RENAL DIALYSIS – SCOPING THE CARE IN YOUR COMMUNITY (CinYC) PLANNING EXERCISE


1. Renal Dialysis as a priority

The Care in Your Community policy identifies renal dialysis as one of five areas to focus planning on for 2006/07.

Attachment 1 provides detail of the different types of dialysis.

1.2 Establishing a New Service Hub in the East

In the Eastern Metropolitan Region, Eastern Health is in the process of establishing itself as a regional service (a service hub) to provide renal care to 126 people in the Region, additional to the seven current service hubs. Currently, renal dialysis services to people in the Outer East are provided by Monash Medical Centre (65 people), the Royal Melbourne (23), Austin (19), St Vincent’s (12) and The Alfred (7). Table 1 below details the patients by modality and shows the most common modality is satellite dialysis with 53 patients. While most of these patients receive their dialysis at either The Peter James Centre or The Angliss Hospital, some have to travel to units in other regions due to the current undersupply of satellite places. Home patients are managed by their hub hospital.

Eastern Health has employed a project officer to establish the new service.

1.3 Current demand

All people who require dialysis receive it. However, in the case of maintenance (satellite) dialysis people may be waiting for a transfer to a site closer to their home. There are currently people waiting for transfer to EMR sites.

Following the Eastern Health redevelopment, the new Eastern Health service will have a capacity of 58 satellite chairs (22 in the Outer East), as follows:

- Box Hill – 16 chairs (to be built)
- Maroondah - 16 chairs (to be built)
- Peter James – 20 chairs (recently expanded from 12 chairs)
- Angliss - 6 chairs (existing)

It should also be noted that Master Planning for Angliss currently includes an additional 6 chairs.

2. Projected Demand

The Renal Dialysis: A revised service model for Victoria report (2005) highlights the difficulties in forecasting demand and explores a couple of different models. There appears to be no accepted understanding of how changes in one area (such as reducing diabetes) will impact on demand. Age appears to be the most significant issue, particularly given many older people will not receive transplants. It is noted the Department of Human Services (DHS) is working on improving forecasting. In the mean time, planning should occur on the basis of increased demand of around 5.5% per annum.

This means by 2016 it can be expected that 215 people in the Outer East will be utilising dialysis services.

Currently 42% (53 people) of all people receiving dialysis are using a maintenance dialysis service (see table 1). With a total of 22 chairs in the Outer East this will provide for 88 people (41% of the projected demand for dialysis) in 2016.
A key question is whether there is capacity to increase the use of other types of dialysis, particularly nocturnal haemodialysis, day home dialysis and peritoneal dialysis. Important factors in determining the most preferred and suitable mode include:

- Age – it is both an indicator of living situation (see below) and likelihood of having more advanced kidney disease/ and other complications thus reducing the suitability of the home options.
- Extent of demand from those with unstable cardiac disease, angina etc – Peritoneal options are preferred for this group. Haemodialysis is also not suitable for patients with severe vascular disease or children.
- Living situation – day home haemodialysis is not suitable for people living alone as it requires another person (eg: carer/partner) to assist and monitor. Preferably the person should have a stable home life with a high level of hygiene. (Home nocturnal and peritoneal dialysis does not require assistance or monitoring from another person).
- Housing situation - All home options require space to house the dialysis machine and/or store consumables. If renting it may also not be an option because of the possible need to make home modifications.

The proportion of people living alone as recorded in the 2001 census is lower across the Outer East compared to metropolitan Melbourne (18% cf 23%). Knox has the lowest proportion at 15% and Maroondah the highest at 21%. This most likely reflects the slightly younger populations in Knox and the Shire, and suggests that as the population ages to reflect an age distribution similar to the rest of Melbourne that there is likely to be an increase in the number of people living alone.

Assuming that age is a key determinant influencing mode of dialysis and current (June 2006) receivers of dialysis services are using their preferred and most clinically appropriate mode of dialysis, and adjusting this for age population changes by 2016 (eg: increases of 44% for those aged 70+, and 7% for those aged 25-69), the following scenario would occur.

**Table 1. Predicted use of mode of dialysis by 2016 based on current profile of use by age.**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Location of Treatment</th>
<th>June 2006</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated Peritoneal Dialysis</td>
<td>Home</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Continuous Ambulatory Peritoneal Dialysis</td>
<td>Home</td>
<td>32</td>
<td>53</td>
</tr>
<tr>
<td>Day home Haemodialysis</td>
<td>Home</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>In-patient Haemodialysis</td>
<td>Hub Hospital</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>Nocturnal Haemodialysis</td>
<td>Home</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Satellite Haemodialysis</td>
<td>Satellite Unit</td>
<td>53</td>
<td>93</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>126</strong></td>
<td><strong>215</strong></td>
</tr>
</tbody>
</table>

With an expected Outer East capacity to maintain 88 people in satellite chairs, it suggests a shortage of around 2 chairs if the catchment is to be fully self-sufficient in 2016. This assumes that there is no capacity to increase use of other modes of dialysis and that all people in the Outer East prefer to receive treatment in the Outer East. It also assumes continuation of use of private facilities and growth in the private system to meet growth. In 2003/04, 14 people living in the Outer East were accessing private facilities. With the same level of growth as predicted for public facilities, an additional 12 people could be expected to use private facilities in 2016, requiring an additional 3 chairs.1

1 The proposed additional 6 chairs in the Angliss Hospital Master Plan would appear to be sufficient to meet this possible additional demand, should a move to increase uptake of home dialysis options not be successful and/or private use declines.
There are comparatively very few people living in flats/apartments in the Outer East catchment with only 2% of the population living in this type (cf to 5% in the EMR), as well as a smaller number of these dwellings (4% cf 7%). The majority of people (93%) are living in separate dwellings (compared to 88% in the EMR). Although comprising less than 1% of people and less than 1% of dwellings, the Outer East has around 2,000 people living in less secure accommodation such as caravans, sleeping out, house-boats etc. The numbers are probably not significant enough to suggest that housing type is likely to affect demand for certain types of dialysis service in the Outer East.

Around 13% of dwellings are rented in the Outer East (compared to 18% in the EMR) and 10% of these are public housing (comprising 1.11% of all dwellings).

Again, this suggests that dwelling type and renting is unlikely to be a significant issue in predicting future demand in the Outer East, and means that increasing home dialysis options including nocturnal dialysis for the 25 – 69 age group should be possible.

Potentially, the biggest demand issues are associated with increases in diabetes due to the pockets of disadvantage in the Shire of Yarra Ranges. High levels of disadvantage in the Shire may also mean less stable home life which may increase demand for non-home services.

Diabetes and cardiovascular diseases are the most common co-morbidities for clients with end stage kidney disease. It is recognised that good control for just one of these chronic diseases will have positive benefits for the management of the other chronic diseases (Hoy et al 1999).

3. Planning Considerations

3.1 Existing activity

Central office work

- Two consumer surveys (2004 and 2005)
  - Access seen as key issue.
  - Questions about why home dialysis being supported and support for home dialysis patients.
  - Infection concerns – consistency in practice re going on holidays.
  - Transport issues.
- Model of care being developed with possible proposal that satellite dialysis be seen as last option rather than first option for people needing renal dialysis.
- Planning/monitoring work to improve local access to dialysis services.

Renal Dialysis: A revised service model for Victoria (2005)

In January 2005 Victoria released the final report from its review of renal services in Victoria. The review aimed to:

- Identify the key issues for the provision of maintenance dialysis services across the state.
- Review the level and usage of maintenance dialysis services, including levels of service, relationships between service providers, and service demand.
- Examine trends in clinical practice, new technology and approaches to care that have potential impact on future demand for services.
- Identify and address gaps in maintenance dialysis service provision and make recommendations for service development.
- Provide advice on appropriate relationships between hub and satellite services.
- Provide advice on configuration of services and service delivery system.

Attachment 2 lists the recommendations and the implementation status.
3.2 Timing & Critical Mass

Box Hill hospital is expected to become a “hub” service within the next twelve months. This means it will manage satellite dialysis services as well as directly supporting patients utilising home dialysis options. Current patients receiving home dialysis are most likely to have a relationship with either the Monash Medical Centre or the Royal Melbourne and may not be willing or want to change providers.

In order for Eastern Health to provide home based services it will need a critical mass of patients to make provision of associated services, such as training, affordable. In any case, consideration to purchasing in some aspects of the service (eg: technical support) from the existing larger hospitals is likely to occur.

It suggests that a staged approach will need to be developed and some “hump” funding may be needed to establish and promote the new service so at to attract new clients.

3.3 Access Issues

The geography of the Shire of Yarra Ranges means that access to services can be difficult, particularly for those in the outer areas.

Also, provision of services in one part of the Shire does not mean increased access for the whole Shire. In the planning for the Lilydale Superclinic/ Yarra Ranges Health Service consideration was given to providing a satellite dialysis service. However, analysis of current demand shows that the majority of dialysis patients live closer to or a short to modest distance from either Maroondah or Angliss Hospitals. There are only a small number of people for whom Lilydale would have resulted in a closer and more accessible service and insufficient to justify the location of 12 chairs (which was needed for the Outer Eastern catchment as a whole).

Traditionally outpatient services for all dialysis patients, usually required every two to three months, are provided at the hub hospital. It may be possible to consider how these services or part of these services (eg: allied health components) could be provided at more accessible locations on a visiting basis for those who live some distance from Maroondah or Angliss hospitals on an outreach basis.

3.3.1 Transport

Access to ambulance transport is difficult, therefore significant costs to the user if travelling to sites not close to home. There is no funding for transport.

3.4 Home Dialysis

Home dialysis options are currently considered to be underutilised and a challenge will be to try and increase utilisation of these options where clinically appropriate.

It should be noted that:

- Nocturnal home dialysis rates are experiencing the highest rate of growth due to new funding arrangements and patients recognising quality of life and clinical benefits. Appropriately, day home haemodialysis rates are declining.
- Home options provide greater flexibility for patients, reduce travel issues and can provide improved quality of life.
- The cost of delivering home dialysis can be cheaper than on-site dialysis. Machines cost the same but do not have the same on-costs as hospital based services (nursing, cleaning, etc). However, within a satellite unit, one machine can service up to 4 patients as against a single patient at home.
- Reasons for low take-up of home dialysis options include:
  - patients concerned about lack of back-up and monitoring
  - reduced social contact
• GPs and renal clinicians not suggesting/supporting it as an option – including early in the process before dialysis is needed
• difficulties in providing frequent and locally accessible training
• potential expenses associated with setting someone up at home but their situation changing (eg: receives a transplant) shortly after can be a disincentive
• cost to patient in terms of power and water
• social isolation for the patient.

A key focus of the Eastern Health renal dialysis project officer will be to develop the hub service and establish the satellite clinics. This includes the need to develop community based service delivery to support home based options and it provides an opportunity to utilise the Care in Your Community framework and planning structures to do this.

3.5 Community Based Models of Care

Community based models of care in which community providers such as District Nursing Services, community health services and GPs are involved in supporting people utilising home dialysis have the potential to improve the uptake of home based dialysis options – including addressing issues of people feeling unsupported and socially isolated.

There may also be potential opportunities for existing community based services to meet the allied health needs (eg: podiatry, dietetics, physio/exercise) usually accessed through outpatient clinics.

This is particularly the case in the Shire where the small numbers of patients (at June 2006 there were nine people in the outer areas of the Shire using some form of dialysis) means there is a likely diseconomy of scale associated with establishing a specific service and/or having specific staff to meet the needs of this group and/or can reduce long distances travelled by staff located at a hub. It may also be possible to link into existing outreach/health service provision rather than developing a separate service.

Assuming a proportion of these people find travel difficult, a community-based model also provides the opportunity for the provision of a more holistic health service.

Consideration to the establishment of a volunteer “buddy” system could also provide a roster of carers or a dedicated carer to assist the process, thus providing access to home based options where there is no carer but the home situation is otherwise suitable (as is the case in the Northern Territory – see 3.6).

3.5.1 Self Care Facilities

A self care facility provides the option of day home dialysis away from home. For example, a safe and private space provided in a facility (health or other) in which the person stores their dialysis machine and consumables and dialyses at that place rather than in the home.

Monitoring may occur through an arrangement with the facility to check on the person at regular intervals or by an existing carer or buddy/volunteer.

It potentially provides another option for people where their home environment is not suitable for day home dialysis (too small, not clean etc) but where there is someone available to assist them. It may also have an added benefit of reducing the social isolation that some people feel with home dialysis.

There would be significant issues in implementing this option, including because it is a significant deviation from current practice, clinical governance issues, reliance on space being available in a public/community type of facilities near where the person lives and the fact that it would only be suitable for such a small number of people that it is unlikely to be considered a standard service response.
3.5.2 External Nurse Models

**Canadian model**

A model of nocturnal dialysis was trialled in Canada where patients were remotely monitored at a central location by a technician. Procedures were put in place to manage alarms, emergencies etc. It is understood that visiting nurses (flying squad) visit clients to put them on and action any emergencies etc.

**Rosebud**

The Alfred hospital has developed a model of care with Rosebud RDNS to support 2-3 Nocturnal Peritoneal Dialysis patients in the Rosebud area. These were haemodialysis patients, from satellite units, who were not doing well on haemodialysis and were expected to benefit from the more frequent exchanges available with peritoneal dialysis. They were not able to attach and disconnect themselves so the local RDNS branch went through a train the trainer process so all their staff are now skilled at managing and trouble shooting the machines. It would appear that this model would be suitable for expansion to other areas and could also include nocturnal home haemodialysis.

3.5.3 Self Care Training

The Northern Territory (NT) has developed dedicated “home haemodialysis training stations” in its dialysis facilities, where patients and their carers/buddies can come and receive intensive training on self care and then return to their communities unaided by clinical staff. There is a strong emphasis on the development of partnership with community organisations to ensure clients are able to safely and securely integrated with community life.

3.6 Aboriginal Issues

The NT Government’s 2005 “Renal Services Strategy” identifies the following significant issues for its indigenous population: late presentation for identification, inadequate dialysis attendance rates and co-morbidities such as anaemia, malnutrition and worsening cardiovascular function as both causing renal disease but also increasing consequences of decreasing renal function.

The NT services currently rely significantly on moving people to key treatment sites to access maintenance dialysis services or to be monitored in their use of other modes, such as the peritoneal dialysis options. However, this removes people from their communities and the service focus is increasingly on providing training to patients and carers/buddies so that they can return to their communities/remain in their communities and undertake home dialysis. It relies on a workforce which is rostered in rural/remote communities for varying lengths of time.

Given the high level of diabetes in the local Aboriginal population, it is possible that there will be increased demand for this population for renal dialysis. In 2004/05, there were 26 people identified as Aboriginal across Victoria who were using satellite dialysis services. There were none in the Eastern Metropolitan Region – it is unclear as to whether no EMR aboriginal people needed dialysis and/or they were using home dialysis options. While access to renal dialysis for Aboriginal and Torres Strait Islanders is seen as an issue, nationally this is generally reflective of the difficulty of providing these services in remote areas and the general poor health of people in these areas. It can be expected that the Outer East aboriginal population are healthier and have better access to health services than national figures indicate. The relative youth of the Outer East aboriginal population may also ensure that the growth for renal dialysis is not at the same rate as for the population as a whole.

However, it is probably opportune that as part of the development of the maintenance dialysis service at Maroondah includes specific consideration of how it can respond to the needs of the Aboriginal population.
3.7 Cultural and Linguistic Diversity Issues

There are no specific CALD issues that the project is aware of. The Yarra Ranges Italian community may be at a higher risk of needing renal dialysis due the higher incidence of diabetes.

3.8 Workforce issues

The *Renal Dialysis: A revised service model for Victoria* report highlights a shortage of nephrology staff and that this has the potential to restrict patient access to maintenance dialysis services in the long term. New models of maintenance dialysis service delivery needs to be explored to help respond to these emerging workforce shortages, for example, using a renal nurse practitioner model. Currently all Eastern Health clinicians are Visiting Medical Officers.

The location of the satellite service at Maroondah hospital and the establishment of Box Hill as a hub should assist in attracting staff due to provision of a significant sized service, a team based approach and the benefit of new facilities.

4. Planning priorities

That the unique characteristics of the Outer East be specifically recognised in the Eastern Health renal service development, including that care is taken to ensure that the service, including allied health components, are distributed across the catchment.

**Satellite Chairs**

- At this stage the allocation of 22 satellite maintenance dialysis chairs for renal dialysis in the Outer East be seen as sufficient to cater for increased demand by 2016.
- If the take-up of home dialysis options does not occur or there is a decrease in the use of private facilities, planning for new satellite chairs should commence in five years time. This could potentially occur as part of future Angliss Hospital service planning, although the question of the need and suitability for chairs in other parts of the Shire could also be revisited in the context of stage 2 of the Lilydale Superclinic and/or any redevelopment of the Healesville Hospital site.
- The development of the maintenance dialysis service at Maroondah be done with specific consideration to encouraging and facilitating access for Aboriginal people.

**Community Based Options**

- Agree to assertively promote and increase uptake of home and community based dialysis options. This would include the adoption of a “home first” philosophy and the development of clear criteria about suitability of mode of dialysis, which takes into account clinical needs and living situation.
- Consider the suitability of local health service providers to provide support to those not in proximity to service hubs. This might include looking for opportunities:
  - to tap into existing home visiting services to assist with monitoring, training and connection to machines;
  - for training/skilling existing local allied health staff to meet the specific allied health needs of dialysis patients; and
  - for providing outpatient clinics away from the hospital sites (for example, in Healesville or Yarra Junction) including in conjunction with local services.
- Further explore options for self care facilities – this includes clinical governance issues, possible opportunities for space in existing health and community facilities.
- Further explore possibility of a volunteer/buddy system to support people in their home who do not have a carer but the home environment is otherwise suitable.
• The transport issues are acknowledged and monitored, particularly for those people living in the outer areas of the catchment.
• The access and support needs of people living in the eastern catchment of the Shire of Yarra Ranges, in particular:
  o the support of home dialysis modalities; and
  o access to renal services usually provided on an outpatient basis from Maroondah or Angliss hospitals.
  o Consideration of the needs and support to people in the pre-dialysis stage of kidney failure to encourage improved uptake of home based options².

5. Implementation

**Linking the Care in Your Community Network to the establishment of the renal dialysis service at Eastern Health**

The project officer currently reports to an Eastern Health Advisory Committee, whose membership includes Natalie Sullivan. Feedback on the progress of the project to the Network could be provided by Natalie with the project officer invited to meetings as appropriate. Natalie could also provide feedback from the Network to the Advisory Committee.

The Network’s role should be to monitor the project to ensure that community options and opportunities are being considered, provide a sounding board for the project officer to explore community based options and to participate in the development of the community based components of the service.

The project officer is due to complete her work by June 2007 which coincides with the end of the CinYC trial. Priorities associated with the establishment of community based components of the new renal dialysis service should be incorporated into the CinYC action plan.

**Progressing home and community based options**

That a Forum be held to consider and work-up options to progress the priorities listed above. The Forum would explore the priority areas and what existing community based services (community health, GPs and District Nursing Services) could do to assertively support improved take up of home and community based options. This could include everything from promoting the service to patients to providing services. The outcome would inform the subsequent Action Planning Workshop and priority actions for further planning. This could attempt to define what the community based models might look like – including staffing needs (who and how much) and physical locations. The renal services project officer may be required to do some costing work to assist in determining the suitability of these options.

People to be included in the Forum would be:

- Eastern Health
- Community Health Services (senior management and Allied Health staff)
- Visiting Medical Officers
- District Nurses (Yarra Valley Community Health Service);
- Royal District Nursing Service clinical staff;
- Home Dialysis Nurses;
- Rosebud staff;
- Satellite Nurse Managers;
- GP’s and GP Divisions; and
- Palliative Care

A separate Focus Group will be arranged to canvas Consumer and Carer feedback and advice on the development of home and community based options, including barriers.

² Data from Southern Health (April 2007) identifies 11 people at the pre-dialysis stage of renal failure living in the outer east catchment. Data not available from Austin Health.
Attachment 1: Definitions

Peritoneal Dialysis

In peritoneal dialysis the dialysing fluid is inserted into the peritoneal (abdominal) cavity at regular intervals, and the waste products diffuse into it. The peritoneum is the membrane that lines the abdominal cavity and it is across this membrane that the chemical exchange between the blood capillaries and the dialysing fluid takes place. After a period of time the dialysing fluid is drained from the cavity.

Automated Peritoneal Dialysis (APD)
This requires a machine to regulate the movement of fluid into and out of the peritoneal cavity. The patient is attached to the machine at night before going to sleep, and while they sleep the machine performs 6-8 exchanges. During the day, solution is left in the peritoneal cavity so that dialysis can still occur slowly.

Continuous Ambulatory Peritoneal Dialysis (CAPD)
CAPD is usually performed four times per day. Each exchange takes about 30 minutes to perform, and can be done almost anywhere, provided a clean area is available. In between each exchange the patient is free to undertake the regular activities of daily living.

Haemodialysis

Haemodialysis is a procedure used to maintain a patient with end stage renal failure by using an artificial kidney machine (or “dialysis machine”) to replace the excretory function of the failed kidneys. Blood from the patient is pumped from the body through special tubing to the dialysis machine, where it travels through the dialyser and back to the patient. The procedure is usually carried out three times per week and takes four to five hours.

Day Home Haemodialysis
Day home haemodialysis is the preferred option for many patients. If home haemodialysis is chosen, the individual is fully trained to manage their own dialysis with the assistance of a partner or spouse, parent or friend. In conventional home haemodialysis, patients dialyse for 4-5 hours, three times per week during daytime hours.

Nocturnal Home Haemodialysis
Nocturnal home haemodialysis occurs overnight while the patient sleeps. Patients are trained to self-care at home and do not need a carer or family member to assist. Patients will dialyse for up to 8-10 hours either every second night or 6 times per week while they sleep.

Hospital (in-patient) Haemodialysis
This dialysis procedure is carried out at the hub unit only. Dialysis in a hub unit is best reserved for those with serious medical problems who need immediate access to medical care during dialysis or who, for clinical reasons, are not suitable to receive their dialysis in a satellite centre. Patients are also admitted to the hub for training or while waiting placement in a satellite. Hospital haemodialysis may also be called in-patient haemodialysis. Patients receiving routine maintenance dialysis (due to inability to access suitable dialysis close to the patient’s home) in a hub facility should be defined as satellite patients.

Satellite Haemodialysis
The dialysis procedure is carried out in a hospital or self care facility located away from the hub site. Satellite units may be wholly operated and staffed by a hub, or staffed and run by another hospital.
**Recommendations** | **Progress**
--- | ---
Recommendation #1: The department will recognise overnight haemodialysis as a separate modality for funding purposes. It will also regularly assess the scope for adopting new technologies and developments in other modalities which should be considered for support in a Victorian context. | • Nocturnal home haemodialysis was recognised as a separate funding modality as of 1 July 2005.  
• New service delivery options are currently being explored, particularly those that support substitution and diversion from hospital-based care to home dialysis.

Recommendation #2: The department will seek to collect supplementary data via hospital returns that are incorporated into ANZDATA to assess compliance with Principle 5, that patients and their carers should be able to access the haemodialysis satellite that is most convenient to their place of residence. It will also monitor use of non-emergency transport to ensure haemodialysis services accessed by patients are cost-effective. | • A new database has been established – the Victorian Dialysis Registry – to that collects monthly information about all dialysis patients in Victoria, including hospital and home patients.  
• The information collected enables detailed planning at the local level. This database has been particularly useful in providing information for decision-making in the Eastern region, the Mornington Peninsula and across a number of rural areas in regards to the development of service system.  
• Two facility audits have been conducted (September 2005 and June 2006). The aim of the audits is to measure current capacity in the service system and to assist with the identification of areas experiencing significant demand pressures.  
• The Victorian Maintenance Dialysis Program (VMDP) is exploring a range of options to encourage greater uptake of home-based dialysis.  
• The department funded Kidney Health Australia to undertake a literature review that explores consumer perspectives regarding dialysis treatment in Victoria.  
• The VMDP has been working closely with the Department’s Ambulance unit, Metropolitan Ambulance Services and Rural Ambulance Victoria to monitor the use of non-emergency ambulance transport. A number of options to address the significant growth in utilisation of ambulance transport are currently being investigated.

Recommendation #3: Future development of Victorian public maintenance dialysis services should be more centrally coordinated via a maintenance dialysis advisory committee. This committee will include representatives from hubs, satellites and consumer groups. The department will chair the committee, which will meet at least six monthly. Representation on the committee will be rotated. | • The Maintenance Dialysis Advisory Committee is established and has been meeting quarterly since March 2005.  
• The Director, Programs chairs the committee and it has representation from DHS, hubs, satellites, allied health, peak bodies and consumers.

Recommendation #4: The roles and responsibilities of maintenance dialysis service providers will be defined according to a service level framework which describes service provision responsibilities at different levels. | • The framework is described in the review document as a guide for health services needing to either understand their roles and responsibilities at the level in which they currently provide services or as a reference for services needing to increase their level of service to either node or hub status.
<table>
<thead>
<tr>
<th>Recommendation #5: A new category of service provider should be introduced and termed a 'node'. Node providers will assume a greater level of responsibility for patient management than the majority of satellites currently assume (for example, routine care of peritoneal dialysis patients). There should be a medium term target over the next five to ten years to create a node in each departmental non-metropolitan region. The Maintenance Dialysis Advisory Committee will assess the capability of a service provider to assume node responsibilities (see Recommendation #3).</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The VMDP and the MDAC are currently working with Western Health and Eastern Health as they move to hub status. Funding has been provided to these health services to employ a Project Officer to further progress the model of care and develop an implementation plan.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation #6: Funding and service agreements between hubs and satellites must be updated on an annual basis as a condition of department funding and contain a minimum level of detail on the following areas: types of services to be provided by the hub and satellite (consistent with the service level framework), activity performance targets, level of funding for undertaking these services, minimum staff and facility standards, and other services to be provided by the hub and satellite.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A Memorandum of Understanding (MoU) for use by hubs, satellites and nodes has been developed.</td>
</tr>
<tr>
<td>• Following a review by service providers and MDAC, the MoU was endorsed by the Department’s Legal Services Branch.</td>
</tr>
<tr>
<td>• The MoU was endorsed by MDAC at its meeting on 15 December 2006.</td>
</tr>
<tr>
<td>• As of 2007-08, all renal service providers are expected to have a contractual arrangement that specifies the roles and responsibilities of each of the parties.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation #7: Over time there should be a move to greater regionally defined hub responsibilities for infrastructure and clinical support, commencing with regionalised education services.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• This work will commence in 2007-08 (see recommendation 9).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation #8: Satellites will only be required to conform with one set of clinical protocols unless there is demonstrated clinical evidence to the satisfaction of the Maintenance Dialysis Advisory Committee that more than one set of protocols would not be detrimental to patient care. The protocols of the primary hub to which a satellite relates will take precedence over the protocols of other hubs. Statewide protocols for the application of infectious diseases (such as Hepatitis C and vancomycin resistant enterococci) will be developed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Satellite services have been advised that they only need operate under one set of clinical protocols – that of their hub provider.</td>
</tr>
<tr>
<td>• The Department has developed a guideline for preventing infection in satellite renal dialysis units. The guideline was approved for release in August 2006.</td>
</tr>
<tr>
<td>• A suite of three patient information sheets and a wall chart that summarises good infection practices supports the guideline.</td>
</tr>
<tr>
<td>Recommendation #9: The department in conjunction with the Maintenance Dialysis Advisory Committee will explore the further extension of renal nurse practitioner models.</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>• In 2007-08, the VMPD will commence a project to explore issues affecting the renal workforce. This will include recruitment, retention, education and training (both initial and ongoing training needs), the regionalisation of education services (recommendation 7) and workforce models.</td>
</tr>
<tr>
<td>• The project will look at options including expanding the use of dialysis technicians and the nurse practitioner role.</td>
</tr>
</tbody>
</table>