

## Electronic Consults: Lessons From a Neighboring State

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### BACKGROUND

The delivery of healthcare has become increasingly complex. Primary care providers (PCPs) now collaborate with hundreds of different health professionals to coordinate and provide care to their patients.<sup>1</sup> Referrals from primary care to specialists have more than doubled.<sup>2</sup> Busy schedules and fewer opportunities for informal, “curbside” consultations mean that the face-to-face referral is often the only mechanism for a PCP to obtain guidance, advice, or input from a specialist. While technology has revolutionized communication in other industries, healthcare has been slow to adopt new tools and techniques. In the case of specialty referrals, whether the PCP is seeking input about next steps in managing a chronic condition, help identifying and treating a rash, or collaboration in managing a complex case, the face-to-face visit remains the only routinely available option. Many of these referrals still rely on fax or even paper mail to convey medical information between the collaborating providers. These antiquated communication tools combined with the increase in volume of referrals have led to poor coordination of care, patient inconvenience, long wait times, and increased cost.

Limited access to specialty care is a particular challenge for medically underserved patients such as those with state-funded Medicaid insurance, the uninsured, and those living in rural communities. Many specialists either do not accept Medicaid patients or limit access to these programs. Patients with Medicaid that do receive appointments often experience long wait times.<sup>3,4</sup> As a result of these barriers, medically underserved patients are less likely to be seen by specialists than patients with other insurance.<sup>4</sup> Delayed or deferred care due to poor access is a significant contributor to health inequality.<sup>5</sup>

### eCONSULT OVERVIEW

The electronic consultation (eConsult) is an important new telehealth tool that provides a solution to improve communication and reduce access barriers to specialty care. eConsults allow PCPs and specialists to exchange clinical information about specific cases using a secure electronic platform. The concept was pioneered at San Francisco General Hospital, initially, as an electronic referral process that

allowed specialists to triage and prioritize incoming referral requests.<sup>6</sup> Early experience with the system demonstrated that, in addition to improving the triage of patients into specialty care, a substantial number of consults could be fully addressed “electronically” and did not require a face-to-face visit at all.<sup>7,8</sup> A similar process was implemented in Los Angeles County, which has now completed over one million eConsults and reduced the overall need for face-to-face consults by 25%.<sup>9</sup> The use of eConsults has now spread widely in California and other states, particularly those with advanced payment models and shared-risk arrangements that support implementation of interventions providing value and cost savings.

### CONNECTICUT EXPERIENCE

In Connecticut, as with many other Northeast states, fee for service remains the predominant reimbursement model. Innovations such as eConsults have been slower to take hold. However, as in other states, providing adequate access to specialty care for Medicaid patients is a significant challenge. Community Health Center, Inc. (CHCI) is Connecticut’s largest Federally Qualified Health Center (FQHC), caring for over 150,000 patients in more than 200 locations across the state. Despite the presence of many large academic specialty care practices in close proximity to CHCI’s locations, its patients often faced wait times of three to six months or longer for access to certain specialties, and many had to travel from locations across the state to UCONN Health in Farmington, the only state-funded medical center in Connecticut. In 2013, CHCI obtained grant funding to pilot an eConsult system to help address health inequality in specialty access. Funding allowed researchers at the Weitzman Institute, CHCI’s research and education center, to partner with UCONN Health to test eConsults for cardiology referrals.<sup>3</sup> Primary care providers were randomized to receive access to an eConsult platform that allowed them to share relevant clinical information and a consult question with UCONN cardiologists. Use of the system was not mandatory, but was encouraged by use of a supportive workflow and frequent feedback to PCPs. Providers in the control group continued to refer to cardiology in the traditional manner by requesting face-to-face visits. The cardiology

eConsult reviewers provided advice and guidance about the case, including whether they felt a face-to-face visit was needed. Responses were returned to the PCP in two business days or less. After one year, results demonstrated a substantial improvement in access. More than half of the consults requested by PCPs in the intervention arm, 120 out of 229 (52%), were sent as eConsults and 83 (69%) did not require a face-to-face visit. The large number of consults that could be addressed via eConsults within two days led to a significant increase in overall access to cardiology due to the reduction in patients needing a face-to-face visit. In addition, patients in the intervention arm of the study had significantly fewer emergency room visits than patients cared for by providers in the control group, possibly due to the more rapid receipt of review and treatment for those patients receiving an eConsult.

A secondary economic analysis of Medicaid claims for patients in this same study demonstrated that those in the intervention group had a mean total cost of care that was \$466 lower than those in the control using an intention to treat analysis that included costs of patients sent for face-to-face visits in the intervention group.<sup>10</sup> The higher total cost of care for patients referred for a face-to-face with cardiology accrued largely over a three-month period following the consult request, and there was a statistically significant increase in costs attributed to cardiology tests and procedures that was not seen in patients in the eConsult arm of the study.

Based largely on these findings, Connecticut's Department of Social Services (DSS), which manages the state's Medicaid program, received approval to implement a State Plan Amendment (SPA) that allowed limited reimbursement for eConsults for participating FQHCs. CHCI then expanded its eConsult program to include several other high-volume specialties including dermatology, gastroenterology, endocrinology, and orthopedics. A detailed analysis of Medicaid claims data for patients referred to these four additional specialties demonstrated that eConsults were associated with lower cost of care to Medicaid.<sup>11</sup> In total, patients receiving an eConsult had specialty-related costs that were \$82 per member per month lower than patients who received a face-to-face appointment, yielding an estimated savings of over \$600,000 for the state's Medicaid plan in one year.

On July 1, 2017, Connecticut became the first state in the U.S. to add eConsults as a covered benefit for its Medicaid program by including eConsult CPT codes in its fee schedule. Since that time, CHCI has continued to expand its eConsult program and now offers its patients access to eConsults for 30 different adult and pediatric specialties. Specialist from a wide and growing range of practices across the state now participate as eConsult reviewers. Since inception, CHCI has completed nearly 9,000 eConsults of which 80% prevented the need for a face-to-face visit. The program has benefitted providers, patients, and healthcare payers.

## NATIONAL GROWTH

In 2015, CHCI created a non-profit subsidiary and began offering access to its eConsult platform to health centers in neighboring states and later, around the country. Reimbursement for the cost of the eConsult has come from a range of grant sources, commercial insurance, and Medicaid managed care plans, and increasingly, practices and health systems with value-based payment models and shared risk arrangements. As of August 2019, there were over 600 primary care providers from 146 practices in 14 states using CHCI's eConsult platform. The eConsult process minimizes changes in workflow and avoids imposing additional burdens on PCPs or their staff. Referral staff benefit in particular from the reduced need for face-to-face visits that need to be scheduled, coordinated, and tracked. A typical practice can expect an overall reduction of approximately 20-25% in the number of face-to-face referrals for its most common specialty referrals.

## SPECIALISTS REVIEWERS

A wide range of specialists from Connecticut and other states now participate in the program. State regulations about telehealth are changing rapidly. Some states allow eConsults to be exchanged between clinicians in different states while others require an in-state licensure. CHCI has recruited, trained, and credentialed eConsult reviewers in 35 different medical and surgical specialties locally and regionally, while others practice across state lines. Volume of consults vary, and are adjusted to meet each specialist's needs. Specialists are reimbursed on a per consult basis. An average eConsult takes approximately ten minutes to complete. Templates can be designed to streamline responses. Specialists are expected to provide a clear, concise response first noting whether a face-to-face visit is warranted, and then outlining recommendations for further testing and treatment.

## RHODE ISLAND eCONSULT PILOT

In September of 2016 Thundermist Health Center in Rhode Island began using CHCI's eConsult platform, focusing first on dermatology referrals, and later adding cardiology. While reimbursement from payers in the state is still not available, the health center chose to pay for the service on a limited basis due to the significant issues of access for its patients. Since inception, Thundermist providers have completed 351 eConsults in dermatology and cardiology. Seventy-eight percent of the consults prevented the need for a face-to-face visit. Consults cover a wide range of topics. For dermatology, the most common consult question is for assistance diagnosing an unidentified rash. The majority of these cases are found to be various forms of dermatitis. **Figure 1** shows an example of a dermatology eConsult (without photos) from

Figure 1. Dermatology eConsult Request

**eConsult Request**  
**Specialty:** Dermatology  
**Specialist Reviewer:**  
**Diagnosis:** RASH AND OTHER NONSPECIFIC SKIN ERUPTION  
**ICD Code:** R21  
**Procedure(s):** interprofessional telephone/Internet assessment (99446)

To: Dermatologist  
 Rash on hands (L > R). See photos attached.

To: PCP  
 Good morning,

The clinical photos and history are definitely suggestive of dyshidrotic eczema (especially the right hand rash), but the lack of response to steroid and secondary consideration of tinea manum (or 2-foot, 1 hand) complicate the therapeutic picture. When patients present with an acral pustular eruption or palmar hand rash, it is always necessary to examine the feet as well, as this can provide a lot of help in diagnosis.

Biopsy of these rashes is usually not necessary if we can exclude/treat fungus, as the differences between dyshidrotic eczema and palmoplantar pustulosis/psoriasis are often nondiagnostic on H&E. I have the following recommendations:

- 1) Scraping of the left hand scale for KOH prep and fungal culture (I use a 15 blade to gently scratch away the scale onto a glass slide, then sandwich the material between another slide, tape together, and put in a sterile urine specimen cup to send to the lab). I would do this +/- a 2-week course of oral terbinafine. If the foot exam is suggestive of tinea pedis or significant onychomycosis, I would definitely do at least two weeks of oral terbinafine.
- 2) Once the scraping is done and specimen sent, I agree with a trial of class I topical steroid ointment, under occlusion at night if tolerated. Cost and access differ but usually either augmented betamethasone 0.05% ointment or clobetasol propionate 0.05% ointment is affordable/covered through insurance or GoodRx.
- 3) If topical steroid is not effective, then we need to consider oral therapies and/or adjusting his medicines (Beta blockers can trigger/exacerbate psoriasiform eruptions). This is the point I might consider biopsy, prior to initiating oral therapy.

Thank you for the consult.

This eConsult was closed as: Patients Needs Addressed Message submitted to provider for review.

Thundermist. For cardiology, some of the most common eConsults related to questions about abnormal EKG findings, atypical chest pain, and palpitations. **Figure 2** shows the dialogue from a cardiology eConsult.

The concept of eConsults arose out of the frustrations of front-line primary care providers struggling with limited access to specialty care for their patients. Now, with solid evidence demonstrating its clinical efficacy and a strong financial return on investment, this simple technology is reimagining the way primary care providers communicate

Figure 2. Cardiology eConsult Request

**eConsult Request**  
**Specialty:** Cardiology  
**Specialist Reviewer:**  
**Diagnosis:** ATRIAL SEPTAL DEFECT  
**ICD Code:** Q21.1  
**Procedure(s):** interprofessional telephone/Internet assessment (99446)

To: Cardiologist  
 XX y/o with hx of interatrial septal aneurysm with PFO vs ASD seen on stress echo. Currently no cardiac sx. Please advise on any further f/u/monitoring. Please refer to eCardiology consult.

To: PCP

XX year old with incidentally noted atrial septal aneurysm and patent foramen ovale versus small atrial septal defect on an otherwise normal stress echocardiogram. The patient is without associated symptoms. There is a statistically increased risk of embolic neurologic events from both the atrial septal aneurysm and often associated defect. Nonetheless, specific medical therapy is not indicated for primary prevention. Should a suspicious event such as a TIA occur, then consider treatment with aspirin and/or warfarin.

There is no indication to close this small, apparently hemodynamically insignificant shunt with surgery nor with a percutaneous septal occluding device.

This eConsult was closed as: Patients Needs Addressed Message submitted to provider for review.

and coordinate care with specialists in Connecticut, Rhode Island and across the country. As advanced payment models with shared risk arrangements take hold in the state, programs like eConsults will be increasingly important and sought after by payers as well as individual practices and accountable care organizations looking to control cost and improve access. In the coming years eConsults will become a routine element of the referral process, allowing PCPs and specialists to confer about cases in advance of, or in place of, a face-to-face visit, yielding tangible benefits for consumers, providers, and payers.

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