Victoria – Public hospitals and mental health services

Policy and funding guidelines 2006–07

Technical information

Contents

1 AR-DRG modifications

In 2006–07, hospitals will assign diagnoses and procedure codes using the 5th edition of the ICD-10-AM classification. For funding purposes, these codes will be mapped back to 4th edition codes and then grouped using AR-DRG Version 5.1.

As in previous years, some adjustments are to be made to the original AR-DRG5 (Version 5.1) grouping utilising the VIC-DRG51 field, prior to the calculation of WIES13. The AR-DRG Version 5.0 adjustments that applied in WIES12 will continue to apply in WIES13, except where changes have been routinely included within the AR-DRG51 structure.

Most VIC-DRG50 changes introduced for WIES12 in 2004–05 will continue in 2006–07, namely:

- the extension of A40Z to contain a broader range of high cost life support procedures
- splitting of D06Z into D06A Mastoid Procedures and D06B Other Sinus and Complex Middle Ear Procedures
- the ICD-10-AM diagnosis code Z71.3 *Dietary counselling and surveillance* will not be recognised as a complication and/or comorbidity code for the purpose of grouping to VIC-DRG51.

1.1 Peritoneal dialysis

In recognition of cost differences between peritoneal and haemodialysis, episodes with a principal diagnosis of peritoneal dialysis (ICD-10-AM code Z49.2) are to be assigned a VIC-DRG51 of L61Y *Admit for peritoneal dialysis*.

1.2 Radiotherapy

Victorian Coding Standard 0229 states that non-same day patients receiving radiotherapy should have the malignant condition sequenced first, followed by the radiotherapy code (ICD-10-AM code Z51.0). Same day radiotherapy admissions, which follow the Australian Coding Standard, have Z51.0 assigned as the principal diagnosis followed by the malignancy code.

To maintain funding equity, a VIC-DRG51 of R64Z *Radiotherapy* will be assigned for non-surgical episodes that include a radiotherapy diagnosis code, except for episodes with the following AR-DRG5.1s: B61A and B61B; and pre-MDC AR-DRG5.1s: A40Z, A41A, A41B, W60Z, W61Z, S65A, S65B, S65C, B60A, and B60B.

1.3 Hysteroscopy sterilisation

Based upon clinical advice on emerging clinical practice, a VIC-DRG51 (N11C) has been created to adequately cover the costs of hysteroscopy sterilization. Patients allocated an AR-DRG5.1 of N09Z, N10Z, N11B, N08Z, or O05Z with an ICD-10-AM 4th edition procedure code of 35688-01 are allocated to VIC-DRG51 N11C.

WIES13 cost weights for DRG N11C have been set using costing information for N11B, but increased to cover the prosthesis costs associated with this procedure.

1.4 Mastoid procedures

Analysis of the Victorian cost data indicated that mastoid procedures allocated to D06Z were significantly more costly than other D06Z procedures. These procedures were largely performed at the Royal Victorian Eye and Ear Hospital resulting in a relative funding disadvantage within this DRG. Consequently for WIES13, D06Z will be split into:

- D06A Mastoid Procedures
- D06B Other Sinus and Complex Middle Ear Procedures.

Patients will be allocated to VIC-DRG51 of D06A where they are initially grouped to AR-DRG5.1 of D06Z and have one or more of the following ICD-10AM 4th edition procedure codes: 4154500, 4155100, 4155400, 4155700, 4155703, 4156000, 4156300, 4156400, 4156600, 4156601, 4156602. All other patients allocated to AR-DRG5.1 of D06Z will be allocated to VIC-DRG51 of D06B.

1.5 Extra Corporeal Life Support (ECLS)

Episodes involving extra corporeal membrane oxygenation (ECMO) or a ventricular assist device (VAD) are allocated to a variety of DRGs. Analysis of the Victorian cost data indicates that costs for these episodes are significantly discounted by other episodes allocated to the same DRGs.

In recognition of these cost differences, episodes not allocated to an AR-DRG5.1 of A01Z, A03Z, or A05Z and with one or more of the ICD-10-AM 4th edition procedure codes 90225-00, 38615-00, 38615-01, 38618-00 are to be allocated the VIC-DRG51 of A40Z.

1.6 Dietary counselling and surveillance

In AR-DRG version 5.1 the ICD-10-AM diagnosis code Z71.3 *Dietary counselling and surveillance* has a clinical complexity level (CCL) of two, for both medical and surgical DRGs. Even where Z71.3 is coded appropriately, the department feels this CCL value is inappropriate for a code of this nature and has created an AR-DRG 5.1 modification where Z71.3 will be allocated a CCL value of 0 before grouping to VIC-DRG51.

2 Calculation of WIES13

The WIES13 weights table and specification follow the WIES12 format.

2.1 Boundaries – Low outliers, inliers and high outliers

Payment for VIC-DRG51s is primarily based on length of stay. In most cases (there are exceptions) the average length of stay is divided by three to get the low boundary point and multiplied by three to get the high boundary point. Cases within this range (ALOS ÷ 3, ALOS × 3) are called inliers, cases below the low boundary point are called low outliers and cases above the high boundary point are called high outliers. For example, if the average length of stay was six days, the inlier range would be from two days to 18 days. Cases less than two days would be low outliers and those greater than 18 days, high outliers. Boundary points have been recalculated using trends in average length of stay within the Victorian Admitted Episode datasets over the last five years.

2.2 Weights

The weights are based on costs derived from the 2004–05 Victorian Cost Weights Study. A series of modifications are made to adjust for technical difficulties in the costing process and to ensure WIES equivalence over time. These include:

- adjustments for under reporting of prosthesis costs
- adjustments for the proportions of private patients
- adjustments for the number of outliers where the boundary range is reduced to 2/3 and 3/2
- exclusion of individual patient episodes with unreasonably low costs and referral back to the hospital for verification of records with atypically high costs or other apparent inconsistencies
- averaging over multiple years where there are large unexplained cost movements. Where there are relatively few cases this is done routinely. Where more than 120 cases occur in a given DRG, the department, industry and clinical groups review the situation.

2.3 Definition of variables

Definitions and descriptions of each variable within the WIES13 weights table are given below.

Variable (Column Heading)	Label	Description
Victorian DRG 5.1	VIC-DRG51	AR-DRG5.1 with Victorian modifications.
Med. Target DRG	sdmt	VIC-DRG51s marked with a "Y" are categorised as same day medical target VIC-DRG51s. VIC-DRG51s marked with "N" are not categorised as same day medical target VIC-DRG51s. WIES for same day patients allocated to same day medical target VIC-DRG51s are calculated normally but the total WIES associated with same day patients in these VIC-DRG51s cannot exceed specified levels (usually 6.5 per cent of total WIES). Excess same day medical target WIES are not funded.
Mech. Vent. Co-payment	mv_elig	This describes the way mechanical ventilation severity co-payments are made for the VIC-DRG51s. Options are: **D:** funded provided more than six hours of ventilation is provided. Patients attract a one off payment of 0.6980 WIES plus a daily rate of 0.7729 WIES for patients in hospitals with appropriate ICU facilities. **4:** funded for each day of mechanical ventilation after 4 days. Patients attract a one off payment of 0.6980 WIES plus a daily rate of 0.7729 WIES for patients in hospitals with appropriate ICU facilities. **I:** ineligible for mechanical ventilation co-payments
Other co-payment	copay	Some groups of patients attract additional funds in recognition of their higher costs. Options are: **Thal:** a co-payment of 0.2648 WIES is made to patients with a reported ICD-10-AM thalassaemia diagnosis code of D56.x or D57.2 (Note: These do not have to be principal diagnoses) **AAA:** a co-payment of 3.1421 WIES for patients with the procedure code for the insertion of a stent for endovascular repair of aneurysm of the aorta (AAA stent). **ASD:** a co-payment of 2.4713 for patients with a procedure code for the use of an atrial septal defect (ASD) closure device.
Inlier boundary – Low	lb	The low length of stay boundary for inliers. Patients with a length of stay of less than the low boundary are classed as low outliers. For most VIC-DRG51s the low boundary has been set at a third of the estimated average length of stay for the VIC-DRG51. Boundaries are truncated to the nearest whole number.

Variable (Column Heading)	Label	Description
Inlier boundary - High	hb	The high length of stay boundary for inliers. Patients with a length of stay greater than the high boundary are classed as high outliers. For most VIC-DRG51s the high boundary has been set at three times the estimated average length of stay for the VIC-DRG51. Boundaries are rounded to the nearest whole number.
Average Stay		The average length of stay (days) for inliers
Same day/One-day DRG		Flag for designated same day (S) or one day (O) VIC-DRG51s
Same day weight	sd	The same day weight is used to allocate WIES to episodes where patients are admitted and separated on the same day. Depending upon the VIC-DRG51, same day patients may be either low outliers or inliers: ***Designated Same day VIC-DRG51s*** The same day weight is based on the costs of same day patients. ***Designated One day VIC-DRG51s*** The same day weight is based on the costs of patients with a length of stay of one day. ***Non-Same Day VIC-DRG51s with a low boundary of zero days*** The same day weight is set at the multiday inlier weight. ***Non-Same Day VIC-DRG51s with a low boundary of one day*** The same day weight is based upon the average cost of multiday inliers. For medical DRGs the weight is set at half of the inlier average cost. For non-medical DRGs the same day weight is set at 100 per cent of theatre and prosthesis costs plus and 50 per cent of the average for other costs. ***Non-Same Day VIC-DRG51s with a low boundary of two days or more (low outliers)*** The same day weight is based upon the average cost of multiday inliers. For medical DRGs the same day weight is set at half of the multiday inlier costs divided by the low boundary. For non-medical DRGs the same day weight is set at 100 per cent of theatre and prosthesis costs plus 50 per cent of the average for other costs divided by the low boundary.

Variable (Column Heading)	Label	Description
One day weight	od	The one day weight is used to allocate WIES to episodes where patients have a length of stay of one day but who were not separated on the same day as they were admitted. Depending upon the VIC-DRG51, one day patients may be either low outliers or inliers: ***Designated Same day VIC-DRG51s*** The one day weight is based on the costs of all inliers excluding same day patients. If the patient is an inlier they attract the full multiday inlier weight. For low outliers in medical DRGs the one day weight is based on the average cost of multiday inliers divided by the low boundary. For low outliers in non-medical DRGs the one day weight is based on 100 per cent of the average theatre and prosthesis costs plus the average of other costs divided by the low boundary. ***Designated One day VIC-DRG51s*** The one day weight is based on the costs of patients with a length of stay of one day. ***Non-Same/One-Day VIC-DRG51s with a low boundary of one or zero days*** The one day weight is set at the multiday inlier weight. ***Non-Same/One-Day VIC-DRG51s with a low boundary of two days or more (low outliers)*** For medical DRGs the one day weight is based on the average cost of multiday inliers divided by the low boundary. For non-medical DRGs the one day weight is based upon 100 per cent of the average theatre and prosthesis cost plus the average of other costs divided by the low boundary.
Multiday Low outlier per diem	lo_pd	The low outlier multiday per diem weight is used to allocate WIES to low outliers who have a length of stay of at least two days. Not all VIC-DRG51s have low outliers. No weight is reported in these cases. For most VIC-DRG51s the low outlier weight is derived from the average cost of multiday inliers (excluding costs associated with setting the one day weight) divided by the low boundary. The WIES for low outliers is calculated by multiplying the low outlier per diem by the patients length of stay less one day and adding the one day weight i.e. Low Outlier WIES = od + (LOS –1) **x** lo_pd

Variable (Column Heading)	Label	Description
Inlier weight	md_in	The inlier multiday weight is used to allocate WIES to inliers who have a length of stay of at least two days. For designated VIC-DRG51s, same day/one day patients are excluded when deriving the inlier multiday weight.
High outlier per diem	ho_pd	The high outlier multiday per diem weight is used to allocate additional WIES for all days of stay in excess of the high boundary after adjusting for any mechanical ventilation co-payment days and hospital in the home days. The high outlier multiday per diem rate is based upon the average cost of inliers (excluding all prosthesis and theatre costs for non-medical DRGs only) according to the following formula: high factor x (av. inlier cost *less theatre and prosthesis for non-medical DRGs only*) ÷ i_alos where the high factor is set at 0.7 for surgical VIC-DRG51s and 0.8 for medical VIC-DRG51s to recognise that the days at the end of a patients stay are less resource intensive than days at the beginning of a patients stay. A number of variations exist on the general formula: 1) The high factor is set at one or greater for some high cost VICDRG51s. 2) Maximum and minimum criteria apply.
HITH outlier per diem	hith_pd	The HITH high outlier multiday per diem weight is used to allocate additional WIES for all days of stay in excess of the high boundary that can be attributed to hospital in the home. These days can occur at any stage of the patient's treatment, including before the high boundary. For example, suppose a patient stayed seven days in hospital, followed by five days of hospital in the home, but a complication occur requiring another four days in hospital care and was subsequently allocated to a DRG with a high boundary of 10 days. The patient has a length of stay of 16 days resulting in six high days, five of which will be paid at the HITH high outlier multiday per diem rate and one of which will be paid at the High outlier per diem rate. The HITH high outlier multiday per diem rate is based upon 80 per cent of the high outlier per diem but subject to maximum and minimum conditions.

3 Calculating WIES13 for individual patients

To calculate the WIES funding allocated to a patient you need to:

- determine if the episode is eligible for WIES funding (see box 1)
- calculate any WIES co-payments (see box 2a, 2b, 2c, 2d)
- calculate the base WIES allocation using the VIC-DRG51 and the patient's length of stay adjusted for mechanical ventilation and high outlier days. This can be done using the appropriate weights from the WIES weights table (see box 3a, 3b, 3c)
- apply the Aboriginal and Torres Strait Loading if applicable (see box 4)
- add the base WIES payment, any co-payments and ATSI loading (see box 5).

The steps are described in detail below with technical specifications provided in the boxes.

3.1 Scope

The majority of patients in hospital will be allocated a WIES13 score, however, as in previous years, WIES cannot be calculated for incomplete or uncoded episodes. Further, WIES is not necessarily an appropriate measure of resource use for many non-acute patients.

WIES13 scores may be allocated to some patient episodes that are ineligible for casemix funding. WIES13 from these episodes will need to be excluded when comparing hospital activity against targets during 2006–07.

Eligible patients might be entitled to different types of WIES payments including base WIES payments and WIES co-payments. Base WIES payments are made according to the formula which models the average costs for patients in each VIC-DRG51. WIES co-payments are made to cover the higher costs of care provided to some special types of patients.

Base WIES payments to long-stay patients can be affected by co-payments, so it is advisable to determine if a patient is eligible for WIES co-payments first.

Box 1: Episodes eligible for WIES funding

All episodes with a care type of:

- 4 Other Care (Acute) including qualified newborns
- U Unqualified Newborns
- K Non-designated rehabilitation program

Except for:

- incomplete or uncoded episodes, or episodes coded to a problem VIC-DRG5 (zero weight) including VICDRG5s 960Z, 961Z and 963Z
- episodes with an account class on separation of Newborn (Unqualified, Not birth episode).
- episodes where the contract role is B and
- episodes in hospitals not eligible for WIES funding.

While contracted patients are allocated a WIES score they are not eligible for WIES funding.

3.2 Co-payments

The four types of WIES12 co-payments used in 2005–06, will continue with WIES 13 in 2006–07.

3.2.1 Mechanical ventilation

Technical specifications for mechanical ventilation co-payments are given in box 2a. To be eligible for a mechanical ventilation co-payment the patient must be admitted to specific hospitals (see section 4), have had more than six hours of continuous mechanical ventilation and be allocated to a VIC-DRG51 that is eligible for a mechanical ventilation co-payment. VIC-DRG51s are classed as either:

- eligible for daily co-payments of 0.7729 WIES (mv_elig =“D” in the WIES13 weights table)
- eligible for daily co-payments at 0.7729 WIES for ventilated days in excess of four days (96 hours) mechanical ventilation (mv_elig = “4” in the WIES13 weights table), or
- ineligible for co-payments (mv_elig = “I” in the WIES13 weights table).

All patients who are eligible for a mechanical ventilation co-payment receive an additional one off payment of 0.6980 WIES. This additional WIES payment is to provide hospitals with the capacity to run at lower levels of ICU occupancy so that ICU beds will be available for periods of peak demand. However, the additional co-payment is subject to hospitals staffing appropriate numbers of ICU beds.

Box 2a: Calculating Mechanical Ventilation Co-payments

```
Select mv_elig
    case "D" then
        if (hours on mechanical ventilation > 6) and ICU hospital then
            adjmvday = round((hours mechanical ventilation +12)/24)
        else
            adjmvday = 0
        mv_copay = adjmvday × 0.7729 + 0.6980
        go to box 2b

    case "4" then
        if (hours on mechanical ventilation > 96) and (ICU hospital) then
            adjmvday = round((hours mechanical ventilation +12)/24) - 4
        else
            adjmvday = 0
        mv_copay = adjmvday × 0.7729 + 0.6980
        go to box 2b
    otherwise do
        adjmvday = 0
        mv_copay = 0
        go to box 2b
```

Base WIES payments for high outliers are reduced when a patient receives daily mechanical ventilation co-payments. To make this reduction you will need to remember the number of days receiving mechanical ventilation co-payments ("adjmvday" in the technical specifications).

3.2.2 Thalassaemia

Technical specifications for thalassaemia co-payments are given in box 2b.

Thalassaemia co-payments are made to patients with any ICD-10-AM diagnosis code of D56.x or D57.2 who are allocated to an eligible VIC-DRG5 (indicated with a "Thal." in the "Other Co-payments" column in the WIES12 weights table). The WIES12 thalassaemia co-payment is set at 0.2648 WIES per episode. Technical specifications are provided in box 2b.

Box 2b: Calculate Thalassaemia Co-payment

```
If (copay = "Thal") and record has an ICD-10-AM 4th edition diagnosis of D56.x or D57.2 then
        th_copay = 0.2648
else
        th_copay = 0;
go to box 2c
```

3.2.3 AAA Stent

AAA stent co-payments are made to patients undergoing an endoluminal repair of an aortic aneurysm as indicated by any ICD-10-AM 4th edition procedure code of 33116-00 and who are allocated to an eligible VIC-DRG51 (indicated with a "AAA" in the "Other Co-payments" column in the WIES13 weights table). The WIES13 AAA stent co-payment is set at 3.1421 WIES per episode. Technical specifications are provided in box 2c.

Box 2c: Calculate AAA stent Co-payment

If (copay = "AAA") and record has an ICD-10-AM 4th edition procedure of 33116-00 then
AAA_copay = 3.1421
else
AAA_copay = 0;
go to box 2d

3.2.4 ASD

ASD co-payments are made to patients receiving an atrial septal defect closure device as indicated by the presence of any ICD-10-AM 4th edition procedure code of 38742-00 and who are allocated to an eligible VIC-DRG51 (indicated with a "ASD" in the "Other Co-payments" column in the WIES13 weights table). The WIES13 ASD co-payment is set at 2.4713 WIES per episode. Technical specifications are provided in box 2d.

Box 2d: Calculate ASD Co-payment

If (copay = "ASD") and record has an ICD-10-AM 4th edition procedure code of 38742-00 then
ASD_copay = 2.4713
else
ASD_copay = 0;

3.3 Base WIES

To calculate a patient's base WIES you need to determine:

- the patient's VIC-DRG51
- the patient's length of stay (LOS)
- the patient's length of stay category (LOS_cat: "S" or same day, "O" or one day, "M" or multiday)
- the number of mechanical ventilation co-payment days ("adjmvday" see box 2a)
- the patient's inlier equivalence ("I" or inlier, "L" or low outlier, "H" or high outlier).

The patient's length of stay and length of stay category are derived from the admission date, separation date and leave days. For payment purposes a maximum length of stay of

five years (1,825 days) is used. This ensures that WIES are not allocated to extreme stays that are likely to represent non-acute care. Technical specifications are given in Box 3a.

Box 3a: Determining Length of Stay Category and Maximum Length of Stay

```
Same day='Y' if admission date = separation date
Else same day='N'

If (same day = 'Y') then
                    LOS_cat = "S"
                     go to box 3b
else if   (same day = 'N') and (LOS =1) then
                    LOS_cat = "O"
                    go to  box 3b
else
          LOS = min(LOS,1825)
          LOS_cat = "M"
                    go to box 3b
```

The patient's inlier funding equivalence is determined by comparing the patient's length of stay with the inlier boundaries for the VIC-DRG51 to which the patient is allocated. The low inlier and the high inlier boundaries are given in the WIES13 weights table. For purposes of reporting, a patient is classified as an inlier based only upon length of stay. However, the high outlier per diems are adjusted for any mechanical ventilation co-payments. Consequently, some high outliers are paid at the inlier rate (where: [LOS – HB] < adjmvday).

A patient is funded as an inlier when their length of stay is greater than or equal to the low inlier boundary and less than or equal to the sum of the high inlier boundary plus any mechanical ventilation co-payment days.

Patients with a length of stay less than the low inlier boundary are funded as low outliers. Patients with a length of stay greater than the sum of the high inlier boundary and mechanical ventilation co-payment days are funded as high outliers. Technical specifications are given in Box 3b.

Box 3b: Calculate Inlier Funding Equivalence

```
If LOS < lb then
        Inlier = "L"
        go to box 3c
else if LOS > (hb + adjmvday) then
        Inlier = "H"
       go to  box 3c
else
         Inlier = "I"

go to box 3c
```

Separate columns occur in the WIES13 weights table for:

- same day weights
- one day weights
- multiday low outliers per diem weight
- multiday inliers weights
- high outliers per diem weights
- high HITH per diem weights.

The base WIES score for same day episodes (inlier and low outlier), one day episodes (inlier and low outliers), and multiday inliers can be read directly from the WIES13 weights table using the appropriate column and row (VIC-DRG51). The base WIES score for multiday low outliers can be calculated by multiplying the low outlier per diem weight given in the WIES13 weights table by the patient's length of stay less one day and adding the one day weight.

The base WIES score for high outliers is obtained by:

- calculating the number of high outlier days (high_days) by subtracting the high (HB) boundary and any mechanical ventilation co-payment days (adjmvday - see box 2a) from the length of stay (LOS)
- calculating the number of high outlier days (high_days) that are paid at the discounted HITH rate (hith_days). This is the minimum of either the number of hospital in the home days (hithLOS) and high outlier days
- adding the multiday inlier weight (md_in), the number of high outlier hospital in the home days (hith_days) by the high hith per diem weight (hith_pd) and the number of remaining high outlier days (high_days – hith_days) by the high outlier per diem weight (ho_pd).

Technical details are provided in box 3c.

Box 3c: Calculate Base WIES

```
Select Inlier
    case "L" do
                select LOS_cat
                        case  "S" do
                                  base_WIES = sd
                                  go to box 4
                        case "O" do
                                  base_WIES = od
                                  go to box 4
                        case "M" do
                                  base_WIES = od + (LOS – 1) ✕ lo_pd
                                  go to box 4
    case "I" do
                select LOS_cat
                        case  "S" do
                                  base_WIES = sd
                                  go to box 4
                           case  "O" do
                                     base_WIES = od
                                  go to box 4
                        case "M" do
                                  base_WIES = md_in
                                  go to box 4
    case "H" do
                if hithLOS  = missing then hithLOS = 0
                high_days = max(0, LOS - hb - adjmvday)
                hith_days  = min(high_days, hithLOS)
                base_WIES = md_in_ + (high_days – hith_days) ✕ ho_pd +  (hith_days ✕ hith_pd)
                go to box 4
```

3.4 Aboriginal and Torres Strait Islander loading

A 30 per cent WIES premium is paid to hospitals for treating Aboriginal and Torres Strait Islanders in recognition of their poorer health status and associated higher costs of care. Technical details are given in box 4.

Box 4: Applying the Aboriginal and Torres Strait Islander Loading

```
If indigenous status in (5,6,7) then do
      ATSI_WIES = 0.3 ✕ (base_WIES + mv_copay + th_copay + AAA_copay + ASD_copay)
else
      ATSI_WIES = 0
go to box 5
```

The WIES score is calculated by adding base WIES, co-payment WIES and ATSI WIES. Details are provided in box 5.

Box 5: Calculating WIES Score

WIES13 = base_WIES + mv_copay + th_copay + AAA_copay + ASD_copay + ATSI_WIES

4 Mechanical ventilation severity co-payment eligibility

Hospitals eligible for attracting mechanical ventilation co-payments for ventilated patients in non-neonate eligible DRGs ('D', '4').

Only episodes with the following campus codes may be eligible:

1010	The Alfred
1031, 1032	Austin and Repatriation Medical Centre
1050	Box Hill
2111	Dandenong Hospital
1210	Maroondah
1170	Monash Medical Centre [Clayton]
2220	Frankston Hospital
1280	Northern
1191	Royal Children's Hospital
1331	Royal Melbourne Hospital
1450	St Vincent's
1180	Western
2010	Ballarat Health Service
1020	Bendigo
2060	Central Gippsland Health Service
2050	Barwon Health [Geelong]
1121	Goulburn Valley [Shepparton]
2440	Latrobe Regional
2320	New Mildura
1150	Wangaratta
2160	South West Healthcare [Warrnambool]
1071	Western District Health Service [Hamilton]
2170	Wimmera Health Care Group [Horsham]
1390	Sunshine Hospital
1550	Peter MacCallum Cancer Institute
6200	Valley Private Hospital [Mulgrave]
6400	Knox Private Hospital [Wantirna]
6470	Freemasons Hospital [East Melbourne]
6490	Epworth Hospital [Richmond]
6511	Cabrini Malvern
6520	St John of God Health Care Ballarat
6550	St John of God Health Care Geelong
6620	St Vincent's Private Hospital [Fitzroy]
6770	Melbourne Private Hospital [Parkville]
6910	Warringal Private Hospital [Heidelberg]
7350	South Eastern Private Hospital [Noble Park]
8850	John Fawkner – Moreland Private Hospital
8890	Jessie McPherson Private Hospital [Clayton]

5 Calculation and technical specifications of Rehabilitation Weighted Units (CRAFT)

5.1 Calculation of Rehabilitation Weighted Units

The following describes the steps involved in calculating the rehabilitation weight score for patients:

1) Allocate the patient to a CRAFT category
2) Determine the patient's length of stay (LOS)
3) Determine whether the patient is a low outlier, inlier or high outlier and look up the appropriate weights in the VicRehab Units: 2006–07 Rehabilitation Weights. It may be necessary to multiply a daily weight by the number of days.

5.1.1 Allocating the patient to a CRAFT Category

CRAFT categories are based upon the patient's clinical program and in some cases admission Barthel score. Technical instructions are given in Box 1.

Box 1

Clinical Sub Program
- 10, 31 to 39
  - Admission Barthel <60
    - CRAFT category = Stroke/Neuro Low Barthel
  - Admission Barthel ≥ 60
    - CRAFT category = Stroke/Neuro High Barthel
- 81 to 84
  - Admission Barthel <60
    - CRAFT category = Ortho Fracture Low Barthel
  - Admission Barthel ≥ 60
    - CRAFT category = Ortho Fracture High Barthel
- 85, 86
  - Admission Barthel <60
    - CRAFT category = Ortho Replace Hip/Knee Low Barthel
  - Admission Barthel ≥60 and <80
    - CRAFT category = Ortho Replace Hip/Knee Medium Barthel
  - Admission Barthel ≥ 80
    - CRAFT category = Ortho Replace Hip/Knee High Barthel
- 89
  - Admission Barthel <60
    - CRAFT category = Other Ortho Low Barthel
  - Admission Barthel ≥ 60
    - CRAFT category = Other Ortho High Barthel
- 90, 101, 109
  - CRAFT category = Cardio/Pulmonary
- 61 to 69, 71 to 79, 120, 132-133, 140, 150
  - Admission Barthel <60
    - CRAFT category = Other Rehabilitation Low Barthel
  - Admission Barthel ≥ 60
    - CRAFT category = Other Rehabilitation High Barthel

5.1.2 Determining length of stay

Use the LOS field as reported to the VAED.

5.1.3 Calculating the Stay Status and appropriate weights score

A patient stay is classified as same day if admitted and separated on the same day, and non–same day otherwise. Non-same day patients are identified within the VAED by 'N' in the same day field. From July 2004, same day rehabilitation services and bed days were rolled into the sub-acute Ambulatory Care Services (SACS). Consequently, from July 2005, same day weights are no longer derived for CRAFT categories.

A patient overnight stay of one to three days is classified as short stay. Low outlier patients are those where the length of stay is four days or more and less than the low inlier boundary. A patient is an inlier if his/her stay is equal, to or more than, the low inlier boundary (LIB) and less than or equal to the high inlier boundary (HIB). A high outlier patient is one whose stay is longer than the high inlier boundary (HIB).

Refer to *VicRehab Units: 2006–07 Rehabilitation Weights* for appropriate weights. Details for calculating the stay status and calculating the rehabilitation score for each status are given in Box 2. These scores can then be added to give the total number of Rehabilitation Weighted Units for the Hospital. Refer to *Rehabilitation Weighted Units Specification* for descriptions of the variables in Box 2. Use Box 2 to calculate the rehabilitation score.

Box 2

Calculating stay status and appropriate Rehabilitation Weighted Unit score

LOS = 1 and Same day = 'N'
Stay Status = **Short Stay**
Rehabilitation score = **SS**
LOS = 2 or LOS = 3
Stay Status = **Short Stay**
Rehabilitation score = **SS**
LOS = ≥ 4 and LOS < LIB
Stay Status = **LOW OUTLIER**
Rehabilitation score = **LO_PD x LOS**
LOS ≥ LIB and LOS ≤ HIB
Stay Status = **INLIER**
Rehabilitation score = **MD_IN**
LOS > HIB
Stay Status = **HIGH OUTLIER**
Rehabilitation score = MD_IN + ((LOS - HIB) x HO_PD)

5.2 Technical specifications of Rehabilitation Weighted Units

Variables in columns shown within the table VicRehab Units: 2006–07 Rehabilitation Weights are outlined and described below. Each column in the weights table has been given a label below to assist in calculating the Rehabilitation Score, for example SS = Short Stay Weight.

Definition of CRAFT Categories

CRAFT	Short Stay /Overnight (one - three days) Stroke/Neurological LB < 60 Stroke/Neurological HB ≥ 60 Orthopaedic Fracture LB < 60 Orthopaedic Fracture HB ≥ 60 Orthopaedic Replace Hip/Knee LB < 60 Orthopaedic Replace Hip/Knee MB 60 - 79 Orthopaedic Replace Hip/Knee HB ≥ 80 Other Orthopaedic LB < 60 Other Orthopaedic HB ≥ 60 Cardio/Pulmonary Other Rehabilitation LB < 60 Other Rehabilitation HB ≥ 60	For 2006–07, 12 of the 16 CRAFT categories will continue to be used to fund Level 2 rehabilitation units with twenty beds or more. A separate category is provided for short stay patients (overnight stays of one to three days). Separate weights are provided for these thirteen funding categories. See *VicRehab Units: 2006–07 Rehabilitation Weights* LB means a low admission Barthel score of up to 59. HB means a high admission Barthel score of 60 or over (or for Orthopaedic Replace Hip/Knee, 80 or more). MB means a medium admission Barthel score of 60 to 79.

Technical Definition of Variables (See *VicRehab Units: 2006–07 Rehabilitation Weights*). Weights (referred to in Box 2) are derived from the average cost of episodes in the 2005–06 Victorian Cost Weights Study.

Low Inlier Boundary	Inlier Boundaries LIB	The low length of stay boundary for inliers. Patients with a length of stay of more than three days and less than the low boundary are classed as low outliers. The low boundary point is set at the Average Length Of Stay for the category less 4 days. Boundaries are truncated to the nearest whole number. The estimated average length of stay is calculated from what is essentially the calendar year 2005 VAED data.
High Inlier Boundary	Inlier HIB	The high length of stay boundary for inliers. Patients with a length of stay greater than the high boundary are classed as high outliers. The high boundary point is set at the Average Length Of Stay for the category plus four days. Boundaries are rounded to the nearest whole number. The estimated average length of stay is calculated from what is essentially the calendar year 2005 VAED data.

Short Stay	Short Stay Weight SS	The Rehabilitation Weighted Unit allocated to patient overnight stays from one to three days.
Multi-day per diem low outlier weight	Low Outlier Per Diem LO_PD	The per diem Rehabilitation Weighted Unit value allocated to patients who have a length of stay of at least four days and less than the low boundary. The weight is derived as: LO_PO = Inlier Weight ÷ Low Boundary The total Rehabilitation Weighted Unit value is calculated by multiplying the low outlier multi-day weight by the patient's length of stay.
Multi day inlier weight	Inlier weight MD_IN	Inliers are patients whose length of stay falls on or between the low and high boundary. This weight is calculated based on the average cost of inliers in the CRAFT category as reported in the 2005–06 Victorian Cost Weights Study.
Multi-day per diem high outlier weight	High Outlier Per Diem HO_PD	The per diem Rehabilitation Weighted Unit value allocated to patients whose length of stay is in excess of the high boundary. This is derived from: HO_PO = 0.9*Inlier Weight ÷ average length of stay The factor of 0.9 is in recognition that the days at the end of a patients stay are less resource intensive than days at the beginning of a patients stay. The total Rehabilitation Weighted Unit (RWU) value for high outliers is calculated by multiplying the high outlier multiday weight by the number of days the patient stays beyond the high boundary and adding to the inlier weight: RWU = Inlier weight + (LOS - high boundary)*high outlier per diem

6 Hospital Activity and WIES Report

6.1 Purpose, content, and frequency

The Hospital Activity and WIES report provides all public hospitals with a financial year-to-date summary by month of their admitted patient activity including separations, patient days, and WIES.

This report will be provided electronically to nominated hospital contacts by the department shortly after the VAED consolidation on the 17th of each month. For hospitals with more than one campus, reports will be made available at both the 'site' and 'hospital' level. Requests for addition(s) or changes to the report distribution list should be emailed to: *VHIRS.helpdesk@dhs.vic.gov.au*

6.2 Hospital activity and WIES report line item definitions

Separation details

1.1 Separations with Care Type (care) = '0'.
1.2 Separations with Care Type (care) = '1'.
1.3 Separations with Care Type (care) = '2'.
1.4 Separations with Care Type (care) = '3'.
1.5 Separations with Care Type (care) = '4'.
1.6 Separations with Care Type (care) = '5A, 5E, 5G, 5K, 5S & 5T'.
1.7 Separations with Care Type (care) = '6'.
1.8 Separations with Care Type (care) = '7'.
1.9 Separations with Care Type (care) = '8'.
1.10 Separations with Care Type (care) = '9'.
1.11 Separations with Care Type (care) = 'E'.
1.12 Separations with Care Type (care) = 'F'.
1.13 Separations with Care Type (care) = 'K'.
1.14 Separations with Care Type (care) = 'U'.
1.15 Total separations (= sum of items 1.1 to 1.15).

Patient day (LOS) details

2.1 Patient Days (LOS) of Separations with Care Type (care) = '0'.
2.2 Patient Days (LOS) of Separations with Care Type (care) = '1'.
2.3 Patient Days (LOS) of Separations with Care Type (care) = '2'.
2.4 Patient Days (LOS) of Separations with Care Type (care) = '3'.
2.5 Patient Days (LOS) of Separations with Care Type (care) = '4'.
2.6 Patient Days (LOS) of Separations with Care Type (care) = '5A, 5E, 5G, 5K, 5S & 5T''.
2.7 Patient Days (LOS) of Separations with Care Type (care) = '6'.
2.8 Patient Days (LOS) of Separations with Care Type (care) = '7'.
2.9 Patient Days (LOS) of Separations with Care Type (care) = '8'.
2.10 Patient Days (LOS) of Separations with Care Type (care) = '9'.

2.11 Patient Days (LOS) of Separations with Care Type (care) = 'E'.
2.12 Patient Days (LOS) of Separations with Care Type (care) = 'F'.
2.13 Patient Days (LOS) of Separations with Care Type (care) = 'K'.
2.14 Patient Days (LOS) of Separations with Care Type (care) = 'U'.
2.15 Total Patient Days (LOS) (= sum of items 2.1 to 2.15).

The following Sections 3, 4, 5, 6, 7, 8, 9, and 10 are based on separations eligible for WIES13 funding as described in Box 1. That is, separations with {Care Type (care) in ('4', 'U', 'K'} and with {VIC-DRG51 assigned} and not {VIC-DRG51 960Z, VIC-DRG51 961Z, or VIC-DRG51 963Z} and not {Contract Role='B'} and not {Account class on separation = 'NT'}.

All co-payments/loadings (Mechanical ventilation, thalessaemia, AAA, ASD, and ATSI) are included in the WIES13 calculations wherever WIES13 is reported. That is, WIES13 is the WIES score as defined in Box 5 of the WIES13 specification.

WIES fundable separations

3.1 Total Separations.
3.2 Total WIES13.

WIES Co-payments/loadings

3.3 ATSI loading component only (as defined in Box 4).
3.4 Mechanical Ventilation Severity co-payment component only (as defined in Box 2a).
3.5 Thalessaemia co-payment component only (as defined in Box 2b).
3.6 AAA co-payment component only (as defined in Box 2c).
3.7 ASD co-payment component only (as defined in Box 2d).
3.8 Total co-payments (= sum of items 3.3 to 3.7).

Inlier funding equivalence

3.9 Low outlier separations (Inlier ='L' as defined in Box 3b).
3.10 WIES13 of low outliers.
3.11 Inlier Separations (Inlier ='I' as defined in Box 3b).
3.12 WIES13 of inliers.
3.13 High outlier separations (Inlier ='H' as defined in Box 3b).
3.14 WIES13 of high outliers.

Other

3.15 Sum of Hospital in the Home (HITH) Separations = separations with Accommodation Type = '4' in any status segment (Acctype1 - Acctype7).
3.16 HITH Patient Days (LOS) of HITH separations = sum of LOS in HITH segments (ie segments with accommodation type = '4', LOS in non-HITH segments excluded).
3.17 Same day Medical Target Separations = WIES Fundable separations that are same day episodes (admission date = separation date) identified as contributing to the Same day Medical Target.

3.18 WIES13 of Same day Medical Target Separations.
3.19 Number of ATSI separations (Indigenous status in '5','6',or '7').

Public WIES fundable separations

4.1 = 3.1 for public separations (Account class on separation (sepaccnt) starts with 'M').
4.2 = 3.2 for public separations (Account class on separation (sepaccnt) starts with 'M').
4.3 = 3.15 for public separations (Account class on separations (sepaccnt) starts with 'M').
4.4 = 3.16 for public separations (Account class on separations (sepaccnt) starts with 'M').
4.5 = 3.17 for public separations (Account class on separation (sepaccnt) starts with 'M').
4.6 = 3.18 for public separations (Account class on separations (sepaccnt) starts with 'M').

Private WIES fundable separations

5.1 = 3.1 for private separations (Account class on separation (sepaccnt) starts with 'P').
5.2 = 3.2 for private separations (Account class on separation (sepaccnt) starts with 'P').
5.3 = 3.15 for private separations (Account class on separations (sepaccnt) starts with 'P').
5.4 = 3.16 for private separations (Account class on separations (sepaccnt) starts with 'P').
5.5 = 3.17 for private separations (Account class on separation (sepaccnt) starts with 'P').
5.6 = 3.18 for private separations (Account class on separations (sepaccnt) starts with 'P').

DVA WIES fundable separations

6.1 = 3.1 for DVA separations (Account class on separation (sepaccnt) starts with 'V').
6.2 = 3.2 for DVA separations (Account class on separation (sepaccnt) starts with 'V').

TAC WIES fundable separations

7.1 = 3.1 for TAC separations (Account class on separation (sepaccnt) starts with 'T').
7.2 = 3.2 for TAC separations (Account class on separation (sepaccnt) starts with 'T').

Other WIES fundable separations

8.1 = 3.1 for remaining separations (Account class on separation (sepaccnt) does not start with 'M', 'P', 'V' or 'T').
8.2 = 3.2 for remaining separations (Account class on separation (sepaccnt) does not start with 'M', 'P', 'V' or 'T').

Same day WIES fundable separations

9.1 Same day (admission date equals separation date) Emergency Separations {Admission Type (admtype) equals 'C' or 'O'}.
9.2 WIES13 of Same day Emergency Separations.
9.3 Same day (admission date equals separation date) Elective Separations {Admission Type (admtype) equals 'L' or 'X'}.
9.4 WIES13 of Same day Elective Separations.
9.5 Same day (admission date equals separation date) Other Separations {Admission Type (admtype) equals 'Y', 'M' or 'S'}.
9.6 WIES13 of Same day Other Separations.

9.7 Total Same day Separations.
9.8 Total WIES13 of Same day Separations.

Non-same day WIES fundable separations

10.1 Non-Same day (admission date does not equal separation date) Emergency Separations {Admission Type (admtype) equals 'C' or 'O'}.
10.2 WIES13 of Non-Same day Emergency Separations.
10.3 Non-Same day (admission date does not equal separation date) Elective Separations {Admission Type (admtype) equals 'L' or 'X'}.
10.4 WIES13 of Non-Same day Elective Separations.
10.5 Non-Same day (admission date does not equal separation date) Other Separations {Admission Type (admtype) equals 'Y', 'M' or 'S'}.
10.6 WIES13 of Non-Same day Other Separations.
10.7 Total Non-Same day Separations.
10.8 Total WIES13 of Non-Same day Separations.

Non-WIES fundable (excluded) separations

11.1 Separations with {no VIC-DRG51} and {Care Type (care) in ('4', 'U', 'K')}.
11.2 Separations with {VIC-DRG51 960Z, VIC-DRG51 961Z, or VIC-DRG51 963Z} and {Care Type (care) in ('4', 'U', 'K')}.
11.3 Separations with {contract type='1' and contract role='B'} and {Care Type (care) in ('4', 'U', 'K')}.
11.4 Separations with {contract type not ='1' and contract role='B'} and {Care Type (care) in ('4', 'U', 'K')}.
11.5 Separations with Account Class on Separation (sepaccnt) equal to 'NT' and {Care Type (care) in ('4', 'U', 'K')}
11.6 Non-WIES Fundable (Excluded) Separations - Total (= sum of items 11.1 to 11.5).

Notes on precision

Data is presented rounded to the number of decimal places indicated in the total column of the sample Hospital Activity and WIES report.

Full precision is maintained during processing; e.g. item 3.8, which is defined as the sum of 3.3, 3.4, 3.5, 3,6, and 3.7, is calculated by summing components at full precision, not by summing components that have been rounded.