Centralizing outpatient scheduling presents acute care hospitals with a new revenue improvement opportunity: market share growth. However, these gains are not an automatic outcome of centralized scheduling. Two implementation aspects are critical: correctly developing the schedule and managing the incoming call volume.

Centralized scheduling has produced a fundamental change in how hospitals can manage capacity, patient access, and competitive positioning in the outpatient market. By understanding the basics of the two critical aspects of implementation, hospitals can achieve significant gains in market share.

Uncovering Opportunities for Improvement
Revenue cycle improvement efforts typically begin with patient registration, not patient scheduling—but patient scheduling represents a missed opportunity for revenue cycle improvement. The patient/hospital relationship should begin with scheduling the appointment conveniently and appropriately. Then the hospital can make sure the patient, upon arrival, can be processed quickly and that care is delivered on time.

For years, many hospitals’ schedules have been built around both the availability and work preferences of technical staff, not the patients’ preferences. Decentralized scheduling, in which each
department brings patients to the hospital when it is convenient for hospital staff, often produces hospital lobbies overcrowded with angry patients who are bottlenecked in the registration process, then delayed in getting to their appointments and possibly even prevented from receiving care or service because of cancellations—the worst possible scenario for patients and their families. In these situations, administrators avoid walking through the lobby for fear of confrontation.

It’s time for hospital administrators and patient care managers to broaden their way of thinking regarding where the revenue cycle begins and how management can have an impact on patient volume while improving patient access and service.

Administrators and technical staff can work together to change the hospital’s existing patient access culture. The first step is to communicate that the mission of the hospital is to accommodate patients’ demand for care—convenient, high-quality care. Enhancing patient access involves:

> Making sure phones are answered when patients and referring sources call
> Training schedulers to understand the necessity of filling all open appointment slots by matching patients’ needs properly
> Creating slots for high-demand (preferred) times
> Managing wait times to take advantage of opportunities for improving patient and physician satisfaction

Managers who see the demand firsthand often are not trained to sell to administration the business opportunity of improved patient access. Capital constraints and budget limitations create a culture of control rather than a culture of investment and growth. After ensuring current capacity is utilized, managers should be empowered to seize the opportunity and make the case for extending schedules, adding resources in equipment and staff, and seeking new patients and referral sources.

Developing an Effective Schedule

Developing an accurate schedule that will make a hospital competitive in the outpatient market requires considerable thought, study, and testing. Simply automating the current schedule will not make a hospital more attractive to the market. The development of an accurate schedule may be an ongoing endeavor as the hospital learns more about its patient mix and demand patterns.

The following seven steps will help hospitals establish a functional and high-yielding schedule that provides more capacity at no additional cost.

**Plan for all users in the schedule.** Unless all patients (inpatients, emergency, and outpatients) are planned for in the schedule, the potential for friction between the scheduling and service departments exists. As volume increases, appointment wait times expand, and those who work in scheduling are pressured to schedule outpatients within the maximum wait time goals. Schedulers may view service departments as being underutilized if all the work being performed is not visible. Meanwhile, service departments may wonder how they can accommodate all users within their budgeted hours if a complete schedule is not developed. Additionally, administrators will have difficulty determining whether the capacity they pay for is intended to be used.

**Prioritize the patient types.** Priorities are used to allocate capacity within the schedule. These priorities become especially important when user demand patterns overlap in the schedule. For example, imagine that from 11 a.m. to noon, four patients can be serviced by a department. Historically, schedulers receive two emergency...
The graph indicates the required hourly staffing for inpatient transporters to execute the inpatient-only demand pattern.

**Document user demand patterns.** Demand occurs when the service is requested to be performed. Be sure demand is identified, not current use rates/patterns, which may not be the same. Schedulers also can influence demand patterns via their scheduling technique—for example, by offering certain time slots they think patients prefer rather than working with patients to fill all available slots. The time-of-day and day-of-week demand patterns should be quantified for each scheduler. There are multiple electronic sources in today’s hospital systems to perform this task.

**Establish valid scheduling factors.** The actual time required to complete the service prior to starting another patient is the scheduling factor. No allowances should be provided for indirect activities or processes. If there are reasons a service area cannot run at maximum efficiency, those reasons need to be identified and removed.

**Develop a capacity plan and design a schedule.** The demand pattern, priorities, and scheduling factors are combined to form a schedule template of service slots by time of day/day of week. Before finalizing the schedule, the support activities and/or resources need to be included (modeled, if necessary) to ensure the schedule can be executed on time. Support activities might include items ranging from registration to patient transport, physician availability to film/results processing, and the availability of other co-scheduled departments or service areas.

**CAT Scan Scheduling by Patient Type**

<table>
<thead>
<tr>
<th>Appt.</th>
<th>Patient Type Slot</th>
<th>Appt.</th>
<th>Patient Type Slot</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 a.m.</td>
<td>IN/ED</td>
<td>10 a.m.</td>
<td>Outpatient</td>
</tr>
<tr>
<td>15</td>
<td>IN/ED</td>
<td>15</td>
<td>IN/ED</td>
</tr>
<tr>
<td>30</td>
<td>Outpatient</td>
<td>30</td>
<td>Outpatient</td>
</tr>
<tr>
<td>45</td>
<td>Outpatient</td>
<td>45</td>
<td>IN/ED</td>
</tr>
<tr>
<td>8 a.m.</td>
<td>Outpatient</td>
<td>11 a.m.</td>
<td>Outpatient</td>
</tr>
<tr>
<td>15</td>
<td>Outpatient</td>
<td>15</td>
<td>IN/ED</td>
</tr>
<tr>
<td>30</td>
<td>Outpatient</td>
<td>30</td>
<td>Outpatient</td>
</tr>
<tr>
<td>45</td>
<td>IN/ED</td>
<td>45</td>
<td>IN/ED</td>
</tr>
<tr>
<td>9 a.m.</td>
<td>Outpatient</td>
<td>Noon</td>
<td>Outpatient</td>
</tr>
<tr>
<td>15</td>
<td>IN/ED</td>
<td>15</td>
<td>IN/ED</td>
</tr>
<tr>
<td>30</td>
<td>Outpatient - Same Day</td>
<td>30</td>
<td>Outpatient - Same Day</td>
</tr>
<tr>
<td>45</td>
<td>Outpatient</td>
<td>45</td>
<td>IN/ED</td>
</tr>
</tbody>
</table>

Inpatient (IN) and emergency department (ED) slots are allocated based upon historical request patterns and the time required for obtaining the patient. Outpatient slots are then added. Same-day service slot timing is planned.

An acute care hospital-based service might determine priorities in the following sequence: ED, inpatient, then outpatient. In this situation, ED capacity is allocated prior to inpatient capacity, which is allocated prior to outpatient capacity. Other priority situations also may exist, such as a particular medical condition or referring source.

The graph indicates the required hourly staffing for inpatient transporters to execute the inpatient-only demand pattern.
Capacity for providing same-day or next-day service is extremely important in today’s outpatient market in order to remain competitive with freestanding competition. The number and timing of such slots needs to be studied and tested.

Establish process rules. Process rules are the procedures used to ensure the schedule is fully used and can be filled with minimum effort on the part of the staff and callers. Some of the more common rules would establish specific responsibilities for the scheduling and service departments.

Scheduling is responsible for:
> Having the patient arrive on time and properly prepared, clinically and financially
> Filling all slots with the appropriate patient/service type
> Consulting the service department as appointment wait times approach the service threshold

The service department is responsible for:
> Starting procedures on time
> Adjusting the schedule or capacity to achieve service levels
> Converting unfilled inpatient/emergency slots to same-day outpatient slots
> Obtaining department head approval prior to closing slots

Measure, follow up, and manage. The key to sustained growth in market share, especially in a competitive market, is management of the schedule. Review key performance indicators weekly and make operational changes to positively influence those indicators. Key indicators in schedule management include capacity utilization, on-time starts, slot utilization rates, wait time to next appointment by slot, and no show/cancellation reason and recovery rates. Problem categories need to be developed to run parallel to these categories for easy classification of issues. In an acute care hospital setting, all patient types need to be included.

Managing Call Volume

If schedule development gives hospitals the capacity to offer services to the marketplace, managing the call volume fills the schedule. Managing incoming call volume in a scheduling department is fundamental to enhancing customer service and building hospital business.

The following three fundamentals must be mastered to maximize the number of calls answered and patients scheduled.

Acknowledge that centralized scheduling is a call center. Call centers, especially incoming call centers, have unique operating characteristics and management challenges. Among the more important concepts to understand are the following:
> Callers—not management or staff—determine workload size and timing.
> The time required to complete a call (average talk time) is controlled by the process employed.
> Caller (and staff) satisfaction is dependent upon the quality of the interaction the process produces, and may not be time dependent.

Determine the level of service you want to provide; then determine the staffing. Staffing cannot be determined without first answering the question “What level of service do I want to offer?” If the intended service level is determined first, staffing patterns can then be modeled against call patterns and the resulting service level estimated. Workflow or staffing options that allow the service level to be attained can be planned.

Learn how to manage the inevitable queue of telephone calls. When the number of callers exceeds your staffing capacity, some of those callers will be willing to wait in queue to be answered. Each
individual makes a decision regarding how long to wait for an answer and whether waiting at all is acceptable. When the call is finally answered, the caller may need time to express frustration or to adjust to a productive interaction with your staff, all of which can add to the talk time during a high-demand period.

Steps for Improvement

For the properly implemented centralized scheduling function, results occur in two stages: immediate and long-term. Immediate improvement in scheduling occurs when more capacity, through better schedule design, is made available to the marketplace and “pent up” demand is allowed access. Long-term improvement measured after six to 12 months is a result of combining the new service levels with a defined marketing effort to capitalize on the improved service levels. The marketing effort can range from inexpensive referral source relationship building to more expensive public advertising campaigns. If you have had complaints about access, your first sign of improvement will be user testimonials.

The more successful hospitals attain preregistration rates of nearly 90 percent of scheduled visits.

typically communicated to the schedulers, indicating surprise or gratitude for the improved ease of access.

The first improvement step is obtaining more schedule capacity during the scheduling design effort. When demand patterns, scheduling standards, and priorities are used to allocate capacity, it is typical to see that capacity has been underscheduled for a variety of reasons, such as unpredictable request patterns, unclear or incomplete user priority direction from administration, and uncoordinated support services. Thus, more capacity is now available to the marketplace at no additional cost while ensuring all users have the proper allocation for their needs.

The second step is scheduling more business for services that have increased capacity. The increase in outpatient volume realized will vary by service and marketplace, but volume will expand consistently as a result of increased accessibility, proper scheduler training, and cooperation from the service departments. The measurement and management review process is critical, since many operating problems will probably continue to exist and must be eliminated for service departments to execute on-time schedules. You don’t want an increase in volume that results in more dissatisfied patients.

Preregistration becomes critical in ensuring patient flow occurs smoothly on the day of service for all involved—patients, registration, and service departments.

The third step is sustaining improvement. It is possible for the initial surge of additional volume to dissipate if the total experience for the patient is not improved. Preregistration will reduce visit

Through improved scheduling design, hospitals can increase capacity for services.
times and hassles. The more successful hospitals attain preregistration rates of nearly 90 percent of scheduled visits. Preregistered patients typically spend five minutes or less upon arrival on the appointment day in registration. On-time execution of the schedule is another major satisfier that must be managed. Performance in this key indicator should be in the mid- to upper-90th percentile range.

The exhibit at right shows the experiences of three hospitals that implemented outpatient scheduling, each with a different outpatient marketplace situation.

Hospital number two has one year of experience with the new scheduling process. Historically, the hospital has experienced an annual growth rate of 2 percent to 4 percent in ancillary services. Its net volume increases for the first year are as follows:

- > CAT Scan = + 9%
- > MRI = + 21.5%
- > Echo = + 17.6%

The hospital faces strong competition from two other hospitals within one mile, and from a multitude of freestanding diagnostic centers, which include a center operated by radiologists on the hospital’s medical staff. Increases in net volume were accomplished without mass advertising or paying for added capacity. Weekly schedule management review between the scheduling and service departments, as well as consistent relationship building with key physician offices, were undertaken. Preregistration rates have increased from a 50 percent to 60 percent range to the 85 percent to 90 percent range even as volumes grow, allowing patients to go directly to the service area without stopping in registration.

Patients start their procedures 70 percent of the time within five minutes of the appointment time.

**An Opportunity to Recapture Lost Market Share**

By implementing a well-planned centralized scheduling process, hospitals create a new environment for their patients. Crowding is eliminated, patients get to their appointments in a timely manner, employees are happy, and administrators greet patients in the lobby. Revenue improves as a result of delivering services that meet or exceed customers’ expectations.

Centralized outpatient scheduling can provide acute care hospitals with accessibility and service levels equal to freestanding facilities. As a result, previously lost market share can be recaptured. Understanding and capitalizing on the competitive advantage inherent in centralizing scheduling is a prerequisite.

### RESULTS OF NEW SCHEDULING DESIGN ON OUTPATIENT VOLUME

<table>
<thead>
<tr>
<th>Service</th>
<th>Hospital 1</th>
<th>Hospital 2</th>
<th>Hospital 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT Scan</td>
<td>90%</td>
<td>87%</td>
<td>85%</td>
</tr>
<tr>
<td>MRI</td>
<td>120%</td>
<td>115%</td>
<td>110%</td>
</tr>
<tr>
<td>Ultrasound</td>
<td>110%</td>
<td>105%</td>
<td>100%</td>
</tr>
<tr>
<td>Echo/EKG</td>
<td>100%</td>
<td>95%</td>
<td>90%</td>
</tr>
</tbody>
</table>

The exhibit compares the increase in outpatient volume achieved by three hospitals after implementing improvements in scheduling.

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