Web based cameras for remote supervision and education

James Brown
David Jones
Margaret Simmons
Katherine Gray
Project team

• SGPT
  – James Brown, Lisa Kassell, David Jones, Cheryl Cooke

• Monash Gippsland Medical School
  – Katherine Gray, Margaret Simmons, Elmer Villanueva

• Monash Gippsland School of Information Technology
  – Saikat Islam, Guojun Lu, Manzur Murshed, Md Siddique

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Presentation Overview

1. Why remote supervision and education?
2. An overview of the investigation
3. The challenges faced
4. Efforts at solutions
5. Key findings
6. Recommendations
7. Next steps
1. Why remote supervision and education?

- Inability to provide on-site supervision in some training sites, particularly AMSs
- Travel burden for Clinical Teaching Visitors
- Travel burden for registrars attending evening workshops
2. The Investigation

• Investigation of options for web based transmission of video

• Pilot use of web based video for supervision, ECTVs and workshop delivery
  – Installation
  – User induction
  – Trial

• Qualitative Investigation of user and patient expectations and experience
3. Challenges
Technology Issues

• Image fidelity
  – Band width particularly upload capacity
  – Software platform
  – Camera

• Sound quality – audibility and lack of echo

• Reliability of transmission – drop outs

• Security of transmitted data

• Intra Practice IT systems
  – Competition for bandwidth
  – Fire walls
Towards solutions for Technology issues

- Dedicated phone line
- Top end packages from internet providers to maximise upload
- Vidyo for security and maximising utilisation of available bandwidth
- Logitech WebCam and Chat 60 speaker phone
The Environment

• Issues
  – Camera Placement
  – Width of field
  – Camera mobility
  – Lighting

• Strategies
  – Site visit
  – Logitech camera on a USB extension lead
The Users

• Issues
  – IT Naivety
  – Anxiety about the potential downsides
  – Limited tolerance for failures in the system
  – The need for immediate access to support

• Efforts at solutions
  – Repeated site visits
  – Dedicated IT support and backup
4. Key Findings
Key Findings

• Achieving a reliable link is challenging and is rarely a given
• Users need considerable support
• All participants were found to have had prior experience with SKYPE
• High level of acceptance by patients
• Users tend to revert to familiar means of support – phone or an onsite person
Video presence is not the same as F2F

• Loss of elements of the human interaction
• Loss of incidental contact
• Reduction in engagement
• Inadvertent compromise of privacy
• Some supervisory activity cannot be performed remotely
5. Recommendations
Hardware and software

• Consider a dedicated phone line
• Quality Camera on a long cord - e.g. Logitech
• Quality Speaker phone with echo cancelling – e.g. Chat 60
• Dedicated SKYPE account
  – User familiarity
  – Low cost
  – No security breaches to date
  – Not the main issue in terms of fidelity of transmission
  – Capacity to voice call before commencing video transmission
Co-ordination, Induction and support

- Coordination must include by Intra practice IT support
- Induction is essential
- User and patient expectations need to be deliberately explored and managed
- IT support that is accessible and immediate is essential
- Contingency plans need to be in place in the event of technology failure
Recommendations For remote Video supervision

• Ensure registrar and patient safety
  – The right registrar
  – Alternative onsite support
• Scheduled as well as ad hoc supervisor contact
• Consider having the supervisor use a tablet
  – Mobility
  – Adequate for supervisor view (not the patient end)
• The supervisor not consult while supervising
• Both ends have a self view
Recommendations For Remote Video ECTVs

• Ensure the set up works well in advance of the ‘visit’

• Consider two cameras with a split view so that both the registrar and the patient can be viewed

• There are advantages of web based ECTV over on site ECTV
  – Less intrusive
  – The focus remains on the registrar
  – Capacity for better view
For Workshops

• Large Screen
• Purpose layout of room
• Re-modelling of educational delivery/Training of workshop facilitator
• Accessible IT support
6. Next Steps

• Expansion of use of the remote video
  – Integrating with TeleHealth
  – Distant Exam OSCE practice
  – Meeting remotely

• A national/inter RTP approach to addressing the need for remote supervision in AMSs
  – Potentially supervising registrars in multiple locations

• An investigation of how to best structure the educational event to the remote video delivery.