

NWAU Calculation: Admitted Service Streams

- Costing
- Counting
- Classification
- Transparency

Introduction

Under the National Health Reform Agreement, Victoria is working towards the implementation of Activity Based Funding (ABF). The introduction of ABF will be staged across the various service streams. For admitted services, there are several service streams – acute, mental health, sub-acute and palliative care. For 2013-14, existing funding mechanisms will remain in place. However, services should prepare for the introduction of ABF.

The purpose of this document is to provide information about:

- The definition of each admitted service stream
- How National Weighted Activity Units (NWAUs) are calculated for admitted service streams, and
- The scope of episodes that will attract a NWAU.

Admitted Service Streams

The national admitted service streams are:

- Acute – VAED care type 4 and 5, except for those with a DRG in MDC 19 or 20
- Rehabilitation – VAED care type 2, 6 and P
- Palliative Care – VAED care type 8
- Geriatric & Evaluation Management – VAED care type 9
- Maintenance Care – VAED care type 1, 5E, 5T, R1 and R2
- Mental Health – VAED care type 4 and 5 with a DRG in MDC 19 or 20

Acute and Mental Health Stream

Acute and mental health streams are calculated in the same manner for 2013-14. The mental health DRG (those within MDCs 19 and 20) inlier boundaries have been set using a different method than the remaining acute DRGs. This allows for a narrower inlier boundary for mental health DRGs, with lower proportion of inliers and a higher proportion of episodes receiving high outlier payments.

In scope activity

An episode is in scope if it has:

Care Type of 4, 5A, 5G, 5K or 5S

and

Account Class on Separation of 'MP', 'MR', 'MN', 'M5', 'JP', 'MA', or starts with 'P'

- and
- Has a valid AR-DRG 6.0x (excluding error DRGs 960Z, 961Z, 963Z)
- and
- Is WIES fundable (see P&FG)

Using the IHPA NWAU calculator

Data requirements

To calculate an NWAU using the IHPA calculator, the following information is required:

Table 2. Admitted patient fields required for building an NWAU calculator

NWAU calculator field	Input required
RecordID	Anything. A free text field that allows tracking of each record.
Hosp_State	2
Hosp_RA06	0, 1, 2, 3 or 4. Each campus has an RA06 code, please email abf@health.vic.gov.au for a list of RA06 codes by campus.
Hosp_Level3ICU_Flag	0 or 1. Each campus has an ICU flag. Please refer to the following website for a list of level 3 ICU Health Services: (http://www.health.vic.gov.au/criticalcare/ccu.htm)
Hosp_Paed_Flag	1 for RCH (campus 1191) or MMC (1170). 0 for all other campuses.
Pat_AgeYears	Age in whole years at admission.
Pat_Indigenous_Flag	0 if patient is not indigenous or Torres Strait Islander, unknown, or unable to be asked. 1 if patient is indigenous or Torres Strait Islander.
Pat_Postcode	Postcode of patient. Format is PCxxxx eg PC3000. For postcodes with a leading zero (ie 0800), the leading zero is removed (ie PC800).
Pat_SLA	5 digit SLA based on patient postcode and locality. If it is unknown, it can be left blank – see note below.
FundingSource	Number between 1 and 13. For information on mapping of VAED account class on separation to Funding Source please email abf@health.vic.gov.au
LOS	If Admission Date = Separation Date, LOS is 1. For qualified newborns, LOS is the number of qualified days. For all other episodes, LOS is Separation Date – Admission Date – Leave days.
Psych_Days	For care type 5 episodes, Psych_Days = LOS. For all other episodes, Psych_Days = 0
ICUHours	Number of whole hours in ICU, for ICU eligible

	campuses only.
SameDay_Flag	If Admission Date = Separation Date, SameDay_Flag =1. For all other episodes, SameDay_Flag = 0.
DRG6x	DRG6x

Note on Pat_SLA:

The NWAU calculation includes an adjustment for patients who reside in Outer Regional, Remote, and Very Remote areas. The remoteness is calculated on the patient postcode. If the patient postcode is invalid or unavailable, then the patient SLA is used. If the patient SLA is invalid or unavailable, then the hospital remoteness is used (RA06).

Given the majority of episodes should have a valid postcode, and the majority of episodes are not eligible for a remoteness adjustment in Victoria, the total NWAU result for a campus is unlikely to be significantly affected by the inability to enter a patient SLA.

Building an NWAU calculator

Data requirements

To build an NWAU calculator, the following information is required:

Table 2. Admitted patient fields required for building an NWAU calculator

VAED field name
Date of Birth
Admission Date
Separation Date
Indigenous Status
Account Class on Separation
Total leave days
ICU hours
Postcode
Care type
SLA
Additional information, derived from VAED
Number of Qualified Days for Newborns
LOS (Length of Stay) – excludes unqualified days for qualified newborns
Same day (Admission Date = Separation Date)
Psychiatric Care Days (Mental health length of stay)
DRG (AR-DRG v6.0x)
ICU days (ICU hours divided by 24, rounded down)

Non ICU LOS (LOS minus ICU days)
Age (in whole years, at admission)

Reference tables available from IHPA website:

Postcode Remoteness table

SLA Remoteness table

2013-14 NWAU DRG Price Weight table (PW table)

Calculation of NWAU

Step 1. Assign **w01** (NWAU Base)

Part a. Assign **stay category**.

If episode is **same day** and **DRG** is a same day DRG (same day payment list = yes in PW table),

Then the episode has a **stay category** of same day.

If **Non ICU LOS** is less than **DRG** lower bound (PW table),

Then the episode has a **stay category** of short stay outlier.

If **Non ICU LOS** is between **DRG** lower bound and upper bound (PW table),

Then the episode has a **stay category** of inlier.

If **Non ICU LOS** is higher than **DRG** upper bound (PW table),

Then the episode has a **stay category** of high outlier.

Part b. Assign NWAU value.

If **stay category** is same day,

Then **w01** = same day price weight (PW table).

If **stay category** is short stay outlier,

Then **w01** = short stay outlier base + (short stay outlier per diem x **Non ICU LOS**) price weight (PW table).

If **stay category** is inlier,

Then **w01** = inlier price weight (PW table).

If **stay category** is high outlier,

Then **w01** = inlier + ((**Non ICU LOS** – upper bound) x long stay outlier per diem) price weight (PW table).

Step 2. Assign **w02** (Paediatric adjustment)

The paediatric adjustment applies to episodes that meet all of the following criteria:

Separated at RCH (1191) or MMC (1170)

Age is 16 years or less

If an episode is eligible for the paediatric adjustment,

Then **w02** = **w01** x paediatric adjustment (PW table).

For non-eligible episodes,

w02 = w01 (no adjustment is applied)

Step 3. Assign **w03** (Specialist psychiatric age adjustment)

The specialist psychiatric age adjustment applies to episodes that meet all of the following criteria:

Care type is 5A, 5G, 5K or 5S

Age is 17 years or less, or 65 years or more

Table 3. Specialist psychiatric age adjustment

Criteria	Adjustment
Separated at RCH (1191) or MMC (1170) and age is 17 years or less	30%
Separated at any other site and age is 17 years or less	37%
Age is between 65 years and 84 years (inclusive)	4%
Age is 85 years or more	9%

For eligible episodes,

w03 = w02 x (1 + specialist psychiatric age adjustment)

For non-eligible episodes,

w03 = w02 (no adjustment is applied)

Step 4. Assign **w04** (Indigenous and remoteness adjustments)

The indigenous adjustment is 4%. The indigenous adjustment is applied to all episodes that have an **indigenous status** of:

Aboriginal but not Torres Strait Islander origin (VAED code 1)

Torres Strait Islander but not Aboriginal origin (VAED code 2)

Both Aboriginal and Torres Strait Islander origin (VAED code 3)

The remoteness adjustment is applied to all episodes that have a **remoteness category** of

Outer regional (adjustment of 8%)

Remote (adjustment of 15%)

Very remote (adjustment of 24%)

The **remoteness category** is assigned by:

- For episodes with a valid **postcode**, use the **remoteness category** listed in the Postcode Remoteness table.
- For episodes without a valid **postcode**, but with a valid **SLA**, use the **remoteness category** listed in the SLA remoteness table.
- For all other episodes, use the postcode of the campus to assign the **remoteness category** or use the remoteness listed by campus (please email abf@health.vic.gov.au to obtain these codes).

For episodes that are eligible for either the indigenous adjustment or the remoteness adjustment,

w04 = w03 x (1 + indigenous adjustment + remoteness adjustment).

For non-eligible episodes,

$$w04 = w03 \text{ (no adjustment is applied).}$$

Step 5. Assign **w05 (ICU rate adjustment)**

The ICU adjustment applies to all episodes that:

Are at an ICU eligible facility (see <http://www.health.vic.gov.au/criticalcare/ccu.htm> for a list of Level 3 ICU Health Services)

DRG does not contain a bundled ICU payment (bundled ICU is not yes in PW table),

The ICU hourly rate adjustment is 0.0401.

For episodes that are eligible for the ICU rate adjustment,

$$w05 = w04 + (\text{icu hours} \times 0.0401).$$

For non-eligible episodes,

$$w05 = w04 \text{ (no adjustment is applied).}$$

Step 6. Assign **w06 (Private patient service adjustment)**

The private patient service adjustment applies to all episodes that:

have an account class on separation that starts with 'P'

For episodes that are eligible for the private patient service adjustment and the ICU rate adjustment,

$$w06 = w05 - (1 - \text{private patient service adjustment (PW table)}) \times (w01 + (\text{icu hours} \times 0.0401)).$$

For episodes that are eligible for the private patient service adjustment, but not the ICU rate adjustment,

$$w06 = w05 - (1 - \text{private patient service adjustment (PW table)}) \times w01.$$

For non-eligible episodes,

$$w06 = w05 \text{ (no adjustment is applied).}$$

Step 7. Assign **w07 (Private patient accommodation adjustment)**

The private patient accommodation adjustment applies to all episodes that:

have an account class on separation that starts with 'P'

For episodes that are eligible for the private patient accommodation adjustment and are **same day**,

$$w07 = w06 - 0.0465.$$

For episodes that are eligible for the private patient accommodation adjustment, but are not **same day**,

$$w07 = w06 - (\text{LOS} \times 0.0619).$$

For non-eligible episodes,

$$w07 = w06 \text{ (no adjustment is applied).}$$

Step 8. Final **NWAU13**

For all episodes, **NWAU13** cannot be a negative value. The final **NWAU13** value is:

$$NWAU13 = \text{Max}(0, w07)$$