Role evolution

My NP pathway and projects along the way

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Topics covered today

- Background to role
- Telehealth
- General practice & new model of care
- Case study
Location and demographics
History of Mangakino and Turangi

- Both started life as temporary towns built for the families and workers of the hydro-dams
- Temporary housing, poorly insulated
Today (as of 2006 census data)

• Mangakino
  Pop 1000
  • 16% >65 yrs/26% <15 yrs
  • 59% identify as Maori
  • 16% of the pop speak Maori
  • 57% of pop have no formal qualifications
  • Median income $14k

• Turangi
  Pop 3200
  • 14% >65 yrs/24% < 15 yrs
  • 59% identify as Maori
  • 25% of the pop speak Maori
  • 36% of pop have no formal qualifications
  • Median income $19k
HealthRight Nurses (NP candidates)

- Roles identified from DHB needs analysis for both Turangi and Mangakino (started Feb 2007)
- Utilize clinical assessment/data and patient self management plans alongside best practice
- Carry a mobile clinic with clinical equipment
- Take the service to the people/offer choice of service delivery/utilize various methods of communication
- Liaise across multi-sectors
- Encourage/support reengagement with services
- Work at a pace set by the patient
- Educate, educate, educate, educate, educate
Telehealth

- thermometer
- BP cuff
- ECG
- spirometer
- oximeter

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[Image: Telehealth device with various medical devices attached, including a spirometer, oximeter, and BP cuff.]
Telehealth

• Tri-parte venture between DHB, PHO and Healthcare NZ

• Agreed goals of the pilot:
  – to improve the health outcomes of people with CHF or COPD living in the Turangi area through the provision of organised domiciliary telehealth services;
  – to reduce the burden on the health system by reducing acute exacerbations and the frequency of community nursing services through telehealth monitoring and proactive early intervention.
Eligibility

- People admitted to Rotorua/Taupo hospital in the year ending April 2009
- 20 people randomly selected who had been in with a primary diagnosis of HF/COPD
- Had not had previous input from the HealthRight nurses
- Lived in the Turangi/Taupo area
- Had a telephone line
- Preference was for a 50:50 split of Maori and non Maori
Recruitment and baseline data collection

- HealthRight nurses not involved in the selection process
- HR nurses did the ringing and recruiting into the pilot
- Further randomization into control or intervention group (10 of each) – again by administration staff
- HR nurses did baseline observations, questionnaires and training on how to use the machines
- Healthcare NZ staff interviewed the telehealth users only
- PHO and Healthcare NZ staff installed the monitors and did further monitor teaching/troubleshooting as required
Evaluations

- 6 month internal evaluation
  - Intervention group and RN interviewed of the effectiveness and ease of use of the monitor

- 12 month external evaluation
  - All participants reevaluated using the same tools/questionnaires completed at the commencement of pilot
  - RN staff interviewed
Key findings

• Remote monitoring technology can be successfully applied in a NZ community to aid in chronic disease management
• The technology is accepted by patients and family – both Maori and non Maori
• Telehealth remote monitoring probably improves patient quality of life in the target group
• Telehealth remote monitoring might improve life expectancy
• Telehealth remote monitoring did not demonstrate benefits over and above the usual HealthRight programme in reducing service utilisation
General practice & model of care
Tokoroa Medical Centre - green & blue corridors
Tokoroa Medical Centre
Facility
- 16 clinic rooms
- 1 nurse triage
- 5 off stage areas
- 3 person reception
- 1 practice manager office
- 1 backroom admin office
- 2 storage cupboards – 1 each corridor
- 1 clean and 1 dirty room – connecting the corridors
- Staff room
- Separate meeting room with VC facilities

Staff
- 8 GPs (incl. medical director) usually 4-5 GPs on at any one time
- 10 RNs - 5.5FTE (incl. 0.6FTE nurse lead) + 1 new grad 0.8 FTE
- 1 NP – 0.6FTE
- 2 PAs – 2FTE
- 1 CP – 1FTE
- 2 MCAs – 2FTE
- 6 admin staff (incl. admin lead)
- 1 practice manager
- Patient access centre – Hamilton based call centre
Roles

• Medical centre assistants
  – Run huddles
  – Room – pts and staff
  – Restock
  – Clean between patients
  – Do basic observations

• RN’s
  – Phone nurses
  – GP nurses
  – Triage nurse
  – FTF nurse

• All RNs have a “lead” i.e. imms, cervical smears, recalls…
Nurse Practitioner

- Work with the complex long term condition patients
- Risk stratified population
- Assist with quality targets
- Quality, policies and procedures
- Education
- MCAs
- Service integration
- Clinical and professional nurse lead
And to finish off... a case study

- 67 year old European male
- Lives alone
- Is self employed – work is physically heavy and dirty. Is outside and has exposure to airborne irritants e.g. dust, pollen, extremes of weather
- Very strong willed, sometimes to his detriment health-wise
Presentation

• Home visit – sitting on sofa
• Feeling unwell over last 4 days
• Shortness of breath at rest and on exertion
• Fatigue
• Peripheral odema to his knees
• Abdominal odema
Medical history

- Ex-smoker of 25 year pack history, has been an ex-smoker for 33 years
- Has had occupational exposure to dust and asbestos
- Had frequent hospital admissions for childhood asthma
- Type 2 diabetes
- Ischaemic heart disease
- Hypertension
- Asthma
- Chronic Obstructive Pulmonary disease
- Obesity
Medications

- Gliclazide 40mg BD
- Metformin 500mg daily (with largest meal)
- Diltiazem cd 240mg daily
- Aspirin ec 100mg daily
- Atorvastatin 20mg daily nocte
- Eformoterol 6mcg 2 puffs BD
- Flixotide 125mcg 2 puffs BD
- Salbutamol 100mcg MDI 2 puffs prn
- Salbutamol 5 mg nebules prn
- Ipratropium 500mcg respules 4 hrly prn
- Oxygen 2 ltrs via nasal prongs 16 hrs daily
Physical examination

- Weight 120.6kg
- RR 22 breaths per min
- HR 76 regular
- BP 142/100
- SpO2 87% on 2 ltrs per min
- Neck – JVP unable to visualise due to tendon tautness and adipose tissue
- Respiratory - ↑ WOB, bi-basal crackles, reduced air entry
- Cardiovascular – PMI laterally displaced, unable to hear heart sounds due to gastric gurglings
- Peripheral vascular – pitting odema
- Urinary – says PUing ok
- Neurological – limited insight
- Sleeping upright on sofa as can’t breathe when lying down
Differential diagnosis

- COPD/Asthma exacerbation
- Heart failure
Management

- Refuses hospitalisation or GP visit
- Verbal discussion with the partner GP
- Furosemide 40mg 3 tablets stat, 2 x 40mg tablets Sat & 2 x 40mg tablets Sun
- Ipratropium 500mcg and Salbutamol 5mg 4hrly
- Salbutamol 5mg up to hrly prn
Follow-up

- Is seen by GP as arranged
- Frusemide reduced to 40mg daily
- Uses a 2 by 2 plan (2 kgs weight gain within 2 days takes 2 Furosemide)
He aha to mea nui o te ao?
He tangata! He tangata! He tangata!

What is the most important thing in the world?
It is people! It is people! It is people!