What are the costs of improving access to specialists through eConsultation? The Champlain BASE experience

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Dr. Clare Liddy
Director of Research, Department of Family Medicine, University of Ottawa, Bruyère Research Institute
The eConsultation Team

A collaboration between:
The Ottawa Hospital (TOH)
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Winchester District Memorial Hospital (WDMH)
Champlain Local Health Integration Network (LHIN)

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Co-Authors:
Catherine Deri Armstrong, PhD
Paul Drosinis, MPH
Ferdinand Mito-Yobo, MA
Amir Afkham, BEng
Erin Keely, MD
The problem: poor access

“I have been waiting a long time to get my appointment with the specialist”

“I refer and then wait and do not even know if the fax was received…”

“Takes a long time to have an non-urgent patient seen in Endocrinology”

“I am frustrated by my wait list. I can’t ever seem to catch up…”
Background

- Excessive wait times and inequitable access to care lead to patient anxiety, delays in diagnosis, and potentially further deterioration of the patient’s condition

- There is an opportunity to improve access to care through innovative eHealth solutions including eConsultation

What is an eConsultation?

- Asynchronous, electronic communication between providers
- Patient-specific question directed to a specialist
- May result in patient not needing a face-to-face visit with a specialist
Champlain BASE eConsult service

- Developed in 2010
- Secure, easy-to-use, web-based platform
- Simple template for PCP to complete & submit to a “specialty”
- Assigned to appropriate specialist
- Answer expected within 7 days
- Allows back and forth exchange for clarification and add’l. information
- PCP closes eConsult and completes mandatory survey
- Specialists are remunerated $200 per hour prorated to their self reported time to complete the eConsult
Study Objective

1. To explore the costs of improving access to specialist care through eConsult
Methods

- **Design**: cost analysis from the perspective of the payer

- **Data sources**: We used data collected from the Champlain BASE eConsult system over three consecutive one year periods:
  - Year 1: April 1st, 2011 to March 31st, 2012
  - Year 2: April 1st, 2012 to March 31st, 2013
  - Year 3: April 1st, 2013 to March 31st, 2014
Methods

• **Operational Costs:** we calculated both direct and variable costs associated with the service
  
  • **Direct costs:** start up costs
  
  • **Variable costs:**
    
    • **Delivery costs:** user set up/registration, support costs, administration costs
    
    • **Consultation-specific costs:** all payments made to specialists and assignment costs for staff to direct each eConsult to the appropriate specialist

• **Referral Costs:** we used responses from a PCP close-out survey completed at conclusion of each eConsult to tally the number of avoided and added referrals
Methods

• Overall cost savings were calculated as the total costs avoided minus the total operational and added referral costs:

\[
(\text{Referral Avoidance Costs}) - (\text{Operational Costs + Added Referrals}) = \text{Costs Saved}
\]
Results

- **2606** eConsults to **27** different specialty services were completed over the three year period.

- In **40.3%** (n=1051) of cases a face-to-face specialist visit was originally planned but avoided as a result of eConsult (in fact only **29%** of all eConsult cases led to a referral).

- In **3.6%** (n=93) of cases a referral was initiated where one was not originally planned.
Results

- Estimated costs per eConsult decreased over each annual period:
  - Year 1: $131.05
  - Year 2: $10.34
  - Year 3: $6.45

What costs accounted for the majority of spending?
- Year 1: start-up and service delivery (76%)
- Year 2: specialist remuneration (63%)
- Year 3: specialist remuneration (72%)

Image source: http://www.caskilc.com/2014/07/why-you-should-implement-should-cost-analysis/
Results

- We predict eConsult will break-even at 7818 eConsults
Where are we now?

As of April 30th, 2015:
- **6824** cases completed
- **682** PCPs registered (567 MDs and 115 NPs)
Current specialty services (n=67)

- Addictions Assessment/Treatment Services
- Adolescent Medicine
- Anesthesiology (Adult) *
- Back and Neck (spine) Care *
- Bariatric Care – Medical
- Bariatric Care – Surgical
- Bariatric Care – Dietitian
- Cancer Screening
- Cardiology *
- Champlain CCAC
- Chiropody
- Clinical Pharmacy *
- Dermatology
- Diabetes Education
- Endocrinology *
- ENT & Head/Neck Surgery
- Gastroenterology
- Genetics
- General Surgery
  - Geriatrics
- Hematology
- Infectious Diseases
- ID-Viral Hepatitis
- Internal Medicine
- Musculoskeletal Rehabilitation *
- Nephrology *
- Neurology
- OB/GYN
- Ophthalmology
- Orthopaedics *
- Pain Medicine
- Pain and Opioid Addictions/
  Addictions - Opioids
- Palliative Care
- Psychiatry
- Psychiatry-Perinatal
- Public Health - Ottawa
- Respirology
- Rheumatology
- Sexual Assault/Domestic Violence
- Sports Medicine
- Thrombosis
- Urology
- HIV
  - Specialists
  - Pharmacist
  - Psychologist
  - Social Worker
- Pediatrics
  - ADHD
  - Anesthesiology
  - Cardiology
  - Chronic Pain
  - General *
  - Hematology/Oncology
  - HIV
  - Infectious Disease
  - Neurology
  - Ophthalmology
  - Orthopedics
  - Palliative Care
  - Psychiatry
  - Radiology
  - Respirology
- Radiology:
  - Abdominal
  - Musculoskeletal
  - NeuroRadiology
  - Thoracic
- Wound Care
- Vascular Surgery

* Includes community-specific specialties
Specialty Distribution – ALL (6824 cases)
Ongoing research activities include:

- Impact on specialist referral rates
- Role and impact of eConsult on medically complex patients
- Specialist to specialist eConsults
- Development of an eReferral system
- Development of Case Conferencing
- Patient Perspectives
- Analysis of eConsult questions to inform CPD