Celebrating Diversity and Innovation for a More Sustainable Health Future

Northland Telehealth: A Renal Case Study


Socioeconomic Deprivation (2006)
Northland Renal Telehealth Project

Goal:

- Establish an integrated regional dialysis service and associated clinical networks

Drivers:

- Opening of new renal in Kaitaia November 2010
- No permanent Clinical Nurse Manager
- No on-site specialist physician
- Staff isolation and training issues
- Reduce travel times for both patients and staff

Evaluation

- Comparative study of evaluations @ 3 months and 22 months from implementation
- Looking at factors:
  - Innovation of solution
  - Sustainability of service
  - Clinical engagement
Methods

Data collected:
– Type and frequency of use
– Analysis of travel and clinic costs
– Case studies
– Team member interviews
Results

Innovation in Solution
- Multidisciplinary team were exposed to the system from an early stage in order to encourage innovative design and use of the system
- Given the options, the team input their own ideas and designed their own solution
- Technology supported what the team wanted to do (not vice versa)

Cost Savings
- Looking at travel and clinician time costs:
  - 12% or an additional 30 patient clinics per month
  - Additional NZD $8,669.03 in (theoretical) clinic time revenue saved per month

"Although the cost savings per trip are low, the productivity increase from the clinician time released is significantly more valuable to the department"

Whangarei Renal Consultant
Usage Stats
Nov 2010 – Sept 2012

Types of Use

• Multidisciplinary Meetings
• Acute Patient Assessment
• Vascular Access Surveillance
• Paperrounds/Patient reviews
• Inservice Training/Education
• Team Meetings
• Staff Follow Up
• Impromptu Staff Training and support

• Day to Day Patient Handover
• Colleagual support
• Referral based Psychiatric Patient Assessment
• Patient end of life meetings
• Dietetic Staff Referral
• Dietetic Patient Assessment
• Supervision for Social Workers and Dietetic staff

Departmental Multidisciplinary Meeting

• Medical handover and case review
• Link up to all 3 sites
• Whole team can now attend the meeting

• Also enables:
  – Review of difficult cases
  – Forward planning of transfers and procedures
"Paper round"

- Monthly review of individual haemodialysis patient results
- With primary nursing team leader by patient’s primary renal physician
  - Adjust dialysis prescription as needed
  - Adjust medication as needed and advise GP
  - Review any vascular access issues
  - Review any on-going concerns

Patient Assessment

- Acute review of issues arising on dialysis (utilising close up shots of vascular access, skin lesions)
- Discussion of complex management plans
- End of life discussions
- Dietetic assessment
- Social work review
- Psychiatric review

Benefits Identified But Not Quantified:

- Raised level of support and education throughout the team
- Safer working environment
- Improved team cohesion
- Improved staff morale
- Increased productivity

Evaluation Summary

- Team feels more at ease using telehealth – increase in use
- Management and planned care has improved because each patient is now reviewed monthly in a systematic way
- This has caused a drop in the number of clinical assessments in past 12 months
- Staff able to engage with the clinical vision of one regional service
Innovation – Establishing Links to Tertiary Services

- Multidisciplinary Meetings for:
  - Vascular radiology
  - Vascular surgery
  - Renal transplant
  - Pathology

Asymmetry of Need

...Barriers perceived by tertiary centre...
• **Time**  
  - Meeting times stretched already  
    - "Current system works fine" (Tertiary team)

• **Money**  
  - Stretched resources  
    - Who would fund?...  
    - "Northland should as its for their patients" (Tertiary team)

• **Effort**  
  - Set-up of system  
    - IT Support  
      - "We don’t need it" (Tertiary team)

• **Impact on Auckland patients**  
  - "Our patients have the lowest intervention rate" (Tertiary team)  
    - ...implying they are usurped by regional centres it serves..

---

**Winning Approach:**

• Northland CEO supports funding for 6 month proof of concept trial for tertiary centre

**Results:**

• Trial is successful, concept is proven  
• Key clinicians are convinced  
• With tertiary centre SMO and senior management support:  
  - Equipment is purchased  
  - Telehealth strategy is now being developed  
  - Telehealth Programme Manager role is created
Tertiary MDTs – Telehealth has enabled (and didn’t exist previously):

- Real-time two-way patient discussions with review of clinical investigations
- Collaborative, planned approach
- Quicker action on care plans
- “Now we are part of a team”

Clinical Champion

- THE most difficult and challenging issue is finding specialists who are prepared to do clinics

- Renal - skeptic turned advocate
- Clinical champion in each speciality
- Get specialists talking to specialists

Eg Oncology – Mark Jeffrey, Canterbury DHB
Orthopaedic fracture clinics – John North, Queensland
Factors for Sustainability – What Worked:

- CEO and GM support
- Alignment with strategy and future planning
- Effective clinical champion and leadership
- Engaged team members (CNM, superusers, innovators)
- Close project and ongoing IT support

Application of learnings to other Northland Telehealth initiatives

- Outpatient clinics – approx 20,000 clinics per year for patients travelling from outside Whangarei District

Northland Outpatient Clinics:

- Paediatric
- Oncology
- Orthopaedics
- Methadone
- Neurology
- Speech and Language Therapy
- Dietician
- Flight cancellation clinics

ICU and District Hospital ED Telehealth

- Linking back to tertiary centres
- Drivers:
  - Improve patient safety
  - Appropriate mode of transfer
  - Introduce rapid response nursing team capability
Vision for Northland DHB Telehealth:
To provide a seamless and reliable telehealth service which looks and feels like clinical care
Old Maori Proverb:

- He aha te mea nui o te ao
  He tangata, he tangata, he tangata

What is the most important thing in the world?

- It is the people, it is the people, it is the people