

IMPROVING ACCESS

REDUCING WAIT TIMES FOR CARDIAC CONSULTATION

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When appointment delays were reaching a crisis point at this VA medical center, the cardiology section implemented a system of structured electronic templates that cut wait times for outpatient consultations dramatically.

A few years ago, steadily increasing demand was causing long appointment delays and overcrowding at the cardiology clinics of the Minneapolis VA Medical Center (MVAMC), Minneapolis, MN. Access to timely consultation was especially problematic. The primary outpatient consultation entry point for cardiac services, the clinic at the Ambulatory Evaluation Unit (AEU), had a backlog of over 100 pending consultations with wait times of over four weeks. In addition to causing frustration among patients and referring providers,

these delays were draining cardiac staff resources. The tasks of prioritizing consultations and handling calls related to delays required one full-time cardiac nurse, as well as one hour per day of a cardiologist's time.

No doubt these problems sound familiar. In recent years, long wait times and overwhelming demand have been a serious issue throughout the VHA, as well as other sectors of U.S. health care. In 1999, the VHA teamed up with the Institute for Healthcare Improvement (IHI), a not-for-profit organization devoted to enhancing the quality and value of health care, to develop and implement a nationwide Advanced Clinic Access (ACA) Initiative.¹ The goal of this initiative was to overhaul the clinic system in order to achieve and sustain levels of access that meet and exceed VHA performance standards for wait times

and, ultimately, allow all veterans to receive necessary care in a timely and convenient manner.¹

At the same time, actions were being taken on the regional and local levels as well. When, in fall 2001, the situation at the MVAMC cardiology clinics was reaching a crisis point, the cardiology section assembled a team—consisting of the director of the outpatient cardiology clinics, a cardiac nurse specialist, and a clerical case manager—to analyze the problem and develop a solution. The goals of this team coincided with a larger, VISN-funded collaborative with the health care quality improvement consulting firm Mark Murray and Associates (Sacramento, CA), and with the help of this collaborative, the team began working on applying ACA principles,²⁻⁶ as well as the methods of W. Edwards Deming,⁷ to eliminate delays and improve

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satisfaction among patients and referring providers.

Through careful analysis, the team discovered that much of the problem was related to inappropriate referrals and incomplete workups prior to consultations. As such, the team determined that the key to achieving their goals would be a service agreement between the two departments defining specific parameters of appropriate consultations—a major part of which would be a set of electronic templates for cardiology consultation requests.

In this article, we describe the process by which the team got to the root of the problem, the steps they took to develop and implement the new consultation process, and the rapid results of these efforts. We also discuss what's needed to sustain this type of improvement over the long term and provide tips for other facilities interested in making similar changes.

INVESTIGATING THE PROBLEM

The MVAMC is a 240-bed tertiary care center that serves a patient population of approximately 65,000 and provides referral services to about 100,000 patients throughout the northern portion of VISN 23. An academically successful cardiology section—comprised of 11.25 staff cardiologist full-time equivalencies (FTEs), three cardiology fellow FTEs, five cardiac nurse specialist FTEs, two cardiac nurse practitioner FTEs, and 12 registered nurse FTEs—offers a full range of cardiac services. Cardiology outpatient clinics are in high demand, with approximately 1,700 outpatient consultations or preprocedure evaluations and 4,900 clinic visits annually.

In this setting, the cardiology team sought to make improvements that would allow patients and providers to schedule appointments at the time of their choosing—ideally, without the need for additional resources (Table). The team began by assessing consultation demand—that is, the quantity and characteristics of consultation requests or visits. They performed a survey of all consultations over a one-month period to identify the source of each consultation (the institution or clinic and the department), the type of provider ordering it (physician, nurse practitioner, physician assistant, or trainee), the patient's clinical condition, and the consultation question or objective.

Consultations also were reviewed for appropriateness. A consultation was deemed inappropriate if the problem was one that could be handled by a well trained internist or if all necessary records and test results had not been obtained prior to the consultation visit. It was considered borderline if these issues were questionable. Appropriate consultation had a complete patient workup that indicated a clear need for a cardiologist's intervention.

In order to gain further insight into the underlying issues, the team leader met with primary care physicians, attended a general internal medicine staff meeting to discuss the consultation review findings and obtain a primary care perspective, and presented the survey findings at a medical service staff meeting for discussion and input. Consultation appointment request demand was tracked through the electronic medical record. Schedule availability and consultation backlog was tracked by the team's

cardiac nurse specialist and clerical case manager.

ANALYSIS AND INTERPRETATION

Results of the survey demonstrated that 22% of the consultations were inappropriate, 25% were repeat visits (demand generated by the cardiologists themselves), and 8% were "no-shows." (Only a small percentage qualified as borderline, and these were ultimately deemed appropriate.) In other words, only 45% of consultation appointment slots were being used optimally. Furthermore, analysis showed that some of the "appropriate" consultations involved questions that could have been answered without a face-to-face visit. It was clear, therefore, that capacity could be gained by reducing inappropriate consultations, no-shows, and repeat visits and by ensuring the availability of cardiologists to answer certain provider questions.

A closer review of the inappropriate consultation requests revealed that, in some cases, the referring provider seemed to lack knowledge about a given clinical problem or have an unclear understanding of which tests and procedures the cardiology service wanted performed prior to consultation. In other cases, there was an apparent lack of communication between midlevel providers and collaborating physicians, inadequate information to determine the consultation question or objective, or exclusion of the primary care provider by other specialists referring directly to cardiology. Discussion with referring providers further uncovered some misunderstandings about when in the course of the workup or disease process—and for what purpose—a consultation with cardiology would be

Table. Steps for improving access to outpatient cardiology consultation at the Minneapolis VA Medical Center

Step	Details
Identified access problem; measured supply and demand	<p>The following problems were identified:</p> <ul style="list-style-type: none"> • Prolonged wait times in outpatient cardiology consultation clinics • Progressive increase in outpatient cardiology consultation requests (increased demand) • Limited resources to meet consultation clinic visit demand (limited supply)
Studied demand for outpatient cardiology consultation clinic appointments	<ul style="list-style-type: none"> • Identified source of consultations • Evaluated appropriateness of consultation requests • Determined reasons for consultation clinic follow-up visits
Analyzed results of demand study	<p>Analysis revealed the following:</p> <ul style="list-style-type: none"> • Many inappropriate consultations or questions that could have been answered without patient visits • Repeat visits due to lack of appropriate patient preparation or study results • Poor communication between referring provider and consultant
Presented findings to primary care providers for discussion	<ul style="list-style-type: none"> • Identified need to define indications for consultation • Identified need to provide rapid access to a cardiologist for questions • Clarified misconceptions
Developed guidelines for consultation	<ul style="list-style-type: none"> • Primary care providers included in process • Resultant guidelines reviewed and approved by service chiefs • Summaries sent to all primary care providers and consultants • Guidelines incorporated into electronic consultation templates
Assessed impact of changes	<ul style="list-style-type: none"> • Demand decreased • Backlog eliminated • Waiting times decreased • Primary care satisfaction with consultation process improved • Cardiology satisfaction with consultation process improved • Patient satisfaction improved
Established maintenance process	<p>These procedures include:</p> <ul style="list-style-type: none"> • Education for new staff • Ongoing review by cardiology nurse specialists and cardiology staff • Continued feedback from primary care and referring providers

appropriate. There also was a misconception that thallium stress testing could be facilitated through cardiology consultation. The proportion of inappropriate consultations did not correlate with the referring provider's level of training—but it did vary according to the referring site.

STRATEGY FOR CHANGE

Based on the results of the consultation review and the meeting with primary care providers, the team developed a set of informational and educational materials that defined expectations from the consulting provider for patients with certain common cardiac problems, such as chest pain, syncope, arrhythmia, or heart failure.⁸ This information was distributed to all primary care providers and, with their approval, was published as guidelines mutually agreed upon by primary care and cardiology. These guidelines were used to create the structured electronic consultation request templates.

The templates were designed to be simple yet comprehensive. From a central menu, requesters choose the type of consultation from a list of nine options: cardiac arrhythmia, congestive heart failure, dizziness or syncope, dysrhythmia clinic, heart failure clinic, ischemic heart disease, transfer of care, valvular heart disease, and other questions/consults. While each of these options brings the requester to a different screen that offers specific information regarding that choice, the fields that the requester is asked to complete are always the same. The information requested is minimal, and none of the fields is required. In order to facilitate communication and follow-up, these fields include contact

information (telephone, beeper, and fax numbers) for the referring provider and the name of the primary care attending or collaborating physician (for resident, nurse practitioner, other advance practice nurse, and physician assistant requesters).

The specific educational information included in each template is intended to decrease and shape consultation appointment demand in a number of ways. First, the templates that refer to particular clinical conditions all contain language reminding the referring provider of the need to perform a complete

other questions/consults template performs the important function of informing the referring provider of the cardiology team's availability to discuss problems that potentially could be resolved without a patient visit.

The team also employed such key ACA strategies as leveraging the AEU clinic cardiologist's time and anticipating patient needs. In conjunction with the reduced appointment demand that came as a result of the structured consultation templates, these strategies virtually eliminated delays. Without delays for appointments, the AEU

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workup prior to the evaluation and to involve the primary care provider or collaborating or attending physician. They also define what is expected from these workups, with the goal of reducing the need for return visits due to incomplete preconsultation evaluations.

In order to help eliminate inappropriate referrals, each template provides guidance in distinguishing the cases appropriate for cardiology referral from those that could be managed by primary care and in deciding at which point in the course of the disease a referral is needed. Several of the templates also direct the requester to other, more appropriate consultation areas in certain cases. In addition, by providing the consultant's beeper number and allowing for "question-only" consultations, the

clinic cardiac nurse specialist was able to devote her time to answering consultation questions, evaluating patients, and coordinating care. This helped improve the efficiency of the cardiologist's work, thereby increasing consultation supply. Patients' needs were anticipated based on the information provided in the consultation request or when scheduling the appointment. The nurse and clerical case manager ensured that all test results and important patient preparation were completed prior to the initial visit.

EFFECTS OF CHANGE

Once the referral guidelines and electronic request templates were in place in the spring of 2002, consultation demand dropped rapidly. In contrast to the 15% increase that had been projected based on

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growth in primary care enrollment, the number of requested consultations actually decreased by 17% (from 2,060 to 1,700) between 2001 and 2002.

Consultation backlog was eliminated within a few weeks of implementing the new templates, and a sustained backlog has not recurred. A balance of appointment demand and supply has been achieved such that the AEU clinic has open consultation appointment slots daily. The new consultation process also has helped synchronize appropriate test results and other necessary information to the first visit, thus decreasing the number of repeat visits and, frequently, allowing cardiology procedures to be performed on the same day of the visit—or the next day. In addition, many consultation questions are answered without the need for the patient to make a cardiology appointment. In short, without additional resources, the cardiology service has achieved and maintained improved access to outpatient consultation.

A limitation of this report is the lack of objective measurement of provider and patient satisfaction. Although not formally studied, it was the collective opinion of the cardiologists that inappropriate consultations decreased and the overall consultation process became more timely and efficient. Patient satisfaction was determined to have improved based on feedback from referring providers and reports from the cardiology care coordinator (who received direct patient feedback). Reports from referral case managers who coordinated referrals from outside facilities also indicated that referring providers and patients were more satisfied with the timeliness of cardiac consultation.

Follow-up input from primary care providers within the MVAMC was obtained at a medicine staff meeting, during which the results of the changes were reviewed. The consensus was one of general satisfaction. Not a single primary care provider felt that any patient was not seen by cardiology in a timely manner since the changes were instituted. As a result of this success, the agreement guidelines were placed in a formal, signed, service agreement between cardiology and primary care that was also signed by the chief of staff.

EXTENDING THE CONCEPT

Key to efficient consultation services is close communication between primary care providers and consultants. For this reason, mutually defined expectations were incorporated into the request process. All stakeholders' needs were addressed: Patients got shorter waits, cardiologists got less demand and more appropriately prepared patients, and primary care providers got both a shorter wait time for their patients and the opportunity to have questions answered immediately. Because the templates were educational, they served both to enhance providers' understanding of and standardize their approach to common cardiac problems.

Although consultation templates were tailored to address the specific problems we observed with consultation demand in our clinics (which was part of their success), the process is applicable to most cardiology practices. Without being difficult to complete, templates should guide consultation requests, advertise consultant availability, and encourage questions. Success requires excellent clerical staff and

cardiac nursing staff (with cardiologist back-up), cooperation from primary care, physician champions, and leadership support.

While the consultation templates provide the information most critical for patient care and appropriate referral each time a consultation is ordered, new providers entering primary care must be educated about the consultation process and referral guidelines. The consultation process must be flexible and receive ongoing maintenance with continuous monitoring of demand, supply, and wait times.

We measure these parameters routinely, and when one or more of them seem to be out of balance, we perform a detailed analysis. Our service agreement is audited quarterly, and for the past six months, we have been examining a sample of consultations to ensure that both sides are following the guidelines of this agreement. We are also working on developing an efficient data tool for measuring consultation timeliness using consultation package reports. ●

This work was presented in May 2002 at the VISN 23 ACA Meeting as part of the VHA-IHI collaboration. The goal of this collaborative is to improve access within VHA performance clinics, including cardiology. This work was also presented in September 2002 on a VHA-IHI national ACA Cardiology Expert Conference Call and shared with VA cardiologists working with VHA ACA groups. Funding for participation in the VHA-IHI ACA initiative was provided by the VISN 23 Office and the MVAMC.

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Anne Steckler, RN and Jeanne Anderson, both of whom served as critical team members for this initiative—Ms. Steckler as the cardiac nurse specialist and Ms. Anderson as the clerical case manager. Readers who wish to learn more about this project should contact Connie M. Parenti, MD by mail at Department of Medicine (111), Minneapolis VA Medical Center, One Veterans Drive, Minneapolis, MN, 55437; by telephone at (612) 725-2000, extension 4428; by fax at (612) 727-5634; or by e-mail at connie.parenti@med.va.gov. Those with access to the VHA intranet also may find useful information at the Shared Information and Documents page of the VHA Advanced Clinic Access site (vaww.vhacowebapps.cio.med.va.gov/waitingtimes/ACA_Resources.asp?TOPIC=%25&

CLINIC=Cardiology&type=D&Submit3=View+Topics).

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