Improving Access to Specialists for Residents in Long-Term Care Through the Champlain BASE eConsult Service

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Dr. Clare Liddy
Associate Professor, University of Ottawa, Department of Family Medicine, Bruyère Research Institute

Dr. Erin Keely
Chief, Division of Endocrinology and Metabolism, The Ottawa Hospital

Amir Afkham
Senior Project Manager, Champlain LHIN
Disclosure of Commercial Support

This program has not received financial support from commercial interests.

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The eConsult Team

A collaboration between:
- The Champlain Local Health Integration Network
- The Ottawa Hospital
- Bruyère Research Institute
- Winchester District Memorial

Service Sustainability Funding
- Champlain Local Health Integration Network
- Ontario Ministry of Health and Long-term Care

Current Research Funding
- Canadian Institutes of Health Research
- Bruyère Research Institute

Clare Liddy
Primary Care Lead
cliddy@bruyere.org
613-562-6262, Ext. 2928

Erin Keely
Specialist Lead
ekteely@toh.on.ca
613-738-8400, Ext. 81941

Amir Afkham
Engagement & Implementation Lead
Amir.Afkham@lhins.on.ca
613-747-3235
Objectives

- Overview of the Champlain BASE eConsultation service
- Impact of eConsult access to care
- Improving access to specialists for long term care residents
- Ongoing research and collaboration
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…”
A possible solution to improve access to specialists: eConsultation

- A secure web-based service for primary care providers to access specialist care for their patients

*I LOVE eConsult!!!! Great way to get fast information on your patients and often to avoid referral if not indicated.*
# Development of BASE eConsultation service

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>Fall 2009</td>
<td>Initial meeting with PCPs and develop e-form</td>
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<tr>
<td>January 2010</td>
<td>Launch proof of concept with 5 specialties</td>
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<tr>
<td>Spring 2010</td>
<td>Ongoing feedback and evaluation from users</td>
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<tr>
<td>March 2011</td>
<td>Launch pilot of eConsult</td>
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<tr>
<td>April 2011</td>
<td>End of proof of concept: Data collection and evaluation</td>
</tr>
<tr>
<td>2012/2013</td>
<td>LHIN Funding</td>
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Privacy Impact & Threat Risk Assessments done, CMPA contacted

Now in a sustainability and expansion mode
How Does eConsult Work?

1. PCP logs onto secure webpage
2. Completes simple form to submit to a “specialty”
3. Assigned to an appropriate specialist (availability/rotation)
4. Response received within 7 days; back and forth communication can occur between PCP and specialist
5. PCP closes eConsult and completes survey

*Note about Patient Consent and eConsult: The CMPA has determined that patient consent is implied in an eConsult, as this interaction remains within the Circle of Care. For more information, please review the [CMPS Assessment of eConsult](#).*
Champlain BASE Project: Building Access to Specialists through eConsultation

Demo – eConsult Initiation

Dr. Erin Keely,
Chief, Division of Endocrinology and Metabolism, The Ottawa Hospital

Dr. Clare Liddy,
The Ottawa Hospital Academic Family Health Team, Bruyère Research Institute

Amir Afkham
Senior Project Manager, Champlain LHIN
Initiating an eConsult

**eConsult Submission**
https://www.youtube.com/watch?v=B4WFn0qLzHA

- **Specialist Response**
youtube.com/watch?v=5Lj2guwf1TY

- **eConsult Review/Closure**
https://www.youtube.com/watch?v=_P6J9xFBp1E

- **Case Assignment**
youtube.com/watch?v=Pm1EWcrx81k
Current Status (as of Oct 31\textsuperscript{st} 2015)

- 10 090 Cases Completed
- 873 PCPs (735 MDs, 138 NPs) from 277 clinics in 85 towns/cities *

* Includes select group of clinics outside of the Champlain region (SE, Central, HNHB, CE, NE, NSM, NW, SW, TC, WW, MH, & Nunavut) in support of funded research initiatives for a more detailed quantitative assessment of eConsult’s impact on referrals
Where Are We Today? *(as of Oct 31st, 2015)*

- Proof of concept Jan 2010 ➔ relaunch April 2011
- MDs and NPs from 277 clinics in 85 different towns (organic growth)
- Specialty growth through PCP demand and specialist interest – sustained/accelerated YoY

**PCP Engagement**

**Specialty Engagement**
Current specialty services (n=80)

- Addictions Assessment/Treatment Services
- Allergy and Clinical Immunology
- Anesthesiology (Adult)*
- Back and Neck (Spine) Care*
- Bariatric Care
  - Medical
  - Surgical
  - Dietitian
- Cancer Screening
- Cardiology*
- Champlain CCAC
- Chiropody
- Clinical Pharmacy*
- Concussion - Rehabilitation
- Dermatology*
  - Hair loss
- Diabetes Education
- Endocrinology*
- ENT & Head/Neck Surgery
- Gastroenterology
- Genetics
- General Surgery
- Geriatrics*
  - Medications (Deprescribing)
  - Mind (Dementia, Delirium)
  - Mobility (Falls and Near Falls)
- Hematology
  - Hemostasis
- Infectious Diseases
- ID -Viral Hepatitis
- Internal Medicine
- Musculoskeletal Rehab*
- Nephrology*
- Neurology
  - Migraine
- OBS/GYN
  - Vulvo-Vaginal Disease
  - Menopause/Perimenopause
- 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
- Transgender Care
- Urology
- HIV
  - Specialists
  - Pharmacist
  - Psychologist
  - Social Worker
- Radiology:
  - Abdominal
  - Musculoskeletal
  - Neuro Radiology
  - Thoracic
- Wound Care
- Vascular Surgery

* Includes community-specific specialties
Current specialty services for Pediatrics

- Adolescent Medicine
- ADHD
- Anesthesiology
- Cardiology
- Chronic Pain
- Complex Care
- ENT
- General *
- Genetics
- Hematology/Oncology

- Infectious Disease
- Neurology
- Ophthalmology
- Orthopedics
- Palliative Care
- Psychiatry
- Radiology
- Respirology

* Includes community-specific specialties
Results & Observations (as of Oct 31st, 2015)

- 10,090 cases completed across 80 available Specialties (projecting to exceed 11,000 by YE)

- Specialist response interval:
  - Median – 0.8 days
  - Average: ~ 2 days
  - Fastest Response: 4 minutes (Vascular Surgery!)
Impact of eConsultation on Referral

[from PCP survey responses completed for each case]

Over 60% of cases did not require a face-to-face visit with the specialist following an eConsult; in fact, in 40% of cases, an unnecessary referral was avoided.

N=10,090 cases

1. Referral was originally contemplated but now avoided at this stage
2. Referral was originally contemplated and is still needed - this eConsult likely leads to a more effective visit
3. Referral was not originally contemplated and is still not needed - this eConsult provided useful feedback/information
4. Referral was not originally contemplated, but eConsult process resulted in a referral being initiated
5. There was no particular benefit to using eConsult in this case
6. Other (please comment)
Clinical Value * from PCP survey responses completed for each case

- 57%: I was able to confirm a course of action that I originally had in mind
- 39%: I got good advice for a new or additional course of action
- 1.6%: I did not find the response very useful
- 2.3%: None of the above (please comment)

Overall Value of the eConsult Service (AVG.: 4.69/5)

- 79%: Excellent
- 15%: Very Good
- 4%: Good
- 1%: Sufficient
- 1%: Minimal

“I think this is a fantastic idea, and I will now be trying eConsults as my first choice, and I will save the formal referrals for those patients who require it after the information has been reviewed by the specialist.”

“Efficient, speedy and reassuring. My patient was surprised about the technology and how quickly a response was obtained.”

“I LOVE eConsult!!!! Great way to get fast information on your patients and often to avoid referral if not indicated.”
Patient Value
[from PCP survey responses completed for each case]

Eliminate travel to specialist
Dramatically reduce wait time
Appropriate treatment starts quickly, avoids deterioration
Reduced anxiety
92% as high or very high value

Overall value of the eConsult service in this case for patient (9543 Completed Cases) AVG.: 4.64/5
Cases Completed – By Patient Age Group

[ # of cases, % of total ]

- **UNDER 18**
  - 1565
  - 16%

- **ADULT**
  - 6375
  - 63%

- **SENIOR**
  - 2150
  - 21%
What about in LTC?

- Over 78,000 residents in 640 LTC homes across Ontario

- Growing % suffer from Alzheimer’s disease or other dementias, complex health issues, multimorbidity, and physical frailty

- Average cost of care in last year of life: $34,381
eConsults from PCPs in LTC Homes

Specialty Distribution in LTC (n=27)

As of Oct 31st, 2015:

• 5 active PCPs from LTC using eConsult
• 27 eConsults submitted to 11 different specialty groups
• eConsult rated as high or very high value in 96% of cases
Impact of eConsult - LTC

- Over 55% of cases did not require a face-to-face visit with the specialist following an eConsult; in fact, in 33% of cases, an unnecessary referral was avoided.

- In 70% of cases, PCPs in LTC homes received new advice for a new or additional course of action.
Case example - Dermatology

Day 1 PCP asks: “Elderly patient with a new lip lesions X 6 months and increasing in size. Approx 3-4 mm, smooth. Non tender. Your thoughts on differential and urgency of biopsy are appreciated.

Day 2 Specialist “the most likely diagnosis for this blue-black papule on the left upper lip is venous lake. I do not have the benefit of palpating the lesions. A venous lake is soft, cystic and has no enduration…”

Detailed question with image sent to Dermatology

Response within 1 day
Case example

**eConsult dialogue**

**Day 10 21:36** PCP asks an additional question. “After re-examination the lesion is quite soft. The patient would like it removed for cosmetic reasons. Would you recommend referral to dermatology or plastic surgery given location?”

**Day 10 22:00** Specialist response “Venous lakes are best treated by lasertherapy. I suggest Dr X at XX clinic as she has the appropriate laser for this. Of course there is a fee since not covered by OHIP.”

**Impact of eConsult**

- **Opportunity to ask additional question**
- Educational opportunity and efficient redirect to most appropriate specialist for this patient
Cost per eConsult

- Weighted average direct cost across all specialties per eConsult was $42.32. In the absence of eConsult, the comparable average cost for traditional referral would have been $133.83. This represents a cost reduction of 68%.

- Additional cost savings are expected once reductions in health care utilization through avoided tests, procedures, lab tests, and repeated primary care visits are included.
Potential Cost Savings in LTC

• Potential cost savings through avoided transfers and specialist referrals is tremendous

• Avoiding unnecessary specialist visits:
  • Alleviates staff from the process of securing transportation for residents
  • Prevents residents from having to ask family members to accompany them to specialist visits

Imagine…future state in Ontario’s LTC Homes

- Access to specialist advice within days instead of months
- Improved quality of care delivery and high satisfaction for patients and providers
- Reduction in face-to-face referrals
- Low cost service delivery model
Opportunity with NPs in LTC

75 new attending nurse practitioners in long-term care homes (LTCHs) over three years, including 30 starting this fall (2015).

“key role in addressing the complexity of challenges that many LTCH residents face by providing proactive assessments, follow-up care, timely specialist referrals, ongoing chronic disease management and end-of-life care.”
Research Interests and Initiatives

• Utilization/Impact
• Engagement
• Providers
  • NP’s vs FP’s
  • Specialist survey
• Patients
  • Perception/acceptance
  • Special populations
    • Medically complex – e.g., HIV, pain
    • Rural
    • Pediatric
• Economics
• Education
  • Types of questions being asked and the impact on outcomes
  • Leveraging eConsult for CPD for PCP’s and specialists
• Expansion into other jurisdictions
  • Knowledge to Action
  • Implementation – barriers and facilitators
  • Policy – privacy, licensing, physician payment, technology, etc.
Spread and Scale-up activities

• Provincial eConsult activities
  • Implemented our model in Mississauga-Halton (2014-ongoing) as part of provincial eConsult pilot
  • Invited participant on MOH eConsult Provider Advisory Group and Requirements working group (2014-ongoing)
  • Ongoing research - Models of payment; Wait time 1; Impact of delayed medical referral; eCase conferencing for medically complex patients
eConsult for rural, remote Canada

- Partners include Manitoba Health, NWT Dept of Health, Newfoundland Medical Association, Memorial University, University of Alberta

1. Explore factors related to implementation of eConsult
2. Create implementation tools to support adoption including community readiness scale, business case calculators, patient engagement tools, policy briefs and common indicators of success
Highly aligned with Patients First: Ontario's Action Plan for Health Care

• Provide care that is coordinated and integrated, so a patient can get the right care from the right providers.

• Accelerating the adoption of new health technologies and innovations that demonstrate value and contribute to a more productive and sustainable health care system.
Summary

• Champlain BASE eConsult service is an example of provider lead, technology enabled innovation that is making a difference

• Tremendous potential to increase access to specialist care and improve quality and coordination of care in LTC homes in Ontario

• Ripe area for research and collaboration
eConsult Papers - Published

• Pilot Stage

• Understanding the Provider & Specialist Perspective
  ▪ Impact of and satisfaction with a new eConsult service: a mixed methods study of primary care providers. (2015) [http://www.jabfm.org/content/28/3/394.full](http://www.jabfm.org/content/28/3/394.full)

• Understanding the Patient Perspective
eConsult Papers - Published

**Policy & Implementation**

- Critical requirements and considerations for establishing and participating in an eConsultation service: Lessons learned from the Champlain BASE team. (2015) (In-press)

**Economic Analysis**

- What are the costs of improving access to specialists through eConsultation? The Champlain BASE experience. (2015) [http://ebooks.iospress.nl/volumearticle/39213](http://ebooks.iospress.nl/volumearticle/39213)

**Fully Funded Service**

Thank You!

Questions?
Want to Know More?

- For more information about the Champlain BASE eConsult service, please contact:

  Dr. Clare Liddy, Primary Care Lead  
  cliddy@bruyere.org

  Dr. Erin Keely, Specialist Lead  
  ekeely@toh.on.ca

  Mr. Amir Afkham, Engagement & Implementation Lead  
  amir.afkham@lhins.on.ca

- Check out our [YouTube](https://www.youtube.com) video!
Frequently Asked Questions

How are physicians paid?
• Specialists receive $200/hour prorated

What liability issues are associated with eConsult?
• CMPA holds eConsult to same rules as phone/hallway consults
• Considered a safe and reasonable way to provide care

What about patient privacy?
• eConsult uses a secure closed network system that meets all PHIPA requirements for privacy

What about interjurisdictional licensing?
• Precedent established with telemedicine system
• Service can be used in multiple environments/platforms
• No formal licensing agreement yet established
What do patients think about eConsult?

- Surveyed patients before and after a specialist visit (endocrinology)
- 46% of patients considered eConsult to be an acceptable alternative to face to face visits
  - "I could have gotten an answer a lot quicker!"
  - "It’s difficult for me to travel and I live far so it could have been beneficial"
- Those that did not think eConsult would be beneficial stated that they would feel more confident talking to a specialist directly
  - "It’s important to see the specialist to feel more secure."
- Patients without a family doctor also expressed that eConsultation wouldn’t be ideal for them
  - "It wouldn’t be useful in my situation because I am not seeing the doctor that referred me again and I don't have a family doctor"
- Several patients expressed that this method might be more beneficial for follow-up visits instead of initial consults
  - "I needed to see the doctor (specialist) for my first visit but it may be useful for followups"
Why do specialists participate?

Specialist Survey – Results

What was your motivation in signing up for eConsult? (check all that apply)

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<thead>
<tr>
<th>Response</th>
<th>Chart</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive wait times</td>
<td></td>
<td>42.4%</td>
<td>14</td>
</tr>
<tr>
<td>Innovative patient care</td>
<td></td>
<td>78.8%</td>
<td>26</td>
</tr>
<tr>
<td>Reducing the need for face-to-face visits</td>
<td></td>
<td>51.5%</td>
<td>17</td>
</tr>
<tr>
<td>Improving communication with primary care providers</td>
<td></td>
<td>69.7%</td>
<td>23</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td>24.2%</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td></td>
<td><strong>33</strong></td>
<td></td>
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</table>
eConsult Remuneration Data

- Remuneration rate is set at $200/hr for all MD specialists
- Average payment across all specialties is $46.25 per case

In thinking about the different compensation models for paying specialist, which compensation model do you prefer as payment for eConsult services?

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<tbody>
<tr>
<td>Compensation should be provided through the existing compensation models, similar to face-to-face consultations</td>
<td></td>
<td>5.9%</td>
<td>2</td>
</tr>
<tr>
<td>Compensation should be provided using the Champlain BASE eConsult service model, as outlined above</td>
<td></td>
<td>38.2%</td>
<td>13</td>
</tr>
<tr>
<td>The method of compensation doesn’t matter to me, as long as I receive payment for eConsult</td>
<td></td>
<td>52.9%</td>
<td>18</td>
</tr>
<tr>
<td>Don’t know/prefer not to answer</td>
<td></td>
<td>2.9%</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td></td>
<td><strong>34</strong></td>
<td></td>
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Comments from the Specialists

“We are never going to make as much $ as face-to-face time. But this is way easier, more useful and kind of fun.”

“Many consults answer [ask] very simple questions. It's a huge waste of time for patients to come to hospital, pay for parking, wait for hours, then only get seen for a short time.“

“I think it is an important innovation and part of the solution to restructuring care at our hospital.”

“It is the right thing to do for our patients.”