

Improving Communication Between Levels of Health Care: Direct Referral of Patients to a “One-Stop” Service for Major Outpatient Surgery

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Objective. To analyze the results obtained with a “one-stop” specialty service designed as part of a collaborative program involving primary and specialized care in order to improve communication between levels of care and reduce the delay in referral and surgical treatment for patients eligible for outpatient surgery.

Design. Prospective, descriptive, longitudinal study.

Setting. Major Outpatient Surgery Unit of the Hospital Clínico San Carlos and health centers serving Health Area 7 in Madrid, central Spain.

Participants. Patients more than 14 years of age with a surgical condition involving the abdominal wall, pilonidal sinus, soft-tissue tumor, or proctological disease.

Intervention. Direct referral, with completed preoperative work-up, of patients from health centers to the Major Outpatient Surgery Unit of the Hospital Clínico San Carlos according to a protocol developed by consensus. The patient is seen on the same day for surgical work-up and anesthesia work-up, and is given preoperative information. Patients then make only one further visit to the hospital to undergo surgery.

Main measures. Number of patients with each diagnosis referred, diagnostic concordance between the health center and hospital, delay from referral to surgical treatment, number of trips made for different appointments, and referral rate.

Results. A total of 188 patients were referred. More than two thirds (68.7%) had an abdominal wall condition eligible for direct referral. Diagnostic concordance was 96%. The delay from referral until surgery was reduced by 60%, and the number of trips for appointments was reduced by 66.6%. The overall referral rate was 12.6%.

Conclusions. Because of its feasibility, acceptability, and cost-efficiency, the direct referral system has the potential to improve relations between primary and specialized care and enhance the quality of care by shortening the delay to treatment.

Key words: Primary care. Specialized care. Outpatient surgery. Referral.

MEJORA DE LA COMUNICACIÓN ENTRE NIVELES ASISTENCIALES: DERIVACIÓN DIRECTA DE PACIENTES A UNA CONSULTA DE ALTA RESOLUCIÓN DE CIRUGÍA MAYOR AMBULATORIA

Objetivo. Analizar los resultados de una consulta de alta resolución (CAR) diseñada en el entorno de un programa de colaboración entre atención primaria (AP) y especializada (AE) para mejorar la comunicación entre niveles asistenciales y disminuir la demora de derivación y tratamiento quirúrgico de pacientes susceptibles de ser operados sin ingreso.

Diseño. Estudio prospectivo, descriptivo y longitudinal.

Emplazamiento. Unidad de Cirugía Mayor Ambulatoria (UCMA) del Hospital Clínico San Carlos y centros de salud del Área Sanitaria 7 de Madrid.

Participantes. Pacientes > 14 años con enfermedad quirúrgica de la pared abdominal, sinus pilonidal, tumores de partes blandas y proctología.

Intervención. Derivación directa de pacientes a la CAR de la UCMA desde los centros de salud según un protocolo consensuado y con el preoperatorio realizado. El paciente realiza la consulta quirúrgica, preanestésica e informativa el mismo día, y acude al hospital sólo una vez más para ser intervenido.

Mediciones principales. Cuantificación de los procesos, concordancia diagnóstica entre la AP y la UCMA, duración del circuito, número de desplazamientos e índice de sustitución de los procesos.

Resultados. Se ha remitido a 188 pacientes. El 68,7% presentaba enfermedad de la pared abdominal. La concordancia diagnóstica ha sido del 96%. La duración del circuito desde la derivación hasta la intervención se ha reducido en un 60% y los desplazamientos en un 66,6%. El índice de sustitución global ha sido del 12,6% (tabla 4).

Conclusiones. Sobre la base de los resultados obtenidos, destacamos las posibilidades del programa en cuanto a factibilidad en su realización, aceptabilidad y rentabilidad, mejorando la relación entre AP y AE y la calidad en la atención al paciente al disminuir el circuito asistencial.

Palabras clave: Atención primaria. Atención especializada. Cirugía sin ingreso. Derivación.

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Introduction

More than 90% of the target population's health problems are resolved at the primary care (PC) level,^{1,2} and one of the main functions of the family physician is to manage referrals of the small percentage of remaining patients to specialized care (SC). Appropriate, prompt referral solves the patient's problem within a short period of time and decreases the number of emergency service visits. However, prompt referral is not always possible because of communication problems³⁻⁵ and the bureaucratic impediments that separate PC and SC, which generate long waiting lists for appointments with a specialist. For referrals to general surgery, which account for 10.7% of all referrals,^{2,4,6} we have found that a large percentage of the conditions for which patients are referred in our setting can be easily diagnosed by the PC physician, and that these conditions can now be treated without the need for hospital admission. In addition, at the major outpatient surgery (MOS) unit, where these patients are treated in our setting, patient satisfaction surveys have shown that patients wish to obtain treatment for their conditions more rapidly. These findings led to the creation of a "one-stop" outpatient surgical service which provides all health care actions these patients need on the same day.⁷⁻⁹ Access to this service is via direct referral by their PC physician, as a measure to improve communication between PC and SC, provide surgical treatment to patients who need surgery as soon as possible, and avoid trips to the hospital. This approach was intended to enhance the quality of care and enable the patient to resume normal daily activities promptly. The aim of this study was to analyze the results of the "one-stop" MOS service designed as part of a program to enhance collaboration between PC and SC.

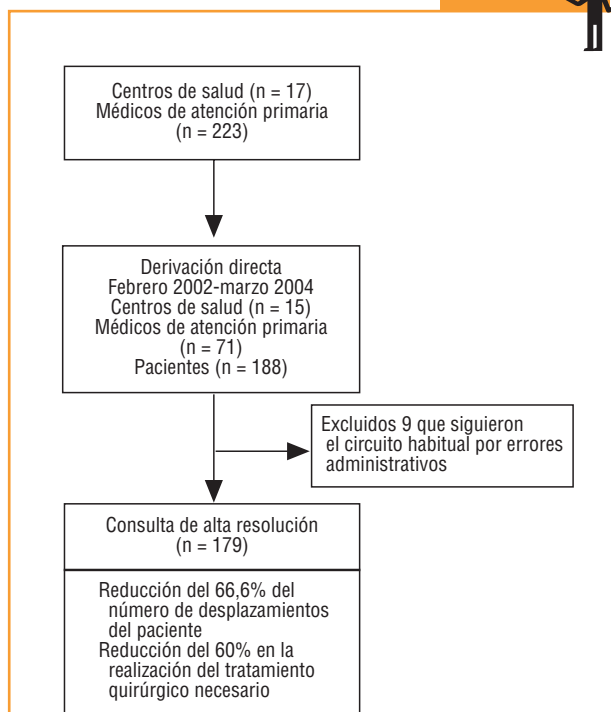
Patients and Methods

This was a prospective, descriptive, longitudinal study involving patients in Health Area 7 in the city of Madrid, central Spain. This report describes the operation of the one-stop service from its inception in February 2002 until March 2004. The study was carried out at the MOS unit of the Hospital Clínico San Carlos in collaboration with health centers in Area 7.

One-Stop Service

Before launch, the staff of the MOS unit and health centers met to agree on how the one-stop service was to operate and to develop referral guidelines together, with input from the primary care administration and accounts offices. A meeting was also held with the service management board. One meeting was held with PC physicians to inform them about the referral system, and two additional meetings were held with the one-stop service staff after the system had begun to operate to inform participants about the results, answer questions and receive suggestions regarding the inclusion of other conditions.

Material and methods



General Scheme of the Study

Descriptive, longitudinal, prospective study to analyze the results of an alternative process for referring patients from primary to specialized care via direct referral to a "one-stop" service.

Patient Selection

Patients were selected by PC physicians if they had any of the conditions shown in Table 1 that could be treated by outpatient surgery. Inclusion and noninclusion criteria for this type of treatment are shown in Table 2. As part of the referral agreement, PC physicians were asked to complete preoperative studies at the health center, including blood tests, x-rays and electrocardiogram so that patients could bring these results with them when they came to the hospital for their preoperative appointment. The patient's hospital appointment with the one-stop surgical service was scheduled by the health center. At the one-stop service the patient was examined by a staff surgeon at the MOS

TABLE 1 Conditions Eligible for Referral to the One-Stop Service for Outpatient Surgical Treatment

Abdominal wall pathology: hernia or tumor in the inguinocrural, umbilical or epigastric regions, tumor in a laparotomy scar, or eventration
Pilonidal sinus and hydradenitis
Large soft-tissue tumors
Proctological disease: grade III and IV hemorrhoids (in patients >40 years, diagnosed with colonoscopy), anal fissures and fistulas

TABLE 2 Inclusion and Noninclusion Criteria for Referral to the One-Stop Service

Inclusion Criteria	Noninclusion Criteria
Patients >14 years	Coronary artery disease with clinical symptoms in the last 6 months
ASA I anesthetic risk (healthy patients) or ASA II (mild or moderate, controlled systemic disease)	Patients on oral anticoagulant treatment
	Morbid obesity
	Substance dependence or alcoholism
	Psychiatric illness (as judged by the primary care physician)

unit. On the same day the patient was seen by the anesthetist, surgery was scheduled, and the patient was given information about the procedure and instructions about how to prepare for outpatient surgery. With this system the patient needed to travel to the hospital only twice: once for the preoperative appointment and again on the day his or her surgery was scheduled. A report was sent to the patient's PC physician via internal mail.

Study Variables

Number of patients, age, sex, and referring center were recorded. Other variables were participation by PC physicians, number of patients with each diagnosis referred, and diagnostic concordance between the PC physician and the MOS surgeon. Compliance with inclusion and noninclusion criteria, preoperative tests, delay between referral and surgery, and number of trips made by the patient were noted. Referral rate was calculated for each condition as the patients seen at the one-stop service for a given condition divided by all patients treated at the MOS for that condition.

Results

During the 25-month study period, 188 patients were referred from 15 of the 17 participating health centers. Of these patients, 95.2% were seen at the one-stop service and 4.8% did not attend their preoperative appointment.

A total of 71 PC physicians participated (32% of all PC physicians in Area 7), and 53.5% of them referred more than 1 patient.

Mean age of the patients was 50.8 ± 19.3 years, and 80% of them were men. The conditions for which patients were referred are listed in Table 3. Diagnostic concordance between PC and SC physicians was 96%, although 10% of the patients did not fulfill the inclusion criteria or had a condition that was not on the list of those eligible for referral. These patients were admitted for surgery with a short hospital stay or referred to other specialists. Nine percent of the patients did not bring all the results from the preoperative work-up with them.

TABLE 3 Surgical Procedures for Patients Treated at the One-Stop Service

Procedure	No. patients	%
Inguinocrural hernia	95	53.1%
Umbilical hernia	19	10.6%
Epigastric hernia	3	1.7%
Eventration	6	3.3%
Pilonidal sinus	33	18.4%
Proctological disease		
Hemorrhoids	5	2.8%
Anal fissure	3	1.7%
Soft tissue tumor	4	2.2%
Other diagnoses	11	6.1%

Mean time from referral by the PC physician to surgery was 1.9 ± 1.2 months, as compared to a mean wait of 4.8 months (60% reduction) for the usual referral process (Figure). We did not exclude from these calculations vacations, the month of August (when many people in Spain are on their yearly vacation), Christmas vacation or Easter week vacation, when the one-stop unit was closed, or patients' personal circumstances that led to delays in surgery (associated disease, family problems, etc). The number of trips to the hospital, including the day surgery was sche-

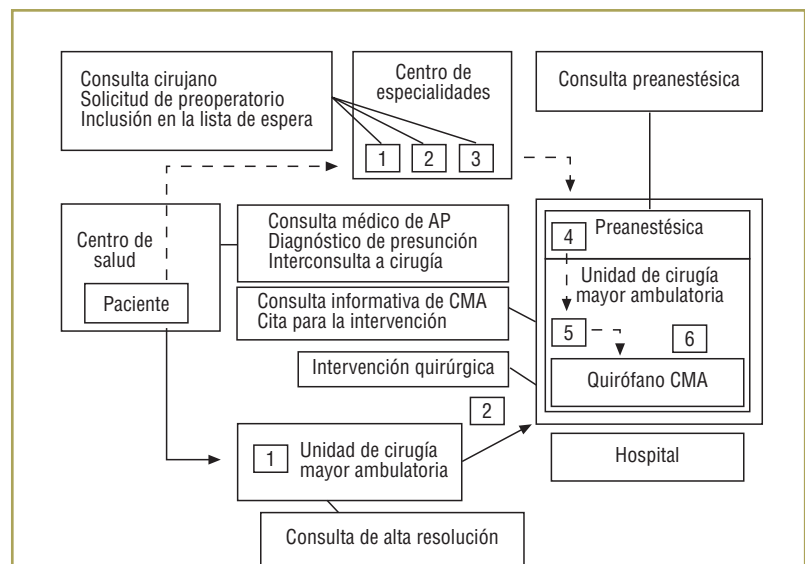


FIGURE 1

Patient referral circuit. The dashed arrow shows the usual process, with an average of 6 trips from referral to surgical procedure, and the solid arrow shows the 2 trips needed via direct referral to the “one-stop” specialty service.

TABLE 4
Referral Rate for Patients Seen Via Direct Referral Versus Patients Seen Via the Usual Referral Process

Conditions Eligible for the One-Stop Service	Treated Via Direct Referral	Treated Via the Usual Referral System
Inguinal hernia	21%	79%
Umbilical hernia	13%	87%
Pilonidal sinus	8%	92%
Proctology	3%	97%
Other	7.3%	92.7%

duled for, was 2 for all patients except the 9% who did not bring the results of their preoperative tests with them; these patients needed 4 trips to the hospital. This translated as a reduction of 66.6% and 33.3% respectively in comparison to the usual 6 trips.

The overall referral rate was 12.6%; referral rates for each diagnosis are shown in Table 4.

Discussion

The one-stop service model¹⁰ can be adapted to many problems which, because of their prevalence, justify implantation of strategies to decrease delays and facilitate access to specialized care. This is why hospitals and specialty centers across Spain are adopting this system.⁷⁻¹²

The system termed one-stop service in the present study differs somewhat from the accepted concept, as complementary tests needed for the preoperative work-up were not done on the same day, but were ordered by the PC physician so that the results could be brought to the hospital by the patient on the day of his or her preoperative appointment. Moreover, because we studied conditions that required surgery, actual treatment was postponed until the date of surgery. A more appropriate term would therefore be "direct referral,"¹³ in which the referral mechanism foments relations between PC and SC and shortens the delay to the patient's benefit.

Improved Communication Between Primary and Specialized Levels of Care

The relation between the two levels of care is favored in two evident ways. First, the PC physician is involved in the diagnosis so that the patient is referred to the appropriate specialist; as a result the information the patient brings to the appointment with the specialist is greater than with the usual referral circuits.^{4,14} Secondly, by shortening the delay between diagnosis and treatment, the information generated can readily be compiled in a single report that will not circulate from office to office, but will be

What Is Known About the Subject

- Communication between primary and specialized care is usually inadequate.
- The delay between diagnosis and treatment for problems amenable to outpatient surgery is considerable.

What This Study Contributes

- A system for direct referral of patients to specialized care improved communication between levels of health care.
- Direct referral reduced the delay to surgical treatment for certain conditions treatable by the outpatient surgery service.

delivered to the PC physician promptly³ as the final link in the circuit. We should add that patients' satisfaction when they obtain prompt treatment and resolution of their problem improves their relationship with the PC physician who arranged for treatment first-hand. Moreover, the number of visits needed during the wait for treatment decreased. The consequences were enhanced trust and a more cordial atmosphere during PC visits.

In the present study, the one-stop service created opportunities for communication between PC and SC levels that started with the preliminary meetings to agree on how and when the new system would operate. Thereafter, owing in part to personal acquaintances between physicians at the different centers, relations were based not only on the two-directional flow of information about patients via internal mail, but also on periodic reports of how the one-stop service was working and on meetings to extend the program by including other conditions in a later phase. Such proposals arose at the initiative of the PC physicians (for example, the referral of 2 patients with cholelithiasis for surgical treatment). Moreover, questions that arose were resolved on the spot with a telephone call.

Enhanced Patient Care

The most notable benefit patients obtained with this model of referral was the shortened delay between diagnosis and the surgical procedure. Because fewer steps were needed to obtain treatment, the mean delay of 5 months was reduced to somewhat less than 2 months (60% reduction); moreover, trips to the hospital were reduced to 2, one on

the day of the one-stop preoperative appointment and one on the day of the operation (66.6% reduction). In a large city such as Madrid, where travel time is considerable (some patients needed more than one means of transport to reach the hospital for their appointment with the specialist), reducing travel requirements had a direct effect on user satisfaction. If we add to this the social and occupational problems each appointment for medical care involves, the reasons why patients appreciated reducing trips to a minimum are readily appreciated.

Another positive finding in the present study was the high rate of diagnostic concordance between AP and SC physicians, as a result of involving both levels of care in the program from its inception.^{13,15} The efforts PC physicians devoted to investigating and diagnosing each patient and becoming involved in the preoperative work-up despite the pressures of a large patient load merit particular mention. The use of a concise referral protocol for specific conditions and patient characteristics, and the willingness of SC physicians to answer the family physician's questions personally, facilitated this task and contributed to the favorable results.

One aspect that will require further improvement is the degree of participation by PC physicians, as increases here would lead to increases in referral rates. Eventually our goal is for all patients eligible for outpatient surgical treatment to obtain access to the MOS unit via the direct referral system. Another challenge is the inclusion of additional diseases and conditions. In this sense the program continues to evolve as other conditions are included in response to requests by PC physicians.

In conclusion, we wish to emphasize the potential of this type of program in terms of feasibility, acceptability and cost-effectiveness on the basis of the results reported here. Such a one-stop system may manifestly improve the quality of patient care and relations between primary and specialized levels of care. Because the conditions for which it has been used thus far are among the most prevalent, large numbers of patients may benefit from this system, which is exportable to other medical and surgical specialties in other health care settings.

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COMMENTARY

Can Communication Between Levels of Care Be Improved?

J. Cebrià Andreu

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Effective, high-quality communication depends mainly on the interlocutors' prior positions, which in turn depend on their attitudes, beliefs and values. Communication between levels of care is no exception; it is highly influenced by assumptions that form part of each organization's professional culture, in both primary care (PC) and specialized care (SC).

Optimum communication should not depend exclusively on well-designed administrative channels of information, but should also be based on high levels of motivation, which probably arise from knowledge, respect and trust between the parties involved. In our setting, especially in PC, the issue has been of concern for some years,¹ although lately it appears to have been pushed aside by other priorities. Perhaps the reason for discouragement is because in daily practice, improvements in communication between different levels of care are terribly slow to appear.² This slow rate of change is the result, in part, of how hard it is to change ways of thinking and acting that have taken root in the habits of most professionals. For example, simply by talking about communication “between levels,” we are implicitly accepting beliefs and images associated with these words. The concept of levels of care brings up, for most of us, the mental image of a pyramid with PC at its base (i.e., at the bottom) and hospitals at its apex (i.e., at the top), or even worse, of hospital care on one level and nonhospital care on a different level. The idea that these levels are arranged vertically (the word itself invokes the notion of a hierarchy) places PC in a position from which effective communication is difficult to achieve. For communication to be truly effective, it must be symmetrical, from peer to peer.

Some convictions that make up an institution's culture, if acquired in an uncritical fashion, strongly influence the entire process. If these convictions are warped, patterns of communication will also be warped. This issue is of crucial importance for understanding the frequent miscommunication between PC and SC.³

The most widely-held opinion among many hospital professionals is that it is in the hospital where the patients' health problems are actually dealt with, where the real experts in all types of diseases are, and where the capacity to

Key Points

- Optimum communication should be based on a high level of motivation, borne most likely of respect and trust between the parties involved.
- The concept of levels of care brings up, for most of us, a mental image of a pyramid with primary care at the bottom and hospital care at the top, or even worse, a view of hospital care on one level and nonhospital care on a different level.
- Only personal acquaintance and contacts lead to respect and the perception of dealing with one's peers—attitudes that facilitate appreciation for the value of each other's work.
- If professionals are not accorded enough time to perform their duties with a minimum of rigor, effective communication will not be possible.

resolve the patients' problems is high, to be marred only by an avalanche of people “with nothing seriously wrong with them” who are referred for no justifiable reason by family physicians who are obviously undertrained. On the other hand, primary care physicians generally view specialists (the “other” specialists, that is) as holding a view of medicine that is overly disease-centered, allowing waiting lists to build up needlessly, and undermining strenuous efforts to achieve rational prescribing practices. Furthermore, specialized care does not afford its practitioners a comprehensive vision of the patient's health needs (Table).

The outcome of this scenario can only be a climate of mistrust in which PC, unable to attain the status it deserves, loses out. Despite the enormous changes in PC in recent decades with regard to improved quality of care and enhanced scientific training, many SC physicians continue to perceive PC physicians as “second-class” colleagues. We readily tend to center on the more negative elements in others, neglecting everything that is positive about who they are and what they do. The result, overall, is dispa-

TABLE 1
Prior Positions in Specialized and Primary Care

Specialists' expectations regarding primary care	Primary care physician's expectations regarding specialized care
Incompetent, unable to resolve the patient's problem	Unhelpful in complex cases (multisystem and psychosocial illnesses)
Refers patients with minor complaints that specialists must deal with	Distorts prescription statistics
Does not perform physician's real job of curing patients	Kidnaps interesting patients
The ones stuck in primary care are the least intelligent ones	Personal contact works but there's no time for this
Paradigms in specialized care	Paradigms in primary care
Biomedical	Biopsychosocial
Episode-oriented	Continuity- and follow-up-oriented
Defensive practice	Works with limited resources
Disease-centered care	Patient-centered care

gement, and this has consequences for the quality of communication.

The only things that can lead to respect and the perception of other colleagues as peers are personal acquaintance and frequent contacts, which furthermore allow one to appreciate the value of colleagues' work. When PC professionals demonstrate their competence and are able to explain the scientific paradigms that guide their practice, the result is enhanced respect and appreciation from their hospital colleagues. Likewise, when PC physicians appreciate the problems faced by their hospital colleagues, their understanding and respect for the work they do increase. This is especially the case in areas where the two types of care come together. The article by María Teresa Cerdán and colleagues shows that collaboration between PC physicians and surgeons leads to a number of interesting results such as improved overall quality of the health care process, as well as an increase in mutual understanding and trust—a valuable commodity. In any experience that involves increased formal or informal contact between different professionals, palpable progress in communication and cooperation is seen.

The reflections offered thus far have been expressed in more or less explicit terms for more than 2 decades.⁴ A cultural shift in our health care system is needed, but this will take time, because changes of this nature occur in small steps. Time is also needed in day-to-day practice to free practitioners from some tasks so that there is more time for contact with colleagues. The patient load is usually so heavy that no time is left for meetings of this sort—possibly one of the most important reasons why progress in communication between levels of

care is so slow. If the health care system is not capable of ensuring enough time for hospital and community professionals to perform their duties with a minimum of rigor, and for periodic contact with their colleagues on the job, the chances of effective communication are remote. Of course improvements in informatics and administrative support are necessary, but they should be accompanied by opportunities to use them effectively. A hastily-written report is a discredit to its author and discourages the person to whom it is addressed from responding to it.⁵

Therein lies the paradox. We have professionals in both settings with excellent skills despite their chronically heavy work loads, who are unfamiliar with each other's work and thus are unable to recognize good practice, or who ignore each other. In the face of this situation, we have nothing to lose from investigating the benefits of getting to know each other better.

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