Champlain BASE eConsultation service: Five year utilization and impact data

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

Initial Seed Funding
• TOHAMO AFP Innovation Fund
• eHealth Ontario

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

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Objectives

1. Overview of the Champlain BASE eConsult service

2. Provide 5 year data on utilization and impact

3. Suggest a future state for eConsultation services in Canada
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…”
Examining A Patient’s Journey

- Patient referred to specialist
- Excessive wait times (median 87 days)
- Delays in treatment
- Unnecessary testing
- Duplication of tests/procedures
- Patient has specialist visit
- Patient begins treatment
- Poor care coordination
- Patient follow-up appointments

- Excessive wait times (median 87 days)
- Delays in treatment
- Duplication of tests/procedures
- Poor care coordination
The solution: 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
## Development of eConsultation service

<table>
<thead>
<tr>
<th>Event</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial meeting with PCPs and develop e-form</td>
<td>Fall 2009</td>
</tr>
<tr>
<td>Ongoing feedback and evaluation from users</td>
<td>January 2010, Spring 2010</td>
</tr>
<tr>
<td>Launch proof of concept with 5 specialties</td>
<td>April 2011, 2012</td>
</tr>
<tr>
<td>Privacy Impact &amp; Threat Risk Assessments done, CMPA contacted</td>
<td>2015</td>
</tr>
<tr>
<td>LHIN Funding Research Funding</td>
<td></td>
</tr>
<tr>
<td>MOHLTC Funding</td>
<td></td>
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<tr>
<td>Launch pilot of eConsult</td>
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</table>
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**

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**Step 1 - Primary Care Practitioner Input**
- PCP Test
- Primary Care Practitioner Name: [Input]
- 123 scp road, pcpville, On
- Street Address: [Input]
- City/Municipality: [Input]
- 6135551111, O6135551110, mdel, Facsimile
- Telephone: [Input]
- Telehealth: [Input]

**Step 2 - Specialty Selection**
Please choose from the general list of specialties:
- Pediatrics
- Pharmacy
- Psychiatry

Please select the most appropriate option:
- Genetics
- Pediatrics - ADHD
- Pediatrics - Adolescent Medicine
- Pediatrics - Allergy and Clinical Immunol
- Pediatrics - Anesthesiology
- Pediatrics - Cardiology
- Pediatrics - Chronic Pain
- Pediatrics - Complex Care
- Pediatrics - ENT
- Pediatrics - General
- Pediatrics - General - Baker Lake, NU
- Pediatrics - General - Cape Dorset, NU
- Pediatrics - General - Clyde River, NU
- Pediatrics - General - Mississauga Halton
- Pediatrics - Hematology/Oncology
- Pediatrics - HIV
- Pediatrics - Infectious Disease
- Pediatrics - Neurology
- Pediatrics - Ophthalmology
- Pediatrics - Orthopaedics
- Pediatrics - Palliative Care
- Pediatrics - Psychiatry
- Pediatrics - Radiology
- Pediatrics - Respiratory

**Step 3 - Patient Information**
- (Select...)
- Date of birth: [Input]
- Gender: [Input]
- Given Name: [Input]
- Would you like to attach electronic files containing personal information to assist the consultant with better assessment of this case?
- Yes
- No
- 

**Step 4 - Background/History and Consultation Request**
You may provide information concerning the patient in the space provided below (i.e., allergies, nutrition, social history), if this has not been provided in the attachment(s) already.

*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 CMPA Assessment of eConsult.*
Key Features of BASE eConsultation – A Managed Service Approach

Physician Engagement:

✓ Clinician champions (specialist and primary care)

Simplicity in Design and Operation:

✓ Common form for all specialties
✓ Case submitted to a specialty
✓ A convenient registration process
✓ Specialist compensation approach

Reliability and Responsiveness

✓ Specialist commitment to response interval
✓ Proactive support achieved through:
  ✓ Centralized technical support hub
  ✓ Active utilization monitoring
Current Status  (as of April 30, 2016)

- 14,395 Cases Completed
- 1,030 PCPs (879 MDs, 160 NPs) from 397 clinics in 92 towns/cities *

* Includes select group of clinics outside of the Champlain region (SE, Central, HNHB, CE, NE, NSM, NW, SW, TC, WW, MH, & Nunavut)
Monthly Volumes (cases completed)

Cases Completed per Month

* As of April 30, 2016
Current specialty services (n=86)

- 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
  - Parkinson Patient Care Coordination
  - Parkinsons and Movement Disorders
- Neurology
- Neurosurgery
- OBS/GYN
  - Vulvo-Vaginal Disease
  - Menopause/Perimenopause
- Ophthalmology
- Orthopaedics
- Pain Medicine
- Pain and Opioid Addictions
- Palliative Care
- Psychiatry
- Psychiatry - Perinatal
- Public Health – Ottawa
- Refugee and Immigrant Health (Adult)
- Respirology
- Rheumatology
- Sexual Assault/Domestic Violence
- Spinal Surgery
- 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

Pediatrics
- Adolescent Medicine
- ADHD
- Anesthesiology
- Cardiology
- Chronic Pain
- Complex Care
- ENT
- General *
- Genetics
- Hematology/Oncology
- Infectious Disease
- Neurology
- Ophthalmology
- Orthopedics
- Palliative Care
- Psychiatry
- Radiology
- Refugee and Immigrant Health
- Respirology

Specialties Available in French
- Cardiology
- Dermatology
  - Hair Loss
- Infectious Diseases
- Nephrology
- Refugee and Immigrant Health
  - Adult
  - Pediatric

* Includes community-specific specialties
Specialty Distribution (14 395 cases)

- Dermatology: 17%
- OBS/GYN: 7%
- Hematology: 7%
- Endocrinology: 7%
- Cardiology: 6%
- Neurology: 6%
- General Pediatrics: 5%
- Infectious Diseases: 4%
- Urology: 4%
- Gastroenterology: 4%
- Orthopaedics: 4%
- Rheumatology: 3%
- Psychiatry: 3%
- Internal medicine: 3%
- Pain Medicine: 2%
- Nephrology: 2%
- ENT: 2%
- Radiology: 2%

*Build Access to Building Access to Specialists through Consultation | © Bruyère Research Institute, Champlain LHIN The Ottawa Hospital, Winchester District Memorial Hospital*
Specialist response interval from receipt of request

- Median (ie, half the case were responded to in less than): 0.8 days
- Average: ~ 2 days
- 90th Percentile (ie, 90% were responded to in less than): ~ 7 days
- Fastest response: 2 minutes! (Infectious Diseases)

* Based on data from 14 395 cases processed to April 30, 2016
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 39% of cases, an unnecessary referral was avoided.

N=14,395 cases

Over 5,600 people no longer waiting to see a specialist!
Impact of eConsultation on Referral - Top 20 Specialties

*As of April 30, 2016
Clinical Value * from PCP survey responses completed for each case

Overall Value of the eConsult Service (AVG.: 4.71/5)

- 5: Excellent
- 4: 14%
- 3: 1%
- 2: 1%
- 1: 5%

- 1: Minimal
- 80%

1. I was able to confirm a course of action that I originally had in mind
2. I got good advice for a new or additional course of action
3. I did not find the response very useful
4. None of the above (please comment)

“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 avoid referral if not indicated.”

“...I can often apply what I've learned in an eConsult to future patients as well. Not only have I avoided a referral with this eConsult but I'll likely save time for future patients in similar situations.”
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
93% as high or very high value

Overall value of the eConsult service in this case for patient
(14395 Completed Cases) AVG.: 4.66/5
Lessons Learned and “Myths” Uncovered:

- PCPs would be all over this while specialists would be difficult to attract…
- Given wait time issues, specialists participating will be inundated…
- Knowing the specialist beforehand and coupling with follow-up referrals would be key for PCPs (and hence location of specialist would be important)…
- PCP utilization will not pick up without electronic integration with EMRs…
- Different specialties will need different forms and workflows…
- The more specialists, the better…
- Satisfactory compensation arrangements difficult without complex negotiations

- Our “pilot” would only last a year or two …
### BASE™ Model and Vision

**To improve equitable access to specialty care for Canadians through eConsult**

### Goal

Each health region in Canada will have access to eConsult service(s)

<table>
<thead>
<tr>
<th>Operations</th>
<th>Engagement</th>
<th>Model of Delivery</th>
<th>Quality Assurance</th>
<th>Workflow</th>
<th>Education</th>
</tr>
</thead>
</table>
| - Registration  
- Funding  
- Payment model | - Regional clinical champions  
- Key organizations  
- Health leaders | - Population-based  
- Addresses regional gaps in specialist access  
- Primary care led | - Metrics  
- Leadership  
- Auditing  
- Comparison to other regions | - Efficient  
- Integrated into referral workflow  
- Supports integration into Electronic Medical Record | - Leverage eConsult to build capacity in region through CPD  
- Enhances specialist-PCP relationship |

### Program management, leadership, quality assurance

### Technology platforms: SharePoint, telemedicine, other regional platforms

### National partnerships: RCPSC, CHI, CFHI, CFPC, CNA, CPSI, CMPA*

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* Royal College of Physicians and Surgeons of Canada (RCPSC), Canada Health Infoway (CHI), Canadian Foundation for Healthcare Improvement (CFHI), College of Family Physicians of Canada (CFPC), Canadian Nurses Association (CNA), Canadian Patient Safety Institute (CPSI), Canadian Medical Protective Association (CMPA)

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*Building Access to Specialists through eConsultation | © Bruyère Research Institute, Champlain LHIN, The Ottawa Hospital, Winchester District Memorial Hospital*
Summary

• Champlain BASE an effective solution to improve access to specialist advice
• eConsult has great potential to meet the quadruple aim of health care improvement
• Model based on simple components that others can readily incorporate
For more information, check out our eBook

Available in ibook (for Mac) and pdf (for PC) from www.ChamplainBASEeConsult.ca