Implementing Primary Care Based Teledermatology in Kent (UK)

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Teledermatology

- Store and forward format vs videoconferencing
- Controversial
- Proven use in screening skin lesions and clinical advice
- Useful for practical/geographical reasons or demand management
Medway Teledermatology
2001 - 2004

- TDS Teledermatology Services
- Initial localised pilot (Maidstone) instigated by primary care
- Subcontracted by secondary care
- Multiple problems including poor image quality
Medway Secondary Care Based Teledermatology
2004 - 2010

- Development of Teledermatology as part of secondary care service to manage high demand / waiting times
- Dedicated teledermatology nurse and administrative staff
- Hospital based clinics
- 3 reporting consultants
In-house Teledermatology

- E-ceptionist software and support
- Nikon D70 SLR camera
- Additional dermoscopy images (Heine attachment) for lesions from 2009 for cancer screening
- >13,600 cases reported
Medway E-ceptionist
in-house Teledermatology
Medway Telederm Cancer screening Audit

- 52% benign lesions discharged
- 39% surgical intervention (excision or biopsy)
- 9% F2F review needed
Medway Dermatology – Maidstone Primary Care Teledermatology Initiative

- Since February 2010
- Primary Care based service
- KSYOS System
- ‘Invicta’ GP Consortium
- Initial pilot with 5 large GP practices
- Subsequently rolled out to other 13
Maidstone Primary Care Teledermatology Initiative

- Cost-effective  £56.50 vs £124.07
- Quick, simple, easy to use system
- Compact cameras download to computer automatically from docking station
- 2 GPs / practice trained by KSYOS
- 2 reporting local dermatologists
- Emphasis on diagnosis and management of non-urgent lesions and rashes
Primary Care Business Case

- Invicta Group refer ~ 1000 cases / yr
- 70% of referrals could be managed using teledermatology
- Dutch experience 67% referrals to secondary care prevented
# Primary Care Business Case

<table>
<thead>
<tr>
<th>Referrals</th>
<th>Activity</th>
<th>Costs to 2⁰ care</th>
<th>Costs to 1⁰ care</th>
<th>Anticipated savings</th>
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</thead>
<tbody>
<tr>
<td>Telederm/OPD new</td>
<td>700</td>
<td>£86,849</td>
<td>£39,550</td>
<td>£47,299</td>
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<tr>
<td>OPD f/ u</td>
<td>966</td>
<td>£53,797</td>
<td>0</td>
<td>£53,797</td>
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<tr>
<td>5% poor image</td>
<td>35</td>
<td></td>
<td>£1,978</td>
<td>- £1,978</td>
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<tr>
<td>Minor Ops (20%)</td>
<td>140</td>
<td>£65,380</td>
<td>£21,000</td>
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<tr>
<td>17% onward ref to 2⁰ care</td>
<td>119</td>
<td>£14,764</td>
<td>£14,764</td>
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<tr>
<td>f/ u assoc with 17% news</td>
<td>164</td>
<td>£9,113</td>
<td>£9,113</td>
<td>0</td>
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<tr>
<td>TOTALS</td>
<td></td>
<td>£229,923</td>
<td>£86,425</td>
<td>£143,498 (158,000 E)</td>
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</tbody>
</table>
Assumptions?

- Number of referrals GPs will choose to send via telederm (25 - 70%)?
- Ability of secondary care to cope with demand?
- Ability of primary care to manage minor ops and follow-ups?
- Impact of reduced referrals on secondary care services
Benefits to patients

- Seen in primary care environment
- Faster access, diagnosis and treatment
- Reduction in waiting time for secondary care out patient appointments
Benefits to GPs

- Rapid access to Specialist opinion
- Reduce delay in patient management
- Case based education
- (Reduced cost)
Dermatologist reporting

- E-mail to advise of new cases
- Link to connect to KSYOS server via Internet
- Sporadic nature allows reporting in spare time e.g. lunch break or evening
- User friendly platform allowing free text
Consult

Patient data
4803535914  29-06-1961  Male

Photos

Referral letter
patches on legs then arms and torso. treated as infected eczema dec 2010-jan 2011 with clorox, betnovate 0.025% cream and cetraben. similar occipital hairline only

Comments
with regard to anti-hypertensives, he's intolerant of diuretics, ace inhib, sartan and beta blockers. bp not to target on amlodipine alone, hence addition of Medway NHS - Halpern

Consultant Dermatologist's report
Description of findings
Erythematous plaques with some superficial exfoliative scale only.

Diagnosis
Diagnosis not clear as partially treated. A psoriasiform eczema is quite likely but eczema, psoriasis of mycosis fungoides are

Treatment recommendations
A skin biopsy of topical steroids may be helpful. Otherwise I would consider trying a more potent steroid such as full strength

Do you need to see this patient urgently

GP's response
Answer/question

Consultant Dermatologist's response
Treatment

Comments

Results

- Period: Feb 2010 – Feb 2011
- 237 total Teleconsultations
- 171 evaluated
Quality & Efficiency Parameters

- Reduced referrals to secondary care
- Dermatologist response time
- Quality of care improvement
- Education
Total Teledermatology Cases
(171) 100%

Would have been referred otherwise
(129) 75%
- Referred afterwards
  (29) 22%
- Not referred afterwards
  (100) 78%

Would not have been referred (advise only)
(42) 25%
- Referred afterwards
  (0)
- Not referred afterwards
  (42) 100%
Dermatologist Response time

- Average (mean) 9 working hours
- Range 0-58 hours
Quality of care & Education

- To what degree has the answer from the Consultant helped you?
- Have you learned from this teleconsultation?

- a lot
- average
- a little
- not
Summary

- Teledermatology is well established as part of service provision in secondary care in NW Kent.

- Recent development of teledermatology link with primary care.

- Good patient and doctor feedback.

- Primary care based teledermatology is more cost effective with good patient selection.

- Primary care commissioners have subsequently reviewed and expanded service in North West Kent.