Regional Renal Satellite
Haemodialysis Plan

August 2004
Executive Summary
Four of the five Midland District Health Boards, Bay of Plenty, Lakes, Tairawhiti and Waikato, purchase renal services through the Regional Renal Service based at Waikato District Health Board. The Regional Renal Service Plan, December 2003, identified the need for development of satellite haemodialysis services across the region. This is in line with the Ministry of Health, 2003 “Guidelines for Safe Practice of Dialysis in New Zealand” (Appendix B) that recommends:

- Patients should have access to the full range of modalities of dialysis provided by qualified, credentialled staff under the direction of a nephrologist.
- All tertiary DHB’s with a renal haemodialysis service must provide for independent and dependent Haemodialysis modalities.

This plan identifies the issues, opportunities and risks in establishing satellite services for the Midland region. There is agreement from the Midland DHB’s and the regional renal service that:

- Satellite haemodialysis units should be managed under the ‘hub and spoke’ model with ongoing development of integrated clinical networks to support the management of end stage renal failure (ESRF) patients;
- Planning of satellite haemodialysis units should be based on population demand;
- Newly established satellite units must allow for growth.

A six-station satellite haemodialysis unit opened on the Tauranga Hospital campus in June 2004. Local fund raising took place and quickly raised funds for this unit. A working group with representation from the Regional Renal Service and Bay of Plenty DHB undertook the development and implementation for this unit. Issues identified in the regional renal service plan and during the development of the Tauranga unit include:

- Lack of an information system to identify patients by dialysis modality by domicile, in order to identify the number of patients in an area that may be suitable for satellite haemodialysis. The inability for Nephrologists to remotely manage and monitor patient treatment;
- The ability to fund capital and operating costs under the current revenue;
- Workforce issues:
  - Moving treatment away from the ‘hub’ requires an increasing number of outpatient clinics at the local DHB’s; this increases pressure on the limited nephrologist workforce;
  - An infrastructure shortage of specialist staff. The establishment of satellite haemodialysis units identified the need for new roles such as a specialist nurse coordinator that is mobile across the region as well as an increased requirement for nurse educators to orientate and train satellite haemodialysis staff.

The Regional Renal Services Plan - Part Two, currently in development, will address these issues along with further detail on each of the recommendations from the regional service plan.
**Recommendations**

1. That a Regional Satellite Haemodialysis Liaison Nurse (SHLN) is appointed. The prime responsibility of the SHLN is to facilitate the operation and coordination of satellite haemodialysis within the Midland Regional Renal Service. It is recommended that this position should be funded jointly by Waikato, together with the DHB’s, Bay of Plenty and Lakes, who have established or proposed satellite haemodialysis units at this time.

2. There is an identified need for a satellite haemodialysis unit in the Lakes DHB. It is recommended that a business case should be developed as soon as possible by a joint Lakes DHB and Regional Renal Service working group to enable establishment by 2005-06.

3. That a post implementation review of each satellite haemodialysis unit should be undertaken six months from opening. That the terms of reference for that review be agreed by the Regional Renal service and the satellite unit DHB and be based on the critical success factors identified in the Project brief (appendix A), together with issues identified from any previous post implementation review. That a report be published within two months of the commencement of the review.

4. That the site for future satellite unit developments be identified through an annual review of patients receiving dialysis treatment. Site selection should include the use of regional hospitals and marae or community based options. Current review indicates that the highest demand is in the Waikato District.

5. That a Regional Renal Service policy and procedure for overseas and New Zealand travellers and/or private patients requesting access to satellite haemodialysis be developed by October 2004.

6. That a Health Waikato Incentre Coordinator is appointed. This position will ensure resource is available to provide support for the increasing number of staff required to manage the incentre patient load and allow the Clinical Nurse Leader to be involved with ongoing new programme developments, including satellite haemodialysis units. A business case is to be presented to the Health Waikato Executive Management for this position.

7. The risks and issues identified in this paper should be evaluated when determining options for additional satellite haemodialysis units.
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Acknowledgement - Logo: Richard Thompson: depicts tree, the old leaves fall off, new growth comes from within.
Introduction

The Regional Renal Service Plan, December 2003, endorsed by the Midland District Health Boards (DHB’s) Chiefs Executive Officers (CEO’s) approved seven recommendations one being the development of a Midland Regional Renal Satellite Haemodialysis Plan. A Midland DHB working group was established to collaboratively develop the plan (the Project Brief is attached as appendix A) as well as the development and implementation of a haemodialysis satellite unit at Tauranga Hospital. The recently appointed Midland Regional Service Planner has assisted this working group. This proposal focuses on Waikato DHB, Bay of Plenty DHB, Lakes DHB and Tairawhiti DHB (excludes Taranaki DHB).

Further development of the remaining six recommendations from the Regional Renal Service Plan, are currently being undertaken to form Part-Two of the Regional Renal Service Plan.

Background

The renal service has a philosophy of maintaining and promoting independence in the community. Haemodialysis and Continuous Ambulatory Peritoneal Dialysis (CAPD) / Automated Peritoneal Dialysis (APD) are the two modalities for life maintenance of end stage renal failure (ESRF). The optimal treatment is kidney transplant. This paper focuses on Haemodialysis modality. There are a range of Haemodialysis service components:

- Acute inpatients requiring 1:1 dialysis at Waikato Hospital.
- Acute inpatients requiring dialysis at Waikato Hospital (renal and/or other services), including vascular access surgery and revision of access surgery, radiology services for access assessment and/or intervention.
- Incentre (ambulatory)
  - CAPD patients requiring temporary haemodialysis;
  - Home haemodialysis patients requiring temporary incentre dialysis for medical or social reasons;
  - New ESRF patient’s known to the service waiting access to a home training programme;
  - Unknown ESRF patients (late presentation) not yet accepted onto a training programme;
  - Post transplant patients still requiring dialysis on a temporary basis.
- Chronic ESRF patients who are unsuitable for a home based haemodialysis programme.
- Home based haemodialysis
- Outpatient clinics across the region

This plan focuses on the needs of chronic ESRF haemodialysis patients that are medically stable but unsuitable for home based treatment for clinical or social reasons. This group of patients requires access to a satellite facility that promotes wellness and independence in the community.

The working group process included literature research, analysis of data, review and visits to current New Zealand satellite units as well as the 2002 site visit to the Royal Melbourne Hospital based North West Dialysis Service, which manages an integrated renal dialysis service including 26 satellite haemodialysis units.
Principles
The Ministry of Health, 2003 “Guidelines for Safe Practice of Dialysis in New Zealand” (Appendix B) draft document recommends:

- Patients should have access to the full range of modalities of dialysis provided by qualified, credentialled staff under the direction of a nephrologist.
- All tertiary DHB’s with a renal haemodialysis service must provide for independent and dependent Haemodialysis modalities.

Dependent modalities – those where most or all of the dialysis procedure is performed for the patient by a qualified dialysis nurse or technician. This can be provided in a haemodialysis unit (incentre) or in the patient’s residence or a satellite centre.

Independent modalities – where the dialysis procedures is performed by the patient, or have a family member that supports the procedure. This is predominately performed in the patient’s home or can be provided in a facility where a machine is shared.

The 2002 site visit to the Royal Melbourne Hospital based North West Dialysis Service, which manages an integrated renal dialysis service including 26 satellite haemodialysis units. The visit informed the development of the Regional Renal Service Plan including establishment of satellite units. Satellite dialysis units may be established for:
- Geographic reasons;
- Area of low home ownership;
- Inadequate water supply in rural areas.

Satellite dialysis units should be established according to current demand rather than on population based predictions. Newly established satellite units must also allow for growth (currently 15% p.a.).

Regional Renal Haemodialysis Services
- Waikato Hospital Ward 24 provides acute and arranged inpatient care. All new ESRF dialysis patients and patients with related secondary / tertiary renal complications that require inpatient care are admitted to Waikato Hospital.
- Acute inpatient haemodialysis unit is a 7-station unit attached to Ward 24, Waikato Hospital. This facility was commissioned in May 2003.
- All vascular (and urological for CAPD / APD) access surgery and revision of access is at Waikato Hospital.
- All radiology services for assessment and intervention for vascular access problems is carried out at Waikato Hospital.
- Incentre Haemodialysis at Waikato Hospital is a 12-station unit that provides on site nurse dependent haemodialysis for ambulatory patients. There is a group of dialysis patients that are recognised as satellite patients. This service currently runs 16 hours daily, Monday to Saturday inclusive with daily medical staff review, 24 hour on-call service, and 24 hour acute dialysis service. There are two shifts that provide dialysis support for 24 patients. Staff also support the acute inpatient dialysis unit that dialysis 7 patients per day. This is a dependent modality facility where qualified haemodialysis staff, are present throughout the dialysis and supported by a Nephrologist when required.
- Satellite Haemodialysis Unit – Bay of Plenty DHB 6-station satellite haemodialysis unit opened 19 July 2004 for medically stable patients requiring assisted haemodialysis. This service runs three days per week. This is a dependent modality facility where qualified haemodialysis staff are present throughout the dialysis. Patients are medically stable not requiring medical supervision.
• Home Training Units – Home Haemodialysis and Peritoneal Dialysis Units are based at Waikato Hospital. The Australian Medical Workforce Committee (AMWAC) recommends that the tertiary centre is responsible for training of all home based dialysis patients.

• Technical Support – Home based patients are managed on a regional basis from Waikato. Bay of Plenty DHB is negotiating an independent service contract for technical support for the Haemodialysis Satellite Unit equipment.

• Waikato Regional Renal Service on behalf of the region manages:
  - The purchasing of equipment and consumables;
  - Education and support for dialysis staff;
  - The renal pre-dialysis programme / service;
  - Contact and facilitation with Auckland Renal Transplant Unit on transplant co-ordination and management;
  - an integrated service for patients;
  - Policies, procedures, standards, guidelines for care of renal patients;
  - Technical support for maintenance of standards – water quality, machine servicing.

Demographics
Satellite dialysis units should be established according to current demand rather than on population based predictions. Newly established satellite units must also allow for growth (currently 15% p.a.).

The following table demonstrates the predicted growth by modality split.

**Table 1: Predicted Growth by Modality Split**

<table>
<thead>
<tr>
<th></th>
<th>10% growth pa / 60:40</th>
<th>10% growth pa / 50:50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemodialysis</td>
<td>284</td>
<td>458</td>
</tr>
<tr>
<td>CAPD / APD</td>
<td>190</td>
<td>305</td>
</tr>
<tr>
<td>Total Numbers</td>
<td>474</td>
<td>763</td>
</tr>
<tr>
<td></td>
<td>15% growth pa 60:40</td>
<td>15% growth pa 50:50</td>
</tr>
<tr>
<td>Haemodialysis</td>
<td>340</td>
<td>683</td>
</tr>
<tr>
<td>CAPD / APD</td>
<td>226</td>
<td>455</td>
</tr>
<tr>
<td>Total Numbers</td>
<td>567</td>
<td>1139</td>
</tr>
</tbody>
</table>

Source data: Regional Renal Service Plan (December 2003)
Table 2 – New Zealand Percentage Split of Patients by Modality (Sept. 2003)

<table>
<thead>
<tr>
<th>Year</th>
<th>Waikato</th>
<th>NZ</th>
<th>NZ</th>
<th>Haemodialysis</th>
<th>CAPD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Home %</td>
<td>Incentre %</td>
<td>Satellite %</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>17</td>
<td>4</td>
<td>0</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>17.6</td>
<td>16.8</td>
<td>0</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>16.2</td>
<td>18.5</td>
<td>0</td>
<td>65.3</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>17.6</td>
<td>15.1</td>
<td>0</td>
<td>67.3</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>18.6</td>
<td>19</td>
<td>0</td>
<td>62</td>
<td></td>
</tr>
</tbody>
</table>

Source ANZdata Interim summary February 2004

Access to haemodialysis has improved across New Zealand, with 38% of patient’s dialysing in incentre or satellite haemodialysis units. However, the national and local philosophy is to promote and support home based dialysis treatments where possible as this provides better rehabilitation and quality of life for a number of patients.

The Regional Renal Service plan identified that in July 2003 there were 26 chronic / permanent ESRF patients managed in the Waikato incentre haemodialysis unit (55% of total incentre patients). Table 3 identifies in June 2004 there are now 42 patients with 31 identified of these patients requiring full care. They have been unable to be trained to assist with care and are usually unstable medically, frail and/or elderly. A proportion of these patients would not be suitable for satellite if they remain medically unstable. 11 require assisted care and this group would be suitable for satellite haemodialysis.

Table 3: Chronic ESRF Patients Managed in Incentre Haemodialysis (June 2004)

<table>
<thead>
<tr>
<th>Chronic ESRF</th>
<th>Tauranga</th>
<th>Whakatane</th>
<th>Lakes</th>
<th>Waikato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assisted Care</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Full Care</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>20</td>
</tr>
</tbody>
</table>

With an appropriately resourced satellite facility (including skill level of staff), many of these patients could be managed closer to their domicile.

Table 3 excludes home based dialysis patient’s that maybe more suited to satellite haemodialysis but remain in the community due to issues around access. It should be noted that Lakes has the highest proportion of home-based haemodialysis patients and some of these people (estimate 3 – 5) would be better managed in a satellite unit due to lack of social support.

There is no research that indicates or forecasts the future population requirements for satellite haemodialysis units.
Table 4: Renal Patients as at 31 July 2004

<table>
<thead>
<tr>
<th>DOMICILE</th>
<th>PD Home</th>
<th>Home Haemo</th>
<th>Permanent Incentre</th>
<th>Acute Incentre</th>
<th>Suitable Satellite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waikato</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamilton</td>
<td>33</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Hauraki</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Matamata-Piako</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Otorohanga</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Ruapehu</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>South Waikato</td>
<td>11</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Thames-Coromandel</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Waikato</td>
<td>12</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Waipa</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Waitomo</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>101</td>
<td>31</td>
<td>9</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td>Tairawhiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gisborne</td>
<td>20</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotorua</td>
<td>21</td>
<td>10</td>
<td>0</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Taupo</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Totals</td>
<td>29</td>
<td>13</td>
<td>0</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Bay of Plenty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tauranga</td>
<td>19</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Western Bay of Plenty</td>
<td>11</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kawerau</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Opotiki</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Whakatane</td>
<td>11</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Totals</td>
<td>54</td>
<td>17</td>
<td>2</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Grand Totals</td>
<td>204</td>
<td>63</td>
<td>11</td>
<td>18</td>
<td>47</td>
</tr>
</tbody>
</table>

Note: refer to background service components for incentre permanent and acute.

At this point of time Hamilton City and Waikato district have the greatest need for satellite haemodialysis facility. The number of suitable patients fluctuates and demonstrates the difficulty of forecasting and planning geographical positioning of satellite haemodialysis units.

In May 2004 Waikato DHB identified 20 patients suitable for satellite haemodialysis. For Hamilton patients (11) the travel distance was less and therefore the focus was those travelling greater distances within the Midland region. At this particular time 8 patients were identified for Lakes DHB.
Establishment of Satellite Haemodialysis Units

National guidelines advise that patients must have access to all modalities of dialysis, including nurse assisted satellite haemodialysis. The Waikato Hospital based dialysis centre has a proportion of satellite dialysis patients. The Midland region opened its first dedicated satellite dialysis facility in the Bay of Plenty in June 2004. In order to manage the current and ongoing projected growth new satellite units are required to meet this clinical need. From a patient’s perspective, services should be provided as close as possible to their home wherever possible.

Based on the current dialysis population, the development of satellite haemodialysis units is recommended for Rotorua, Tauranga/Whakatane and later for Thames. In New Zealand it is essential that, while services are decentralised as much as possible for improved patient access, the units are large enough to maintain expertise and the required standards of care. The most effective utilisation of limited resources needs to be considered.

Satellite haemodialysis is a relatively more expensive option than home based dialysis and requires financial agreement to cover the commissioning of new facilities and the employment and training of additional staff, both haemodialysis nurses and allied health staff.

Literature research\(^1\) indicates that a 15-station satellite dialysis unit is the optimal size for cost efficient operation, regardless of location. It is estimated that the full capital cost ranges from $0.90m to $1.3m if using DHB existing facilities or land. It is predicted that the units become financially viable in the third year of operation as volume growth improves efficiency.

Establishment of satellite haemodialysis units from “Guidelines for Satellite Dialysis Units”, Victoria, 1999 state that the following are necessary:

- Funding and cross charging
- Consumables – advantages in purchasing by tertiary centre
- Staff education and on-going education
- Guidelines, Policies and Procedures
- Staff: patient ratios 1:4 suggested
- Free standing units have a minimum of 2 staff
- Staff qualifications in haemodialysis
- Environment guidelines
- OSH – space allocation
- Lighting
- Oxygen supply
- Security
- Toilets
- Storage areas
- Emergency call
- Infection control guidelines
- Parking
- Waiting areas / staff room
- Dialysis chairs and machines
- Utility room
- Electricity / plumbing
- Technical Guidelines
- Water quality
- Machine servicing and support
- Central Reverse Osmosis unit
- Agreement with local Emergency Department for emergency management of patients and transfer to Waikato Hospital

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Establishment of the Bay of Plenty Satellite Haemodialysis Unit

Bay of Plenty DHB (BOPDHB) entered into an agreement with Bay Health Foundation to raise funding through community donation, for the development of a satellite haemodialysis unit at Tauranga Hospital. This was in response to growing service demand and the burden of travel for individual patients to Hamilton. Bay Health Foundation commenced fund raising in 2002 and quickly achieved the target of $450,000 to assist with the capital funding required for this local service. BOPDHB decided to upgrade an already existing stand-alone facility at Tauranga Hospital. There were limitations to the building allowing only the capacity to develop a 6-station facility. The facility was opened on 22 June 2004 with the first patient starting dialysis in the unit on 19th July 2004. This unit has been established as a dependent modality facility where qualified haemodialysis staff are present throughout the dialysis. All satellite haemodialysis patients are under the supervision of a Nephrologist. Patients are medically stable not requiring direct medical supervision by a Nephrologist. Patients on average will dialysis up to 6 hours per day.

Three part time haemodialysis nursing staff are employed in the satellite unit with two staff rostered per shift with back up cover for planned and unplanned leave.

In preparation for the service the following has been developed and can be used for future satellite haemodialysis units:

- Satellite Haemodialysis nurse position description and proficient competencies;
- Recruitment process including interview questions;
- Facility plans including building and infection control requirements;
- Capital plan and costing;
- Revenue budget;
- Operational budget per patient;
- Consumable start up and ongoing requirements;
- Staff orientation programme;
- Agreed reporting structure and model (this is discussed later in the paper);
- Agreed Satellite Haemodialysis Liaison Nurse position (this is discussed later in the paper);
- Policies, Procedures, Protocols and Guidelines for Satellite Haemodialysis Unit, integrated with Waikato service.

A post implementation review will be carried out six months after the opening of the Tauranga Hospital Haemodialysis Satellite Unit. A report of the findings and lessons learned will be used to further enhance service delivery to patients and development of future satellite units.

Current Issues

Increased Demand

Renal services provide a complex and costly treatment to a relatively small proportion of the population. Demand for ESRF treatment has steadily increased by 15% per annum and if growth continues at this rate the numbers of patients requiring dialysis will double over the next five years. The 15% per annum factors in mortality, rate for dialysis patients in New Zealand is approximately 5% per annum and also accounts for those patients that might choose to ‘opt out’ of dialysis treatment at any time. Added to this the current peritoneal dialysis to haemodialysis ratio is 76:33 and there is a gradual move of approximately 5% per annum towards a higher ratio in keeping with national and international practice. Advanced technology and change in clinical practice have been drivers to enhance access.
In summary there are:

- increasing number of new patients (15% growth);
- increasing percentage are elderly and/or diabetic patients (47%);
- increase in extending life expectancy of patients.

With the expected increased demand and complexity of patients requiring satellite dialysis modality, facility capacity is a growing issue. As previously mentioned, in 2003 the number of Waikato incentre chronic patients was 26 and in May 2004 has grown to 42.

**Patient Expectation**

The expectation of some patients/whanau required to travel to Waikato three times a week for dialysis is often not acceptable. There are significant socio economic impacts on this group of patients, i.e. employment, travel costs.

There will be a group of patients that will want to access satellite for personal reasons, i.e. no disruption to own home, do not want to be trained to self dialysis. This experience is evident in Auckland. There is a risk of significant demand for expansion of satellites. A challenge will be to promote independence in the community. The challenging issue is the establishment of satellites across a large geographical area with relatively small population.

**Information Technology**

The Regional Renal Service Plan (December 2003) recommended that an integrated regional ESRF prevention programme across the Midland region should be planned and delivered supported by an appropriate information management system that allows ongoing management of patients and audit of procedures and outcomes according to national guidelines. The regional satellite haemodialysis working group has had significant difficulty with the Waikato information systems identifying renal patients by modality, by domicile. This was one of the major issues of the project. To identify patient’s modality by domicile required staff to manually collect the information and provide a snap shot.

At the moment the options to develop solutions are to:

- integrate with Waikato DHB Knowledge and Information Strategy, or
- develop a business case for a regional renal database with the 2 proven commercial patient and unit management IS packages and tools, or
- Christchurch and Auckland Renal Units are planning a feasibility study. This will take approximately three months to complete and will produce a full report on how viable a national renal database is, what it would cost, how it could be implemented and what hurdles would need to be overcome before implementing.

**Affordability**

With the growth in demand, the revenue required to provide this service is greater than the annual funding increase. It is difficult for DHB’s to fund both capital and operating expenditure. As stated in the Regional Renal Service Plan it is predicted that the cost of satellite haemodialysis is a similar cost to incentre and both are approximately twice that of home based treatment.

**Workforce Issues**

The Waikato Renal Unit has been significantly under resourced over a long period of time. The internal unit credentialling report in 2001 identified deficiencies in the number of senior medical officers, junior medical officers, nurse specialist/educators and allied health positions. The Regional Renal Service Plan (December 2003) benchmarked the service against all New Zealand renal units and identified it as having the highest ratio of new patients and dialysis patients per nephrologist. A recommendation of the Regional Renal Service Plan was the development of a workforce plan to
enable staffing for the current service as well as plan for future expected growth. Development of this plan will be a component of the Regional Renal Service Plan - Part 2.

Nephrologists
There is a local, national and international shortage of trained Nephrologists that impact on satellite haemodialysis provision. The current resources are struggling to cope with the 15% growth per annum and this includes outreach outpatient clinics and associated services. The current Nephrologist outreach clinics are at capacity. Current chronic haemodialysis patients are seen medically at Waikato Hospital renal incentre, while attending for haemodialysis. As satellite haemodialysis units open, increased access to Nephrologist outpatient clinics at the local DHB is required for this group of patients. Prior to development of further satellite haemodialysis units in the region workforce planning for Nephrologists and supporting infrastructure should be understood.

Dialysis Registered Nurses v's Dialysis Technicians
Often satellite units are staffed with a mixture of registered nurses and dialysis technicians. The New Zealand as well as Australian experience has identified that there are often conflicts between the two complementary groups. Dialysis technicians have predominately been sourced from Asia (Singapore and India). The technicians were employed when there was a shortage of nurses. The rationale was that they tend to be a stable workforce with low turnover and initially it is more economical for a junior technician. As the technician moves up the salary scale the remuneration is similar to a registered nurse. To date technicians are not employed in the Regional Renal Service. This option will be explored further in the workforce development section of The Regional Renal Service Plan – Part Two.

It should be noted that Bay of Plenty District Health Board was fortunate in its ability to attract experienced renal dialysis nursing staff to the satellite unit. The three staff undertook a six-week training programme at the Waikato Hospital incentre dialysis service prior to the opening of the Tauranga facility. Waikato Hospital does not have a retention issue with dialysis nurses. The issue tends to be the timeliness of recruitment and completion of training.
Model of Care

The Regional Renal Service Plan (December 2003) promotes a model of integrated clinical networks. Further detail will be provided in the Regional Renal Service Plan - Part 2. Running of highly specialised tertiary centre and secondary satellite haemodialysis must be under the supervision of a Nephrologist. The hub and spoke model supports the establishment of haemodialysis satellite units throughout the region. The proposed Satellite Haemodialysis Liaison Nurse also strengthens the hub and spoke model through the link for satellite haemodialysis patients and staff with the Regional Renal Centre – the ‘hub’.
The patient flow diagram demonstrates the patient flow and association with satellite haemodialysis units.
Clinical / Management Structure

**WAIKATO DHB**

- **CEO**
- General Manager, Health Services
- Manager, Waikato and District Hospitals
- Service Manager / Head of Medicine
- Clinical Director, Renal
- Operations Manager
- SMO’s / RMO’s
- Predialysis
- Haemo
- Incentre
- CNL, Dialysis
- CNLE
- Social Worker
- CAPD
- Staff Nurses

**BOP DHB (represents any DHB)**

- **CEO**
- COO
- General Manager, Tauranga Hospital
- Business Manager / Clinical Director, Medicine
- Operations Manager, Medical/Surgery (no role in Satellite)
- Satellite Haemo Dialysis Co-ordinator
- Satellite Liaison Nurse
- Renal Transplant Co-ordinator
- Incentre
- Staff Nurses
- Social Worker
- CAPD
- CNLE

(1) Develop Co-ordinator Role Incentre
(2) Develop Satellite Haemodialysis Liaison Nurse Role (Regional)
(3) Interim arrangement until Satellite Liaison Nurse appointed
Regional Satellite Haemodialysis Plan

The Regional Renal Service Plan endorsed seven recommendations. There are common links between the recommendations. As highlighted in this plan a way forward is required for renal services workforce planning and information systems and these components will be addressed in the Regional Renal Service Plan - Part 2 of currently in progress.

For the Regional Satellite Haemodialysis Plan the Midland Working Group recommends;

1. That planning for satellite haemodialysis units should be based on population demand and should allow expansion to 12-15-stations as this deemed the optimal size for cost efficient operation, regardless of location.

2. That approval is given to appoint a Satellite Haemodialysis Liaison Nurse (SHLN). The SHLN nurse would be an expert nurse and there would be the potential to develop this role into a Nurse Practitioner position in the future. The position description and expert level competencies are attached in Appendix C. The prime responsibility of the SHLN is to facilitate the operation and co-ordination of satellite dialysis within the Midland Regional Renal Service. There will be a strong link with the Nephrologist and a case management component to the position. This person would also be an expert and actively participate in future development of satellite units across the region. The expected annual cost of this position is $70k. This is made up of salary, vehicle lease and associated costs. Implement regional Satellite Haemodialysis Liaison Nurse by October 2004.


4. The Regional Renal Service should develop policy and procedures for overseas and New Zealand travellers and/or private patients requesting access to satellite haemodialysis by October 2004.

5. A post implementation review of each new satellite haemodialysis unit should be undertaken six months after opening and a report published within two months of the commencement of the review. The terms of reference for that review should be agreed by the Regional Renal service and the satellite haemodialysis unit DHB and be based on the critical success factors identified in the Project brief (appendix A) and any issues identified in previous post implementation reviews.

6. A working group should develop a business case for Lakes DHB to open a satellite haemodialysis Unit in 2005/06. The working group and terms of reference should be established by August 2004.

7. Health Waikato develops Medicine Model of Care that will incorporate Waikato District satellite haemodialysis requirements to inform facility design for Waikato and Thames Hospitals by December 2004.

8. The site for future satellite haemodialysis unit developments be identified through an annual review of dialysis patients. Options should explore both dependent and independent satellite modalities including the use of existing regional hospitals, Marae-based and community-based satellite options.

9. It is recommended that a Health Waikato Incentre Co-ordinator be appointed. The current Clinical Nurse Leader of the Regional Dialysis Unit is unable to sustain the increased workload, increasing number of staff and new programme developments. A business plan is in development stage and will be presented to Health Waikato executive management.

10. In the development of future satellite haemodialysis units the issues and risks identified in this paper should be recognised and management options established. These include:

   - Workforce issues both nephrologist and other staff;
   - Funding of the service – capital and operational costs;
   - Ongoing planning for satellite services in a geographically dispersed region.
Appendix A – Project Brief

Project Brief

The Establishment of Midland Renal Satellite Haemodialysis Business Plan
2004 - 2009 including Implementation Plan for Satellite Unit based at
Tauranga Hospital.

8 September 2003

Project Background

Health Waikato is the tertiary provider for renal services within the Midland region, excluding Taranaki DHB. The Regional Renal Service Plan consultation document (September 2003) forms the strategic blueprint of the renal service to reflect the views and expectations of the region, incorporating best practice standards and allowing best use of limited resources. A key recommendation of the plan is the establishment of renal satellite haemodialysis units across the Midland region.

National guidelines advise that patients must have access to all modalities of dialysis, including nurse assisted satellite haemodialysis. Currently the Midland region does not have a dedicated satellite dialysis facility, however Waikato Hospital incentre dialysis has a proportion of satellite dialysis patients that travel from within the Midland region to Waikato three times per week. Patients require improved access to satellite haemodialysis units if they are to have full access to all dialysis modalities and best outcomes. From a patients perspective wherever possible services should be provided as close to their domicile as possible. Satellite Units need to be developed according to national standards of best practice and within available resources.

Bay of Plenty DHB has entered into an agreement with Bay Health Trust to raise capital finance through community donation for the development of a local renal satellite haemodialysis unit. This is in response to the growing service demand and the burden of travel for individual patients to Health Waikato.

Bay HealthTrust commenced fund raising at the end of 2002 and now have sufficient funds of $450,000 to proceed with the strategic project.
**Project Goals**

Development of a Midland regional business case on the five-year development of renal haemodialysis satellite units. The plan will include an implementation plan for the establishment of an inaugural Renal Service Satellite Haemodialysis Unit based at Tauranga Hospital, Tauranga.

**Project Objectives**

1. Literature search on satellite units and service delivery models.
2. Forecast numbers for the next five years based on population demand.
3. Develop a business plan for the 2004 – 2009 which:
   - Identifies resources required and standards (facility, stations, equipment and staff).
   - Lines of responsibility and relationships across the continuum of care (i.e. with regional physicians, other health professionals and GP’s).
   - Service delivery processes – access to Nephrologist’s, vascular surgeons, interventional radiologists and other renal service components.
   - Clinical referral pathways and guidelines.
   - Workforce plan - recruitment, training and supervision of specialist haemodialysis staff, including ongoing maintenance of standards and professional development.
   - Financial and contractual framework and agreements, including capital purchases, supply contracts, contracts and service agreements.
   - Technical agreements, with facility standards based on the Victorian guidelines for satellite dialysis units and international water quality and machine maintenance standards.
   - Appropriate infection control standards.
   - Implementation and change management plan.
   - Communication plan.
   - Key performance indicators, reporting and monitoring of satellite unit performance.
   - Information management and technology requirements.
5. Review current patient flow process and redesign as required.
6. Identification and assessment of risks related to the establishment of a renal satellite haemodialysis unit and an agreed plan to minimise the identified risks.

**Project Scope**

The scope of this project will include the satellite dialysis modality component of renal services within the Midland region excluding Taranaki.

The business case will be developed based on the National Renal Advisory Groups draft guidelines and standards for establishment of satellite units in New Zealand.
Project Constraints and Risk Factors
The major constraints on this project will be;

- The limited availability of Nephrologists.
- The availability of experienced dialysis nursing staff.
- The contractual and financial framework.
- Internal and external groups with differing agenda’s and priorities.
- The availability of Service Manager, Waikato given the short timeframe to develop a business case and implementation plan given other priorities of Waikato, i.e. accreditation, supply contract negotiations.
- Working within the parameters of budgeted and current resources.

Critical Success Factors
- Establishment of renal service satellite dialysis unit based at Tauranga Hospital.
- Improved outcomes and satisfaction for patients with ESRF.
- Meet National Renal Advisory Group standards and guidelines for establishment of renal satellite dialysis units.
- Supports the development of an appropriate resourced Renal Service and strengthen the recruitment and retention of Nephrologists and other specialist health professionals.
- Unit established with good processes and systems to support a dedicated team.
- Implementation within approved resources and realistic timeframe.
- Ability to further develop satellite units within the Midland region.

Resources
The following personnel have been identified for this project;

- Project Sponsor Dr Jan White, CEO, Waikato DHB
  Ron Dunham CEO, Bay of Plenty DHB
- Project Leader Jan Hewitt, Manager Medical Services
  Dr Maggie Fisher, Clinical Director – Renal Services
- Project Members – Bay of Plenty Peng Voon, Business Manager, Bay of Plenty
  Dr Neil Graham, Clinical Director, Medical Services or Dr Maung Kant, Physician
  Others to be confirmed
• Project Members - Waikato
  Dr Kim Wong, Nephrologist
  Dr Peter Sizeland, Nephrologist
  Nicki Hagan, CNL Regional Dialysis
  To be appointed, Renal Nurse Educator
  Joe Van Wijk, Assistant to the CFO

  To be confirmed, Vascular Surgeon

• Project Members – Midland
  Roger Austin, Service Manager, Lakes DHB
  Dan Madden, GM Tairawhiti DHB

• Project Support
  Mary Bonner, GM Hospital Services, Waikato
  Alan Wilson, GM Tauranga Hospital
  Sarah McLeay, Corporate Solicitor
  Graham Borland, Operations Manager
  Karina Elkington, Portfolio Mger, DHB Planning & Funding
  Paul Taumanu, Business Analyst, Health Waikato
  Infection control

**Reporting Strategy**

Project members will have regular contact to ascertain progress against objectives. Due to the geographical distance the Service Manager, Waikato will meet with local Waikato project team members and the Business Manager, Bay of Plenty will attend fortnightly meetings based at Waikato predominately. The Waikato Service Manager will also make regular contact with other Midland DHB staff.

The Project Leader will report on progress monthly to the Project Sponsors and project team members (via email).

A formal business case and implementation plan will be presented to the sponsors on completion of the project.

**Budget**


Bay of Plenty DHB as part of the business case develop a capital and operating budget to support the implementation plan of the Renal Service Satellite Haemodialysis Unit based at Tauranga Hospital.
**Key Stakeholders**

**Waikato DHB**
- Planning and Funding
- Contracts
- Purchasing & Distribution
- Finance

**Health Waikato**
- Nephrologists
- Incentre Dialysis Nursing Staff
- Home Haemodialysis Training and Community Support
- Allied Health, Social Worker and Dietician
- Administrative / management staff
- Vascular Service

**Bay of Plenty DHB**
- Planning and Funding
- Contracts
- Purchasing & Distribution
- Finance
- Estate and Property
- Physicians
- Administrative / management
- Allied Health and other clinical staff
- Emergency services
- CAPD community nurses

Bay HealthTrust
Lakes DHB
Tairawhiti DHB

**Generic**

Infection Control
Maori Health Representatives
Consumers
Primary Care providers
General Practitioners
Appendix B - Guidelines for Safe Practice of Dialysis in New Zealand

Guidelines for the Safe Practice of Dialysis in New Zealand
Issues in Nephrology Relevant to Standards of Practice

Access To Renal Services

For people irrespective of age, ethnic background and locality to quality renal replacement therapy.

Entitlement to early referral to Renal Services (in line with the National Referral Guidelines for Renal Medicine) for the diagnosis and management of renal disease, treatment to delay the progression of chronic progressive renal failure and timely preparation for renal replacement therapy if appropriate. Access for patients and to:

- patients accepted for renal replacement therapy to the full range of modalities of dialysis provided by qualified, credentialled staff under the direction of a nephrologist
- specialist nephrologist
- renal transplantation if meets established national eligibility criteria
- vascular intervention (surgical and radiological) and PD surgery as required
- appropriate pharmaceuticals for the management of his/her condition
- allied health support.

Requirements for a safe good quality Renal Replacement Service

• Satisfactory protocols for prescription of dialysis treatment.
• Protocols to minimise the frequency of access complications in PD and haemodialysis patients.
• Achievement of target values, which relate to patient outcome (e.g. haemoglobin, phosphate, parathyroid hormone).
• Defined lines of accountability and responsibility within dialysis services
• Standards for the maintenance of safe water quality for haemodialysis
• Environmental, power and technical guidelines for dialysis services

Referral for Renal Replacement Therapy:

All patients who might benefit from renal replacement therapy should be referred to a Nephrologist well before renal replacement therapy is required (GFR>30 mls/min).

A. Audit Criteria:

1. Eighty per cent of all patients accepted for renal replacement therapy should have been referred at least 3 months prior to commencement of dialysis and more than 60 per cent of patients referred for renal replacement therapy should have been referred at least 6 months prior to the need for dialysis.

2. Preparation, education and planning for dialysis should be completed for 100 per cent of patients requiring RRT. This would include the following:
An educational process for patients
- The opportunity to choose RRT in discussion with a clinician
- Placement of permanent access in a timely manner to allow for its availability at the time of first commencement of dialysis.

3. Satisfactory monitoring of patients during the pre dialysis phase in line with accepted guidelines established by CARI and DOQI.

Haemodialysis:

1. All DHBs with a haemodialysis service must explicitly provide for both independent (self-care/home) and dependent (assisted care/in-centre) haemodialysis modalities. Independent modalities are defined as: - those where the patient undertakes all (or almost all) of the haemodialysis procedure. This can be provided in a haemodialysis unit (self care) or in the patient’s residence (home).

2. Dependent modalities are defined as: - those where most or all of the dialysis procedure is performed for the patient by a qualified dialysis nurse or technician. This can be provided in a haemodialysis unit (in-centre) or in the patient’s residence or a satellite centre (assisted care).

3. All haemodialysis providers should be able to offer treatments on schedules other than 3 times a week when it is clinically evident that more frequent haemodialysis regimens will benefit the patient.

4. All organisations providing haemodialysis must also provide or have readily available access to experienced vascular surgery and interventional radiology services for the routine emergency treatment of patients’ haemodialysis angio access complications.

Equipment should be maintained to manufacturers standards.

The water quality and testing regimen should confirm to European/AAMI water for dialysis Guidelines.

All organisations providing haemodialysis must include a vocationally registered nephrologist

Nurses and technicians should become certified in dialysis (certified dialysis practitioners CDP) as defined by the New Zealand Board of Dialysis Practice and non-certified practitioners must undertake clinical duties under the direction of the CDP. There should be no more than 2 training patients or 3 totally dependent patients, or 6 totally independent patients per dialysis practitioner.

Appendix - Definitions

Satellite Dialysis Units:

It is acknowledged that these are separate from base units. Some of them are a satellite for geographical reasons and some of them are a satellite in order to provide a more independent form of dialysis to centre dialysis, essentially in the northern main centres.

Home Dialysis:

As in most countries home haemodialysis is slowly reducing in terms of the percentage of dialysis patients placed on this therapy. It remains possibly the best therapy in terms of providing optimal independence and rehabilitation. Efforts need to occur in NZ to reverse this trend.
Peritoneal Dialysis

The Provision of a Peritoneal Dialysis Service

That all patients in New Zealand have access to a satisfactory peritoneal dialysis programme, which provides safe therapy for patients.

Audit standards to include:-

1. **Staffing:** Nephrology accountability; nursing staff to patient ratio one FTE to 25 patients with consideration given for geographical variations; social worker minimum one to a hundred patients; dietician minimum one to a hundred patients.

2. That PD standards and protocols are utilised based on internationally recognised guidelines and include the following:

   - Exit site management; peritonitis management and peritoneal dialysis exchange procedure protocols.

3. That an acute haemodialysis service can be easily accessed to support patients who may need interim haemodialysis.

4. That patient monitoring is undertaken, based on internationally recognised guidelines, which include the following:

   - Adequacy as per CARI guidelines, PET as per CARI guidelines, blood testing: monthly as per CARI guidelines, nephrology clinic follow up 3-6 monthly and home visiting at least six monthly.

5. Dialysis fluids and systems: all peritoneal dialysis services should have access to automated PD, polyglucose and biocompatible PD solutions. Allocation of these solutions to patients will depend on funding. Protocols for access should be in place.

6. A satisfactory on call system must be provided that enables out of hours access to renal service nurse/medical staff for PD patients.

Peritoneal Catheter Placement:

Standard: That peritoneal dialysis catheter placement is undertaken in a timely manner (prior to requiring dialysis) to minimise complications.

1. The placement of peritoneal catheters should be undertaken by a credentialled surgeon/radiologist within 4 weeks of the patient’s name being placed on a surgical waiting list (audit standard – to occur in 80% of patients).

2. A satisfactory process for pre-operative/post operative management is in place as per internationally recognised guidelines.

3. Complications within the first month following catheter placement should be minimised (audit standard – less than 10% of patients spending 5 or more days in hospital during the first 30 days following catheter placement).

Early complications should be minimised (audit standard: peritonitis <5%, early exit site infection <10%, catheter migration <10% and peritoneal leak <10% within the first 30 days following catheter placement)
Transplantation

That every patient on the RRT programme, following appropriate assessment, if medically suitable, is offered the opportunity of renal transplantation. This should occur once the patient’s native creatinine clearance has reduced less than 15mls per minute adjusted or as soon as possible after the establishment of dialysis.
Appendix C – Position Description – Satellite Haemodialysis Liaison Nurse

Position Description

Position Title: Satellite Haemodialysis Liaison Nurse (SHLN)
Responsible to: Clinical Nurse Leader, Dialysis Unit
Prepared/Reviewed: June 2004

Place in Organisation

Chief Executive Officer

General Manager, Health Services

Manager, Waikato and District Hospitals

Service Manager/Head of Medicine

Renal Operations Manager/Clinical Director, Renal

Clinical Nurse Leader, Dialysis Unit

Satellite Haemodialysis Liaison Nurse

Position Holder's Name: ____________________________
Position Holder's Signature: ________________________
Manager's Name: _________________________________
Manager's Signature: ______________________________
Date: ________________________________

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Purpose of the Position

- The prime responsibility of the Satellite Haemodialysis Liaison Nurse (SHLN) is to facilitate the operation and co-ordination of satellite dialysis within the Midland Regional Renal Service.
- The SHLN does this by:
  - Facilitation of the patient waiting list and liaison with the Nephrologists and Clinical Nurse Leader (CNL) Dialysis Unit, for patient selection into satellite units.
  - Regular contact with Satellite Co-ordinators establishing patient and staff updates.
  - Regular contact with CNL on day to day issues arising with patients in satellite units.
  - Facilitate maintenance of patient profiles by attending haemodialysis clinics and regular monthly review of patient blood results with Renal Registrar.
  - Develop and maintain protocols and procedures in conjunction with Regional Renal Service.
  - Be involved with the professional development and education of satellite unit staff.

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<th>Name &amp; Scope of Responsibilities</th>
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<td><strong>Accountabilities</strong></td>
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<tr>
<td>Case Management of Regional Satellite Haemodialysis Patients</td>
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| **Maintain regular Communication between Satellite units and Regional Dialysis unit** | • Regular contact to be made with Satellite Co-ordinators at pre arranged time.  
  • SHLN to report back to CNL any issues arising from communication from Satellite unit(s).  
  • Monthly (minimum) onsite visit to satellite unit using agreed objectives and produce monthly report on visit.  
  • Visit satellite unit(s) at other times as required.  
  • Attend the annual Regional Renal Service forum. |
| **Facilitate Maintenance of Patient Profiles**             | • Arrange and attend an initial Haemodialysis clinic at Waikato for all patients prior to entering satellite.  
  • Maintain a patient profile folder for each satellite unit including updated patient flow sheets (to be faxed through to SHLN by satellite each month), clinic appointments and medication summary.  
  • Review monthly bloods via updated flow sheet with Renal Registrar. |
| **Develop and Maintain Protocols and Procedures for each Satellite unit** | • Develop new protocols and procedures in conjunction with Regional Renal Service that reflects the processes of the Satellite unit.  
  • Ensure all protocols and procedures are maintained and updated in a timely manner.  
  • Provide education prior to introducing any new protocols and procedures and ensure clinical guidance is available as these are implemented.  
  • Ensure all protocols/procedure manuals have current copies in both satellite unit(s) and a copy of these to be held at Waikato.  
  • Develop and implement audits to ensure maintenance of clinical standards. Minimum of one audit per annum.  
  • Liaise with CNL/CNE regarding any changes in protocols and procedures. |
### Name & Scope of Responsibilities

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<th>Accountabilities</th>
<th>Performance Measures</th>
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<td>Involvement and provision of professional development and education of satellite unit staff</td>
<td>• Contribution towards annual performance review of satellite staff.</td>
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<td>• Develop goals around professional development of each staff member relating to dialysis.</td>
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<td>• Work with CNE to develop and maintain skills register for each satellite staff member.</td>
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<td>• Work with CNE to develop education programme to be held at Waikato to meet minimum requirements of 16 hours per annum.</td>
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<td>• Maintain dialysis specific IV Certification for each satellite staff member and update 3 yearly as required.</td>
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<td>• Provide or arrange education as requested by satellite unit staff</td>
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<td>• Work with CNE to develop any other educational opportunities.</td>
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### Health & Safety

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<th>Accountabilities</th>
<th>Performance Measures</th>
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<td>To participate in and comply with the requirements of the Health &amp; Safety in Employment Act 1992 and associated WDHB policies</td>
<td>• Work practices ensure safety for self and others</td>
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<td>• Advice or assistance is sought before commencing an unfamiliar work practice</td>
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<td>• Hazards are identified, control plans documented, and hazards eliminated, minimised or isolated</td>
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<td>• Complies with WDHB incident reporting policy</td>
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<td>• Emergency management procedures and compulsory / compliance education and training completed.</td>
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## Regional Renal Satellite Haemodialysis Plan

### Risk Minimisation

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<th>Accountabilities</th>
<th>Performance Measures</th>
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| To actively contribute to risk management activities within the service | • Contributes to the service’s risk management activities by:  
  ¤ Identifying risks  
  ¤ Notifying the manager of these  
  ¤ Participating in the service’s risk minimisation activities  
  ¤ Complying with WDHB policies, procedures, protocols and guidelines  
  ¤ Participating in audits |

### Continuous Quality Improvement

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<th>Accountabilities</th>
<th>Performance Measures</th>
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| To actively contribute to Continuous Quality Improvement activities within the service | • Contributes to the service’s Continuous Quality Improvement by :  
  ¤ Identifying improvement opportunities  
  ¤ Notifying the manager of these  
  ¤ Participating in the service’s quality improvement activities  
  ¤ Providing good customer service  
  ¤ Complying with standards  
  ¤ Being responsive to customer requests or complaints  
  ¤ Working to improve quality of service and customer satisfaction |

### Team Member

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<th>Accountabilities</th>
<th>Performance Measures</th>
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| Individual responsibilities, actions and contributions enhance the success of the area/service/team and division | • Maintains a current knowledge of relevant issues, trends and practices  
  • Behaviour demonstrates cultural appropriateness and sensitivity  
  • Builds and maintains productive working relationships  
  • Participates as a member of designated group(s)  
  • Values individual effort, innovation and creativity  
  • Contributes to the service, division and organisation |
<table>
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<th><strong>Team Member</strong></th>
<th><strong>Accountabilities</strong></th>
<th><strong>Performance Measures</strong></th>
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| Te Tiriti o Waitangi (Treaty of Waitangi) | - Work practices are consistent with The Toward Māori Health Gain: Organisational Framework, and demonstrate:  
  - Partnership and shared decision making with Māori  
  - Participation and consultation with Māori  
  - Protection of Māori needs, values and beliefs | - Demonstrates an understanding in health of barriers and disparities that affect Māori.  
- Demonstrates and encourages behaviour that recognises and is consistent with EEO principles and practices |
| Equal Employment Opportunities (EEO) | | |

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<th><strong>Personal &amp; Professional Development</strong></th>
<th><strong>Accountabilities</strong></th>
<th><strong>Performance Measures</strong></th>
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</table>
| Assumes responsibility for personal and professional / work education and development | | - Maintains and/or extends own haemodialysis knowledge and skill base required for effective performance  
- Identifies any learning needs  
- Negotiates with management to attend appropriate education and training  
- Participates in own performance review annually. |
| Perform such other duties as reasonably required by the manager in accordance with the conditions of the position | | - All other additional duties are performed in an efficient manner, to the required standard and within a negotiated timeframe. |

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<th><strong>Problem Complexity</strong></th>
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| - The incumbent will be a specialist senior nurse with a high level of responsibility and that has the ability to support the Nephrologists.  
- The incumbent will be responsible for the development and co-ordination of satellite dialysis units into the Midland Regional Renal Service.  
- Problems will mainly be focused around patient flow and management through the Regional Renal Service into the satellite service(s).  
- Maintenance of the patient’s health will be the Nephrologists responsibility but close assessment and monitoring with regular feedback to the Nephrologist/Renal Registrar will be a prime responsibility of the SHLN. |
• Close interaction with the CNL is required to maintain open communication and problem solving with day-to-day issues.
• Interaction with Satellite haemodialysis staff and other DHB associated services and staff.

Scope for Action

• This position has a regional focus that links directly back to the Regional Renal Service.
• The position has an autonomous component that requires a high level of clinical skills.
• This position has the potential to change and develop as the Regional Renal Service implements more satellite units.

Authority

• No budgetary or staff supervision is directly required of the incumbent.

Budget:

Nil Authority Level 8

Staff Reporting

Direct Reports:

• Nil

Staff Full Time Equivalents:

• Nil

Indirect Reports:

• Nil

Relationships

If relevant, denote if the position holder e.g. coordinates, influences, guides staff, or agencies listed

Internal:

• CNL – Dialysis Unit
• Renal Operations Manager
• Clinical Director
• Nephrologists
• Renal Registrar
• Renal Dietician
• Renal Social Worker
• CNE – Dialysis Unit
• Medical Services Manager
• Predialysis Educator
• Transplant Co-ordinators
• Dialysis Unit Staff
• Satellite Unit staff
• Satellite Patients
External:
- Satellite Co-ordinators and staff not employed by Waikato
- Managers of Satellite Units
- Emergency Department staff

Person Specifications

Credentials/Qualifications/Training

Essential:
- Registered Nurse
- Expert level on PDRP or equivalent

Desirable:
- Completed and passed Bonent examination
- Clinical Nurse Specialist qualification
- Nurse Practitioner qualification

Experience

Essential:
- 5 years nursing experience with extensive haemodialysis experience

Desirable:
- Demonstrated supervisory/management skills/experience

Competencies (Knowledge, Skills & Attributes)

- Expert clinical competencies (attached)
- Supervising and mentoring skills
- Excellent communication skills
- Presentation skills (written and oral)
- Adult teaching skills
- Understanding and promotion of Treaty of Waitangi and commitment to health gain for Māori
- Ability to project manage development and implementation of future satellite haemodialysis units
- Good interpersonal skills
- Relationship development skills
- Strong organisational skills
- Mature outlook
- Team player

Scope of Practice

- The Scope of Practice is defined but not limited to the following Professional/Clinical, Organisational and National documentation, legislation and regulations.
- WDHB Policies and Procedures and other relevant documentation.
- WDHB Credentialling Process and Policy.
Physical Requirements

- The following denote the key physical requirements for the job
  - Standing
  - Walking
  - Sitting
  - Stairs
  - Simple Grasping (handling, seizing, holding, grasping)
  - Fine Manipulation (e.g. keyboarding, cutting, using fingers)
  - Operating Machinery/Equipment
  - Lifting/bending (floor to bench to floor)
  - Lifting/overhead reaching (bench to overhead to bench)
  - Carrying
  - Pushing/Pulling
  - Twisting
  - Crouching/Squatting
  - Manual handling of people
  - Other Reaching (e.g. reaching across)
  - Crawling
HAEMODIALYSIS REGISTERED NURSE

**EXPERT COMPETENCIES**

- Demonstrates a high level of haemodialysis skills and knowledge attained over a number of years in both acute and chronic haemodialysis treatment areas.

- Demonstrates a commitment to ongoing haemodialysis education for self and has a commitment to sharing of knowledge amongst colleagues and peers.

- Demonstrates evidence based haemodialysis practice and contributes to the development and updating of protocols, procedures and guidelines based on those skills.

- Demonstrates a clear understanding of the demographics of the patient population within the geographic area and renal speciality, and shows initiative in developing culturally safe practices within the haemodialysis environment.

- Demonstrates an understanding of the principals of the Treaty of Waitangi and attends education opportunities to enhance own knowledge and practice in this area.

- Is able to make autonomous decisions relating to haemodialysis patient treatment in complex and/or unpredictable situations.

- Is able to problem solve and analyse critical situations and recommend changes to protocols, procedures and guidelines (if required) to safely manage these situations in the haemodialysis unit setting.

- Provides guidance to peers and colleagues in decision making for complex and unpredictable dialysis situations.

- Participates in the multidisciplinary team approach to care for haemodialysis patients in both chronic and acute settings. Collaborates with team members to plan and manage care for haemodialysis patients to achieve optimal patient outcomes.

**PDRP EXPERT NURSE GENERIC COMPETENCIES**

- Demonstrates intuitive knowledge and expert practice which is evidence based and quality focused. This has been attained by the development of skills, a broad knowledge base which is grounded in experience and enhanced by ongoing education and professional development.

- Guides others to implement culturally safe practice to patients and apply the principles of the Treaty of Waitangi in to the practice setting.
• Provides leadership to others in complex and unpredictable situations.

• Demonstrates broad problem solving and analytical skills.

• Contributes to nursing knowledge, practice and service development.

• Actively participates in the decision making processes, planning and managing resources to achieve optimal outcomes for patient.

• Takes a lead role in identifying opportunities for change and initiating processes for implementation and actively participates in the implementation of the principles of the Treaty of Waitangi within the practice setting.