



Lahey Clinic

Enhanced Collaboration of Time-Sensitive Outpatient Consultations

Beginning in 2002, the American Medical Group Association (AMGA), the National Committee for Quality Assurance (NCQA), and Pfizer Inc. sponsored a collaborative demonstration project to support improvements in patient safety in the ambulatory health care setting. The Safety Collaborative for the Outpatient Environment, or SCOPE, had two primary goals: (1) to promote patient-safety-improvement innovations in the ambulatory setting through grants to support improvement initiatives—10 grants of up to \$50,000 were awarded to support new or ongoing projects designed to improve patient safety—and (2) to establish a collaborative of physician-led organizations to standardize patient-safety definitions and evaluation criteria, share information on best practices, and recognize outstanding performance. The collaborative was supported through conference calls, online resources, consultation with experts in the field, and an annual project meeting. At the end of the year-long collaboration, special recognition was given to the most effective projects. This article details the project of Lahey Clinic.

The Issue

A review of patient complaints, incident reports, and litigation cases

at Lahey Clinic confirmed that there was an opportunity to improve coordination of ambulatory care between patients, primary care, and specialty care providers.

A REVIEW OF PATIENT COMPLAINTS, INCIDENT REPORTS, AND LITIGATION CASES AT LAHEY CLINIC CONFIRMED THAT THERE WAS AN OPPORTUNITY TO IMPROVE COORDINATION OF AMBULATORY CARE.

The group responded by designing a Web program that would improve the referral and scheduling process for “time-sensitive” appointments. The new process allows physicians to treat patients in a more systematic, organized and timely manner. And the program improves communication between PCPs and specialists through a feedback loop that keeps PCPs up-to-date on any treatment provided to their patients by specialists.

Primary Measurable Objectives:

- Absolute reductions in time-to-evaluation by a specialist
- Absolute reductions in time-to-final-diagnosis for conditions or complexes of symptoms designated “time-sensitive”
- Improvement in patient, primary care, and specialty care provider satisfaction with the process

Secondary Measurable Objectives:

- Reduction in percentage of patients with malignancies that are upgraded from original stage as a result of delays
- Reduction in complications associated from underlying disease that could occur with work-up
- Reduction in treatment of medication-related problems resulting from conflicting treatment regimens by primary care and specialty providers

Intervention

The main intervention is the implementation of a patient tracking system for “time-sensitive” conditions in coordination with enhancement of a Web-based referral protocol for primary care physicians not geographically located on Lahey’s tertiary care campus.

The tracking system is built on an existing Web-based system that has been used to facilitate referrals between physician office-based primary care providers to Burlington specialty care providers. The enhancements will:

- Facilitate appointment scheduling for “time-sensitive” conditions.
- Escalate automatic alerts to managers, department chairs, VPs when scheduling process fails.
- Enhance communications between primary care and specialty providers to emphasize the urgency of a time-sensitive appointment as well as identify the specific diagnosis or symptom signaling the urgency for the consult.

- Provide feedback through daily reports to alert providers when a patient with a “time-sensitive” condition fails to keep an appointment. The PCP office will receive updates of the appointment status (bumped, cancelled, arrived, etc.) in order to provide an opportunity to call the patient or check for the online consult notation.
- Provide a tracking process in the PCP’s office to ensure appropriate triage of “failed time-sensitive appointment” completion by patient/system.
- Provide monthly reports to monitor and ensure coordination and enhance patient awareness.

Project Plan and Implementation

Creating a Web program to improve coordination of time-sensitive appointments required a tremendous amount of advance work before the programmers could get started with implementing the design specifications. First, physicians needed to agree on what exactly constituted a time-sensitive condition. Second, they needed to map out the process for coordinating the time-sensitive appointments. Only then could the programmers start their work of actually making the specifications work in the clinic’s IDX scheduling system. This all had to be done in an environment of competing priorities.

Project Management Team

A multidisciplinary group including physicians, managers, nurses, schedulers, specialists from information technology, appointment office, and quality department met bi-weekly to develop the project plan, monitor timelines, address challenges, work at details, barriers, develop a communication plan, design a new scheduling

protocol, and design a training plan. Following implementation, the team will continue to meet monthly to discuss next phases of the plan.

CREATING A WEB PROGRAM TO IMPROVE COORDINATION OF TIME-SENSITIVE APPOINTMENTS REQUIRED A TREMENDOUS AMOUNT OF ADVANCE WORK.

Agreeing on What Constitutes a “Time-Sensitive” Condition

Lahey Clinic defined “time-sensitive” conditions as, “a condition in which a significant delay in diagnosis and/or treatment has a high likelihood of resulting in the worsening of a disease process requiring escalation of therapy, permanent disability, or premature death.” However, this was only the first step in reaching consensus between primary care providers and specialists regarding how to categorize time-sensitive diagnoses. Next, the group had to determine which conditions met that definition. For example, PCPs and specialists readily agreed that unstable angina requires immediate follow-up by a specialist. But there was strong disagreement between PCPs and specialists about how to handle chest pain with unclear etiology.

The negotiation process to meet this goal required several conversations with PCPs and specialists identifying each other’s concerns and finding common ground for a final consensus. Project managers interviewed department chairs and went through four iterations of the time-sensitive appointment list, until they were able to reach consensus on the list.

However, PCPs still wanted the flexibility to designate conditions that were not on the list as “time-sensitive.” The group built into the system a process to over-ride if a PCP feels his/her patient’s diagnosis warrants a time-sensitive time slot

(2-14 days). Each month, physician members of the SCOPE team will evaluate the validity of that request and make changes to the list of time-sensitive appointments based on multi-disciplinary review.

Strategy for Identifying “Time-Sensitive” Conditions

1. Letter of intent to all Lahey PCPs requesting a list of “time-sensitive” appointments.
2. Letter of intent to all Lahey Specialists requesting a list of “time-sensitive” appointments for their specialty.
3. Comparison grid—color coded (blue/yellow report).
4. Interview with all department chairs for resolution—goal is to have all greens (both groups agree).
5. Consultation back with PCPs for final acceptance—review of green.

Finding Time for “Time-Sensitive” Referrals

Once they reached consensus on what constitutes a “time-sensitive” referral, specialists needed to free up time in their schedules to see patients. The manager worked with the department chairs to identify a time slot for a patient to see a provider in the identified specialty office. Each department has the responsibility of identifying how this can be done, some have designated a “doc of the day,” others have extended physician schedules; it is ultimately up to the department chair and manager to decide how the appointment will be achieved.

Escalating E-mail Alerts

In the event that a patient is not able to get an appointment in the specified time frame, a series of escalating e-mail alerts will be sent. First,

an e-mail is sent to the "Department Mailbox" and the assigned staff monitor is responsible for working with the manager to get an appointment. If an appointment is not found within 24 hours, an e-mail is sent to the department chair and manager. The department then has another 24 hours to schedule an appointment before an alert is sent to the administrative vice president, the division chair, and to the referring PCP to notify them about the inability to schedule a time-sensitive appointment. If an appointment is not found at that point, the PCP can seek an appointment elsewhere including to a non-Lahey facility. If this happens, the PCP office has the responsibility of entering the outside facility name into the Web application. This will allow us to monitor what services are being directed elsewhere so that strategies may be developed by the specific department to better meet the needs of the organization next time.

If a patient misses an appointment (cancels, no-show, refuses), the PCP will receive an e-mail notification to follow up with the patient and reschedule the appointment. This will be communicated by an e-mail alert sent directly to the PCP office. The PCP office must monitor these e-mails and follow up with their patients. The PCP then updates the IDX scheduling system and schedules an appointment or lists the reason(s) the patient refuses to reschedule.

Creating a Sense of Urgency

When there are competing priorities, it takes strong leadership support to get a project of this magnitude off the ground and to keep team members focused as new projects and priorities are introduced. Initial support for the project came after a Board of Governors meeting in July 2002, when board members were handed a copy of a bond check that was issued to cover increases in

malpractice insurance due to claims stemming from delays in diagnosis.

Competing Priorities

- Project manager was temporarily re-directed for six weeks to manage preparations for JCAHO inspection
- The Web team was assigned another major redesign which took priority over the SCOPE project, delaying the beta test by several months.

Quarterly department meetings were restructured to include a discussion regarding each department's contribution to the SCOPE project.

New Web-Design Specifications

With all of the specifications in place, the programmers needed to work to integrate the registration and scheduling systems and link them across the various specialty and primary care office systems. Just as the Web team was set to begin, they were assigned another major redesign that took priority over the SCOPE project, delaying the beta test by several months. An outside consultant was hired to free up programmers' time for the SCOPE project.

- **PCP Sub-System:** This component contains the functionality to enter time-sensitive appointment requests via the Web, forwards requests to the Registration and Scheduling Sub-System, and displays appointment status.
- **Registration and Scheduling Sub-System:** This component contains the functionality to receive appointment requests from the PCP Sub-System, display and flag time-sensitive appointment requests, display appointment status, initiate time-sensitive appointment escalations, stop a time-sensitive escalation when an appointment slot is identified, flag patient refused appointments, and communicate

status updates to the PCP Sub-System and E-mail Monitor/Notification Sub-System.

- **E-mail Monitor/ Notification Sub-System:** This component contains the functionality to communicate with the Registration and Scheduling Sub-System and IDX System for status changes, to initiate e-mails and notifications to the pre-defined e-mail lists and viewing consoles, and contains the rules for time-sensitive escalations.
- **IDX and Back-End Processing Sub-System:** This component contains the functionality to retrieve the daily information from IDX regarding time-sensitive flagged patient appointments, import the IDX data into the Time Sensitive Appointment System, and process status updates from the IDX data. IDX will also be updated to add a time-sensitive field that will flag time-sensitive appointments.
- **Reporting Sub-System:** This component contains the functionality to retrieve and display the time-sensitive appointment data based on various request fields and display fields.
- **System Administrator Sub-System:** This component contains the functionality for a system administrator to edit e-mail recipients, edit the time-sensitive time frame, edit diagnosis lists, edit business holidays, manage override reasons, and manage patient refusal reasons. Definition of time sensitive is noted in this section. System management component to meet new HIPAA regulations.

Next Steps

In March 2004, Lahey Clinic began initiation of the Web program at two primary care practices before rolling the program out to all providers. Some of the action steps include:

- Design training modules for each area (primary care, specialty care dept, appointment office)
- Launch training program
- Enhance Web-based quality control
- Beta test at two primary care practices and 100% of specialists
- Analyze results and make adjustments
- Send out follow-up satisfaction surveys to patients, specialists and PCPs
- Roll-out to all off-site primary care practices
- Modify work-flow in on-site primary care practices
- Roll out to all on-site primary care practices
- Add “time-sensitive” ancillary tests to scope of project

Lessons Learned

Visionary analysis of such a project by no means adds up to the operational detail required to successfully implement such a project.

Although the concept seemed simple and easy to do, the “devil was definitely in the details.” Different areas of the organization were directly impacted by the scope of this project. It was not as simple as redesigning a Web-based appointment application. It required multiple levels of operational and workflow changes not only in the primary care provider office but also in the specialty care office and the registration and appointment office. As scheduling an appointment at Lahey Clinic has multiple components, we had to consider every detail and identify a systematic approach to meet the goals of the project. This took much longer than we anticipated. Realistic timelines that take into consideration unanticipated barriers and institutional culture need to be developed for

future projects.

In our current healthcare environment where the strategy is definitely to do more with less, it is very difficult to recruit members who can identify blocks of time in their schedule to work on such a project.

DIFFERENT AREAS OF THE ORGANIZATION WERE DIRECTLY IMPACTED BY THE SCOPE OF THIS PROJECT. IT WAS NOT AS SIMPLE AS REDESIGNING A WEB-BASED APPOINTMENT APPLICATION.

There was not one team member who was solely committed to this project. Each of us is required to participate on multiple committees, support other hospital strategies and projects, and maintain daily operations. It is sometimes very difficult to keep members focused on multiple objectives. It requires constant reminders, communications, telephone calls, and meeting assignments. Tenacity is definitely a prerequisite to successful projects.

We acknowledge the support of our senior executives, department chairs, and direct supervisors, but this team’s motivation was in direct response to an intuitive drive to do what was “best for the patient.”

One of our earliest meetings involved a reading of a patient complaint whose experience with the follow-up of an identified chest x-ray abnormality and the delay in accommodating subsequent specialty appointments was a pivotal point in many members’ minds. Additionally, many staff physicians recognition of the value of an automated tracking system and systematic approach to scheduling “time-sensitive” appointments leveraged a team effort to address this project’s objectives. All caregivers, whether physicians, nurses, schedulers, telephone operators, or managers have the same vision: to procure a program where information technology could support communication, tracking, and alerting of the

healthcare community in meeting the needs of our patient population.

Additional Lessons

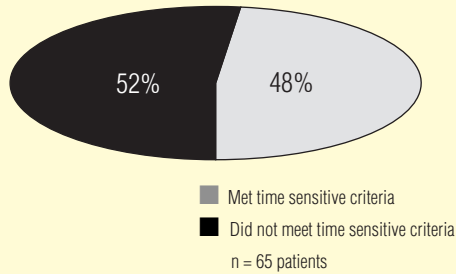
- Unless you commit to spending money on these projects, they will slip behind in institutional priority to other things that are clearly budgeted.
- Use project management template to control process.
- Commit to ALL components of template.
- Have individual stakeholders sign off on individual components.
- Business requirements must predetermine technical specifications.
- Consider realistic timelines for multi-level projects involving multiple organizational system changes.
- Consider moving timelines when identified barriers are acknowledged.

Future Plans

This project plan is a foundation for many identified initiatives that will expand on this electronic tracking system to support communications to ordering physicians of any ancillary test, appointment, or procedure which must be completed in an identified time frame. Identification of such time frames will best meet the needs of patient care for any identified disease management course, whether for post-diagnosis treatment or pre-diagnosis screenings. Additionally, the application will support collaborative scheduling of any appointment within our network. Funding to support such activities will be determined on an annual basis by senior management. Quality and safety initiatives at this institution are an integral part of the annual strategic plan. This particular objective not only qualifies as a patient safety project but has a cost

FIGURE 1

Baseline Data Demonstrating Appointments with Time-Sensitive Diagnosis



value added with the implication of reduction of costs for malpractice claims specific to delay in treatment.

Lahey Clinic

- Located in Burlington, MA, Lahey Clinic was founded in 1923 by Dr. Frank Lahey
- Group practice model with more than 450 physicians and 4,000 nurses, therapists and support staff
- Non-profit group practice has two main in-patient/out-patient facilities and 16 community-based practices over a 35-mile radius from the main medical facility
- The entire organization has over 1 million out-patient visits, 20,000 surgeries annually, and 19,000 in-patient admissions each year