

PATIENT MANAGEMENT STRATEGIES

Observation units can improve outcomes, financial performance

By Maria Finarelli

As government and private insurers have increased pressure on health care organizations to control the escalating costs of care by reducing unnecessary hospitalizations and as the proportion of health care services delivered in outpatient settings continues to grow, observation patients have emerged as a key category of consumer to bridge the gap between inpatients and outpatients.

Clustering observation patients (see Figure 1, below, for a description of patient types) into one or more units within the hospital has been shown to relieve capacity constraints, improve clinical outcomes, increase patient satisfaction, and strengthen financial performance. While observation units can provide organization-wide benefits, the most significant outcomes are often evident in the emergency department (ED) and inpatient nursing units.

Benefits in the emergency department

Emergency department observation patients present a key opportunity for achieving better clinical outcomes while reducing costs. The severity of a patient's condition, and whether a hospital admission is warranted, can usually be determined within 12 to 15 hours.

The opportunity for continued assessment enables physicians to avoid inappropriate discharges or admissions since patients with more serious conditions will often develop additional symptoms during the observation period. Various studies have shown that 60% to 80% of observation patients can be safely sent home following observation and the necessary care can be delivered in a lower cost setting.

In many emergency departments, observation patients are currently intermingled with the urgent and non-urgent patient populations. However, as emergency department capacity is expanded, hospitals are often establishing dedicated observation units within or adja-

cent to the ED. These units have several names, but the most common are clinical decision units, extended evaluation units, and rapid diagnostic units.

The results of a survey conducted by the American College of Emergency Physicians (ACEP) in early 2001 indicated that 25% of urban hospitals and 19% of rural hospitals had observation units. With the reimbursement changes that went into effect in April 2002, these numbers are expected to increase. Other experts estimate that the number of hospitals with emergency department observation units is between 45% and 50%.

Some hospitals have established a more focused chest pain unit in the emergency department instead of a general observation unit. Patients complaining of chest pain often represent the largest proportion of patients seen in emergency department observation units.

Figure 1: Types of observation patients

The majority of observation patients fall into one of three groups:

- **23-Hour observation patients:** Medical and post-surgical patients whose condition is not serious enough to satisfy Medicare or Medicaid admission criteria following testing, cancer treatment or outpatient surgery.
- **Pre/post-procedure patients:** Patients scheduled for certain outpatient procedures, including cardiac catheterization, imaging special procedures, and endoscopies.
- **Emergency department patients:** Patients who will benefit from the diagnostic evaluation of symptoms such as chest pain and abdominal pain beyond the typical emergency department length of stay or those who require short-term treatment for asthma, dehydration, or allergic reactions.

While many chest pain patients have a low to moderate risk of suffering a heart attack, the traditional emergency department fails to diagnose patients with severe myocardial infarction 5% of the time. With standardized protocols and clinical guidelines, most misdiagnoses, as well as unnecessary admissions, can be avoided.

The development of an emergency department observation unit can improve inpatient bed availability, a key benefit for hospitals facing capacity constraints. One suburban teaching hospital with a protocol-driven 14-bed emergency department observation unit compared the length of stay for patients treated in this unit with that of inpatients admitted under DRGs that were comparable to the observed condition. The study revealed that one emergency department observation bed resulted in 2.35 to 3.15 inpatient beds being available for other patients.

Benefits in inpatient units

In hospitals without a dedicated observation unit, 23-hour observation patients frequently occupy beds on inpatient nursing units that would otherwise be available for patients awaiting admission. According to one estimate by the Advisory Board, as many as one in 10 medical-surgical beds are occupied by an observation patient. In a hospital facing a severe bed crunch, the presence of observation patients significantly aggravates the situation, especially during mid-day hours.

In addition, despite efforts to house 23-hour patients in a single unit, it is not uncommon for them to be scattered throughout a hospital's medical-surgical units. Under these circumstances, it is more difficult to manage care so that the patient can be discharged within 23 hours.

One hospital's challenge

A sizeable observation patient population exacerbates existing inpatient and emergency department capacity constraints at one 350-bed regional referral center in the south central United States. In 2001, this hospital had 23,000 discharges and 55,000 emergency department visits, and also treated 9,500 observation patients outside of the emergency department. Pre- and post-procedure patients and endoscopy patients accounted for about 70% of the total observation patient population.

In 2001 more than 85% of the medical and post-surgical observation patients were placed in a single 24-bed inpatient unit, with the remainder scattered across four other med-surg units. However, to accommodate increasing admissions due to market share gains, the observation

unit was converted to inpatient use in early 2002. As a result, 23-hour observation patients are now assigned to any available bed on a med-surg unit. The pre- and post-procedure unit, which is already at capacity, has placed a cap on the number of daily procedures.

Forecasting demand and bed capacity

Health care organizations that are struggling with managing observation patients can benefit from a demand forecasting and bed capacity analysis. The first step in projecting future observation patient volumes is to examine historical trend data for observation days from two different perspectives.

The first is the number of observation patients by patient type, including at minimum, 23-hour patients, emergency department observation patients, and post-procedure patients. The second set of data to review is the number of observation patients by location of care, such as the emergency department, a dedicated unit outside the emergency department, scattered beds across the nursing units, and a post-procedure unit.

The next step is to calculate two ratios. One is the ratio of emergency department observation patients to total emergency department patients and the other is the ratio of non-emergency observation patients (excluding pre- and post-procedure patients) to total medical-surgical patient days. Over time these ratios will be affected by the development of new clinical care guidelines and care management techniques as well as reimbursement policy changes.

Forecasting future observation patient demand is a three-step process.

- First, forecast future emergency department visits, inpatient med-surg patient days, and same-day procedures based on population growth and aging, utilization rates, and market share increases. Changes in inpatient length of stay and new patient management strategies should also be considered.
- Second, evaluate the impact of factors such as new clinical care guidelines and care management techniques as well as reimbursement policy changes on the key ratios.
- Finally, apply the future ratios to the forecasted demand for inpatient med-surg patient days or emergency department visits to determine the expected number of observation patient days in the future.

The required observation bed capacity depends upon whether the goal is to care for observation patients in a single unit or in multiple smaller units that focus on one or more sub-groups of the total population. Target occu-

pancy rates, average length of stay, and observation patients per bed per day are key factors for determining the number of observation beds needed. For example, in the ED, a target occupancy rate of 75% is likely to accommodate census during peak periods while a target occupancy rate of 60% is more appropriate for a unit focused on 23-hour patients since the length of stay is likely to be longer.

Case study: Regional referral center

At the regional referral center described previously, emergency department observation patients historically accounted for just over 6% of total visits and nearly 10% of non-urgent/fast track visits. Moderate population growth, increasing emergency department utilization, and market share growth were key drivers of a projected 64% increase in emergency department observation patients over five years. By 2006, the ratios were projected to be 8% of total visits and just over 12% of non-urgent/fast track visits.

About 40% of observation patients at the medical center are 23-hour observation patients. In 2001, this patient population accounted for 3.6% of med-surg patient days. While the ratio of observation days to total med-surg days was projected to remain constant, the number of 23-hour observation patients is expected to increase by 45% to 50% due to population growth, utilization increases and market share gains. In addition, the number of cardiac, imaging, and endoscopy patients who recover in post-procedure beds is expected to increase nearly 50% over the next five years.

At the time, the medical center had no clinical decision unit in the emergency department, no dedicated observation beds, and 29 pre/post-procedure beds. The demand analysis projected a need by 2006 for 27 observation beds on nursing units (assuming 60% occupancy), a 10-bed clinical decision unit in the emergency department (assuming 75% occupancy) and 44 pre/post-procedure beds.

The medical center is currently in the midst of a major construction project, which includes expansion of the emergency department and space for a dedicated observation unit, to meet the projected demand for health care services in its service area. Absent this expansion, the medical center would have continued to experience dramatic capacity and throughput problems and likely faced constraints on future growth.

Reimbursement

The Centers for Medicare & Medicaid Services (CMS) cre-

ated a new observation services ambulatory payment classification (APC) effective April 2002. The new code reimburses hospitals for observation services provided in the emergency department to patients with chest pain, asthma, and congestive heart failure. CMS also established very specific criteria for reimbursement under this APC:

- Emergency department visits or clinic visits must be billed in conjunction with the observation service.
- Observation care is billed hourly for a minimum of eight hours and a maximum of 48 hours, although only the first 24 hours are reimbursable. The clock starts when a nurse acts on the physician's orders for observation care and ends at the time documented in the physician's discharge order.
- The patient must be under the care of a physician and that care must be documented through admission, discharge, and progress notes that are timed, written, and signed by the physician.
- The medical record must include documentation by the physician that risk stratification criteria were used to determine that observation care was beneficial.
- Specific diagnostic tests are performed during the observation period to determine the appropriate action (e.g., admission or discharge). For chest pain these tests are at least two sets of cardiac enzymes and two EKGs. Medicare still will not reimburse for observation services provided in the treatment of several conditions including dehydration, abdominal pain, atrial fibrillation, and seizures. In the future, CMS will consider adding these and other conditions to the list of reimbursable services if medical research is submitted that supports the benefits of observation services and the condition meets other CMS criteria. Complicating matters even further is the fact that the CMS definition for observation services is different than the ones used by private insurers and managed care companies.

ACEP has identified five keys to a successful observation unit:

- Clearly defined mission criteria
- Well-planned policies and procedures
- Clear chain of command
- Proper staffing, location and equipment
- Carefully developed programs for quality assurance and utilization review

The admission criteria for every observation unit will not be identical. However, the ACEP recommended that four principals should guide the development of the criteria.

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1. The period of observation should have a focused goal (e.g., further evaluation of patients at risk of a heart attack).
 2. The intensity of care required should be consistent with the staffing levels of the observation unit.
 3. The patient's illness should have limited severity so that the patient is likely to be discharged following observation.
 4. The clinical condition should be appropriate for observation.
- Once a patient has been admitted to an observation unit, several factors will have an impact on the efficiency and effectiveness of the care received in the unit. Two factors that are particularly important are the use of clinical guidelines or clinical pathways to guide care decisions

and regular monitoring by both physicians and nurses to assess progress and revise the course of treatment as appropriate. Both actions increase the likelihood that an admission or discharge decision can be made within the target observation period.

As the observation patient population continues to grow, many hospitals are formalizing their approach to caring for these patients by establishing dedicated units and developing clinical care guidelines. Patients and hospitals alike can benefit from focused care delivered in the more cost-effective observation unit setting. ■

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