THE DEVELOPMENT OF NURSE PRACTITIONER ROLE USING INTEGRATED CARE PATHWAY TO IMPROVE PATIENT OUTCOMES.

Rebecca Aburn RN MN
CO-DESIGN CARE
We have had over 3,200 inputs...

From December 2015 to March 2016, including *Creating Our Future* week, we have had inputs from...

2,543 **staff**

636 **patients**

30 **providers**

all of whom want to help make Southern DHB a better place to work and be cared for
7 IMPROVEMENT PRIORITIES FOR PATIENTS

To listen, communicate more and work in partnership with them
To be more consistently kind, helpful and positive
To protect our patients’ dignity and humanity at all times
To value our patients’, whanau and community time
To create a calmer, more compassionate experience
To keep improving the food we provide
To keep listening to and learning from patients and whanau
7 IMPROVEMENT PRIORITIES FOR STAFF

- Find more time for people to focus on patients
- Eradicate rudeness and bullying
- Develop values-based leaders
- Build a culture of appreciation
- Liberate innovation
- Build stronger teams across locations, roles, and services
- Create a learning culture, where people feel safe to speak up

Staff
We pledge never to walk by...

The care we walk past is the care we accept, so I pledge always to speak up – about poor care, about great care, and whenever I see an opportunity to improve

Sign in pairs
The review of the current vascular service has encouraged a new approach to the delivery of care for chronic vascular patients. The impending retirement of a vascular surgeon on one site has bought about a service review. How can services be provided across a large geographical district for patients who require specialist vascular assessment / treatment and specific healthcare needs.
NURSE PRACTITIONERS

• Nurse practitioners work within a specific area of practice and bring advanced knowledge and skills. They practice both independently and in collaboration within the health care teams.

• They work to promote health; prevent disease; and diagnose, assess and manage health needs, including through differential diagnosis, ordering, conducting and interpreting diagnostic and laboratory tests, and administering therapies for the management of potential and actual health needs. Nurse practitioners work in partnership with patients, families and communities across a wide range of clinical settings.

• Nurse practitioners also demonstrate leadership as consultants, educators, managers and actively involved in research and policy development at both local and national level. (Nursing Council of New Zealand 2011)
FIVE DRIVERS FOR NURSE PRACTITIONER

1. The health care needs of the population
2. Education programs
3. Workforce needs
4. Practice patterns & new models of care
5. Legal and Health Policy Framework

IMPACT OF NURSE PRACTITIONER ROLES

• Death
• Disease
• Disability
• Discomfort
• Dissatisfaction
• Dollars

NP — ROLE

A more coordinated approach including weekly meetings in the in-patient setting to provide direct case support to both patients and families linking services between secondary and primary care.

Provide specialist education and support for the primary and satellite hospitals to enable appropriate diagnostics and therapies are provided to patients in a timely manner. Creation of Integrated care pathways to help streamline care between GP and specialist will also be implemented. This is strategy six from the ministry of health in improving patient flow ministry of Health (2012)
TEAM APPROACH

- Nurse directors
- Vascular team including consultant
- Business analyst
- Clinical Champion
- Primary leaders
- Patients
- Budget Holders
FRAMEWORK FOR BUSINESS CASE

It provides a high level assessment of:

1. **What** we are doing?
   - How will this help or patients?
   - How will this help us?
   - Do we agree on what we want to do?

2. **Can** we do it?
   - Do we have what we need to do it?
   - How hard is it to do?
   - Will it be cost effective?

3. **Should** we do it?
   - How much do we think it will cost?
   - How soon can we start?
   - Is it worth doing?
Value Proposition:

There is an opportunity to implement a new system wide model of care for the vascular service with the introduction of a nurse practitioner (NP) role (1.0 FTE) for the district.

The current identified problems in the service can be described as:

- Vascular service currently has only 2.0 SMO FTE with 0.2 southland not currently filled and 1.0 FTE SMO on long-term sick leave.
- No Current prevention screening or monitoring programme in primary health care for chronic conditions patients who require vascular input. This results in all vascular patients being referred to the tertiary SMO.
- No Specialised education in compression hosiery which is a low cost intervention for the prevention of venous diseases in primary health care.
- No interface with long term chronic vascular patients including diabetic foot in the primary sector presenting late stage leading to acute MOT.

Currently, a Registered Nurse (Rebecca Auburn) with the DHB is undertaking the post-graduate training for a nurse practitioner. Whilst the Southern Strategic Health Plan and the Annual Plan do not have the introduction of an advanced nursing practice model as a priority, now is the time to utilise the opportunity. There is strong strategic alignment to the four fold AIM which support the initiation of this project now including Improving population health, providing teaching and learning, reducing the cost per capita and improving the experience of care.

Staff/Patient Experience:

- Better, sooner more convenient health care in the community including screening for high risk patients, ongoing monitoring, access to appropriate medication and diagnostic interventions.
- PHO staff will be supported through education in care of complex vascular patients.
- PHO and secondary services will have direct access to NP who will triage and funnel appropriate referral to the tertiary vascular surgeons.

7+7 Strategic Alignment:

The Patient priorities that this initiative supports are:

P1: To listen, communicate more and work in partnership
P4: To value our patients’, whānau and community’s time

The Staff priorities that this initiative supports are:

S4: Grow teams across locations, roles and services
S1: Find more time for people to focus on patients
S6: Develop great leaders

Estimated Project Complexity:

Medium to High

Cost Drivers:

- 1 NP Training role for 6 months ($50K), 1 NP FTE ongoing ($130k per annum), 0.5 CNS southland ($50K per annum)

Indicative Total Cost: Estimate only ($230,000)

Benefit Drivers:

Tangible benefits include:
1. Decreased bed days;
2. Decreased MOT time;
3. Decreased ED admissions;
4. Decrease acute admissions to vascular service;
5. reduced SMO travel

Non-tangible benefits include:
1. Prevention of stranded vascular patients;
2. Reduced district nursing time complex vascular and diabetic wound management;
3. Cost avoidance of additional SMO

Indicative Benefits (If known) ($TBC)

Recommendation (select one option):

- Start Elaboration phase immediately with the introduction of the NP training role and recruitment of replacement Registered Nurse
- Inception phase confirms do-ability now.
CAN WE AND SHOULD WE DO IT?

PROFILE SUMMARY

INITIATIVE PROFILE FOR: Vascular Model of Care

Completed By: Sharon Jones
Date Completed: 30 March 2017

INITIATIVE ATTRIBUTES

- Type of Initiative: Service Re-config + Project
- Organisational Coverage - Who is impacted? All of Health System - Southern District
- Main driver: Strategic
- Optimal prioritisation timing: Planning Cycle
- How well understood? Very well understood, detailed supporting information
- Mandated Deadline?: End date flexible
- Estimated Duration: 6 - 12 months
- Likely Cost: $150k to $1M
- Complexity: HIGH
- Measurable Benefit Sensitivity: LOW
- Change Impact: LOW

Stage Gate Governance Group: ELT

Sponsor: Leanne Samuel
Sponsor request to escalate Stage Gate Governance?: NO

BENEFIT IMPACT

- Cost Savings (financial)
- Effectiveness
- Equity
- Efficiency
- Safety
- Patient Centric

Increasing risk for potential measurable benefit realization.
## WHAT WE ARE DOING AND CAN WE DO IT?
### PROPOSED TARGET STATE

**Proposed Target State Concept**

**Describe the Target State in terms of People, Process & Technology:**

**Options considered:**

1. Continue current service and employ another SMO to meet service demand.
2. Send all southland patients to Dunedin for care, FSA and follow-up.
3. Introduce NP role district
4. Introduce NP role - district and CNS role Southland

**Advantages/disadvantages (trade-offs) of each alternative considered**

1. Not a feasible option as is not a cost sustainable option
2. Not a feasible option as not aligned with health policy objective of care closer to home
3. Feasible and preferred option as most cost effective
4. Feasible option as CNS will alleviate the clinical shortfall in Southland enabling the NP to be a truly district role but can fulfill CNS function in Southland with existing nursing workforce

**Key Assumptions:**

1. Suitable NP qualified candidate exists

**Key Dependencies:**

1. Primary / tertiary pathways developed with NP role included as part of Health Pathways programme
2. Data analysis support to capture outcome measures will need to be developed by

**Estimated benefit sensitivity:**

- LOW

**Procurement Assumptions:**

1. Doppler machine for vascular ABPI
2. Access to board vehicle
3. Computer / laptop
4. Phone
5. Filing system

### Do-ability Assessment

**Indicate resource requirements and availability for the next stage:**

- NP (In training): Rebecca Aburn
- Planning and Funding resource support for MOC development
- SMO support for training
- Service Manager for clinical space/admin

**Indicative State Date of next phase:** Immediate

**Delivery Approach**

- "NP in training role" application to Nursing Council November 2017 as prescribing practitioner. Full NP position commenced with CNS role implemented at this time.

### Key Risks

**What (if any) Operational (patient/staff) risks are being mitigated by this project?**

1. SMO vacancy
2. Navigate health system for complex long term conditions patients
3. Decrease BKA in high risk groups such as haemodialysis
4. Prevent unnecessary tertiary referral to vascular service

**Is the project introducing new (if any) Operational (patient/staff) risks?** None

**Articulate the key risks associated with delivering this project?**

- Office space
- Outpatient clinic room
- ACC support and funding for skin tear clinic
- Current service not sustainable due to SMO vacancy and sickness
Vascular NP
Role District wide service

- Prevention education across the services
  Dialysis, oncology, cardiovascular

- Diabetics with vascular condition prevention and monitoring of neuropathy

- Southland cover and clinic management

- Complex vascular surgical patient’s prevention of stranded patients

- Vascular assessment in community patients

- Research linking with the university. Capture SSI rates quality improvement projects to reduce HAI

- Venous leg ulcer guidelines and dissemination follow-up and implementation

- ED follow-up admissions for cellulitis and introduce a skin tear clinic link in with ACC to help reduce >65 infections

- Complex chronic condition patients develop pathways to independence

- Telemedicine

Dialysis, oncology, cardiovascular

Prevention education across the services

Diabetics with vascular condition prevention and monitoring of neuropathy

Southland cover and clinic management

Complex vascular surgical patient’s prevention of stranded patients

Vascular assessment in community patients

Research linking with the university. Capture SSI rates quality improvement projects to reduce HAI

Venous leg ulcer guidelines and dissemination follow-up and implementation

ED follow-up admissions for cellulitis and introduce a skin tear clinic link in with ACC to help reduce >65 infections

Complex chronic condition patients develop pathways to independence

Telemedicine
• 16.5.12 she presented to vascular clinic where she described some changes she had vascular lab studies done at this time showing PVRs of 1-2 bilaterally and on the right ABI of 0.8 and left 0.77.

• On examining her she had normal femoral pulses, normal popliteal, posterior tibial, dorsalis pedis pulses bilaterally.

• She had reduced proprioception but normal light touch in her feet. She has got some pigmentation on the skin of her legs with some reticular veins seen.

• She was then not followed up with further ABIs every six months and fitted with hosiery to prevent further vascular disease.
HISTORY OF PRESENTING ILLNESS

• Developed a skin tear in early February 2016- ACC care commenced which was initially assessed and dressed by the practice nurse. Once the wound became more complicated it was then referred to a private provider who applied twice weekly dressings. Further oral antibiotics were prescribed totaling nearly 12 weeks of antibiotics.

• Presented to ED on 17.4.16 with cellulitis she received (as per cellulitis protocol) IV and oral antibiotics.

• ABIs 0.7 bilaterally and the right leg had a lateral ulcer that had a biofilm over the surface of the wound. Her legs bilaterally were swollen and painful she had reduced mobility.

• Pain score 10/10

• Referral to DFC
Image taken
27-05-2016
14:04:25

Area
20.2cm2

Perimeter
308mm

Max. Depth
5mm

Mean Depth
1mm

Volume
1.5cm3

Image taken
03-06-2016
12:51:45

Area
11.4cm2

Perimeter
162mm

Max. Depth
4mm

Mean Depth
1mm

Volume
0.7cm3
TREATMENT PLAN

- Pain management
- Exudate management
- Compression bandaging then fitted for hosiery
- Follow-up six monthly
CONCLUSION

• Nurse practitioner roles are increasing across all sectors of health care to meet the changing needs of the population.

• Nursing leaders need to be able to support the development of these roles using sound data and research.

• Business case development is complicated but made simple when working with experts who can help navigate the process for clinicians.

• Health care dollars are stretched and nurse practitioners have proven over the last 10 years in New Zealand to have produced measureable improved health care outcomes for their patients. Gagan et al (2014).