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## Urgent Care and the Emergency Department: Providing the Right Ambulatory Care Settings

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### Abstract

Emergency services are asked to treat a significant volume of patients that require nonemergent care. Alternative strategies have been proposed for managing this patient population, ranging from free-standing urgent care centers to the integration of urgent care patients with other patients treated in the ED. This article explores issues and physical options surrounding the provision of patient care of urgent care patients in the emergency services.

THE HOSPITAL-BASED emergency service is a barometer of health care issues in our country. During a period of increasing cost pressures, emergency departments (EDs) are asked to service two distinct, and frequently conflicting, populations:

\* emergent care for trauma and other life-threatening patients requiring immediate attention, including specialized medical and support skills along with a range of sophisticated diagnostic tools, and

\* access for basic diagnostic and treatment services for patients who see the emergency service as the most appropriate point for care or believe that they have no other alternative.

Despite the perceived high cost of care in an emergency service, the volume of patients treated nationally has continued to grow over the past decade (Figure 1). Analysis of the patient population reveals that almost 40% of this care is nonemergent (US General Accounting Office, 1993).

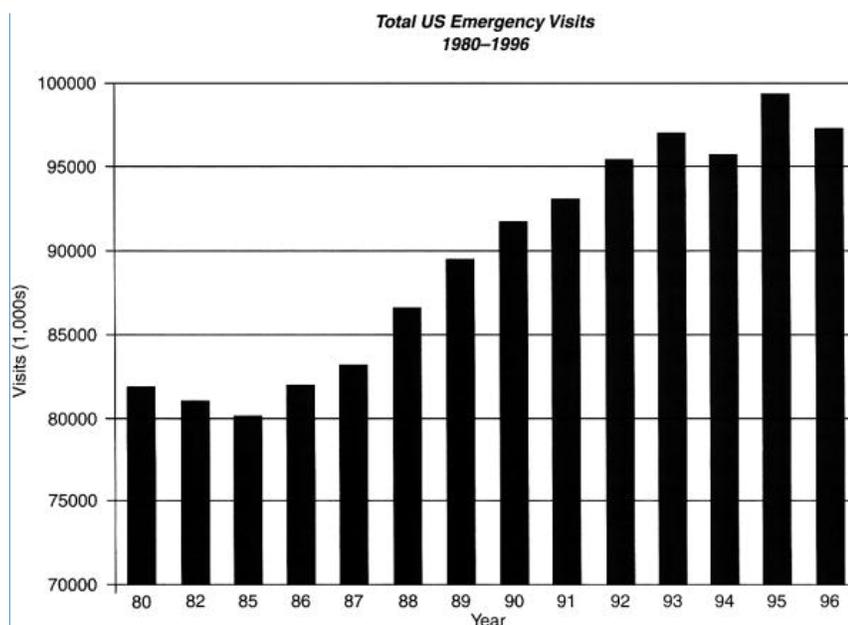


Figure 1. Total community ED visits. Source: Data from American Hospital Association, Chicago, Illinois.

A current debate in the planning of emergency and ambulatory care facilities is the identification of "best practices" in providing care for the nonemergent patient population. The resolution of this debate requires the systematic analysis of each situation from the perspective of the organization's strategic goals, resources, and health care environment. Decisions on the best method for delivering patient care must also be made in the context of evolving national and local pressures to provide cost-effective care.

Three basic alternatives are available:

1. provide care for all patients in the emergency service,
2. triage patients into an adjacent fast-track/urgent care service that may share some staff and facilities, or
3. establish a distinct, physically separate fast-track/urgent care center.

This article outlines methods that can assist in resolving the following questions.

## WHO ARE YOU?

Fundamental to the analysis of any health care service is a clear understanding of the existing system. At a minimum, this should include an analysis of the following characteristics:

- \* patient mix by type of patient (emergent, urgent, nonurgent),
- \* financial mix of patients,
- \* cost of patient care,
- \* recent
- \* trends in total visits,
- \* pattern of variation in demand,
- \* patient throughput times,
- \* diagnostic services used, and
- \* staffing patterns.

Few emergency services maintain all this information, particularly the patient throughput times. Four of these measures (patient mix, cost of patient care, patterns of demand, and patient throughput) are particularly important in the analysis of urgent care service.

## Patient mix

Estimating the patients who are candidates for urgent care versus emergent care should be based on the initial triage diagnosis rather than the discharge diagnosis. A study conducted at University of California-Davis in 1993 found that only 15% of the patients presenting at an ED could be triaged as nonemergent patients, whereas the total patients diagnosed in this category at discharge was 40% ([Deriet et al, 1995](#); [Simon, 1998](#)).

## Cost of patient care

Estimating the direct costs of patient care in the emergency service is crucial as capitated managed care seeks the best service at the lowest costs. The true costs for care can be masked by heavy hospital overhead charges. [Dr. Robert M. Williams \(1996\)](#) found that the cost for nonurgent patient care was \$62 and the marginal cost was \$24, competitive with private practice charges.

## Patterns of demand

Most emergency services experience consistent seasonal patterns of demand, typically peaking during the Summer and mid-Winter. Understanding the arrival patterns during peak and nonpeak periods for emergent and nonemergent patients establishes a base volume for analysis of staffing and facilities.

## Patient throughput

The total time in the emergency service and the time from arrival to initial patient contact are very important indicators of the ability to provide care for nonemergent patients. We live in a world driven by "fast-food" expectations of quick turnaround and minimum queues. A study of patient expectations at Harris Methodist Medical Center in Fort Worth, Texas found that quick and frequent interaction with the physician was more important to patients than the total length of stay of the visits ([Cambridge Health Resources, 1998](#)).

## WHAT IS YOUR ENVIRONMENT?

From a systems analysis perspective, the external environment includes variables in which a system does not have control. For emergency services, this includes everything from the demographic trends of the services area to the strategic position of competing providers.

Among the most uncertain elements in today's environment are policies regarding payment for the treatment of nonurgent patients in the ED. Many managed care plans and some state-mandated plans for indigent populations require precertification of treatment. The success of these programs in discouraging inappropriate use of the emergency service appears to be dependent on how effective patient programs are in educating patients regarding the alternative to the emergency service.

Competing providers include hospitals, free-standing urgent care centers, managed care organizations, and large physician practice plans. The "make or buy" decisions of growing managed care plans may present both an opportunity and threat to urgent care visits to the emergency service. Hospital-based urgent care can offer the clear advantage of "one-stop" shopping for treatment. Crucial to the decision of using hospitals for urgent care is the combination of service and cost. The opportunity to serve this population must be weighed against the ability to get maximum utilization of staff and facilities without jeopardizing the ability to provide care for true emergencies.

Forecasting in these uncertain conditions has led many organizations to develop alternative scenarios regarding the future and to test operational and facility decisions based on each scenario. Each scenario should reflect potential major directions in health care, such as

- \* continued growth in capitated managed care. This could potentially have dual impacts including pressure to limit the utilization of emergency services and pressure to limit hospital inpatient utilization through use of observation units in the emergency service;

- \* expansion of indigent care coverage through state-mandated Medicare managed care program, potentially shifting workload to community clinics or other sites; and

- \* market pressure for specialized services including chest pain observation, rapid care programs, and pediatric services.

The implications of each alternative should be estimated, including impact on patient visits, patient mix, performance expectations, and financial implications.

Ideally, a plan for the emergency and urgent patient care will work for all identified scenarios. If different solutions are best for alternative scenarios, then the hospital will be faced with difficult decisions regarding risks and opportunities associated with each plan.

## ESTABLISHING PERFORMANCE GOALS

The successful delivery of care in the emergency service depends on definition of clear performance goals, including target times for access to care, protocols for treatment, and appropriate patient education. Performance goals should include services that support the emergency service, particularly radiology, clinical laboratory, and registration. These three components can have crucial impacts on patient turnaround times and patient satisfaction.

## DEVELOPMENT OF PROCESS OPTIONS

A final step prior to the development of facility plans is the identification of options for the management of patient flow through the emergency department (Figure 2). This typically starts with charting existing patterns and brainstorming alternative delivery models.

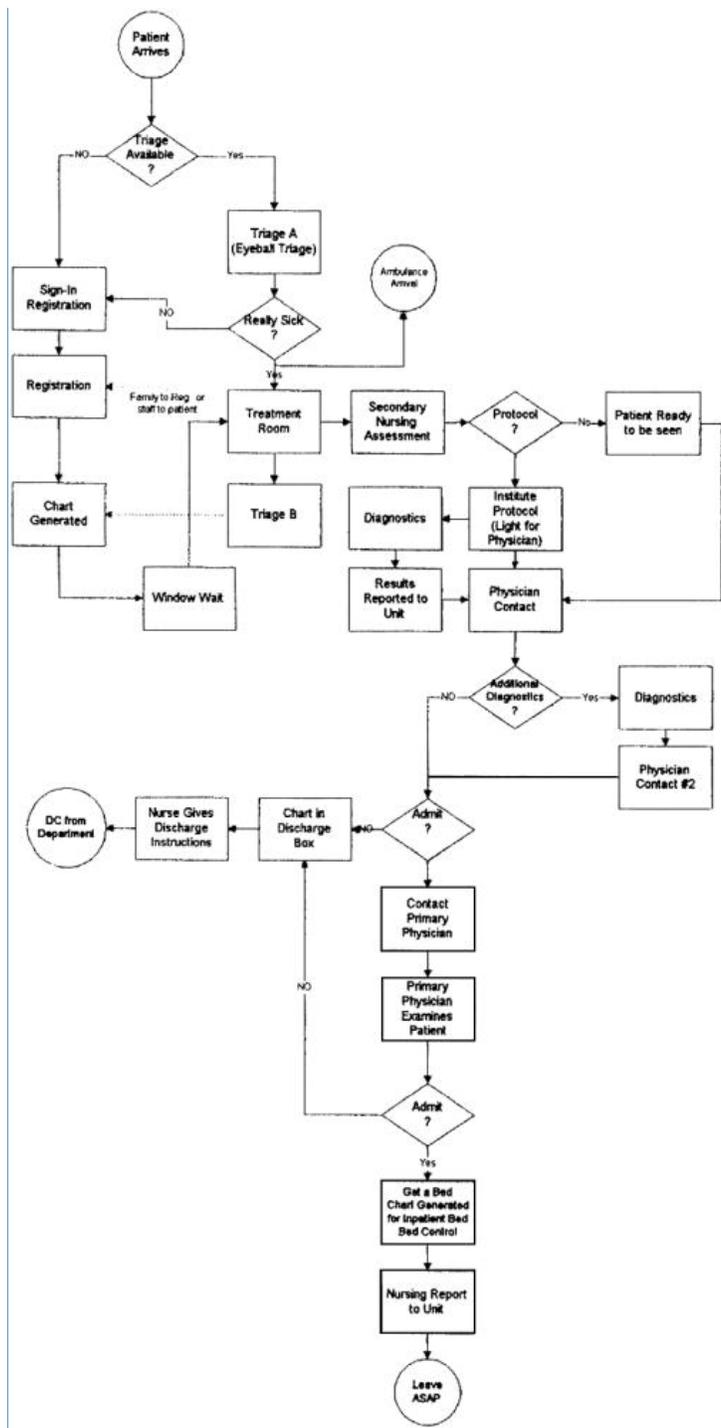


Figure 2. Patient process diagram.

Key issues/alternatives that should be addressed at this stage of planning include

\* *Information systems*-computerized patient records can have a significant impact on patient flow and physical organization of a facility. New software packages offer the possible realization of this long-anticipated capability.

\* *Registration/triage*-evaluation of methods for managing the "front-end" tasks in care should be undertaken at this phase of planning. In addition to the traditional registration and triage areas in emergency services, options, including bedside triage and combining triage and registration functions, should be assessed to determine the potential impact of patient throughput, satisfaction, and facility requirements.

\* *In-service diagnostics*-urgent care and emergency patients heavily use radiology, ultrasound, and clinical laboratory. The most important single area is imaging. If a satellite unit is provided in the ED, there may be conflicting pressures to locate the equipment near the trauma room and urgent care areas. Trauma needs quick access, whereas urgent care produces a high volume of patients.

**SEPARATE VERSUS INTEGRATED URGENT CARE**

This key question should be evaluated based on the ability to meet the predefined performance goals for patient care, the operational costs associated with each option, the capital costs, and the timetable for implementation.

Calculations of the costs associated with a free-standing fast-track/urgent care strategy are straightforward. Evaluation of strategies that integrate treatment of patients in the emergency or adjacent/shared facilities are significantly more complex. Figures 3 and 4 illustrate some of the physical options for organizing a service. Each diagram illustrates the basic concept of separating walk-in patients from ambulance arrivals.

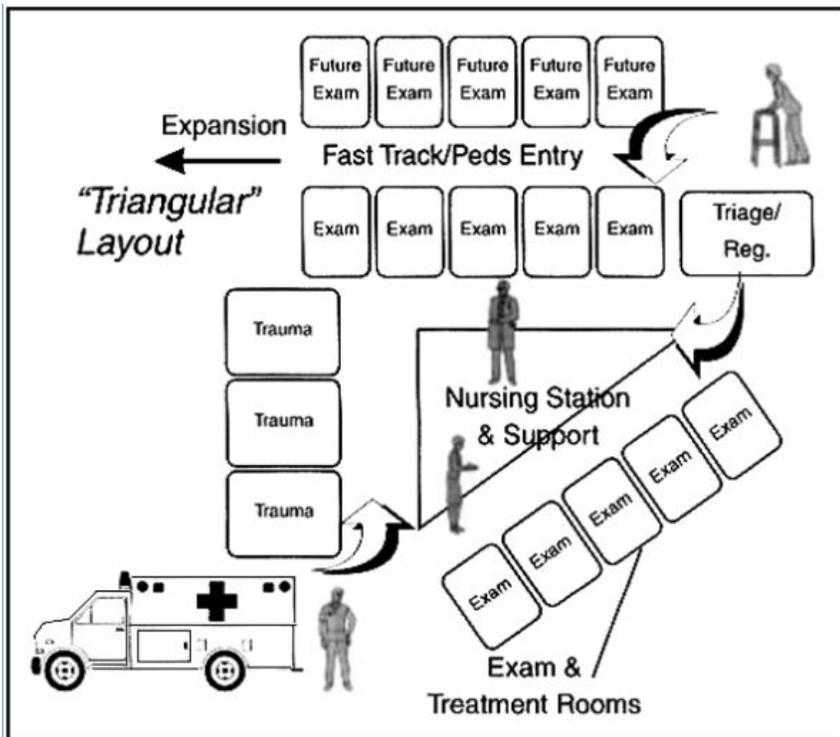


Figure 3. Dual entry fast track layout.

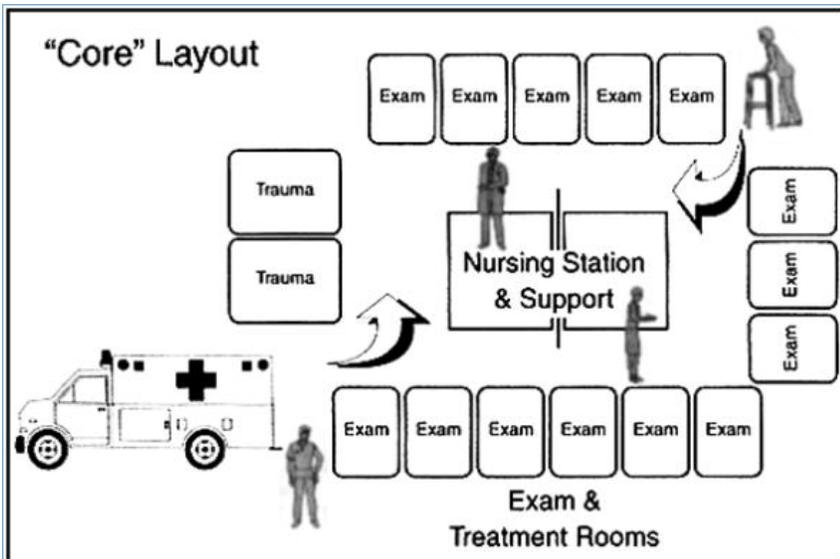


Figure 4. Traditional "fishbowl" layout with decentralized triage.

Option A (Figure 3) focuses on urgent care in a series of treatment rooms near the triage/registration area. Providing a “dual-entry” room that can be accessed from a separate corridor offers the potential separation of fast-track patients from emergency care. Expansion of service could be accomplished by conversion of adjacent areas into an enlarged fast-track service.

Option B (Figure 4) illustrates a traditional “fishbowl” organization with examination rooms being used interchangeably by fast-track and emergent patients. This option also illustrates the concept of bedside registration and triage, limiting the initial contact to a quick assessment (“eyeball triage”).

Option C (Figure 5) illustrates a more radical organizational concept that recognizes that most of the patients in the ED are nonemergent. Standard examination rooms are organized into “pods,” allowing more examination rooms within the same total gross square footage but limiting direct visibility. A pod could be designated for fast-track patients during selected periods during the day.

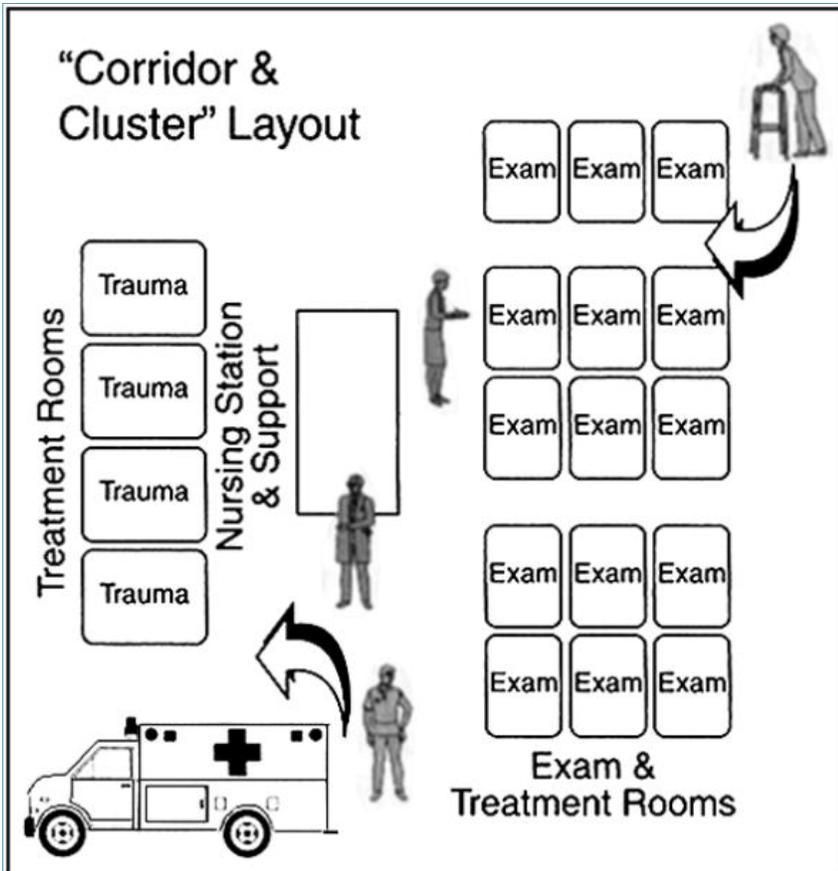


Figure 5. Pod layout.

Although the sharing of facilities and staff should be more cost-effective for the same volume of patients when compared with free-standing facilities, the ability to provide timely service that meets patients' goals and the hospital's performance expectations are difficult to predict.

Use of computer simulation modeling provides an effective tool to estimate performance and utilization of resources. Modeling packages, such as MedModel®, allow the development of models incorporating patient arrival patterns, process protocols, staffing, and facilities. Arrivals and contact times can be described based on statistical distributions, allowing the simulation models to reflect the nondeterministic behavior of the real service. This tool permits experimentation of alternative physical organization, staffing patterns, and organizational process.

Case study application by the author of simulation modeling has supported the critical importance of medical staffing patterns and patient protocols in the effective management of nonemergent patients. The high priority of emergency and trauma patients can pull medical staff away from nonemergent patients, resulting in long waiting times. Preestablished protocols that can allow the triaging nurse to initiate specific diagnostic testing prior to physician contact can reduce but typically not eliminate some of the patient length of stay.

The alternative of using nurse practitioners to run a fast-track component in the emergency has had success in many sites (Buchanan & Powers, 1997). Physician supervision and staffing costs are issues that need to be addressed in this approach. If the volume is sufficient, medical staffing of the unit would provide the opportunity for appropriate triage and treatment for all patients entering the ED. This could be particularly important in high managed care environments.

Free-standing urgent care centers were a popular concept in the late 1970s and early 1980s that met with limited financial success in many parts of the country. Unless emergency services can provide effective care for nonurgent patients, they will be at risk of losing significant patient volume and raising the cost for the remaining high-acuity emergency care.

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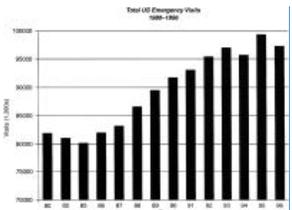


Figure 1

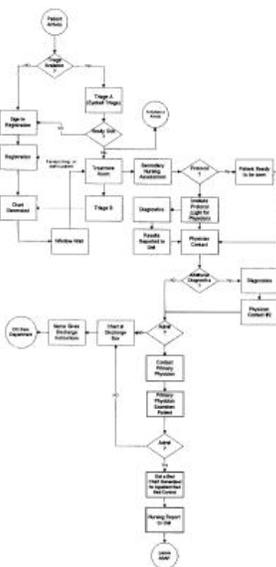


Figure 2

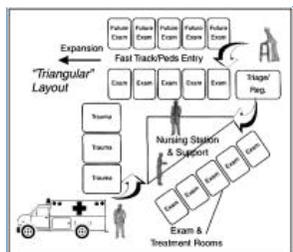


Figure 3

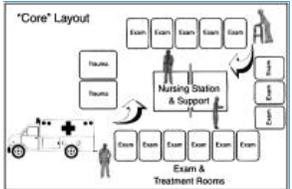


Figure 4

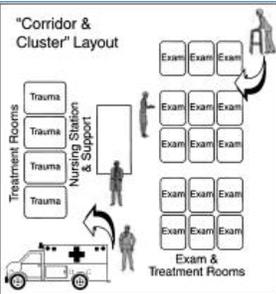


Figure 5

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