QRME TELE-DERM PROGRAM

Use of teledermatology to facilitate remote teaching in skin cancer medicine and dermatology in rural general practices

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ISSUE: “Hi Doc, is this lump a skin cancer?”

- Skin disease is common
  - Skin complaints (11.7% of GP presentations*)
  - Cancer
- Early detection of skin cancer (dermoscopy)
- Access to other specialist care
- Rural GP registrars need extended skills in skin cancer medicine (and dermatology) including dermoscopy for screening pigmented skin lesions, but have the tyranny of distance
  - Access to specialist support services and training

- Telemedicine may facilitate teaching

* BEACH data April09-March10
To compliment existing training:

- In 2009 QRME introduced
  - Use of dermoscopy and **Three-point checklist** for screening pigmented skin lesions

- In 2010
  - Program expanded to provide **basic dermatoscopes (popular)**

**THREE-POINT CHECKLIST**
- A dermoscopic algorithm for distinguishing melanoma from other benign pigmented skin lesions
- Taught in a short period of time
PIGMENTED SKIN LESION
Is it benign or suspicious?

THREE-POINT CHECKLIST

1. Asymmetry in colour and/or structure
2. Atypical network
3. Blue-white structures

One point for each feature present

Score 0 or 1
Benign lesion eg. naevus

Score 2 or 3
Suspicious e.g. Melanoma > Excise/Biopsy
THE QRME TELE-DERM PROGRAM

- Introduced in July 2011
- Existing teaching incorporating teledermatology
- Compliment existing teaching and in-practice training:
  - Equipment: dermatoscopes adapted to photography into teaching practices
  - Registrars to submit cases to teledermatology service for advice (pigmented skin lesions)
WHO IS INVOLVED

- QRME initiative in collaboration with ACRRM
- Funding: Education Innovation Project grant, Commonwealth Departmt. of Health and Ageing, GPET

- Teledermatology platform: ACRRM, RRMEO Tele-derm National website
  - Dr Jim Muir provides a store-and-forward teledermatology advice service and case-based dermatology resources
  - Dr Ben Carew: dermatology registrar and QRME trained GP
TELE-DERM SUBGROUP

Case submission

Learning modules, videos and QRME telederm info.
CASE SUBMISSION: INTEGRATED TEACHING MODEL

Online case submission to QRME Tele-derm subgroup

Online response with advice

24-48 hours

Draft response

Authorised response

Rural teaching practice

RRMEO Tele-derm store-and-forward teledermatology service
SUMMARY OF THE 2011 QRME TELE-DERM LEARNING PROGRAM AND RESOURCES

QRME Tele-derm program introduced

JAN 2011 Workshop 1

ONLINE CASE SUBMISSIONS TO TELE-DERM
- 3 portfolio cases (2 pigmented)
- 1 teaching case
- Cases for advice

JULY 2011 Workshop 2
- Use of Tele-derm equipment
- Use of Tele-derm website

JAN 2012 Workshop 3
- Review of Tele-derm program and teaching using submitted cases

Evaluation
- Pre-program
  - Questionnaire
- Post-program
  - Questionnaire
  - Dermoscopy Quiz
  - Review of website usage and case submissions
## PRE-PROGRAM QUESTIONNAIRE (JULY 11’)

- **2011 Cohort:** 29 registrars in their GPT1/2 or PRR1 terms

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>2011 JULY</th>
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<tbody>
<tr>
<td>Rate your dermatology training as a medical student <strong>(none 0 - 5 excellent)</strong></td>
<td>Average 2.1</td>
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<tr>
<td>Rate your dermatology training as a hospital doctor</td>
<td>Average 1.7</td>
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<tr>
<td>Have you been asked to perform a &quot;skin-check&quot; in your first GP term?</td>
<td>93% YES</td>
</tr>
<tr>
<td>How often do you use a dermatoscope?</td>
<td>55% DAILY</td>
</tr>
<tr>
<td>Have you ever used the Tele-derm national website?</td>
<td>34% YES</td>
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<tr>
<td>Have you ever submitted a case to Tele-derm?</td>
<td>3% YES</td>
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29 Registrars

TELE-DERM USAGE
- 28 registrars logged on to Tele-derm
- Average logins per registrars: 27

REGISTRAR CASE SUBMISSIONS (17/29)

- Cases for advice: 103
- Teaching cases: 12
- Portfolio cases: 17

QRME
Queensland Rural Medical Education
CASE PHOTOS SUBMITTED BY 2011 COHORT
PRE- AND POST- PROGRAM QUESTIONNAIRES

CONFIDENCE RATINGS REPORTED BY REGISTRARS/5

Average rating (0-5)

<table>
<thead>
<tr>
<th>Activity</th>
<th>PRE-PROGRAM (29)</th>
<th>POST-PROGRAM (24/29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performing a skin check</td>
<td>2.6</td>
<td>3.4</td>
</tr>
<tr>
<td>Using a dermatoscope</td>
<td>3.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Identifying melanoma</td>
<td>2.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Managing melanoma</td>
<td>2.8</td>
<td>3.6</td>
</tr>
</tbody>
</table>
Understanding and Application of the 3-point checklist

HOW:

1. How they would action each checklist score (0/1 benign, 2/3 excise)
   - Full marks if actioned all scores correctly

2. Registrars to work out 3-point checklist score
   - 14 sets of photos of histo. proven skin lesions; one macro and one dermoscopic photo for each.
   - 4/14 were melanoma
   - Scored a point for each correct outcome: i.e. benign lesions with a score of 0 or 1 and malignant lesions with a score of 2 or 3). Max score was 14/14

RESULTS

- Of 22/29 registrars, 86% correctly actioned all checklist scores
- Average number of correct outcomes was 11/14
- Overall, 1 missed melanoma
- Interpretation: registrars applied the 3-point checklist well. Tended to overscore skin lesions and excise benign lesions
REGISTRAR SATISFACTION

24/29 registrars, 92% reported being “satisfied” or “very satisfied”

REGISTRARS RATING OF EACH TELEDERM RESOURCE/10

- Portfolio cases: 5.5
- Teaching cases: 6.8
- Cases for advice: 6.9
- Learning modules: 7.1
- Telederm website: 7.3
- Dermoscopy text: 7.4
- Equipment: 8.2
- Workshop sessions: 8.6

Average rating/10
WHAT WE CHANGED FOR 2012

- Program introduction

- Number of compulsory case submissions

- Learning modules
  - 12 including topics in general dermatology with “pigmented case of the month”

- Preliminary data shows benefits
CAN THE TELE-DERM PROGRAM AND MODEL OF TEACHING BE APPLIED TO OTHER RTPS?

- DEFINITELY
  - Reinforces in-practice learning and workshop teaching
  - **Equipment accessible/affordable/essential.** Dermoscopy part of GP curriculum.
  - **ACRRM RRMEO tele-derm** well-placed to provide platform for case submission and has excellent personnel and resources

- Integrated model of teaching, easy to accommodate when partnerships established
  - Mutual benefit and professional links

- There is interest from other dermatology trainees

THANK-YOU FOR LISTENING