order to compare the triage decisions made by doctors, nurses, and computers for 5,106 consecutive patients who presented to a university teaching hospital in June and July 1992, Brillman et al. adopted a randomised partial crossover design. 54 None of the three triage techniques was particularly effective at identifying people who needed to be admitted. The authors came to the conclusion that triage judgments "should not be utilised to determine the timeliness of admission to emergency care until triage procedures are standardised and validated."

In order to identify patients who "could have been taken care of within 24 hours by a primary care physician without harm to the patient," O'Brien et al. used chart reviews of 892 ED visits, a predetermined list of nonurgent complaints, internist triage assessments, and EP triage assessments in 1997. This study found only moderate rates of agreement ($k = 0.47$). [42] Wuerz et al. conducted a study in 1998 with 87 participants, emergency medical technicians (EMTs), and ED nurses, who rated scripted patient scenarios for severity, urgency, likely disposition, and medical resource utilisation. The study's authors questioned the validity of current ED triage practise due to poor inter- and intrarater agreement and inconsistencies. [53]

They used a cohort of 1,187 consecutive adult walk-in ED patients at the Los Angeles Veterans Affairs Medical Center with chosen complaints to prospectively assess the criteria's

utility to prevent hospitalisation within seven days and death within 30 days. Washington et al. published a set of clinical criteria for deferred care from a 17-member multidisciplinary physician panel as recently as 2000. 51 There were no hospitalizations or deaths during the study period, however 236 patients (19%) met the screening requirements for postponed care. Small sample size, peculiar criteria, and few outcome measures were some of the study's drawbacks.

No solid definition of what a "acceptable ED visit" is has appeared in the literature over the previous 20 years. Without the help of such a definition, Lowe and Bindman caution, "limiting patients' access to the emergency department could result in hurdles to required care and harm to patients' health." [56] Many people questioned whether patients could be safely refused care in the ED due to the lack of widely accepted standards for determining the need for emergency care, which was fuelled by growing anxiety about increasingly strict Emergency Medical Treatment and Labor Act (EMTALA) requirements. [1] Even if it could be done properly, several authors have disputed the claim that cutting back on "nonurgent ED visits" would actually result in cost savings. [57,58]

THE COST OF ED CARE

Because ED fees are so much higher than clinic or doctor office fees, there is a belief that excessive use of EDs contributes significantly to high medical care costs. [35] Williams published a thorough analysis of ED costs in relation to physician office costs in 1996 using cost data for hospital and physician services from six community hospitals in Michigan from the years 1991 to 1993. This analysis showed that an accurate comparison can only be made by looking at the actual costs of services in the two different settings, not just comparing the charges. [34] The ED has highly high fixed costs (those costs not affected by volume) for medical staff, ancillary services, supplies, overhead, and administration because to its 24-hour, seven-day operation, and very low marginal costs (the incremental cost for one additional visit). Williams came to the conclusion that "the potential savings from a diversion of nonurgent visits to private physicians' offices may be substantially less than is usually imagined" based on these facts.

Furthermore, it has been suggested that moving "nonurgent ED visits" from EDs to other practise settings would necessitate that those settings be similarly outfitted and staffed, and

immediately accessible at all times; creating 24-hour-per-day walk-in capacity in primary care centres would actually increase total costs to the system.

CROWDING IN THE ED

The number of hospital EDs declined while ED visits climbed consistently throughout the 1990s. [60,61] The rise in emergency room visits has been ascribed to several factors, including the ageing of our population, diminishing access to primary care throughout this time, the rising number of uninsured and underinsured people, aggressive gatekeeping by managed care primary care physicians. More than 44 million Americans currently lack health insurance, or 18% of the country's population under age. Despite the growing burden of uncompensated care, direct and indirect support for uncompensated care has dropped as a result of demand to lower health care expenditures.

The EM health services literature has started to become dominated in recent years by publications that discuss the extent and severity of ED crowding. Crowded EDs have been referred to as a "international symptom of health care system failure" by Graff et al. since 1999. 69 After putting an end to the practise of refusing ED care mentioned in prior publications, Derlet and Richards wrote an essay titled "Overcrowding in the Nation's Emergency Departments: Complex Causes and Disturbing Effects" in 2000. [59]

CONCLUSIONS

Significant changes have occurred in the last 20 years, according to a review of the EM literature on ED usage and access to care. The usage of expensive emergency departments (EDs) for non-emergency care came under attention in the 1980s as a result of pressure to cut costs by reducing utilisation. Non-emergency department visits were viewed as "inappropriate" and targeted as a possible area for cost savings. This prompted numerous initiatives in the 1990s to categorise "inappropriate" or "nonurgent" visits and to create techniques to divert these "inappropriate visits" away from the ED.

Initiatives to refuse emergency care were rethought after evidence of the dangers of doing so and more in-depth evaluations of the true cost of giving nonemergency care in the ED. Despite ongoing efforts to lower health care costs, the number of people without insurance has increased at a never-before-seen rate, which has highlighted the crucial role that EDs play as safety net providers. In recent years, it has been demonstrated that ED overcrowding limits

access to necessary care. The dangers of overpopulation in our country's emergency departments are the subject of recent research.

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