A review of paediatric telehealth for pre- and post-operative surgical patients
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Presentation Overview
- Queensland Telepaediatric Service
- Summarise paediatric surgical telehealth consultations
- Identify success factors associated with this service

Telepaediatrics in Queensland
- Royal Children’s Hospital, Brisbane
- 14 years
- 20,000 consultations (May, 2014)
- Includes pt attendances, case discussions and S/F
- Principally video-based appointments
- 37 paediatric sub-specialties

Telehealth coordination
- INCENTIVE
- Single point of contact
- Manages referral
- Liaises with specialists
- Schedules appointment
- Facilitates medical records
- Manages videoconference session
- Collects activity data
- Organises follow-up if required

Telepaediatrics in Queensland
- 20,000 consultations – 14 years
- Total consultations per annum >2000 per y
- MBS billable consultations ~ 1050 per y
Successes and Failures in Telehealth 2014

Telepaediatrics in Queensland

- Gastroenterology: 2%
- Orthopaedics: 2%
- Dermatology: 2%
- Oncology: 2%
- Nephrology: 2%
- General Paediatrics: 3%
- Endocrinology: 3%
- General Surgery: 4%
- ENT: 6%
- Neurology: 9%
- Burns: 10%
- Other: 8%

(n = 20,087 consultations)

Telepaediatrics – by Discipline

- Medicine: 30%
- Surgery: 21%
- Mental Health: 41%
- Other: 8%

(n = 18,949 consultations)

Telepaediatrics – Surgery

- Burns: 50%
- Vascular: 2%
- Orthopaedic: 5%
- General Surgery: 21%
- ENT: 16%

(n = 3880 consultations)

Paediatric Surgery in Queensland

- Majority of specialist services in south-east QLD
- Patients travel for pre-operative assessment and post-operative review
- Telemedicine opportunities explored

Telepaediatrics - Burns

- 1969 burns telehealth consultations in 14 years
- Median distance per patient saved 600 km (300-1225 km)
- Total distance saved (assuming all trips saved a journey)
  - 2.8 million km
  - ~ 4 return journeys to the Moon
- Vascular (assessment and reviews)


Telepaediatrics - ENT

- Pre-screening of patients with ENT problems
- Assessment done by videoconference
- Surgical appointments made if required
- Follow-up / review appointments
- Saves at least one trip to RCH

Successes and Failures in Telehealth 2014

Telepaediatrics - Orthopaedics
- Review of patients with known disability
- Cerebral Palsy – 40%
- Lower limb malalignment
- Specialist advice with local staff - particularly Allied Health
- Reduced need for travel

Telepaediatrics – Surgical
- ENT 18%
- Orthopaedic 9%
- Vascular 2%
- General Surgery 21%

Telepaediatrics – General Surgery
- 13 years (July 2001 – June 2014)
- 3880 consultations
- 824 consultations for general surgery (21%)

Telepaediatrics – General Surgery
- 12m Snapshot audit (July 2011 – June 2012)
  - Demographics
  - Reasons for referral to telehealth service
  - Review of all surgical telehealth activity (13 y)
  - Changes in time

Telepaediatrics – General Surgery
- Most common reason for referral – undescended testes
- Umbilical Hernia 3%
- Hydrocele 6%
- Hypospadias 14%
- Inguinal Hernia 12%
- Other Urology 4%
- Rectal 
- Testis 2%
- Constipation 2%
- Other 28%

Telepaediatrics – General Surgery
- 12m Snapshot audit (July 2011 – June 2012)
  - Outcomes
  - No further follow-up 22%
  - RCH Surgical App 34%
  - RCH App for follow-up 11%
  - Referrals GP 6%
  - Telehealth follow-up 16%

Telepaediatrics – General Surgery

Review of all surgical telehealth activity (13y)

- Rapidly expanding
- Routine clinics with all paediatric surgeons
- 6 clinics per month, up to 2 hours each
- Multi-site appointments
- General surgical consultations have increased substantially from an average 19 consults per y (pre-2010) to 163 consults per y (post-2010)

Success factors
- Triaging and identification of referrals in the RCH outpatient department and by surgical team
- Telehealth coordination support by the QTS
- An appropriate videoconference venue and system, which ensures privacy for the patient during the appointment
- Availability of a clinician at the regional site to accompany the patient during the videoconference and to assist with the consultation.

Conclusions
- Coordination function provides essential support for the delivery of telehealth services
- Telehealth has potential for other specialist consultations which require periodic review
- Benefits include more economical access to services
- Greater convenience for families in remote locations
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