Teledermatology Experience at Uconn

Jun Lu, M.D.
Assistant Professor
Director of Teledermatology
Department of Dermatology
University of Connecticut
Teledermatology at University of Connecticut

• **Store-and-forward teledermatology**
  - Officially implemented April 2015
  - Partnered with Community Health Center, Inc.
  - Covers 12 CHC primary care clinics at Connecticut and 5 Penobscot Community clinics at Maine
  - Include 119 primary care providers (79 CT, 40 ME)
  - Above 70% patients seen are enrolled in Medicaid
  - Provide 100-120 eConsults per week (>2,000 eConsults in total)
  - PCP to dermatology

• **Live-video teledermatology**
  - Partnered with CT Department of Correctional Service
  - Provide 2-4 teledermatology consults per week to inmates
  - PCP to dermatology
Uconn Dermatology eConsult Program

1. PCP examines patient, takes a detailed medical history and images of lesion(s). PCP discusses e-Consult with patient.

2. PCP creates an eConsult referral which includes chief complaint, relevant labs, medication list, main diagnosis, treatment plan and reason for consultation. PCP sends eConsult to referral coordinator.

3. Referral coordinator enters eConsult into SafetyNet Connect (eConsult platform) which is then sent to the dermatologist.

4. Dermatologist receives e-consult and has 2 business days to review and respond:
   1. Comes up with a diagnosis and treatment plan for the patient, or
   2. Requires more information, or
   3. Requests a face-to-face consultation with the patient

   The response will go back to the referral coordinator who then communicates with the primary care physician and/or the patient if face-to-face consultation needed.

5. Face-to-face consult
Uconn Dermatology eConsult Program

• All Clinical sites were equipped with Camera AND Dermatoscope
• All referring providers receive tutorial on digital photography for teledermatology and dermatoscope.
• All providers receive training on using e-Consults platform and dermatology for eConsults (history, photos, labs)
• Pilot and training session for 3 month before formal implementation
• Care coordinators between both institutions were trained to schedule face to face (F2F) appointment if necessary
• If F2F required, patients will be prioritized to “fast-track” appointment after initial eConsult.
eConsult platform for Uconn teledermatology

https://demo.econsultusa.com
What we found in our teledermatology

Sampling 12 months of referral data to compare eConsults with traditional dermatologic visits.
June 2014 - November 2014 (6 months) pre-program implementation as historic control
June 2015 - November 2015 (6 months) post-program implementation including eConsult group and traditional referral.
Most of the data was collected by the Weitzman institute research team and the eConsult data was collected by accessing SafetyNet (electronic platform for eConsults)
eConsult significantly increase dermatology access to underserved population

Table 1. Measuring access to dermatological care

<table>
<thead>
<tr>
<th></th>
<th>Historical Controls (n=1258)</th>
<th>Traditional Consults (n=628)</th>
<th>eConsults (n=499)</th>
<th>Face-to-Face (n=78)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appointments received</td>
<td>743 (59%)</td>
<td>312 (49.7%)</td>
<td>499 (100%)</td>
<td>65 (83%) at UConn;</td>
</tr>
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<td></td>
<td></td>
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<td>5 (6.4%) at other sites</td>
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<td></td>
<td>8 (10%) no appt.</td>
<td></td>
<td></td>
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<tr>
<td>Patients seen</td>
<td>139 (19%)</td>
<td>51 (16%)</td>
<td>499 (100%)</td>
<td>41 (64%) at UConn</td>
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</tbody>
</table>

Table 2. Days from referral to appointment in the historical, traditional and face-to-face groups. eConsult group represents days from referral to dermatologist access not in-person appointment.

<table>
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<tr>
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<th>Traditional Consults (n=311)</th>
<th>eConsults (n=499)</th>
<th>Face-to-Face (n=63)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>74</td>
<td>63</td>
<td>&lt;1</td>
<td>34</td>
</tr>
<tr>
<td>Median</td>
<td>77</td>
<td>104</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Minimum</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Maximum</td>
<td>353</td>
<td>300</td>
<td>5</td>
<td>143</td>
</tr>
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Median time to dermatology consultation
eConsult on early detection and treatment of skin cancer

Impact of dermatology eConsults on access to care and skin cancer screening in underserved populations: A model for teledermatology services in community health centers.

Reimbursement of Uconn Teledermatology Program

• 49 states and Washington DC cover live-video teledermatology for Medicaid patients
• 9 states reimburse for store-and-forward: AZ; WA; AL; IN; IL; MN; VA; CA; CT
• Connecticut reimbursement policy for teledermatology
  • Live-video teledermatology is fully reimbursed as face-to-face appointment for Medicaid patients
  • Store-and-forward teledermatology is partially reimbursed on fixed rate for Medicaid patients
  • Connecticut State Medicaid Plan Amendment (SPA)
    • Effective July 1, 2016
    • Federally Qualified Health Centers
    • Meet criteria for utilizing e-Consults for specialty care including dERM
    • Alternative Payment Plan (provide payment $35/per eConsult )
    • States allow $600,000 in state fund fiscal year 2017 to cover eConsults

• Negotiation with private insurers still ongoing!
Stakeholders and Future of Our Teledermatology

- **Primary care system and PCPs**
  - Access to care for patients
  - Cost-effective care
  - Care coordination with dermatologists

- **Patients**
  - Access to care and coordinated care locally

- **State Medicaid**
  - Access to care for Medicaid patients
  - Social and medical costs of Medicaid

- **Uconn Dermatology**
  - Increase access to our patients particularly underserved population
  - Prioritize and triage limited resources
  - Build and optimize teledermatology model
  - Influence on state and national legislature for teledermatology reimbursement policy
  - Teledermatology research on chronic disease management, ER, inpatient, nursing home population, pediatric population and skin cancer screening, etc

**Dermatologist should take the ownership and lead the development of teledermatology!!!**