



Electronic Referral Management: Bottom-line Benefits and Quality Gains

A Carefx Issue Brief

Simply Advancing Healthcare – Together

Effectively used, electronic referral management (e-referral) provides an alternative to the cumbersome, bureaucratic, paper-based referral process that has plagued physician practices, hospitals and health systems for decades. Only through e-referral can healthcare organizations improve information exchange, enhance patient care continuity and end the costly, time-consuming and error-prone chore of faxing, photocopying and filing paper referral documents.

High-profile organizations such as Boston Medical Center (BMC) are already using Carefx's eReferral solution to build "a sustainable referral network" and facilitate secure health information exchange between primary care providers, physician specialists and a network of community health centers (CHCs). Among the benefits: improved care team collaboration, increased patient and provider satisfaction, sustained patient volumes and substantial jumps in annual revenues.

So impressive are BMC's results, which are referred to in this issue brief, that the medical center was awarded eHealth Initiative's 2010 eHealth Organization of the Year - Business Process Improvement Award. Joel Vengco, BMC's executive director of clinical information systems, deserves kudos for his visionary "integration platform for interoperability," sustainable community information exchange (CIE), and courageous leadership in network referral cycle transformation.

But don't just take my word for it. A study appearing in the March/April 2009 issue of the Journal of the American Medical Informatics Association (JAMIA) revealed that "consultant recommendations were implemented 30 percent more often when there was electronic facilitation of recommendations." The authors are convinced they can apply their solution to facilitate transmission of pre-admission orders, make recommendations during inpatient-to-outpatient transitions, and manage consultant recommendations in the outpatient setting.

Carefx's electronic referral management solution, called eReferral, represents but one component of Carefx's Fusionfx solution suite, which delivers standards-based, service oriented, workflow portals for healthcare. Providers want collaboration tools such as e-referral to exchange information rapidly and securely. But they're also seeking solutions to facilitate medication reconciliation, patient and provider messaging, quality measurement and reporting, results summarization, personal health records, disease management, compliance, charge capture and access management.

We look forward to sharing our vision for "simply advancing healthcare" through solutions that fit your needs, culture and budget. Please contact me to discuss this issue brief and your personal ideas for a transformed healthcare system.

Sincerely,

Andrew Hurd
Chairman and CEO
Carefx Corp.

Table of Contents

Introduction	2
The Power of Electronic Referral Management	4
Multiple Benefits	5
A Serious Problem	5
Toward a Referral Management Solution	6
Case in Point: Boston Medical Center Community Information Exchange	7
Conclusions	9
Resources	10

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System Research Services

The Power of Electronic Referral Management

Collaboration is no longer an option; it's a necessity. “Healthcare professionals will collaborate electronically if they want to qualify for continued payment under HITECH,” predicts Marc Holland, CEO and Managing Director of System Research Services. Although providers are now focused on converting data into digital form and automating the medical record, they will soon turn their attention to the exchange of electronic information—what Holland labels “the heart of collaboration.”

Providers have little time to waste. Beginning in January 2011, they must be able to demonstrate the capability to electronically produce a summary of care record for each transition of care and each referral if they are to qualify for a HITECH incentive. While providers can initially print these summaries on paper, they must ultimately be able to transmit them electronically, while also relying on computerized provider order entry (CPOE) for a relatively high percentage of orders.

For example, if a network of community health centers wants to send patients to a medical center for specialist consults or procedures, someone at the network must enter an order, create the electronic referral and produce paper backup to either mail or hand directly to the patient. However, once these facilities enter stage two of the meaningful use guidelines, they must transmit such referrals electronically. “Providers must not only produce the referral documentation electronically, they must also transmit it electronically,” says Holland.

This level of electronic communication stands in contrast to the time when community physicians referred patients to hospitals for lab tests and waited patiently to receive results by courier or fax. “Electronic results reporting saves practices time and closes the quality-of-care loop,” says Lynne Dunbrack, Program Director, Health Provider Research, IDC Health Insights. “Staff can see if and when tests are completed and can easily access results, which often get pushed out to a patient portal so patients fully understand any next steps.”

Electronic referral management is also central to the concept of the patient-centered medical home, a “team-based model of care led by a personal physician who provides continuous and coordinated care throughout a patient’s lifetime to maximize health outcomes,” according to the American College of Physicians (ACP). Each referral represents an important intervention for the patient to advance the care plan. A failed referral leads to the breakdown of the medical home by the team of PCP and specialists.

The medical home is seen as a setting that “facilitates partnerships between individual patients, and their personal physicians, and when appropriate, the patient’s family,” says the National Committee on Quality Assurance (NCQA), with care decisions driven by registries, information technology and health information exchange.



Lynne Dunbrack, Program Director, IDC Health Industry Insights

Lynne Dunbrack is a nationally recognized thought leader in the application of information technology (IT) to the business problems of the health industry. Her understanding of industry needs is grounded in experience over the last 25 years working as a consultant and in the healthcare field. Dunbrack is a frequent contributor to industry publications such as Health Affairs, Managed Care Quarterly, Healthcare Review, Health Plan, and Healthcare Management Technology, and has been quoted by national media outlets like The Wall Street Journal, Investor’s Business Daily, Business Week, and San Jose Business Journal. She also speaks regularly at industry conferences.

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Research Vice President
Gartner

NCQA's Physician Practice Connections-Patient-Centered Medical Home awards practices based on their ability to meet standards related to access and communication, patient tracking and registry, care management, patient self-management support, e-prescribing, testing, tracking, performance reporting and improvement and advanced electronic communications. Standard seven, on referral tracking, is used to verify that practices “track referrals using paper-based or electronic means.”

New and emerging requirements for referral tracking raise questions about how well current electronic health records (EHRs) or electronic medical records (EMRs) support care coordination. A February 2010 study from the Center for Health System Change revealed that while ambulatory EHRs facilitate care coordination within practices, they are less successful in exchanging information between practices and across care settings—from medical centers, physician practices and imaging centers, to pharmacies and long-term care facilities. The primary reason for this phenomenon is the lack of an open approach by the EHR vendors, caused not just by technical standards but also business motivation. However, this is changing rapidly in the market place now with the increasing demands from the providers to support workflows that cross multiple organizations and EHRs.

For Barry Runyon, Research Vice President, Gartner, care coordination is a blend of IT, people, processes and leadership and is but one aspect of the broader category of “digital care delivery.” “Providers need help in deciding what technologies, applications and workflow changes can be reasonably brought to bear on the care coordinator issue,” Runyon says.

Multiple Benefits

Growing numbers of providers “are seeking solutions that generate a seamless flow of information between affiliated referring physicians and hospital-based providers and deliver a fresh approach to referral tracking and management, a vital part of care coordination,” says Jennifer Covich Bordenick, CEO of eHealth Initiative.

Executives and clinicians envision multiple benefits: enhanced provider collaboration, more efficient care coordination, improved care quality and safety, increased referral volumes and revenues and reduced no-shows, as well as higher satisfaction rates from clinicians, patients and community health partners.

“Hospital, IDN and health system executives have come to realize that next to patients and families, physicians are their most important customers,” says Qi Li, M.D., Carefx's Vice President, Clinical Strategies. “One of their most effective strategies for tapping that power is using the best information technology available to track and manage referrals across care settings.”



Barry Runyon, Research VP, Gartner

Barry Runyon covers the Healthcare IT segment within Gartner Research. Mr. Runyon has approximately 29 years of IT experience inside and outside of the healthcare IT. His research agenda includes the range of underlying and emerging technologies within the healthcare provider space. He joined Gartner in December of 2004 and is based in Tucson, Arizona.



Jennifer Covich Bordenick, Chief Executive Officer at the eHealth Initiative and its Foundation in Washington, D.C.

Since 2002, Jennifer has provided leadership for education and research components of the eHealth Initiative and its Foundation, including working groups, the online eHealth Initiative Toolkit, eHealth Initiative's Annual Conference, Annual Awards Program, Partnership for Connecting Communities for Better Health Program, annual health information exchange (HIE) survey, Connecting Communities Coalition, and many other programs.

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A Serious Problem

Referral management is a serious challenge. For years, physicians, office staff and other clinicians have relied on a slow, tedious, paper-based process that, more often than not, created hassles in the form of follow-up questions, repeat phone calls, bureaucratic snafus and even minor medical blunders.

"Referral management is an important component of care coordination," says Runyon. "And care coordination is but one domain, what Gartner has come to call 'digital healthcare delivery' that is in turn enabled by capabilities of the real-time enterprise." Other pivotal domains include security and compliance, alerts and notifications, converged voice data, bio-analytics, charge integration, portals, integrated clinical, financial and administrative applications, interactive patient care systems, process re-design, wireless and mobility, location and condition sensing and semantic interoperability.

Hospital and health system executives have grown weary of referral volume declines in an era of constrained reimbursement. Most institutions don't even know how to measure the current referral process or analyze the patterns. Clinicians have grown increasingly frustrated and annoyed over the lack of timely, accurate and useful referral information. And patients have experienced chaos and confusion by being kept out of the care loop.

"Consumers are definitely playing a more active role in their care by seeking information on healthcare quality, asking questions of providers and paying more attention to the medical care they receive," says David Hansen, a healthcare consultant, economist, entrepreneur and author. "This trend toward information-based activism is likely to continue as patients build on their experience with the Internet and become more discerning, disciplined users of data, guidelines and practical information on where, how, when and why they're being treated."

Toward a Referral Management Solution

Ask clinicians what they want from a referral management solution, and they offer fairly specific answers. Many are asking vendors if their solutions facilitate:

- **Information Exchange** – Enable referrals to, and the return of results from, hospitals and physician practices, as well as imaging centers, laboratories, pharmacies and ambulatory and urgent care providers
- **EMR Agnostic Platform** – Given the dynamics in the healthcare market, the solution needs to leverage established standards such as Integrated Healthcare Enterprise (IHE) to be able to connect to physician practices with any EMR, rather than being locked in by a particular EMR

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- **Workflow Portal** – Operate on a robust portal framework capable of performing not just referral but also other patient care functions, such as medication reconciliation or quality measurement and reporting
- **Collaboration** – Enhance communication and collaboration among physicians, hospitals, patients and other clinicians
- **Evidence of Results** – Come with evidence of increased referral volume and revenues, reduced no-shows, faster scheduling and physician note turnaround time, enhanced referral coordination and higher patient and clinician satisfaction scores
- **Unified Screen Views** – Allow clinicians to view referral details featuring referral statuses, eligibility information, referral preferences, appointment statuses, clinical data, and flags on specialist note/report status
- **Flexible User Interface and Workflow** – Provide customized views and workflow to meet the unique needs of an organization
- **Controlled Access** – Offer clinicians menu options based on their authorization and workflow
- **Ease of Use** – Allow clinicians to quickly add/update referral information, filter referrals, review checklists, add clinical data, and view/print referral summary reports
- **Communication** – Communicate to the circle-of-care in the way that each individual prefers
- **Tracking** – Support PCPs in follow-ups of specialist referrals through referral status, appointment status and specialist note status
- **Reporting** – Management reports to measure the referral process performance by the referring and specialty clinics, conduct business intelligence analysis to analyze referral pattern and trends

Case in Point: Boston Medical Center Community Information Exchange

Boston Medical Center (BMC), a not-for-profit, academic medical center and the largest safety net hospital in New England, implemented an inpatient and outpatient EMR in 2000. But it wasn't until 2009 that BMC created a Community Information Exchange (CIE) with 13 participating health centers and a single academic medical center.



David Hansen, Healthcare Consultant, Economist, Entrepreneur and Author

David Hansen researches health care business trends, builds start ups, and consults on directions for strategic and organizational change. As a consultant he has aided pharmaceutical companies, hospital systems, medical groups, and information technology vendors to develop IT strategies, target new markets, and adapt organizations. His scans of business and technology trends include publications for the California Health Care Foundation, IT Optimizers®, SRI International, and the Institute for the Future. He has helped lead several health care IT startups. Mr. Hansen's work builds on graduate degrees in both business and economics from the University of California. His health care perspectives are shaped both by the dozen years spent in Norway, including work in telemedicine and governmental policy, as well as by participating in and observing the dynamic economic model of the Silicon Valley.



Joel L. Vengco, Executive Director of Clinical Information Systems, Boston Medical Center

Mr. Vengco oversees various enterprise HIT applications and technologies that include the primary point of care applications such as the EMR, ancillary applications and associated devices, integration technologies, and diagnostic modalities. He is primarily responsible for the development of the Health Information Exchange platform that has established information sharing and interoperability between BMC and its partnering community health centers. Mr. Vengco is also involved in a variety of grant-funded informatics research projects. He serves as an advisor and director to healthcare technology start-ups, and has provided informatics consultancy to various large organizations throughout the healthcare industry.

“After identifying critical business processes that require information exchange, we developed solutions that would benefit stakeholders and build the CIE in steps. Our bottom line was to develop HIE-supported, transaction-based functions that addressed BMC’s core business problems.” says Joel Vengco, BMC’s Executive Director of Clinical Information Systems.

“We used standard constructs of health information exchange (HIE) as an active foundation for functional applications in our CIE,” says Joel Vengco, BMC’s Executive Director of Clinical Information Systems. “After identifying critical business processes that require information exchange, we developed solutions that would benefit stakeholders and build the CIE in steps. Our bottom line was to develop HIE-supported, transaction-based functions that addressed BMC’s core business problems.”

BMC analyzed what Vengco labels the “fallible, cumbersome and broken-down process of referral management,” isolating problems such as inadequate information provided to specialists (quality of care), lack of timely feedback to referring providers (care coordination), limited standard workflow or workspace for referral coordinators (efficiency), inefficient tracking (compliance), minimal utilization of the EMR systems (interoperability) and compromised patient care (patient safety).

Working with Scottsdale, Arizona-based Carefx, BMC designed and implemented an electronic referral system that relies on its CIE platform, complements clinician workflow, improves alignment with CHCs, centralizes the work of referral coordinators, enhances information exchange between PCPs and specialists and tracks referrals from initiation through completion.

“Automation of the patient referral process, which is often a disjointed and cumbersome workflow, is a critical capability of a clinical portal or HIE solution,” says Runyon. “Its value is enhanced when it can leverage existing hospital, physician and payer systems and has strong tracking and reporting capabilities.”

Holland agrees. “The real value of a health information exchange is delivered when the information provided by other entities can be actively integrated to maximize the economic value and clinical quality of workflows and processes,” he says. “But it all begins with understanding how, when and where your referral process breaks down and then taking steps to improve, standardize and extend that process.”

BMC’s use of Carefx’s eReferral system has generated stunning results. In just three months after implementation, results include improved referral coordination, more complete, standardized and trackable referral tasks and functions, enhanced patient satisfaction through timely appointment handling and updates and elevated referring physician and specialist satisfaction generated by accessibility to patient information before, during and after scheduled appointments.

The rate of scheduled referrals at BMC has jumped from 30 percent before eReferral to 60 percent with eReferral, while the time-to-referral appointments has decreased from a maximum of 69 days, pre eReferral, to 3.5 – 7.8 days, post eReferral. No show rates have declined from 30 percent, pre eReferral, to 4.5 percent to 8.4 percent, post eReferral.

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Overall, based on a three-year projection, eReferral will generate a 553.09 percent return on investment for BMC with more than \$7 million in financial benefits made possible through increased referral follow-through, reduced operating costs and non-ROI enhancements in scheduling, safety, quality and satisfaction.

Additional information on BMC’s eReferral experience can be found in the case study at www.carefx.com or in the resources listed at the end of this document.

Conclusions

Cumbersome, paper-based referral processes are giving way to streamlined, efficient e-referral. When built in collaboration with five-star providers such as Boston Medical Center, such solutions serve the interests of hospitalists, specialists, primary care physicians and other clinical professionals across care settings. Such solutions also meet the requirements healthcare executives have for sustained volume and increased revenues in an era of declining reimbursement and economic crisis. At-risk patients are much more likely to get the necessary healthcare when a closed-loop referral management solution is in place.

When built on a robust portal and health information exchange solution, electronic referral management solutions such as Carefx’s eReferral offer the kind of data that allows clinicians to engage in real-time, proactive referral management and time-saving, efficient workflow. The result: enhanced referring physician communication, optimized inpatient and outpatient care, and increased referral volume.



Marc Holland, CEO and Managing Director, System Research Services

Marc Holland, with over 30 years of healthcare IT experience, leads the healthcare research and advisory services practice at System Research Services (SRS). Mr. Holland’s research focuses on EMRs, EHRs, wireless devices, health information exchanges, telemedicine, remote patient monitoring, virtualization, systems integration, unified communications, business and clinical analytics and RFID. He is a nationally known expert in these areas and a frequent speaker at webinars and healthcare information technology conferences. Mr. Holland was one of the original co-founders of SRS, which was first incorporated in 1983.

Resources

Carefx's New Referral Management Solution Increases Hospital Referral Volume, Enhances Collaboration Among Specialists, PCPs and Patients

<http://www.carefx.com/news-events/news-detail/carefxs-new-referral-management-solution-increases-hospital-referral-volume>

Boston Medical Center Managing H1N1 Flu Vaccination for its Community with Carefx's New Immunization Management Solution

<http://www.carefx.com/news-events/news-detail/boston-medical-center-managing-h1n1-flu-vaccination-with-carefxs-new-immuni/>

eReferral System Boosts Medical Center Bookings

<http://www.informationweek.com/news/healthcare/EMR/showArticle.jhtml?articleID=221600337>

"Automated Referral System Adds \$7M to Boston Hospital's Bottom Line"

<http://www.healthcarefinancenews.com/news/automated-referral-system-adds-7m-boston-hospitals-bottom-line>

Children Health Fund-Referral Management Initiative

<http://www.childrenshealthfund.org/child-health-care/special-initiatives/referral-management-initiative>

Technology-Enabled Reengineering of Referral Intake Process and Case Management System Significantly Improves Field Nurses' Ability to Serve At-Risk Families

<http://www.innovations.ahrq.gov/content.aspx?id=1791>

Education and Support of Primary Care Practices Does Not Increase Referrals of Patients with Behavioral Risks to Community-Based Organizations

<http://www.innovations.ahrq.gov/content.aspx?id=2686>



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