

## Report on “Outcomes of the Renal Dialysis Costing and Funding Review”

### 1. PURPOSE

The purpose of this paper is to provide, to the Maintenance Dialysis Advisory Committee (MDAC):

- the recommendations contained in Healthcare Management Advisors’ (HMA) Renal Dialysis Costing and Funding Review Report;
- the Department of Human Services’ response to the review recommendations;
- policy directions for the provision of maintenance dialysis services; and
- a new funding model for renal dialysis services

### 2. RENAL DIALYSIS COSTING AND FUNDING REVIEW

Between February and September 2006, HMA undertook a DHS auspiced Renal Dialysis Costing and Funding Review. HMA’s report on this project was considered by MDAC at its meeting on 15 December 2006. At this meeting, MDAC agreed that:

- Significant costing work had been undertaken; however, more work will need to occur to arrive at a funding model for dialysis services;
- DHS would draft a series of questions to facilitate feedback from members on the report

DHS staff had individual, face-to-face meetings with all MDAC members who are Directors of Nephrology, between December 2006 and February 2007. This series of meetings was undertaken in the place of seeking feedback via a questionnaire.

#### 2.1 Current funding model

Dialysis funding currently includes a capitation grant for each patient and a thrice-weekly WIES payment for patients who receive facility based treatment. The capitation payment is made directly to the hub service that manages the patient’s overall care. The WIES payment is made directly to the health service providing maintenance dialysis to the patient. In some instances, hubs redistribute part of the capitation grant to satellites for providing services that are funded through the capitation grant. Table 1 shows the current payment schedule for dialysis treatment. These payments exclude equipment funding which was rolled into the equipment infrastructure funding grant in 2003-04.

**Table 1: Capitation and WIES payment (non-DVA), 2006-07.**

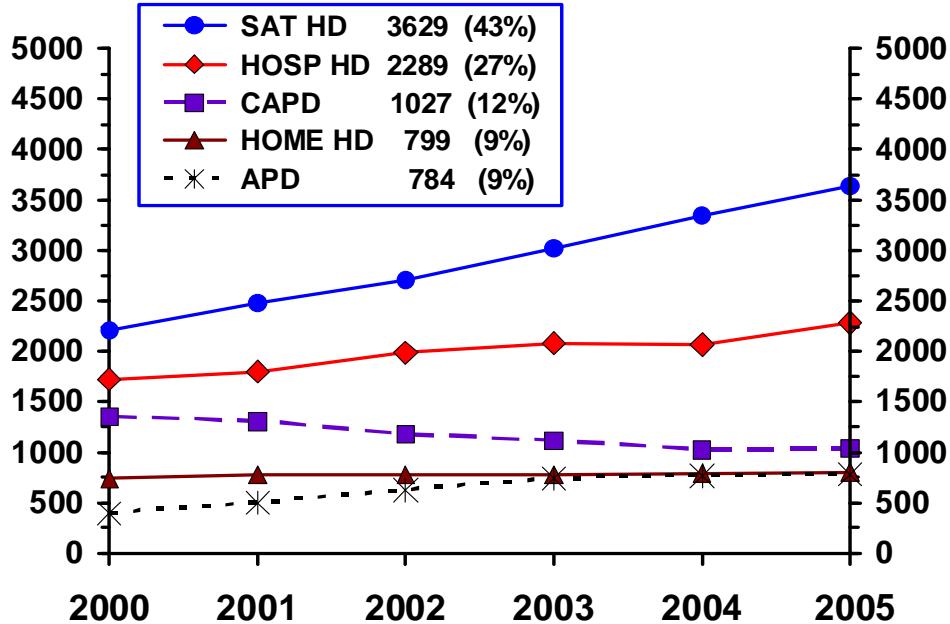
	In-centre	Satellite	HHD	NHD	CAPD	APD
Capitation Payment	\$28,394	\$28,401	\$37,533	\$42,723	\$47,447	\$47,447
Projected WIES payment*	\$25,184	\$25,184	-	-	-	-
Projected total payment	\$53,578	\$53,585	\$37,533	\$42,723	\$47,447	\$47,447

\* Assumes 156 dialysis treatments per year at the major provider rate

The report contained twelve (12) recommendations relating to future funding of renal dialysis services. The department’s response to these recommendations is discussed in section 3 below. Attachment 1 summarises the department’s response to the HMA recommendations.

### 2.3 Current demand for dialysis services

Nationally, between 2000 and 2005, the number of patients undergoing dialysis at a satellite has grown by approximately 76%. During the same period, the growth in in-centre dialysis has been approximately 41% (see figure below).



Source: <http://www.anzdata.org.au/anzdata/AnzdataReport/29thReport/Ch04.zip>

The demand for maintenance dialysis services in Victoria increased by 7.7% in 2005-06. Peritoneal dialysis is usually commenced where there is residual renal function and generally is effective for two to three years before haemodialysis, usually satellite dialysis, is required.

As at April 2007, there were 2232 Victorians receiving maintenance dialysis treatment. Of these, 72% were receiving dialysis treatment in a facility (in-centre or satellite), 20% were undergoing peritoneal dialysis and the remaining 8% were undergoing dialysis at home (nocturnal home dialysis or daytime home haemodialysis). This pattern is similar to 2005 national figures.

## 3. DEVELOPMENT OF FUNDING MODEL FOR MAINTENANCE DIALYSIS SERVICES IN VICTORIA

### 3.1 HMA Review Findings

The review found that the WIES (variable) payments were lower than the costs of providing the service, and the capitation grants exceeded the costs of providing the service.

### 3.2 DHS response to the HMA recommendations

#### 3.2.1 Costs to provide dialysis services

Members of MDAC agreed that the HMA report accurately described the costs of dialysis service provision.

DHS Response:

**The department accepts the advice of the review with regard to costs.**

### ***3.2.2 HMA recommendations directly impacting on funding model***

The department's response to HMA recommendations on future funding of dialysis services is provided below. The department's response has taken into account the policy levers required to encourage the uptake of modalities that are cost efficient, clinically effective and convenient for patients.

#### *3.2.2.1 HMA recommendation re funding through capitation and WIES*

*HMA R1: It is recommended that the DHS maintain the current funding mechanism for maintenance dialysis services that encompasses WIES and capitation components.*

**DHS Response: Accepted**

#### *3.2.2.2 HMA recommendation re Equipment funding*

*HMA R2: It is recommended that the DHS include a capital allowance within capitation grants to fund equipment replacement and service expansion.*

DHS Response:

The purchase of capital equipment (dialysis and reverse osmosis machines) is a core consideration of dialysis funding. One machine can service at least four facility based patients or a single home based patient. The current cost of purchasing and installing home based dialysis equipment is ~\$30,000; the lifespan of a machine is ~8 years.

The review proposes a \$5,000 capital allowance within the capitation grant to offset the equipment costs associated with new and replacement dialysis equipment.

The inclusion of maintenance dialysis equipment funding in the capitation grant needs to be considered in the context of the total equipment/asset management framework. A fixed (capitation grant) and variable (case payment) funding model for maintenance dialysis was established in 1994. At that time capitation grants included an equipment component of \$5,000. In 1999-00 DHS substituted the \$5,000 equipment payment with a \$4 million capital equipment pool dedicated to maintenance dialysis. In 2003-04 the dedicated pool was rolled into the equipment infrastructure funding grant.

Including maintenance dialysis equipment funding in the capitation grant is not consistent with the approach to equipment funding for other health service specialty areas (e.g ICU) where health services purchase equipment in response to need.

**The department policy is for all equipment funding, including dialysis equipment funding, to remain within the current equipment infrastructure funding grant.**

#### *3.2.2.4 HMA recommendation re distinguishing between in-centre and satellite dialysis*

*3.2.2.4 HMA recommendation re distinguishing between in-centre, satellite and each home based dialysis modality*

- HMA R3: *It is recommended that the DHS establish a new DRG category, in-centre haemodialysis.*
- HMA R4: *It is recommended that revised capitation grants be based on the costs derived from this project.*
- HMA R5: *It is recommended that haemodialysis WIES payments be set based on the cost weights derived from this project (encompassing the use of the new DRG for in-centre haemodialysis).*
- HMA R6: *It is recommended that the DHS undertake further work regarding the operational aspects of implementing a new in-centre haemodialysis DRG that covers:*
- *the criteria to be used for coding to the new in-centre haemodialysis DRG within the hub setting; and*
  - *the need for volume targets for the use of the new in-centre haemodialysis DRG to ensure that clinical need is the basis for utilisation of in-centre facilities in preference to satellite facilities.*

DHS Response:

HMA recommended that WIES weights be introduced that distinguished between in-centre and satellite dialysis. HMA further recommended that capitation rates be introduced that distinguished between in-centre, satellite and each home based dialysis modality. The department does not support the recommended distinctions.

Discussions with members of MDAC indicated that members were in favour of a cost neutral simplification of payments. Specifically:

- a. Paying a capitation grant for facility based treatment as the patient weighted average of the in-centre and satellite grants will encourage health services to transfer their patients to satellite services, which are more appropriate for long term treatment. The MDAC view is that patients should, where possible, be treated in satellite health services, and that discriminating between patients that require and do not require 'in-centre' (i.e. high acuity) treatment is problematic. A recommendation is that there should be no discrimination between in-centre and satellite capitation and WIES payments.
- b. There is a potential overlap between home haemodialysis performed during the day (home haemodialysis – HHD) and overnight (nocturnal haemodialysis - NHD). While there are treatment implications for individual patients the only difference for the provider health service is an increase in the cost of consumables for patients undertaking "short, daily haemodialysis" and, in some cases, NHD. The position of the dialyser within the patients home (e.g. near a chair for daytime dialysis and near the bed for nocturnal dialysis) may vary between modalities but should not attract additional cost to the provider health service. Hence there is no need to discriminate between HHD and NHD and MDAC members who are directors of nephrology have indicated that these capitation grants could readily be set at the patient weighted average of the HHD and NHD grants and paid as a single home haemodialysis grant.
- c. There is little difference between the capitation grant costs for CAPD and APD. These capitation grants could readily be set to the patient weighted average of the CAPD and APD grants and paid as a single home peritoneal dialysis grant.

**The department therefore proposes simplifying the funding model to include:**

- **A single capitation rate for facility-based treatment;**
- **A single WIES rate for facility- based treatment;**
- **A single home haemodialysis grant;**
- **A single home peritoneal dialysis grant.**

### **3.2.3 HMA recommendations with an indirect impact on funding model**

*HMA R7: It is recommended that DHS, through the MDAC, undertake further investigation to develop a statewide program to address the social and psychological barriers confronted by patients wishing to receive maintenance dialysis services at home.*

*HMA R8: It is recommended that a payment be made to patients of \$350 for commencing treatment under a home-based haemodialysis modality and an annual payment of \$700. These payments should be funded via the capitation grant and administered by hub.*

*HMA R9: It is recommended that a payment be made to patients of \$100 for commencing treatment under a home-based peritoneal dialysis modality and an annual payment of \$300. These payments should be funded via the capitation grant and administered by the hub.*

DHS Response:

The data collected during the review indicated that the costs of home modifications and equipment required to prepare for home-based dialysis were inconsistent across patients with a small proportion of patients requiring substantial amounts of money to prepare for home dialysis (e.g. establishment of a suitable water supply).

The review recommends a commencement payment and an annual payment for home based haemodialysis and home based peritoneal dialysis patients.

The department supports the payment of the start up costs to all home based patients annually, and determines that this be included in the capitation payments. The commencement payment is small and will be included in the annual patient payment in preference to requiring health services to discriminate between new and ongoing home dialysis patients.

**The department commits to funding an annual patient payment to all home based dialysis patients.**

**The department commits to undertaking further work to develop a statewide program to address the social and psychological barriers confronted by patients wishing to receive maintenance dialysis services at home.**

*HMA R10: It is recommended that DHS, in conjunction with the MDAC examine the merits of a regionalised training model to streamline the efficiency of training of home maintenance dialysis patients.*

*HMA R11: It is recommended that DHS, through the MDAC, further examine the level of allied health resource being provided to maintenance dialysis patients with respect to best practice.*

DHS Response

**The department commits to undertaking further work on the development of a regionalised training model and to investigate the allocation of allied health resource.**

*HMA R12: It is recommended that the sites continue to have local responsibility for managing service delivery arrangements.*

**DHS Response: Accepted**

### 3.3 Encouraging the increased uptake of home dialysis treatment

There is currently significant variation, between hub hospitals, in the rate of home hemodialysis (ranging from 3.5% – 18.5%). Feedback from directors of nephrology at hub hospitals indicated that they were supportive of efforts to increase rates of home dialysis to improve patient outcomes. Some of the advantages of home dialysis are:

- Ability to dialyse for longer periods leading to improved clinical outcomes;
- Reduced need for travel leading to reduced financial burden for patients;
- Improved flexibility leading to increased freedom to participate in work and family life for patients;
- Improved quality of life.

Another driver for encouraging home dialysis for those patients for whom it is clinically appropriate is that, with increasing demand for dialysis services, the establishment of new satellite services involves substantial capital cost and the annual cost is significantly more expensive than home based treatment.

Under the current funding model, there is no incentive to encourage services to support patients using home dialysis. However, some of the MDAC members who are directors of nephrology have indicated that there are patients currently treated in satellites that could be treated using home haemodialysis.

Two substantial barriers to home haemodialysis for dialysis service providers were identified during the review:

- The substantial up-front cost (~\$30,000) of purchasing and installing equipment into the home of patients that is borne by health services;
- Training for patients receiving home based treatment.

The Renal Dialysis Costing and Funding Review surveyed patients regarding barriers to home dialysis. The patient barriers to home dialysis were predominantly around clinical support, either directly or through telephone support.

A home haemodialysis incentive payment is one method of helping to overcome these barriers. The incentive could provide funding to:

- Purchase additional equipment for home-based patients;
- Provide a more comprehensive 24-hour clinical support system for home based patients;
- Trial models of practical and psychosocial support for patients and their carers.

An incentive payment of \$15,000 per annum for each home haemodialysis patient would allow health services to expand their home haemodialysis program through both equipment purchase and through the expansion of clinical support for home based dialysis patients. Patients returning to facility based dialysis would not attract the incentive payment.

In addition, the hospital in the home program currently provides an opportunity for slow stream “satellite dialysis at home” based training.

**The department commits that a \$15,000 home haemodialysis incentive payment is included in the capitation payment.**

#### 4. ALTERNATIVE FUNDING MODEL

An alternative funding model has been developed which draws upon the recommendations of the costing review as well the department's and MDAC's commitment to improving supported access to home haemodialysis. This model includes annual patient payments and a home dialysis commencement payment and excludes capital costs and the \$5000 equipment grant for all patients. The proposed model also uses three capitation grants and a single WIES payment.

Whilst the exact capitation grant figures and WIES payment rates will become available after the finalisation of the departmental Funding and Policy Guidelines, the table below provides a comparison, in 2006-07 dollars, between the current (2006-07) and the approximate, new capitation grants and annual WIES payments.

**Table 2: Proposed capitation grants and annual WIES payments in 2006-07 dollars.**

	2006-07	Proposed	2006-07	Proposed	2006-07	Proposed
	Facility dialysis	Facility dialysis	Home haemodialysis	Home haemodialysis	Home peritoneal dialysis	Home peritoneal dialysis
Capitation	\$28,394	\$26,055	\$40,128	\$34,434	\$47,447	\$38,537
WIES*	\$25,184	\$28,338	\$0	\$0	\$0	\$0
Patient payment	\$0	\$0	\$0	\$1,134	\$0	\$432
Home dialysis incentive	\$0	\$0	\$0	\$15,000	\$0	\$0
<b>Total payment</b>	<b>\$53,578</b>	<b>\$54,393</b>	<b>\$40,128</b>	<b>\$50,568</b>	<b>\$47,447</b>	<b>\$38,969</b>

\* assumes an average WIES weight of 0.0595 and 156 inpatient episodes at a major provider.

The alternative capitation funding will affect the dialysis related income for all hub services. Nevertheless, health services will continue to make a profit from the proposed funding model. The reduction in funding will be ameliorated by:

- An annual increase in funding (currently 7%) to accommodate growth in patient numbers. While some patient services will be provided at additional full cost, others such as medical services can be provided at a marginal rate.
- The increase in WIES payments that are paid directly to the hospital and the increased WIES payments that are paid directly to satellite services; and
- The substitution of home and nocturnal haemodialysis modalities for satellite dialysis treatment

Implementation of the alternative funding model will result in a consistent 16% increase in WIES funding to both satellite and hub providers. However, the changes in the new funding model will result in a reduction in capitation funding to hub providers.

**The department has developed a new funding model comprising the following elements:**

- **The use of three capitation grants and a single WIES payment rate;**
- **The capitation grant will include**
  - **\$15,000 incentive payment for each home haemodialysis patient;**

- patient payment for home peritoneal dialysis and home haemodialysis;
- Allocation of cost savings to service development activities to support home dialysis

## 5. IMPLEMENTATION OF FUNDING MODEL

It is proposed that the new funding model be implemented on 1 January 2008. The reasons for a 1 January 2008 implementation date, as opposed to a 1 July 2007 implementation date, are:

- Adequate time to reconfigure services: Given that the new funding model will reward health services for expanding home dialysis services, delayed implementation will allow adequate time for health services to commence reconfiguring services to maximise the impact of the new model;
- Planning for transition: The introduction of the proposed funding model on 1 January 2008 will also ameliorate the impact of the new funding model. This delayed introduction will also allow for monies to be conserved for renal service development and upgrading dialysis training facilities.

**The department's position is that the new funding model be implemented on 1 January 2008.**

## 6. SUMMARY

The new funding model for renal dialysis services comprises:

- The use of three capitation grants and a single WIES payment rate;
- The capitation grant will include
  - \$15,000 incentive payment for each home haemodialysis patient;
  - patient payment for home peritoneal dialysis and home haemodialysis;
- Allocation of cost savings to service development activities to support home dialysis

The new funding model will be implemented on 1 January 2008.

**Attachment 1 – Final Report Recommendations**

<b>No.</b>	<b>HMA Recommendation</b>	<b>DHS Response</b>
R1:	It is recommended that the DHS maintain the current funding mechanism for maintenance dialysis services that encompasses WIES and capitation components.	Accepted
R2:	It is recommended that the DHS include a capital allowance within capitation grants to fund equipment replacement and service expansion.	The department states that the equipment funding for dialysis will remain within the current equipment infrastructure funding grant.
R3:	It is recommended that the DHS establish a new DRG category, in-centre haemodialysis.	<p>The department will take into account policy drivers and proposes simplifying the funding model as below:</p> <ul style="list-style-type: none"> <li>• A single capitation rate for facility-based treatment, namely, no distinction between in-centre and satellite dialysis treatment;</li> <li>• A single WIES rate for facility-based treatment, namely, no distinction between in-centre and satellite dialysis treatment;</li> <li>• A single home haemodialysis grant;</li> <li>• A single home peritoneal dialysis grant</li> </ul>
R4:	It is recommended that revised capitation grants be based on the costs derived from this project.	
R5:	It is recommended that haemodialysis WIES payments be set based on the cost weights derived from this project (encompassing the use of the new DRG for in-centre haemodialysis).	
R6:	It is recommended that the DHS undertake further work regarding the operational aspects of implementing a new in-centre haemodialysis DRG that covers the criteria to be used for coding to the new in-centre haemodialysis DRG within the hub setting; and the need for volume targets for the use of the new in-centre haemodialysis DRG to ensure that clinical need is the basis for utilisation of in-centre facilities in preference to satellite facilities.	
R7:	It is recommended that DHS, through the MDAC, undertake further investigation to develop a statewide program to address the social and psychological barriers confronted by patients wishing to receive maintenance dialysis services at home.	Accepted
R8:	It is recommended that a payment be made to patients of \$350 for commencing treatment under a home-based haemodialysis modality and an annual payment of \$700. These payments should be funded via the capitation grant and administered by hub.	The department commits to funding an annual patient payment to all home based dialysis patients.

R9:	It is recommended that a payment be made to patients of \$100 for commencing treatment under a home-based peritoneal dialysis modality and an annual payment of \$300. These payments should be funded via the capitation grant and administered by the hub.	The department commits to funding an annual patient payment to all home based dialysis patients.
R10:	It is recommended that DHS, in conjunction with the MDAC examine the merits of a regionalised training model to streamline the efficiency of training of home maintenance dialysis patients.	Accepted
R11:	It is recommended that DHS, through the MDAC, further examine the level of allied health resource being provided to maintenance dialysis patients with respect to best practice.	Accepted
R12:	It is recommended that the sites continue to have local responsibility for managing service delivery arrangements.	Accepted
	Additional response by DHS	The department commits to providing \$15,000 as incentive payment to health services (hubs) for each home haemodialysis patient.