



Scheduling Software Supports Health Care's Fine Balance Through Patient Access and Resource Management

A challenge for health care is the efficient and harmonious interaction between the stakeholder entities—meeting the needs of each, while reducing frustration factors and achieving expectations.

By Barry M. Rundquist, CEO & COB, Unibased Systems Architecture, Inc., and
Jacque L. Fryday, BS, CISM, Fryday Consulting, LLC

Health Care's Challenge

Health care is faced with many challenges. There are many entities, or stakeholders, in the health care realm, all with varying demands for how things should be. Take a look at how these differing needs and wants compare.

- First, there is the patient, who needs care—and the patient has an agenda. He expects effective treatment with options covered, professional services in a comfortable environment, and within a suitable timeframe.
- Next, there are the insurers (e.g., the employer funding premiums, the HMO network, and the government agencies of Medicare and Medicaid), who provide a means for the patient to receive the care needed—they are concerned with justification for a prescribed procedure and the expected outcome for the procedure, compared to the economic feasibility for it.
- Then there is the physician, who would like preferences met while providing professional personal care to their patients—he or she wants first-rate, state-of-the-art treatment for the patient with the very best outcome possible, and without having to worry about costs.
- Finally, there are the hospitals, clinics, and surgi-centers:
 - Departments, which facilitate the giving of care to those who need it by providing a place for that care, the equipment required, and nursing staff—they need full utilization of resources and full occupancy with efficient scheduling and scrupulous documentation for charges, inventories, and agency compliance issues.
 - Clinics and surgi-centers—all needing efficient communication and scheduling.
 - Administrators who monitor licensing, educational, and policy issues; document the activities; and manage the financial aspects—they need efficient and convenient documentation, reporting, and notification for agency alerts to manage the health care process.

Meeting the varying and demanding needs and wants of each of these stakeholders and reducing the factors of frustration inherent in the industry, all while managing to achieve the expectations of all those concerned, is the daunting challenge faced by health care enterprises.



How Can This Challenge Be Met?

Follow the lead of hospitals and clinics that have discovered they can meet this challenge by establishing certain priorities: (a) managing resources, (b) creating effective documentation, and (c) using reports effectively.

Manage Your Resources

Timing is everything, especially for complex events. In OR, the room, the staff, the equipment, the supplies, the drugs, the physicians, and the patients, must all come together at the appointed time and place. In order for this to happen, detailed planning is required. The ability to anticipate issues is critical, including the ability to change directions quickly in case unanticipated events occur. Automation, real-time communication, and management reporting facilitate these things and help to prevent delays—delays, which can be costly, reduce productivity, and ultimately have an impact on quality.

As the patient-to-staff ratio continues to show a reversal, more patients are demanding access while hospitals and clinics are facing an increasing frequency of nursing shortages. The disparity is becoming greater and management of resources with load balancing is more important than ever before. Decrease your costs by improving access management workflow and realize higher labor productivity. Here is how one hospital faced this problem with the use of a resource management system:

Answering our CFO's tough business questions is extremely easy with ORMS. The management reports...provide immediate data access. Scheduling changes, based on this information have improved our utilization. With fewer after hours elective cases, we've significantly decreased cost overruns and improved staff morale.

*Pamela Pearch, RN, BSN, CNOR
OR Director, Jefferson Memorial Hospital*

Create Effective Documentation

Accurate and efficient documentation of patient information and resource utilization is crucial to an improved outcome. In order for documentation to be effective for cost tracking, analysis, and planning, the collection process needs to be highly efficient, convenient, and should not add to the burden of an already stressed staff. If data collection is a cumbersome and inefficient process, then the accuracy of that data may be questionable. Accurate and complete documentation will help you to know your real costs, allowing you to manage the details of your resources efficiently, and will provide the detailed information you need to determine when process changes are needed for a more effective overall performance.

Avoid difficulties with compliance issues by selecting a scheduling software tool with functionality to track and document details of employee education and training programs relevant to policies and procedures for patient security and privacy required by the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

Use Reports Effectively

You can manage budgets and limit expenditures only by knowing the real costs. This will only be accomplished by coordinating activities and reporting between departments such as admitting, materials management, and accounting. Discover if your supplies are being provided on the most cost-effective basis. Determine whether charges are being overlooked. Find out if you are missing revenue opportunities. Understanding the basis of your expenses and the sources of your revenues gives you knowledge and empowers you to make decisions that can bring an ongoing return on investment (ROI).

Significantly improve efficiency and productivity with a lower cost per case or procedure by incorporating a discipline to effectively use reporting to thoroughly analyze your planning, scheduling,



documentation, and resource utilization. Take advantage of the powerful and versatile research capabilities of data warehousing and data mining to discover how this wealth of information can strengthen your reporting and planning abilities.

Meeting the Challenge

All this can be accomplished by implementing the right scheduling software tools and understanding how these tools can best serve the needs of all. With the right software tools, hospital departments, including surgery, can take into consideration the needs and wishes of all the stakeholders—patients, physicians, managed care providers, and insurance companies alike—and still realize the return on investment so important to the financial administration.

You can meet this challenge with the proper use of comprehensive and organized data collection to perform the many tasks required for a smooth operation:

- Streamline communications.
- Meet agency requirements and business practices.
- Facilitate efficient scheduling.
- Coordinate ancillary procedures.
- Generate orders.
- Fulfill preferences.
- Manage inventories.
- Prepare management reports.

And at the same time...

- Reduce costs by eliminating multiple data entry and redundant labor.
- Find lost revenue by recording previously overlooked charges.
- Find new revenue by maximizing resource utilization and improving referrals.

For some time, health care organizations were hampered by fiscal restraints and were compelled to work with antiquated tools in an effort to save money; but the value returned with the software tools available today can make you equal to the challenge and prove your investment worthwhile.

Streamline Communications

Disseminate patient coverage and financial data to physicians and providers for patients with pending procedures. Automatically invoke caregiver policies and alerts from clinical questions. Automatically generate patient itineraries, patient appointment reminders, and patient instructions for procedure preparation and follow-up. Offer additional web-based options, such as patient self-scheduling, options for home office schedulers, and physician portals that allow anytime, anywhere access to scheduling information.

Meet Agency Requirements and Business Practices

Integrate rules-based scheduling to support order sets. Enter managed care rules, based upon service and third party coverage, into your system:

- Verify insurance to identify non-covered services by third party companies.
- Check medical necessity.
- Search ICD-9 coding or chief complaint by keyword.



- Produce advance beneficiary notices (ABNs).
- Receive alerts when referral or pre-certification is required.
- Receive alerts for service covered, based on I/P and O/P status.
- Monitor authorized number of visits.

Reduce potential denials and streamline the check-in process by moving managed care rules up to the point of scheduling. These rules address the patient's ability to pay at time of scheduling, rather than at time of billing.

Revenue cycle management and global patient access are key to the modern healthcare provider's survival. Bad debt must be lowered, and days in receivables must be reduced. With the impending baby boomer generation needing more healthcare services, combined with the impending capacity shortages, it is critical to confirm medical necessity at the initial patient contact, which is the scheduling of the services. At that point, the ability to cover the cost must be determined.

Lawrence V. Covington, President, USA, Inc.

The United States General Accounting Office (GAO), in its October 2003 article *Information Technology: Benefits Realized for Selected Health Care Functions* (highlights from its GAO-04-224 report) showed eligibility checks during registration decreased rejected claims by 53 percent.

Facilitate Efficient Scheduling

Integrate your resource management scheduling system with other areas, such as patient registration, the enterprise master patient index (EMPI), inter-departmental scheduling functions, order management, and materials management, to help meet unique organizational requirements. Enable the scheduling of appointments in multiple departments with only one phone call and without the necessity of inter-departmental coordination and discussions.

Automatically find first available appointment slots, including slots often overlooked because of cancellations and no-shows. Book conflict-free appointments more tightly, creating more appointment slots, shorter waits, and a higher volume (without increasing resources), while increasing revenue opportunities.

Coordinate Ancillary Procedures

Integration of the surgery department with ancillaries is needed for effective coordination of resource deployment. Awareness of the patient's agenda and the coordination of resources in order to optimize the valuable time of the physician are critical components to success.

Example: A fifty-year old male patient needs to be scheduled in Surgery for a cholecystectomy. Other departments need to be involved, including radiology (chest x-ray), cardiology (EKG), and lab (blood, urine). Integration of Surgery with these ancillary departments would allow their services to be scheduled concurrently and conflict-free, with emphasis on patient and physician convenience. With integration, ancillaries become immediately aware and begin preparation for the requested service. With integration, the patient and physician wait times, which they would otherwise experience in the separate encounters, is eliminated. Whether the services are outpatient, inpatient, or a combination of both, the patient's agenda is recognized.

Schedule Outpatient Clinic follow-up services at the inpatient discharge, insuring that the patient and the revenue stay with the same provider. Schedule outpatient physical therapy from the inpatient service department.



Generate Orders

Generate orders for services and procedures automatically when scheduling at check-in or from an order management module via an HL-7 interface; and incorporate user notifications in the form of audible alerts and text message displays, dependent on the type of order.

Fulfill Preferences

Create and maintain surgery preference cards with a system that allows you to generate pick lists, copy other cards, perform global edits, and includes cost and charge information that can be used as an automated charge document for billing purposes. Provide functionality that allows the scheduling of a surgical procedure to automatically select a surgeon's preference card and offers an option to merge preference cards when multiple procedures are scheduled. A merge feature would eliminate duplication of pick list supplies.

Manage Inventories

Include a materials management interface for inventory control, case cart, preference cards, pick lists, and special supplies and equipment. Assist budgeting efforts by tracking equipment use and minimizing lost revenue from unreported charges.

Prepare Management Reports

Collect information on patient demographics at the time of pre-registration. Take advantage of the powerful and versatile research capabilities of data warehousing and data mining to discover how this wealth of information can be manipulated to strengthen your reporting and planning abilities.

Selecting the Proper Tool

The ideal tool to accomplish all of this will be a scheduling software application that provides enterprise-wide, user-friendly functionality. It will allow for scalability, return average sub-second response times, accommodate seamless interfacing, exhibit stability and reliability, run on a secure platform proven through performance testing, and have ongoing product support. Further, the ideal software tool will be recommended above others by its users and will be easily accessible to them.

Validate the Vendor

Before purchase, check with a product rating organization, to see how the software product and vendor you are considering compares with like products and other vendors. KLAS, a research and consulting firm that specializes in monitoring and reporting performance of vendors in the health care information technology (HIT) industry, created a dynamic database to provide unbiased factual information about vendor performance. KLAS interviews health care executives about their experiences with HIT vendors, collects rankings, and publishes ratings. This extensive database covers 40 performance areas and contains information representing over 4,000 health care facilities, more than 300 vendors, and over 500 products. Choose a vendor that is highly regarded by its customers and will provide professional guidance - one who knows health care, will take into consideration your organization's unique needs, and will stand by its product.

Validate the Product

Choose a product that lives up to vendor promises and rates highly against other like products. Choose one that requires little maintenance and whose support team will be available if a need arises. Conduct site visits to see the product in operation and interview its users. Verify that interfaces are programmed with the industry standard HL-7 protocol to facilitate ease of use with other applications. If you have a



need for custom or batch interfaces, make sure these can be accommodated. Check if the software is integrated with artificial intelligence (AI) that will allow sophisticated functions to be performed by lower cost labor. Be sure it has a security administration system (SAS) to support security, an automated backup system for disaster protection, and a technical support team readily available.

Return on Investment

Before purchase, perform an ROI analysis. In their article, "Transforming the Revenue Cycle" (Healthcare Financial Management, March 2003), Guyton and Lund offer the advice that "Every revenue-cycle improvement initiative should be governed by the guiding principles of tighter accountability, reduced variability, better information management, and more comprehensive integration."

The right scheduling software tools will dramatically increase your return on investment by reducing patient and physician frustration levels, no-shows, cancellations, claim denials, and unreported charges; and by increasing appointment volumes, resource utilization, billing accuracy, agency compliance, improved operational efficiency, and customer referrals. The combined effects of these benefits from the use of the right scheduling software can improve your organization's position in a very competitive health care market. Projected net benefits are shown in the diagram below.

Quantitative Benefits from Effective Patient Access and Resource Management

		(\$ in Thousands)						
		Year 1	Year 2	Year 3	Year 4	Year 5	Total	
Quantitative Benefits								
1) Competitive Advantage	Low	19	38	38	38	38	171	
	High	48	95	95	95	95	428	
2) Increased Utilization	Low	117	234	234	234	234	1,053	
	High	234	468	468	468	468	2,106	
3) Reduced No-Shows	Low	44	88	88	88	88	396	
	High	88	176	176	176	176	792	
4) Reduced Medicare Losses	Low	15	29	29	29	29	131	
	High	23	47	47	47	47	211	
5) Improved Staff Efficiency	Low	18	35	53	53	53	212	
	High	27	53	88	88	88	344	
Quantitative Benefits Subtotals								
		Low	213	424	442	442	442	1,963
		High	420	839	874	874	874	3,881
Less Costs			<197>	<77>	<77>	<77>	<77>	<505>
Net Quantitative Benefits								
		Low	\$ 16	\$ 347	\$ 365	\$ 365	\$ 365	\$ 1,458
		High	\$ 223	\$ 762	\$ 797	\$ 797	\$ 797	\$ 3,376

Winning Results

Optimize the entire revenue cycle as you have just read—from patient pre-registration to receipt of payment—with improved patient access and resource scheduling to achieve the following outcomes:

- The patient will experience a coordinated agenda with faster response times, shorter wait times for phone calls, a streamlined registration process, reduced wait periods for procedures, and facility location options.



- The insurer (e.g., the employer, HMO network, Medicare, and Medicaid) will notice a decrease in average length of stay for patients and an improvement in timeliness for claims processing.
- The physicians will experience better customer service, improved access to services, facility preference options, Internet scheduling access, and quicker claims reimbursement.
- The hospitals and clinics will experience greater appointment volumes; increased referrals; increased productivity; decreased no-shows, cancellations, and wasted resources; and improved capture of charges with more accurate and complete documentation. The ancillary departments will experience immediate notification of pending orders and reduced patient waiting. Administrators will experience reduced costs from improved operational efficiency and will be able to take advantage of accurate ICD-9 coding, automatic notices and alerts with best policy clinical protocols, and they will experience a decrease in insurance denials.

Once you have provided true patient access and resource management to your enterprise by selecting the best scheduling software—once you are managing your resources to the best advantage, are creating accurate documentation, and are using your reports effectively—you will notice frustration factors have been reduced and expectations are being achieved. In short, you will be meeting the needs of each of the health care stakeholder entities and you will realize an efficient and harmonious interface between them, while improving the bottom line.