

*NSW Costs of Care
Standards 2003/04*

NSW  HEALTH

Funding and Systems Policy Branch

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SUMMARY OF THE 2003/04 STANDARDS

The *NSW Costs of Care Standards* are a guide to estimating the costs of outputs of health services using data from the most up-to-date sources available.

The key use of these standards in NSW is for funding. Episode Funding was introduced in July 2000 for acute inpatient services excluding emergency departments and intensive care units, services which were funded under a block arrangement (NSW Health Department, 2000). In July 2001 new funding models were introduced to cover emergency care and intensive care (NSW Health Department, 2001a and 2001b). The various funding models rely on the acute care, emergency care and intensive care standards presented in this document. Other applications of the *Standards* are:

- Contracting between purchasers and providers of health care, for example, between NSW Health and the Department of Veterans' Affairs;
- Determining population health needs using age/sex weighted utilisation of health services by geographic region;
- Planning health services to meet the future health needs of populations;
- Quantifying the costs for the treatment of specific diseases (eg cancer) or for specific services (eg pharmacy costs); and
- Cost benchmarking.

The *NSW Costs of Care Standards* were previously known as the *Casemix Standards for NSW* (see for example, NSW Health Department, 1999a). The *Standards* are published annually, and include guidelines for estimating the costs of a range of admitted and non-admitted services. The service areas currently covered by the *Standards* are acute care, emergency department care, outpatient care, sub- and non-acute care and mental health. There have been some changes from the 2002/03 *Standards*. These are:

Acute Admitted Care

- Cost weights in this version of the *Standards* are based on the 2000/01 NSW Hospital Cost Data Collection (HCDC). Previous standards were based on the 1998/99 HCDC, with some adjustments for separate funding of ED and ICU.
- There have been changes in the group of DRGs that have separate same day cost weights (see appendix 1, part 2). These changes reflect more recent length of stay patterns for DRGs.
- A new algorithm has been used to determine weights for patients who are transferred on the day of admission or the following day.
- Trim points for outlier episodes have been recalculated to reflect current length of stay patterns.
- The bone marrow transplant DRG has been divided into three DRGs to reflect the different types of transplants. This treatment is in accordance with grouping rules in AR-DRG version 5.
- Average cost data as shown in appendix 3 uses 2000/01 data escalated to 2003/04 prices.

Emergency Department Care

- Emergency Department weights have been recalibrated based on 2001/02 activity data. Average costs have been recalculated for the same activity and escalated to reflect 2003/04 prices.

Intensive Care

- Intensive Care costs have been escalated to 2003/04 prices.

Outpatient Care

- Outpatient costs are based on the 2000/01 National Hospital Cost Data Collection (NHCDC), as in the previous *Standards*, but they have been escalated to 2003/04 prices.

Sub- and Non-Acute Care

- Costs by case type in the Sub- and Non-Acute Care section are from a cost study performed on 2000/01 data, escalated to 2003/04 prices.

Mental Health Care

- Mental health costs are based on 2000/01 National Survey of Mental Health Services (NSMHSs), escalated to reflect 2003/04 prices.

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INTRODUCTION

PURPOSE

This report provides details of the approaches to estimating standard costs of admitted and selected non-admitted cases in acute public hospitals. It contains actual costs as well as relativities of costs (or cost weights) of the major types of health service product classifications available.

Some specific applications of the *Standards* are:

- Funding;
- Contracting between purchasers and providers of health care, for example, between NSW Health and the Department of Veterans' Affairs;
- Determining population health need using age/sex weighted utilisation of health services by geographic region;
- Planning health services to meet the future health needs of populations;
- Quantifying the costs for the treatment of specific diseases (eg cancer) or for specific services (eg pharmacy costs); and
- Cost benchmarking.

BACKGROUND

The *NSW Costs of Care Standards* was previously known as the *Casemix Standards for NSW*. The first publication was produced in 1996 and related to acute care costs only, derived from data from a national study. A process of annual costing of acute care services also began in that year in NSW. The results of these annual studies are used to determine the acute care standard costs, and guidelines for their application. The scope of the *Standards* was expanded in 1997/98 to include estimates of costs of mental health services, sub- and non-acute care, and emergency department services. In 1999/00 guidelines for outpatient services were included and the 2000/01 *Standards* introduced guidelines for intensive care. It is intended that the scope be further expanded as output measures become available for other types of services.

SCOPE OF THE COSTS OF CARE STANDARDS

The hospitals to which this report relates are acute public hospitals, District level and larger, including specialist hospitals, as defined by the NSW Peer Hospital Group classification (NSW Health Department, 2003a). The data have not been validated for other types of hospitals.

The services for which costs and guidelines are provided in this report are:

- Acute admitted care (including mental health care in non-designated mental health units);
- Emergency department care;
- Intensive care;
- Outpatient care;
- Sub- and non-acute care; and
- Mental health care delivered in designated mental health units.

USING COST WEIGHTS

Cost weights represent the relative value of classes within a classification. Within any classification, a base or reference value is selected, which is given a value of 1. The usual base value selected is the average cost of care across all classes. Each value within the class is then expressed relative to the base value. For example, a cost weight of 1.89 means that the particular class of patients is 89% more costly on average than the base cost. Similarly, a cost weight of 0.34 indicates that the class is 66% less costly on average than the base cost.

As noted above, the base or reference value is usually the average cost of treatment of all classes within the particular classification. However, this is not necessary. For example, in this publication the base value for the acute admitted care classification (ie AR-DRGs) is set at \$2 525 (which is equivalent to \$2 812 in 2003/04 prices). Although the value is close to the average, it is not the actual average (see section 'Acute Admitted Care Cost Weights' for further information).

Cost weights cannot be compared across different classifications if the reference value for the cost weight is different. For example, a cost weight of 1.48 represents a different value when the reference is \$2 525 versus when the reference \$1 340. This also applies to the same classification if more than one set of cost weights is produced with a different base.

The actual values of each class within the classification are the average cost of treatment of all cases grouped to the particular class. The averages are derived from cost studies that either cost individual patients or produce a total cost for the class which is then divided by the number of patients grouped to the class to obtain an average. The source of the averages is described in each of the sections covering the different types of care in this report.

NSW FUNDING GUIDELINES

On 1 July 2000, NSW introduced Episode Funding (NSW Health Department, 2000), which Area Health Services (AHSs) are required to use to allocate budgets to local hospitals to meet the cost of admission under the Acute Inpatient Programs (see *Refinement of the NSW Health Program Structure*, NSW Health Department 1999b). On 1 July 2001, new funding models were introduced to cover Emergency Care and Intensive Care services which were excluded from the 2000/01 Episode Funding Model (NSW Health Department, 2001a and 2001b). These three types of care are considered as separate and are funded under separate guidelines. AHSs are responsible for allocating funds for services across all Program areas. However, the Episode Funding Guidelines specifically define the allocation process for the Acute Programs only. To comply with the requirements of Episode Funding, the acute care standards set out in this document include sets of cost weights excluding the costs of emergency department and intensive care services. There are also cost weights for emergency care and cost data for intensive care.

Further details of NSW Funding can be found in the report NSW Funding Guidelines 2003/2004 (NSW Health Department, 2003b). The *Costs of Care Standards* complement these guidelines, specifically providing further details on how the activity components of the allocations are determined.

ESCALATION FACTORS

In several sections of the *Standards* costs have been escalated to reflect 2003/04 prices, to provide consistency throughout the document. The annual escalation factors are shown in Table 1 below.

Table 1 Annual escalation by year

Year	Amount
2001/02	2.40%
2002/03	4.33%
2003/04	4.24%

The indices used in this publication differ from ones used in previous versions of the *Standards*. The escalations used by NSW Health Finance & Business Management Division have been adopted to provide consistency with other escalations performed within the State. Previous escalations were based on national rather than State approaches. All data in this version of the Standards that has been published in previous versions have been re-escalated using the figures shown in the table above.

ACUTE ADMITTED CARE

SCOPE OF ACUTE ADMITTED CARE

Acute admitted care covers episodes under the Acute Care Programs of the NSW Program Structure (NSW Health Department, 2001c). The Programs are:

- 2.2.00.1 Overnight Acute Admitted Patients
- 2.3.00.1 Same Day Acute Admitted Patients

The costs of patients admitted and discharged from the emergency department (i.e. not transferred to a ward) are excluded altogether (for all EDs) as are the portion of costs relating to the ED part of a patient's stay when they are admitted through ED and then transferred to a ward (for EDs in the scope of ED Funding guidelines). These costs are dealt with under the 'Emergency Department' standards provided in this report.

In addition, patients grouped to rehabilitation Australian Refined Diagnosis Related Groups (AR-DRGs), are not considered to be within the scope of acute care. The AR-DRGs are:

- Z60A *Rehabilitation W/ Catastrophic or Severe CC;*
- Z60B *Rehabilitation W/O Catastrophic or Severe CC; and*
- Z60C *Rehabilitation, Sameday.*

Episodes grouped to these AR-DRGs should be re-assigned to the Rehabilitation and Extended Care Programs (4.1.01.1 to 4.1.09.2) and their costs estimated using the guidelines in the section 'Sub- and Non-Acute Care' provided in this report.

CLASSIFICATION OF ACUTE INPATIENT CARE

The classification used to describe acute hospital activity and report costs in this publication is the Australian Refined Diagnosis Related Groups (AR-DRG) classification, Version 4.2. This classification was implemented in NSW on 1 July 2000. Further details of this classification can be found in the *Australian Refined Diagnosis Related Groups Version 4.2, Addendum to Definitions Manual, Volume 4* (Commonwealth Department of Health and Aged Care, 2000).

SOURCE OF DATA FOR ACUTE CARE STANDARDS

The results of the 2000/01 NSW HCDC were used to develop cost weights for acute care for these *Standards*. The number of hospitals contributing to the NSW HCDC in 2000/01 was 78 with a total of 1 068 351 episodes.

FEATURES OF THE ACUTE CARE GUIDELINES

Analysis of cost data shows that DRGs are not uniform with respect to cost. Even though the classification accounts for the major part of the variability, there are other factors that have been identified that lead to cost differences within DRGs. These are:

- Same day care (for selected AR-DRGs);
- Transfer out (on the day of admission or the subsequent day);
- Aboriginal and Torres Strait Islander status;
- Long stay; and
- Private financial status.

The *Costs of Care Standards* attempt to further account for this variability.

ACUTE ADMITTED CARE COST WEIGHTS

Four cost weight sets have been produced to cater for the needs of users of the cost weights. These are based on whether or not ED and/or ICU costs are estimated separately from all other costs. For all cost weights the costs of patients treated and discharged from the ED are excluded. The cost weights sets are:

- (1) Cost weights with the emergency department and intensive care unit cost groups both excluded;
- (2) Cost weights with the emergency department cost group excluded only;
- (3) Cost weights with the intensive care unit cost group excluded only; and
- (4) Cost weights with all cost groups included.

Table 2 shows the average adjusted cost for each of the cost weight sets. The adjustments are for same day care, transfers, Aboriginal and Torres Strait Islander Status, long stay outliers and private episodes in each of the sets. The revisions described in the 'Source of Data for Acute Care Standards' section are also reflected in these averages. The base has been set to **\$2 525**. Therefore, the cost weights for acute care provided in this document are relative to \$2 525 (which is equivalent to \$2 812 in 2003/04 prices). The actual averages are shown in Table 2.

Table 2 Cost weight sets and average costs

Cost weight set	Average cost 2000/01 (\$)	Average cost 2003/04 * (\$)
Excluding emergency department and intensive care cost groups	2 597	2 892
Including all cost groups	2 829	3 151
Excluding emergency department cost group only	2 738	3 049
Excluding intensive care cost group only	2 685	2 990

*Source: NSW Cost Data Collection 2000/01. * See note on indexation applied under 'Escalation factors' on page 3.*

ACUTE COSTS OF CARE STANDARDS

All acute care episodes in scope are initially allocated an 'inlier' cost weight. This inlier weight is dependant upon whether the emergency department and intensive care component are included as part of the cost estimation. That is, one of the four cost weight sets described above is selected. Once selected, the inlier weight is modified according to the standards below. The logic of allocating the appropriate cost weight to each inpatient episode is shown in Figure 1.

Same day episodes

Standard

There are separate, discounted, cost weights for some AR-DRGs when occurring on a same day basis. This does not include patients transferred out, or patients who die on the day of admission. There are provisions for these patients elsewhere in this

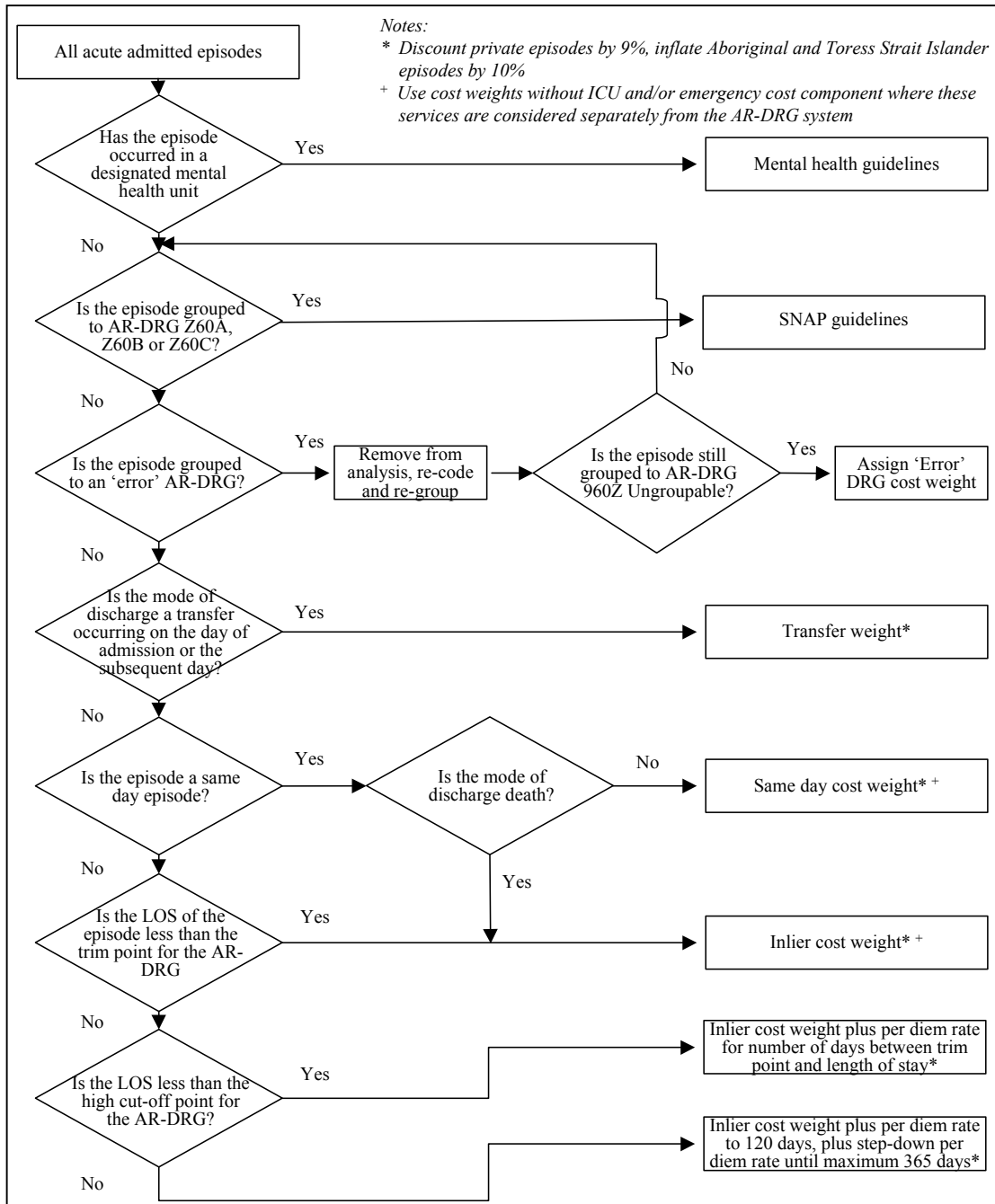
document. The discounted cost weights are shown in Part 2 of Appendix 1 in this report.

Rationale

The AR-DRG system groups patients admitted and separated on the same calendar day together with longer stay patients. This is not a problem where the AR-DRG includes mainly patients of one type or the other because the majority of the patients within the AR-DRG will have similar costs. However, problems arise when there are substantial proportions of patients of both types in the same AR-DRG because the average cost of the AR-DRG will not reflect the costs of either type of patient. If cases of one type or the other are then concentrated in particular hospitals, funding inequities can emerge.

The AR-DRGs selected to have separate same day weights are those where there is evidence of a different type of service being delivered when the episode is a same day episode. The indicators are AR-DRGs with a bi-modal length of stay pattern and substantial cost differences between the same day and longer stay cases. The AR-DRGs are mostly medical in nature. See Appendix 7 for the methodology for determining which AR-DRGs have separate same day weights.

Figure 1 Allocation logic for acute admitted care standards



Transfer episodes

Standard

A discounted cost weight applies to episodes transferred to another acute care facility on the day of admission or the following day. The discounts are based on the same day weight (where one exists), the cost of surgical procedures (for surgical DRGs), the per diem rates and the weights for any adjacent DRGs. The methodology is shown in Appendix 6.

Rationale

An analysis of costs showed that patients transferred on the day of admission or the following day are generally less costly than non-transferred patients or patients transferred after a longer length of stay. This is because the transferring hospital has usually not provided full treatment for the patient.

For surgical DRGs the previous methodology did not ensure that the transfer weight covered the costs of the theatre and prostheses. The new method ensures that these costs are covered.

The previous methodology created some transfer weights that were not correlated with the same day weight for the same DRG. Analysis showed that two thirds of the transfers on the day of admission or following day were same day separations. Thus the new method uses the same day weight as a base for the transfer weight while adding some per diem costs to allow for the transfers on the day after the admission.

Separate transfer weights do not apply where the DRG has a defined maximum length of stay (eg *G41B Complex Therapeutic Gastroscopy for Non-Major Digestive Diseases, Sameday*; and *Y60Z Burns, Transferred to Another Acute Care Facility < 5 Days*) as these DRGs are dominated by same day separations.

Long stay outlier episodes

Standard

An outlier component is added to the inlier component to meet the cost of the additional length of stay for long stay patients. The outlier component is AR-DRG-based, and is dependant on the number of days of stay above the 'trim point' for the AR-DRG. The trim point is a set value calculated by NSW Health. The trim points, and the values for each AR-DRG can be found at Appendix 1, Part 1 of this report.

The outlier amount is only added to AR-DRGs that are not defined by a maximum length of stay. For example, AR-DRGs such as *G41B Complex Therapeutic Gastroscopy for Non-Major Digestive Diseases, Sameday*; and *Y60Z Burns, Transferred to Another Acute Care Facility < 5 Days* will not have outlier amounts added. There are sixteen such AR-DRGs in Version 4.2.

For any one episode, the maximum length of stay is considered to be 365 days. For patients staying in an acute care hospital longer than this period an alternative method of estimating their costs is required, as well as an assessment of whether the patient is still acute.

For patients staying longer than 120 days, other than those grouped to selected tracheostomy, neonate and burns AR-DRGs, the outlier component should cease at 120 days of stay. For days between 120 days and 365 days, a flat-rate per diem amount of \$150 is applied. For patients in the selected AR-DRGs, the outlier per diem amounts should continue to be added until discharge or 365 days. The selected AR-DRGs are:

Tracheostomies

A06Z Tracheostomy Any Age, Any Condition

Neonates

P02Z Cardiothoracic/Vascular Procedures for Neonates
P03Z Neonate, AdmWt 1000-1499 g W Significant O.R. Procedure
P04Z Neonate, AdmWt 1500-1999 g W Significant O.R. Procedure
P05Z Neonate, AdmWt 2000-2499 g W Significant O.R. Procedure
P06A Neonate, AdmWt > 2499 g W Significant O.R. Procedure W Multi Maj
P06B Neonate, Adm Wt > 2499 g W Significant O.R. Proc W/O Multi Major
P61Z Neonate, AdmWt < 750 g
P62Z Neonate, AdmWt 750-999 g
P63Z Neonate, AdmWt 1000-1249 g W/O Significant O.R. Procedure
P64Z Neonate, AdmWt 1250-1499 g W/O Significant O.R. Procedure
P65A Neonate, AdmWt 1500-1999 g W/O Significant O.R. Proc W Multi Major Prob
P65B Neonate, AdmWt 1500-1999 g W/O Significant O.R. Procedure W Major Prob
P66A Neonate, AdmWt 2000-2499 g W/O Significant O.R. Proc W Multi Major Problems

Burns

Y01Z Severe Full Thickness Burns
Y02A Other Burns W Skin Graft Age>64 or W Cat/Sev CC or W Complicg Diag/Proc
Y03Z Other O.R. Procedures for Other Burns
Y02B Other Burns W Skin Grft Age<65 W/O Cat or Sev CC W/O Compl Diag/Proc
Y61Z Severe Burns

Rationale

There is clear evidence in the literature, and in the analysis of the NSW data, that stay in hospital significantly beyond the average is costly to hospitals. The decision to apply an additional amount for funding purposes needs to be balanced with the goal of discouraging excessive length of stay.

NSW uses a non-parametric approach to determining the trim point for long stay outlier episodes. This is because AR-DRGs generally do not have a normal distribution. The method used relies on the quartiles of the length of stay distribution, that is:

3rd quartile of LOS distribution for AR-DRG + (1.5 × interquartile range for the AR-DRG)

Aboriginal and Torres Strait Islander Episodes

Standard

The cost weights of Aboriginal or Torres Strait Islander (ATSI) episodes are to be given an additional weighting of 10%.

Rationale

There is evidence in the literature that there are increased costs associated with indigenous patients. An analysis of the clinical costing data from NSW hospitals showed costs to be approximately 10% higher for indigenous people, after taking into account other casemix factors.

Neonates

Standard

That the intensive care costs be retained in cost weight sets excluding ICU costs for hospitals with specialist Neonatal ICUs (NICUs), for all neonatal AR-DRGs.

That the cost weight be reduced by 30% for the following AR-DRGs when they do not occur in a designated NICU:

- P02Z Cardiothoracic/Vascular Procedures for Neonates
- P03Z Neonate, AdmWt 1000-1499 g W Significant O.R. Procedure
- P04Z Neonate, AdmWt 1500-1999 g W Significant O.R. Procedure
- P05Z Neonate, AdmWt 2000-2499 g W Significant O.R. Procedure
- P06A Neonate, AdmWt > 2499 g W Significant O.R. Procedure W Multi Maj
- P06B Neonate, AdmWt > 2499 g W Significant O.R. Proc W/O Multi Major
- P61Z Neonate, AdmWt < 750 g
- P62Z Neonate, AdmWt 750-999 g
- P63Z Neonate, AdmWt 1000-1249 g W/O Significant O.R. Procedure
- P64Z Neonate, AdmWt 1250-1499 g W/O Significant O.R. Procedure
- P65A Neonate, AdmWt 1500-1999 g W/O Significant O.R. Proc W Multi Maj
- P65B Neonate, AdmWt 1500-1999 g W/O Significant O.R. Procedure W Major
- P66A Neonate, AdmWt 2000-2499 g W/O Significant O.R. Proc W Multi Maj

That the cost weight excluding ICU costs be applied to all AR-DRGs other than the above when the episode does not occur in a designated NICU.

Rationale

NICUs are funded under Episode Funding, i.e. not under the Intensive Care Funding Model. Therefore, the ICU costs should be retained for all neonatal DRGs for these hospitals.

The 30% discount recognises that hospitals without dedicated NICUs do not incur the same costs as hospitals with NICUs when they encounter specialist neonatal DRGs. The costs of these specialist DRGs are partially covered by the Intensive Care Funding Model as babies are likely to be treated in general ICUs when no specialist unit is available (unless transferred for higher level care).

Private episodes

Standard

Private patient episodes are to be discounted by 9%.

Rationale

The cost of providing care to private patients in public hospitals is different from that of public patients, even after accounting for casemix. Clinical costing data were used to test this assumption.

Analyses showed that for most AR-DRGs, a private patient staying a given number of days will cost between 90 and 92% as much as a public patient in the same AR-DRG staying the same number of days, in the same hospital, with the same mode of discharge etc. This is because the medical costs of private patients are met through other sources.

Error DRGs

Standard

The following AR-DRGs are considered 'Error' DRGs and are assigned a zero cost weight:

961Z Unacceptable Principal Diagnosis;
962Z Unacceptable Obstetric Diagnosis Combination;
963Z Neonatal Diagnosis Not Consistent W Age/Weight; and
960Z Ungroupable.

It is recognised that *AR-DRG 960Z* may contain genuine cases that fall through the AR-DRG logic despite valid coding of the record. These cases should generally be reviewed with the intention of selecting the closest possible AR-DRG (clinically and resource-wise), and applying the cost weight of that AR-DRG to the episode.

Rationale

The AR-DRG system includes classes that do not describe clinically and/or resource homogenous groups (referred to as error DRGs). These are of three types:

- Group 1 When all the operating room procedures are unrelated to the MDC of the patient's principal diagnosis (AR-DRGs *901Z Extensive O.R. Procedure Unrelated to Principal Diagnosis*, *902Z Non-Extensive O.R. Procedure Unrelated to Principal Diagnosis* and *903Z Prostatic O.R. Procedure Unrelated to Principal Diagnosis*);
- Group 2 When the principal diagnosis will not allow the episode to be assigned to a clinically coherent DRG (for example, an ICD-10-AM code may be given as a principal diagnosis, when Australian Coding Standards state that the code is unacceptable as a principal diagnosis) (AR-DRGs *961Z Unacceptable Principal Diagnosis*, *962Z Unacceptable Obstetric Diagnosis Combination* and *963Z Neonatal Diagnosis Not Consistent W Age/Weight*); and
- Group 3 When the principal diagnosis is invalid, or when other essential information is missing or incorrect (AR-DRG *960Z Ungroupable*).

AR-DRGs in groups 2 and 3 are considered as containing cases that can be re-coded and re-grouped to a non-error AR-DRG.

Deaths

Standard

The cost weight for patients dying in hospital should not be discounted when the death occurs on the day of admission, if a discounted same day cost weight would normally apply to the episode.

Rationale

This standard recognises that there are additional costs associated with hospital deaths that are above those associated with regular same day care.

EMERGENCY DEPARTMENT CARE

SCOPE OF EMERGENCY DEPARTMENT CARE

Emergency department care includes all care provided under the Emergency Department Program of the NSW Program Structure (NSW Health Department, 2001c). The relevant Programs are:

- 2.1.02.1 Emergency Departments: Admitted and transferred to ward
- 2.1.01.1 Emergency Departments: Admitted and discharged in the emergency department
- 2.1.00.2 Emergency Departments: Non-admitted

The emergency department costs of patients that are subsequently admitted to a ward (ie Program 2.1.02.1) can be represented in two ways: as part of AR-DRG costs, or separately. The AR-DRG cost weights included in the 'Acute Admitted Care' section cater for the inclusion or exclusion of these costs.

CLASSIFICATION OF EMERGENCY DEPARTMENT CARE

The classification adopted to describe emergency department care in NSW is a modification of the Urgency and Disposition Groups (UDG) classification developed in Western Australia (Jelinek, 1992).

The initial split in UDGs is disposition, and then triage. The original classification developed by Western Australia involved splitting into four disposition groups (admitted, discharged, DOA and did not wait), and five urgency (triage) categories, yielding a total of 12 UDGs. The classification was modified for the introduction of the Emergency Department Funding Model in 2001/02. The modified version contains 11 categories made up of three disposition splits (subsequently admitted, ED only, and did not wait), and the five triage categories applied to the subsequently admitted and ED only disposition categories. The classes and their cost weights are shown in Table 3.

Service weights to cost emergency department services were created jointly by the Department of Human Services South Australia and the Commonwealth for the 1998/99 NHCDC. These were recalibrated for the mix of attendances in NSW to develop the cost weights.

SOURCE OF DATA FOR EMERGENCY DEPARTMENT CARE STANDARDS

The weights used in 2001/02 were recalibrated from original UDG weights from the South Australian study for the mix of ED attendances in NSW (Bond, Erwich-Nijhout, Phillips & Baggoley, 1998).

EMERGENCY DEPARTMENT CARE STANDARDS

Standard

The emergency department cost weights provided below are to be used to weight emergency department activity for hospitals within scope of the ED funding guidelines. For patients that are admitted and transferred to a ward/inpatient unit, the emergency department component should be excluded from the AR-DRG cost weights so as not to double count the costs of this service.

ED attendances are allocated to classes using the following algorithm:

1. If a record has missing data, the episode is classified as 'ED Only, Triage Category 5'.
2. If the disposition status is 'Did Not Wait', the episode is classified as 'Did Not Wait'.
3. If the visit type is 1(Emergency Presentation), 3 (Unplanned Return Visit for continuing condition), 5 (Referred, non-admitted person) or 9 (Person in transit) the episode is classified according to the triage score and the disposition class recorded for the visit.
4. If the visit type is 2 (Return visit - Planned ED), 4 (Outpatient Clinic) 6-8 (various types of pre-arranged admissions) the episode is reclassified to 'ED Only, Triage Category 5'.
5. If the visit type is 10 (DOA), the episode is assigned a cost weight equivalent to 'Subsequently Admitted, Triage Category 5'.

Table 3 Emergency department cost weights by disposition and triage

Urgency and Disposition Group (UDG)	Cost weight
Subsequently Admitted Triage 1	2.665
Subsequently Admitted Triage 2	1.668
Subsequently Admitted Triage 3	1.505
Subsequently Admitted Triage 4	1.346
Subsequently Admitted Triage 5	1.328
ED Only Triage 1	1.381
ED Only Triage 2	1.191
ED Only Triage 3	1.008
ED Only Triage 4	0.848
ED Only Triage 5	0.695
Did not wait	0.497
Total/Average	1.000

Source: NSW Funding Guidelines 2003/04.

The benchmark average costs per ED weighted episode are provided in the following table.

Table 4 2003/2004 ED Benchmarks

ED Peer Group	Benchmark per case weighted ED presentation
ED Peer Group A1/B1 and Sydney Hospital (all A1 and B1 hospitals)	355
ED Peer Group A2 (the two Paediatric Specialist Hospitals)	305
ED Peer Group B2/C1 and Newcastle Mater Hospital (all B2 and C1 hospitals)	270
All	330

Source: NSW Funding Guidelines 2003/04.

Rationale

The modified UDG classification is being adopted for these *Standards* for two reasons:

- There is no consistency across NSW in whether patients treated solely within the ED are admitted or not. Thus a split based on subsequent admission / ED only is preferable to one based on admitted / not admitted; and
- Service weights for costing emergency department services are only available at the level of UDGs at this stage. The service weights for the 2000/01 NHCDC were developed jointly by the Commonwealth and the Department of Human Services, South Australia.

The 11 class classification above is expected to be progressively refined as data quality improves and further analysis is undertaken. In 2002 the Department undertook a trial of Emergency Department admission criteria at 4 sites and has recommended to the Emergency Department Clinical Implementation Group (EDCIG) that the criteria be applied statewide to improve the consistency and comparability of patients admitted and discharged from Emergency Departments. EDCIG has given an undertaking to examine the results and consider the recommendation to the Department.

INTENSIVE CARE

SCOPE OF INTENSIVE CARE

Intensive care is included under the acute care programs in the NSW Program structure. The intensive care costs of patients can be represented in two ways: as part of AR-DRG costs, or separately. The AR-DRG cost weights included in the 'Acute Admitted Care' section cater for the inclusion or exclusion of these costs. Intensive care is accounted for separately from AR-DRGs for funding purposes in NSW.

CLASSIFICATION OF INTENSIVE CARE

There are two types of patients that are covered by the Intensive Care Funding Guidelines. Firstly, there are 'Intensive Care Patients' who are treated in an intensive Care Unit of role delineation 5 or 6 (including specialist ICUs and PICUs but excluding NICUs). The guidelines have been extended to cover the larger ICUs with a role delineation of 4 in rural base hospitals (i.e. peer group B2) from 2003/04.

Secondly, there are patients receiving mechanical ventilation in a hospital with a level 3 or 4 ICU not in the scope of the ICU funding guidelines. These patients receive a co-payment for each hour of their ventilation in addition to their acute inpatient episode funding.

SOURCE OF DATA FOR INTENSIVE CARE STANDARDS

Cost estimates for the intensive care standards are based on 2000/2001 information provided by Areas and hospitals in a special ICU cost data collection undertaken in the first half of 2002.

INTENSIVE CARE STANDARDS

Standard

The intensive care costs provided in Table 5 below are to be used for intensive care activity for hospitals with intensive care units within scope of the ICU funding guidelines. For patients that are treated as an intensive care patient in an intensive care unit that is in the scope of the intensive care funding model, the intensive care component should be excluded from the AR-DRG cost weights so as not to double count the costs of this service. These costs are based on 2000/01 information provided by Areas and hospitals in a special ICU cost data collection undertaken in the first half of 2002.

Table 5 Intensive care costs of units in scope of ICU funding guidelines

Patient type	Benchmark per IC patient day (\$)
Chargeable patients	2 950
Non chargeable patients	3 242

Source: NSW Funding Guidelines 2003/04.

Patients receiving mechanical ventilation in a hospital with a level 3 or 4 intensive care unit not in scope of the ICU funding guidelines should receive a co-payment of \$78 for each hour of ventilation.

Rationale

There is no nationally accepted classification system for costing intensive care patients thus they are to be costed on a bed day basis. The ICU costing is expected to be progressively refined as data quality improves and further analysis is undertaken.

OUTPATIENT CARE

SCOPE OF OUTPATIENT CARE

Outpatient care refers to hospital-based outpatient care, i.e. excluding community-based services. The specific Program of the NSW Program Structure (NSW 2001c) that these standards are intended to apply is 1.3.00.2 Outpatient Services. It does not include rehabilitation and extended care or non-admitted care provided in designated mental health units. The costs of these services are included in their respective sections in this report.

CLASSIFICATION OF OUTPATIENT CARE

The National Health Data Dictionary (NHDD) (AIHW, 2002) includes a classification of non-admitted patient service types based on the clinic attended by the patient during the service event. The classification is in two tiers: Tier 1, providing a lower level of detail of non-admitted patient service types, and Tier 2, providing a greater level of detail. Either classification can be used, depending on the level at which data are available locally. The NHDD includes a total of 11 classes at the Tier 1 level, and does not provide a definitive number of classes at the Tier 2 level, just examples of the types of clinics that may be included under each of the Tier 1 categories.

The NHDD classification was modified for the 1998/99 NHCDC. The modifications were to exclude emergency department as a service type (this is costed under a more detailed classification described earlier in this report), and to bundle imaging and pathology costs into the costs of other services. Imaging and Pathology are services in their own right in the NHDD classification, however, for the purposes of the NHCDC, they were included with other services.

The Tier 1 and Tier 2 patient service type categories are shown in tables 6 and 7 below.

The service weights used to cost the Tier 1 and Tier 2 services were developed jointly by the Commonwealth and Department of Human Services South Australia for the 1998/99 HCDC.

SOURCE OF DATA FOR OUTPATIENT CARE STANDARDS

Cost estimates for the outpatient care standards are based on the 2000/01 NHCDC, escalated to reflect 2003/04 prices. The data for the outpatient costs were obtained from approximately 120 of the 187 hospitals contributing data to the NHCDC. No NSW sites are represented. Therefore, these estimates should be used with caution. They should not be used to estimate costs for resource allocation. Data for this purpose has been collected in the 2001/02 NSW HCDC and will be reported in a future version of these standards.

OUTPATIENT CARE STANDARDS

Standard

That the relative costs in tables 6 or 7 be applied to estimate outpatient clinic costs for planning and benchmarking purposes (see note under ‘Sources of data for Outpatient Care Standards’ above). Wherever possible Tier 2 should be used.

Table 6 Non-admitted care cost and relative weights, Tier 1 classification

Tier 1 Clinics	Occasions of Service	Average cost per Occasion of Service	Cost weight
Allied Health and/or Clinical Nurse specialist	640,708	60	0.41
Dental	11,043	148	1.01
Medical	616,048	242	1.64
Obstetrics & Gynaecology	180,682	155	1.05
Paediatric	37,793	214	1.45
Surgical	506,713	121	0.83
Total	2,040,178	147	1.00

Source: Commonwealth Department of Health and Aged Care, 2002. See note on indexation applied under ‘Escalation factors’ on page 3. Psychiatric costs are dealt with under Mental Health Care

Table 7 Non-admitted care cost and relative weights, Tier 2 classification

Tier 2 Clinics	Occasions of Service	Average Cost Per Occasion of Service	Cost weight
Allied Health &/or Clinical Nurse Spec			
Audiology	5,894	100	0.66
Clinical Pharmacy	2,760	342	2.26
Diabetes Education	21,079	88	0.58
Nutrition/dietetics	21,837	71	0.47
Occupational therapy	39,971	63	0.42
Optometry	255	31	0.21
Orthoptics	9,040	77	0.51
Orthotics	6,188	170	1.13
Physiotherapy	182,303	43	0.29
Podiatry	33,221	69	0.46
Prosthetics	949	92	0.61
Psychology	4,202	183	1.21
Social Work	36,799	81	0.54
Speech pathology	16,802	121	0.80
Stomal therapy	2,594	124	0.82
Wound management	17,592	55	0.36
Medical			
Asthma	323	196	1.29
Alcohol and other drug	151	133	0.88

Tier 2 Clinics	Occasions of Service	Average Cost Per Occasion of Service	Cost weight
Anti-coagulant	579	133	0.88
Cardiology	45,875	187	1.24
Dermatology	26,606	104	0.68
Developmental Disabilities	3,104	226	1.49
Diabetes	27,546	143	0.94
Endocrine	21,631	153	1.01
Epilepsy	57	423	2.79
Gastroenterology	25,549	251	1.65
General Medicine	25,026	205	1.35
Genetic	2,859	775	5.12
Geriatric	1,588	406	2.68
Haematology	21,602	304	2.01
Hepatobiliary	1,713	272	1.79
Hypertension	2,870	90	0.60
Immunology	12,777	78	0.51
Infectious diseases	15,297	288	1.90
Medical Oncology	32,439	450	2.97
Metabolic bone	2,127	228	1.51
Nephrology	32,340	419	2.76
Neurology	11,464	365	2.41
Occupational medicine	1,208	238	1.57
Pain management	13,231	193	1.27
Palliative care	15,214	109	0.72
Radiation oncology	73,727	207	1.37
Rehabilitation	4,808	228	1.51
Respiratory	52,542	258	1.71
Rheumatology	15,169	177	1.17
Spinal	1,967	226	1.49
Transplants	2,150	400	2.64
Obstetrics and Gynaecology			
Family Planning	3,236	120	0.79
Gynaecology	33,557	150	0.99
Gynaecology oncology	3,179	219	1.45
Obstetrics	129,435	165	1.09
Paediatric			
Child Protection	7,055	251	1.65
Neonatal	11,560	135	0.89
Paediatric Medicine	14,075	254	1.68
Paediatric Surgery	5,103	234	1.54
Surgical			
Breast	10,203	194	1.28
Burns	3,288	255	1.68
Cardiac surgery	1,333	224	1.48
Colorectal	5,270	120	0.79

Tier 2 Clinics	Occasions of Service	Average Cost Per Occasion of Service	Cost weight
Craniofacial	1,987	202	1.33
Ear, nose and throat	23,319	102	0.68
Fracture	20,145	116	0.76
General surgery	52,390	146	0.96
Neurosurgery	5,741	216	1.43
Ophthalmology	65,812	80	0.53
Orthopaedics	74,035	96	0.63
Plastic surgery	33,257	87	0.57
Pre-admission	35,347	197	1.30
Pre-anaesthesia	24,135	118	0.78
Thoracic surgery	1,620	270	1.78
Urology	25,186	114	0.75
Vascular surgery	14,967	116	0.76
Total	1,539,809	151	1.00

Source: Commonwealth Department of Health and Aged Care, 2002. See note on indexation under 'Escalation factors' on page 3. Psychiatric and dental costs are dealt with under other programs.

Rationale

The NHDD classification of non-admitted patient care clinics is the first attempt at a national classification that is reasonable for States/Territories to adopt. NSW is currently putting steps in place to comply with this classification in a phased implementation plan which began in July 2001. The 2001/02 round of the NSW HCDC required costs of non-admitted care to be costed at the Tier 2 classification. The results of this collection will be published in a future version of the *Costs of Care Standards*.

Even though the costs from the NHCDC presented in the tables above are not representative of all States/Territories, the data are the most recent cost data on non-admitted care available. The use of these data will assist NSW moving forward in implementing the classification and costing of non-admitted patient service events.

SUB- AND NON-ACUTE CARE

SCOPE OF SUB- AND NON-ACUTE CARE

Sub- and non-acute care is care provided within the scope of the Rehabilitation and Extended Care Services Programs of the NSW Program Structure (NSW Health Department, 2001c). The relevant Programs are:

- 4.1.01.1 Rehabilitation: Admitted Patients
- 4.1.02.1 Palliative Care: Admitted Patients
- 4.1.03.1 Psycho-Geriatric Care: Admitted Patients
- 4.1.04.1 Geriatric Evaluation & Management: Admitted Patients
- 4.1.05.1 Maintenance Care: Admitted Patients
- 4.1.06.1 Residential Aged Care (high) Nursing Home Residents
- 4.1.07.1 Residential Aged Care (low) Hostel Residents
- 4.1.01.2 Program of Aids for Disabled People (PADP)
- 4.1.02.2 Home and Community Care (HACC)
- 4.1.03.2 Community Aged Care Packages (CACP)
- 4.1.09.2 Rehabilitation and Extended Care: Other non-admitted services

Admitted episodes coded as acute but grouped to the rehabilitation AR-DRGs are also considered as sub- and non-acute care. The rehabilitation AR-DRGs are:

- Z60A *Rehabilitation W/ Catastrophic or Severe CC;*
- Z60B *Rehabilitation W/O Catastrophic or Severe CC; and*
- Z60C *Rehabilitation, Sameday.*

SOURCE OF DATA FOR SUB- AND NON-ACUTE CARE STANDARDS

Cost estimates for the outpatient care standards are based on a costing study performed using 2000/01 data. The study was undertaken in 2002/03, the costs reported here have been escalated to 2003/04 prices.

CLASSIFICATION OF SUB- AND NON-ACUTE CARE

The predominant clinical goal of sub- and non-acute care is the enhancement or maintenance of quality of life and/or functional status. This type of care had not been adequately described by casemix classifications prior to the development of the Australian National Sub-Acute and Non-Acute Patient (AN-SNAP) classification (Centre for Health Services Development, University of Wollongong, 1997).

AN-SNAP is the national casemix classification for sub-acute and non-acute care. AN-SNAP patients do not neatly fit into clinical specialties, streams of care, or the ward/bed/unit in which the patient is treated, or the team providing the care. AN-SNAP initially separates patients into one of five case types:

- Palliative care;
- Rehabilitation;
- Geriatric evaluation and management;
- Psychogeriatric care; and
- Maintenance care.

For the most up-to-date detailed definitions of case types refer to the *National Health Data Dictionary* (AIHW, 2002).

SUB- AND NON-ACUTE CARE STANDARDS

Standard

Admitted SNAP Care (excluding same day care)

The following are the recommended per diem amounts and weights for admitted SNAP patients excluding same day care. No costs are provided for psychogeriatrics and geriatric evaluation and management. This is because of the small numbers of patients encountered in the cost study undertaken to derive the data below. The classification of patient to the geriatrics evaluation and management category is being debated by various groups. A sub-group of the Funding Models implementation group is being proposed to examine the issue further and provide clear guidelines for future Standards. In the meantime, local costs should be sourced for these case types where possible. In the absence of these costs, the costs from the closest category (ie rehabilitation or maintenance care) should be assigned. For non-admitted and same day SNAP patients refer to the section on Outpatient care.

Table 8 Costs of admitted sub- and non-acute care

SNAP Case Type	2003/04 per diem (\$)
Palliative Care	631
Rehabilitation	588
Maintenance	325

Source: SNAP costing study 2000/01. See note on indexation applied under 'Escalation factors' on page 3.

Rationale

NSW Health is implementing the Australian National Sub-Acute and Non-Acute Patient classification (AN-SNAP) in a phased process. Phase 1 of the implementation began on 1 July 1998 in 29 volunteer services involving ten AHSs. Approximately 30 more services began implementation on 1 July 1999 in Phase 2 of the implementation. A cost study was undertaken based on 2000-01, which produced the costs of SNAP classes shown. Another study will be conducted on 2001-02 data in 2003, after which time SNAP costing will be integrated into the routine cost collection in NSW.

MENTAL HEALTH CARE

SCOPE OF MENTAL HEALTH CARE

Mental health care is care provided within the scope of Mental Health Programs of the NSW Program Structure (NSW Health Department, 2001c). Only costs for admitted mental health care are included in this document. The relevant Programs are:

3.1.01.1	Child & Adolescent Mental Health: - Admitted Patients
3.1.01.2	Child & Adolescent Mental Health: - Non Admitted Patients
3.1.02.1	General and Adult Mental Health: - Admitted Patients
3.1.02.2	General and Adult Mental Health: - Non Admitted Patients
3.1.03.1	Older People Psychiatric Care: - Admitted Patients
3.1.03.2	Older People Psychiatric Care: - Non Admitted
3.1.04.1	Forensic Mental Health: - Admitted patients
3.1.04.2	Forensic Mental Health: - Non Admitted patients

Only care provided in designated mental health units should be assigned to these Programs. Other admitted mental health (i.e. care provided in general wards) should be treated as acute admitted care and the cost weights for acute care should be used to estimate these costs.

CLASSIFICATION OF MENTAL HEALTH CARE

The National Survey of Mental Health Services (NSMHSs) is used to classify and cost mental health services in NSW. The classification is two-dimensional. One dimension describes the type of unit/service and the other the type of treatment. The definitions are as follows:

Type of Unit/Service

The NSMHSs categorises the service and this can be applied to inpatient or non-inpatient facilities or to an individual staff person employed or acting in this context. The following categories are service/staff related and are not derived from the age of the client:

- ***Child and adolescent.*** A specialist psychiatric/mental health unit/staff person that principally targets children and young people up to the age of 18 years. Classification of services into this category requires recognition by the regional or central funding authority of the special focus of the service on children and adolescents.

- **General/Adult.** A specialist psychiatric/mental health unit/staff person that provides general psychiatry services to the general adult population but may provide services to children, adolescents or the aged in special circumstances when more appropriate service provision is unavailable. They are psychiatric/mental health services/staff, which cannot be described as specialist child, and adolescent, geriatric or forensic services.
- **Older people (psychogeriatric).** A specialist psychiatric/mental health unit/staff person that principally targets people in the age group 65 years and over. Classification of services into this category requires recognition by the regional or central funding authority of the special focus of the service on aged persons. This service category does not include the treatment of older people by general psychiatry services.
- **Forensic.** A specialist psychiatric/mental health unit/staff person that assesses, treats or cares for mentally disordered individuals whose condition has led them to commit criminal offences or makes it likely that they will offend in the future if not adequately treated or contained.

These services will mainly be associated with Corrections Health Service or the secure units at Cumberland and James Fletcher Hospitals. Forensic legal status of a patient does not determine the forensic speciality of the service.

Type of Treatment

The NSMHSs uses standard definitions that distinguish acute and non-acute beds. These are based on the expectation of significant clinical change, in the short term, of patients in acute beds. The type of care provided is defined by the designation of the bed that the patient occupies rather than the classification of the actual patient. All NSW general hospital psychiatric units are acute units (except Lakeview House - rehabilitation at Shellharbour). The definitions for each bed type are as follows:

- **Acute.** Care is provided for people who present with acute episodes of mental illness. These episodes are characterised by recent onset of severe clinical symptoms of mental illness, which have potential for prolonged dysfunction or risk to self and/or others. The key characteristic of acute services is that the treatment effort is focused on symptom reduction with a reasonable expectation of substantial improvement. In general, acute psychiatric services provide short-term treatment. Some acute care patients may have an acute exacerbation of symptoms due to a continuing psychiatric disorder, while other acute care patients may have had no prior contact with a psychiatric service nor a history of psychiatric illness.
- **Rehabilitation.** A specialist inpatient psychiatric unit, which has a primary focus on intervention to reduce functional impairments resulting from psychiatric disorders that limit the independence of patients. Psychiatric rehabilitation services are focused on disability and the promotion of personal recovery. They are characterised by an expectation of substantial improvement over the short to mid term. Patients treated by psychiatric rehabilitation services usually have a relatively stable pattern of clinical symptoms. Treatment is focused on preventing any relapse of the illness and reducing disability.

- **Extended Care.** A specialist inpatient psychiatric unit which provides care over an indefinite period for patients who have a stable but severe level of functional impairment and an inability to function independently, thus requiring extensive care and support. Patients of extended care services present a stable pattern of clinical symptoms, which may include high levels of severe unremitting symptoms of mental illness. Treatment is focused on preventing deterioration and reducing impairment; improvement is expected to occur slowly.

SOURCE OF DATA FOR MENTAL HEALTH CARE STANDARDS

Cost estimates for the outpatient care standards are based on the 2000/01 NSMHSs, escalated to reflect 2003/04 prices.

MENTAL HEALTH CARE STANDARDS

Standard

The average costs provided in tables 10 and 11 below are used to estimate the costs of admitted and non-admitted services provided in designated mental health units, that is, both general hospital psychiatric units and psychiatric hospitals, to the level of detail that is available locally.

Table 10 includes the cost per admitted patient day by type unit/service and type of treatment. The average cost for same day patients includes all admitted same day services except ECT treatment, which is regarded as overnight care for the purposes of estimating the costs of care. Same day patients are classified as ambulatory care occasions of service (ACOOS) in the NSMHSs. However, a separate cost has been extracted for these services, recognising that they are more expensive to treat than general ACOOS.

The use of cost weights for the purposes of funding or interpreting costing information for mental health services is not endorsed by the NSW Health Department's Centre for Mental Health. The cost weights are produced here only for the purpose of showing the relative value between the different classes of unit/service and type of treatment.

Table 10 Costs and relative weights of admitted mental health services

Type of Unit/Service & Type of Treatment	Acute	Rehabilitation	Extended Care	Sub-total	Cost weight (based on sub-total costs)
General Psychiatry	602	418	477	541	1.04
Child and Adolescent Psychiatry	659	249	-	605	1.17
Geriatric Psychiatry	607	308	335	471	0.91
Forensic Psychiatry	349	512	601	386	0.75
Grand Total				580	1.00
Same day admitted patients (all categories)				140	0.33

Source: Provisional NSW Mental Health Data Collection 2001¹. See note on indexation applied under 'Escalation factors' on page 3.

Table 11 includes the cost per occasion of service for non-admitted or ambulatory occasions of service by type of unit/service. Again, please note that **the use of cost weights for the purposes of funding or interpreting costing information for mental health services is not endorsed by the by the NSW Health Department's Centre for Mental Health** (see note on page 24).

Table 11 Costs and relative weights of non-admitted mental health services

Type of Unit/Service	Average (\$)	Cost weight
General Psychiatry	110	112
Child and Adolescent Psychiatry	102	104
Forensic Psychiatry	n/a	n/a
Geriatric Psychiatry	78	79
Grand Total	109	111

Source: Provisional NSW Mental Health Data Collection 2001. See Footnote 2. See also note on indexation applied under 'Escalation factors' on page 3.

Rationale

The NSMHSs is an established survey of mental health expenditure undertaken as part of the National Mental Health Strategy. The Survey contains the most up-to-date and detailed data on costs of mental health, and is a national survey, therefore allowing comparability with other States.

¹ Costs are 'adjusted' bed days costs, meaning that they include indirect expenditure. Depreciation is also included.

REFERENCES

-
- Australian Bureau of Statistics. (1999). *Hospital Cost Index*. Canberra: ABS.
- Australian Institute of Health and Welfare. (2002). *National Health Data Dictionary Version 11*. Canberra: AIHW.
- Bond, Erwich-Nijhout, Phillips & Baggoley (1998) *Costings in the Emergency Department*. Adelaide: Flinders Medical Centre.
- Buckingham, B., Burgess, P., Solomon, S., Pirkis, J. & Eagar, K. (1998). *Developing a Casemix Classification for Mental Health Services: Summary*. Canberra: Commonwealth Department of Health and Family Services.
- Centre for Health Services Development, University of Wollongong. (1997). *The Australian National Sub-Acute and Non-Acute Patient Classification (AN-SNAP): Report of the National Sub-Acute and Non-Acute Casemix Classification Study*. Wollongong: Centre for Health Services Development, University of Wollongong.
- Commonwealth Department of Health and Aged Care. (2002). *National Hospital Cost Data Collection Cost Report Round 5 (2000-01)*. Canberra: Commonwealth Department of Health and Aged Care.
- Commonwealth Department of Health and Aged Care. (2000). *Australian Refined Diagnosis Related Groups Version 4.2, Addendum to Definitions Manual, Volume Four, Changes: AR-DRG v4.1 to AR-DRG v4.2*. Canberra: Commonwealth Department of Health and Aged Care.
- Jelinek, G. (1992). *A casemix information system for Australian hospital emergency departments Perth*. W.A: W.A. Commissioner of Health.
- NSW Health Department. (2003a). *NSW Peer Hospital Groups 2001/02*. Sydney: Casemix Policy Unit, Funding and Systems Policy Branch, NSW Health Department.
- NSW Health Department. (2003b). *NSW Funding Guidelines 2003/2004*. Sydney: NSW Health Department.
- NSW Health Department. (2001a). *NSW Funding Guidelines for Emergency Department Services 2001-2002*. Sydney: NSW Health Department.
- NSW Health Department. (2001b). *NSW Funding Guidelines for Intensive Care Services 2001-2002*. Sydney: NSW Health Department.

NSW Health Department. (2001c). *NSW Product and Program Data Collection Standards Manual*. Sydney: Casemix Policy Unit, Funding and Systems Policy Branch, NSW Health Department.

NSW Health Department. (2000). *Episode Funding Guidelines 2000-2001*. Sydney: NSW Health Department.

NSW Health Department. (1999a). *Casemix Standards for NSW 1999/2000*. Sydney: Casemix Policy Unit, Structural and Funding Policy Branch, NSW Health Department.

NSW Health Department. (1999b). *Refinement of the NSW Health Program Structure*. Sydney: Structural and Funding Policy Branch, NSW Health Department.

APPENDIX 1: ACUTE CARE COST WEIGHTS

PART 1: GENERAL COST WEIGHTS

Descriptions of the abbreviations shown in tables are as follows:

- | | |
|-----------------------------------|--|
| ▪ AR-DRG No. | AR-DRG V4.2 number |
| ▪ AR-DRG Title | AR-DRG V4.2 description |
| ▪ Seps (No.) | Total separations |
| ▪ Seps w/o same day ED cases (No) | Separations excluding same day cases treated in ED |
| ▪ Standard error | Standard error of the cost weight |
| ▪ Cost Weight w/o ED & ICU | Cost weight excluding ED and ICU cost groups |
| ▪ Cost Weight w all cost groups | Cost weight including all cost groups |
| ▪ Cost Weight w/o ED | Cost weight excluding ED cost group |
| ▪ Cost Weight w/o ICU | Cost weight excluding ICU cost group |
| ▪ Transfer cost weight | Same day and one day overnight transfer cost weight, based on base cost of cost weights with ED and ICU cost groups excluded |
| ▪ Outlier per diem weight | Long stay outlier per diem weight, based on base cost of cost weights with ED and ICU cost groups excluded |
| ▪ Outlier per diem amount (\$) | Long stay outlier per diem payment (\$) |
| ▪ High trim point (days) | AR-DRG trim point in days |

PART 2: SAME DAY COST WEIGHTS FOR SELECTED DRGS

Descriptions of the abbreviations shown in tables are as follows:

- | | |
|-----------------------------------|---|
| ▪ AR-DRG No. | AR-DRG V4.2 number |
| ▪ AR-DRG Title | AR-DRG V4.2 description |
| ▪ Same day seps (No.) | Total same day separations |
| ▪ Seps w/o same day ED cases (No) | Same day separations excluding same day cases treated in ED |
| ▪ Standard error | Standard error of the cost weight |
| ▪ Cost Weight w/o ED & ICU | Cost weight excluding ED and ICU cost groups |
| ▪ Cost Weight w all cost groups | Cost weight including all cost groups |
| ▪ Cost Weight w/o ED | Cost weight excluding ED cost group |
| ▪ Cost Weight w/o ICU | Cost weight excluding ICU cost group |

APPENDIX 2: AVERAGE
ACUTE COST BY COST
GROUP AND DRG, NSW
2000/01 HCDC

PART 1: GENERAL ACUTE COST AVERAGES

PART 2: SAME DAY ACUTE
AVERAGES FOR SELECTED
AR-DRGS

APPENDIX 3: COST GROUP INCLUSIONS AND EXCLUSIONS

Source: NSW Health Department. (2001c). *NSW Product and Program Data Collection Standards*. Sydney: Casemix Policy Unit, NSW Health Department.

Clinical Department Cost Group

The cost group includes expenditure directly related to the operation of medical and surgical clinical departments with the exception of the Anaesthetics Department, ED and ICU. This includes medical salaries and wages, VMO payments, secretarial and other administrative support related to the functioning of clinical departments.

Inclusions

- Medical salary costs and VMO payments of all clinical department services including:

<ul style="list-style-type: none"> ▪ <i>Respiratory function testing</i> ▪ <i>Cardiology laboratories</i> ▪ <i>Neurology laboratory</i> ▪ <i>Services closely aligned with individual clinical departments</i> ▪ <i>Medical salary and VMO costs associated with the clinical department activities of Haematology and Clinical Immunology</i>

- Medical salary and VMO costs reported in ward cost centres.
- All other costs of cost centres which directly relate to the activities of clinical departments. This may include nursing and other salaries, goods & services, administration support etc if these relate to clinical departments and cannot sensibly be associated with one of the other cost groups (e.g. specialty based Clinical Nurse Consultants).
- Pain Management or other non-theatre activities of Anaesthetics Department

Exclusions

- Non-medical costs associated with Specialised Procedure Suites or Operating Room services.
- All medical salaries and VMO payment costs of the Anaesthetics Department that relate to the Operating Room and Specialised Procedure Suite Cost Groups.
- All costs associated with the Anaesthetics Department that relate to Operating Room and Specialised Procedure Suite Cost Group.
- Any medical salary and VMO payments that are included in the following cost groups: Imaging, Pathology, ICU and Emergency Departments.
- Any nursing salaries expenditure that relates directly to ward activities (include in Ward cost group).
- Any Allied Health staff costs.
- Prostheses, depreciation, employee related oncosts, pathology, imaging and drugs (include in their respective cost group).
- Haematology and Clinical Immunology laboratories. Costs associated with these services should be included in the pathology cost group with the exception of specific clinical department functions of these departments which should be included in this cost group.

Invasive Procedure Cost Groups

The cost group comprises two sub-groups: 'operating suites' and 'other invasive procedure suites'. Ideally, costs for each of these sub-groups will be reported in separate cost groups. However, it is recognised that some sites will not be able to identify activity separately and the costs associated with other invasive procedure suites.

The protocol for this data collection is that other invasive procedure suites should be reported in a separate cost group only where data are routinely available. The cost group definitions, inclusions and exclusions provided below refer to each sub-group for sites that are able to report separately.

Sites not able to report each sub-group separately should report all invasive procedure costs as a single group using the definitions, inclusions and exclusions provided under operating suites.

Operating Suite

This sub-group includes all expenses related to the running of the operating room, recovery, day surgery and surgical delivery suite.

Inclusions

- Nursing and other non-medical salaries, goods and services (including medical surgical supplies) and RMR associated with the operating suite.
- Anaesthetics Department costs associated with operating suite.

Exclusions

- Pain Management or other non-operating room activities of Anaesthetics Department (e.g. Anaesthetists attending patients in the Delivery Suite or for imaging procedures).
- Non-Anaesthetics Department medical salary and VMO costs (include in the Clinical Departments cost group).
- Peri-operative wards (include in the Wards cost group).
- Prostheses, Depreciation, Employee related on-costs, imaging, pathology, drugs, and allied health (include in their respective cost groups).

Other Invasive Procedure Suites

This sub-group includes all costs centres associated with the following invasive procedure suites only where the costs and activity associated with these services can be separated from operating suite services: Cardiac Catheter Suite, Endoscopy, Bronchoscopy and Vascular Angiography. Note that all other Angiography services should be reported under the Imaging cost group.

Inclusions

- Nursing and other non-medical salaries, goods and services (including medical and surgical supplies) and RMR associated with the Specialised Procedure Suites.
- Anaesthetic costs associated with Specialised Procedure Suites.

Exclusions

- Pain Management or other non Specialised Procedure Suite activities of Anaesthetics Department.

- Non-Anaesthetics Department medical salary and VMO costs (include in the Clinical Departments cost group).
- Peri-operative wards (include in the Wards cost group).
- Prostheses, depreciation, employee related oncosts, imaging, pathology, drugs, and allied health (include in their respective cost groups).

Pathology Cost Group

Pathology Costs are to be reported in three separate cost groups:

Pathology ICU
Pathology ED
Pathology DRG

This is to facilitate the development and implementation of the Episode Funding. Sites not able to report each subgroup separately should report all pathology costs under the Pathology DRG Cost Group using the definitions of the inclusions and exclusions of that group.

These cost groups comprises costs associated with pathology laboratory services including but not limited to:

- Biochemistry (or Clinical Chemistry)
- Haematology
- Anatomical Pathology (or Histopathology)
- Microbiology
- Immunology
- Cytology
- Blood Bank (including associated cost centres such as Blood Collections)

Costs associated with the administration of pathology laboratory services should also be included in this cost group.

Note: All direct patient care services such as Clinical Haematology and Clinical Immunology should be separated and reported in the relevant clinical department cost group.

In some cases, such as where an external pathology service is provided, expenditure may recorded as a charge to individual clinical areas. These costs should be included in a separate pathology cost component, or rolled up into a 'pathology' cost centre to allow costs to be reported in these groups.

Pathology ICU

Inclusions

- All salaries and wages, VMO payments and goods and services costs in Pathology cost centres (where in house services exist) or charges relating to pathology tests ordered for patients in Level 5 or 6 ICU *and larger level 4 Rural ICUs in scope for ICU Funding Model from 2003/4.*

Exclusions

- Prostheses, depreciation, Employee related on-costs, imaging, drugs and allied health (include in their respective cost group)

Pathology ED

Inclusions

- All salaries and wages, VMO payments and goods and services costs in Pathology cost centres (where in house services exist) or charges relating to pathology tests ordered for patients

admitted and discharged from Level 4 and above Emergency Departments *and larger level 3 EDs in scope for the ED Funding Model.*

Exclusions

- Prostheses, depreciation, Employee related on-costs, imaging, drugs and allied health (include in their respective cost group)

Pathology DRG

Inclusions

- All salaries and wages, VMO payments and goods and services costs in Pathology cost centres (where in house services exist) or charges relating to pathology tests ordered for all patients not included in pathology ED or Pathology ICU
- Where ED and ICU pathology costs are unable to be identified, all pathology expenses should be reported in this cost group.

Exclusions

- Prostheses, depreciation, Employee related on-costs, imaging, drugs and allied health (include in their respective cost group)

Imaging Cost Group

Imaging costs are to be reported in three separate cost groups.

Imaging ICU Imaging ED Imaging DRG

This is to facilitate the development and implementation of the Episode Funding. Sites not able to report each subgroup separately should report all imaging costs under the Imaging DRG Cost Groups using the definitions of the inclusions and exclusions of that group.

These cost groups comprises costs associated with diagnostic imaging including but not limited to:

- General Radiology
- CT Scanning
- Angiography
- Nuclear Medicine
- Ultrasound
- MRI services
- PET services

Costs associated with the administration of diagnostic imaging services should also be included in this cost group.

In some cases, such as where an external imaging service is provided, expenditure may be recorded as a charge to individual clinical areas. These costs should be included in a separate imaging cost component or rolled up into an 'imaging' cost centre, to allow the costs to be reported in these cost groups.

Imaging ICU

Inclusions

- All salaries and wages, VMO payments and goods and services costs in Imaging cost centres (where in house services exist) or charges relating to imaging tests ordered for patients in Level 5 or 6 ICUs *and larger level 4 Rural ICUs in scope for ICU Funding Model from 2003/4.*

Exclusions

- Prostheses, depreciation, Employee related on-costs, pathology, drugs and allied health (include in their respective cost group).

Imaging ED

Inclusions

- All salaries and wages, VMO payments and goods and services costs in Imaging cost centres (where in house services exist) or charges relating to imaging tests ordered for patients admitted and discharged from Level 4 and above Emergency Departments *and larger level 3 EDs in scope for the ED Funding Model.*

Exclusions

- Prostheses, depreciation, Employee related on-costs, pathology, drugs and allied health (include in their respective cost group).

Imaging DRG

Inclusions

- All salaries and wages, VMO payments and goods and services costs in imaging cost centres (where in house services exist) or charges relating to imaging tests ordered for all patients not included in Imaging ED or Imaging ICU.
- Where ED and ICU imaging costs are unable to be identified, all imaging expenses should be reported in this cost group.

Exclusions

- Prostheses, depreciation, Employee related on-costs, pathology, drugs and allied health (include in their respective cost group).
- Invasive Imaging procedures performed in a specialised procedure suite (include in Specialised Procedure Suite cost group).

Ward Cost Group

This cost group can be defined as areas to which a hospital's patient administration system can admit patients to beds. It includes high dependency units, step down wards, dialysis units, radiotherapy and chemotherapy wards, day stay and peri-operative wards, level three and below emergency departments, level four and below ICU and CCUs (***except larger level 3 EDs and level 4 rural ICUs to be included in scope for the ED and ICU Funding Model and treated like level 4 and above EDs and level 5/6 ICUs for costing purposes***).

Inclusions

- Salary and wages of nursing and other non-medical staff.
- Goods and services costs associated with ward cost centres including medical supplies.
- Costs from level three and below Emergency Departments (except larger level 3 EDs in scope for the ED Funding Model).
- Costs from level four and below ICUs (except larger rural ICUs in scope for the ICU Funding Model in 2003/4).
- Costs associated with high dependency units

Exclusions

- Day surgery areas that are part of an operating suite (should be included in Operating Room or Specialised Procedure cost groups)
- Imaging day stay procedure areas, Bronchoscopy and Endoscopy day stay areas and other areas that undertake invasive procedures (should be included in the Specialised Procedure Suite cost group)
- Medical and VMO payment costs (include in Clinical Department cost groups)
- Salary and wage costs of Allied Health staff (include in Allied Health cost groups)
- Prostheses, Depreciation, Employee related on-costs, diagnostics, drugs and allied health (include in their respective cost group)

Emergency Department Cost Group

This cost group includes all costs associated with designated Level 4 and above Emergency Departments (plus ***larger level 3 EDs in scope for the ED Funding Model***).

Other Emergency Departments are considered wards for the purposes of this study.

Inclusions

- All costs recorded in Emergency Department cost centres including medical salaries and wages, VMO payments, nursing and other salary and wage costs.
- An appropriate share of medical costs estimated as belonging to the Emergency Department where medical salary and/or VMO payments are held in centralised cost centers.
- Costs for goods and services associated with emergency departments.

Exclusions

- Level 3 and below Emergency Departments unless they have been included in the ED Funding Model; medical costs for level 3 and below emergency departments will be included in the Clinical Departments cost group. Other costs related to level 2 and below emergency departments will be included in the Ward cost group.
- Imaging expenses charged to Intensive Care (include in ICU).
- Imaging expenses charged to Emergency Departments where patients is Admitted and Discharged from ED or Not Admitted. (Include in ED).
- Prostheses, Depreciation, Employee related oncosts, drugs and allied health (include in their respective cost group).

Intensive Care Cost Group

This cost group includes all costs associated with designated level five and six Intensive Care Units *plus larger level 4 Rural ICUs in scope for ICU Funding Model from 2003/4*. Lower Level Intensive Care Units are considered wards for the purposes of this study.

Where the hospital has established virtual wards to split ICU activity into Intensive Care (IC) and High Dependency (HD) patients and can assign costs to these virtual wards this cost bucket should only relate to the IC ward. The virtual HD ward should be considered a ward for the purposes of the NSW PPDC.

Inclusions

- All costs recorded in Intensive Care cost centres (for units at level five or above). Including medical salaries and wages, VMO payments, nursing and other salary and wage costs.
- All costs for goods and services associated with ICU.
- Include Pathology and Drugs used in ICU.

Exclusions

- ICUs with a role delineation of Level four and below (*except larger level 4 Rural ICUs in scope for ICU Funding Model from 2003/4*), High dependency units, Coronary Care units (include in Ward cost group).
- Prostheses, Depreciation, Employee related on-costs, drugs and allied health (include in their respective cost group).

Allied Health Cost Group

Allied Health Costs are to be reported in three separate cost groups.

Allied Health ICU
Allied Health ED
Allied Health DRG

This is to facilitate the development and implementation of the Episode Funding. Sites not able to report each subgroups separately should report all allied health costs under the Allied Health DRG Cost Groups using the definitions of the inclusions and exclusions of that group.

These cost groups include all costs associated with providing allied health services where these services can be separately identified.

Allied Health ICU

Inclusions

- All salaries and wages and goods and services costs in Allied Health Cost Centres relating to services provided to patients in Level 5 or 6 ICU *and larger level 4 Rural ICUs in scope for ICU Funding Model from 2003/4.*
- Allied Health salaries and wages held within an ICU cost centre.

Exclusions

- Prostheses, depreciation, employee related oncosts, imaging, pathology and drugs.

Allied Health ED

Inclusions

- All salaries and wages and goods and services costs in Allied Health Cost Centres relating to services provided to patients admitted and discharged from Level 4 and above Emergency Departments *and larger level 3 EDs in scope for the ED Funding Model.*
- Allied Health salaries and wages held within an ED cost centre. (This includes services where patients are admitted and discharged from ED, or admitted and transferred to a general ward.)

Exclusions

- Prostheses, depreciation, employee related oncosts, imaging, pathology and drugs.

Allied Health DRG

Inclusions

- All salaries and wages and goods and services costs in allied health cost centres not included in columns 16 and 17.
- Allied health salaries and wages held within cost centres other than ED and ICU.

Exclusions

- Prostheses, Depreciation, Employee related on-costs, imaging, pathology and drugs (include in the respective cost group).

Pharmacy/Drugs Cost Group

Pharmacy/Drug Costs are to be reported in three separate cost groups.

Drugs ICU

Drugs ED

Pharmacy/Drugs DRG

This is to facilitate the development and implementation of the Episode Funding. Sites not able to report each subgroups separately should report all pharmacy/drugs costs under the Pharmacy/Drugs DRG Cost Groups using the definitions of the inclusions and exclusions of that group.

These groups will include all costs associated with drugs and pharmacy services.

Drugs ICU

Inclusions

- All imprest and dispensed drug costs ordered for patients in Level 5 or 6 ICU *and larger level 4 Rural ICUs in scope for ICU Funding Model from 2003/4.*

Drugs ED

Inclusions

- All imprest drug costs for patients treated within Level 4 and above Emergency Departments *and larger level 3 EDs in scope for the ED Funding Model.*
- All dispensed drug costs for patients admitted and discharged from Level 4 and above Emergency Departments.

Pharmacy/Drugs DRG

Includes all costs not included in Drugs ED or ICU that is:

- All salaries and wages of pharmacy department staff
- Costs of goods and services within Pharmacy departments
- All imprest and dispensed drug costs for general inpatient wards.
- All dispensed drug costs for patients admitted to ED and transferred to a general inpatient ward.

Exclusions

- Prostheses, Depreciation, Employee related on-costs, imaging, and pathology (include in the respective cost group)

Prostheses Cost Group

This cost group includes all costs associated with inpatient prostheses recorded in study cost centres. The term study cost centre includes cost component level expenditure.

Depreciation Cost Group

This cost group includes all costs associated with depreciation recorded in study cost centres.

Employee Related On costs Cost Group

This cost group includes all superannuation and workers compensation expenditure.

APPENDIX 4:
METHODOLOGY TO
DETERMINE TRANSFER
COST WEIGHTS

The methodology introduced in 2003/04 to determine the transfer cost weights is as follows:

Step One

If the DRG is defined by its length of stay it has a transfer weight equal to its standard weight excluding ED and ICU. This includes the 14 DRGs which are defined as being same day or <5 days (see G42B in table A1 below).

If the DRG is a surgical DRG and it has a separate same day cost weight, then set the transfer weight equal to the same day cost weight (excluding ED and ICU) plus 0.5 x the outlier per diem (see E02A in table A1).

If the DRG is a surgical DRG and it doesn't have a separate same day cost weight, then set the transfer weight equal to the smaller of:

- a) the weight needed to cover the operating room and prostheses components + 1.5 x the outlier per diem (see E01B in table A1). (The weight needed to cover the operating room and prostheses components = cost of these two components divided by the cost base), and
- b) the standard cost weight excluding ED and ICU (see C10Z in table A1).

If the DRG is not a surgical DRG and it has a separate same day cost weight, then set the transfer weight equal to the same day cost weight (excluding ED and ICU) plus 0.5 x the outlier per diem (see E60B in table A1).

If the DRG is not a surgical DRG and it does not have a separate same day weight, then set the transfer weight equal to the smaller of:

- a) 1.5 x the outlier per diem (see E60A in table A1), and
- b) the standard cost weight excluding ED and ICU (see L66Z in table A1).

Table A1 Example of step 1 of transfer weight calculation

DRG	Cost Weight w/o Emerg & ICU	Same Day weight	Procedures + prostheses weight	Outlier per diem weight	New transfer weight
C10Z	0.59	#N/A	0.32	0.25	0.59
E01B	3.05	#N/A	0.65	0.21	0.96
E02A	4.58	0.77	0.24	0.25	0.89
E60A	4.09	#N/A	0.06	0.25	0.38
E60B	3.02	0.62	0.04	0.25	0.74
G42B	0.30	#N/A	0.13	0.21	0.30
L66Z	0.39	#N/A	0.13	0.29	0.39

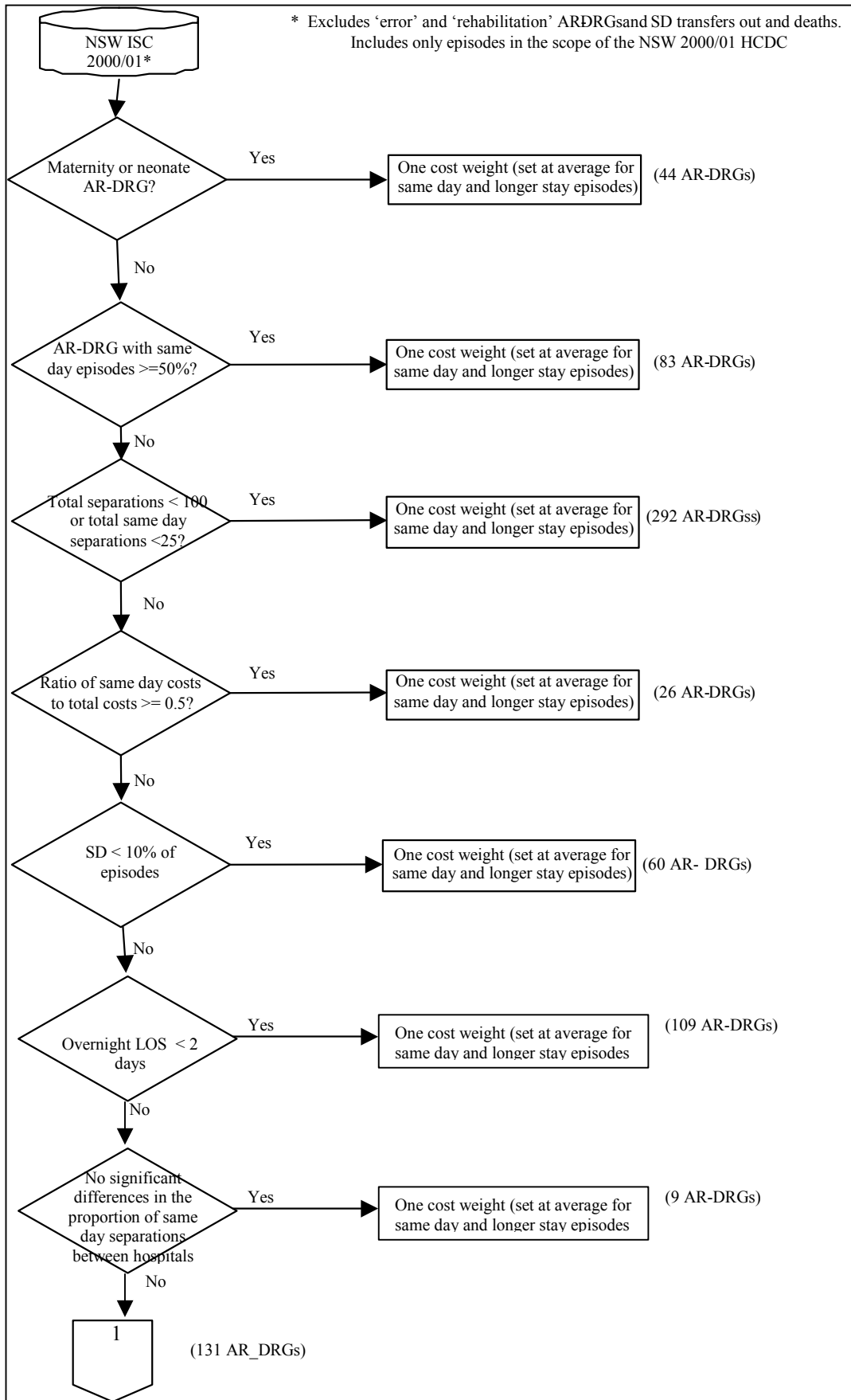
Step Two

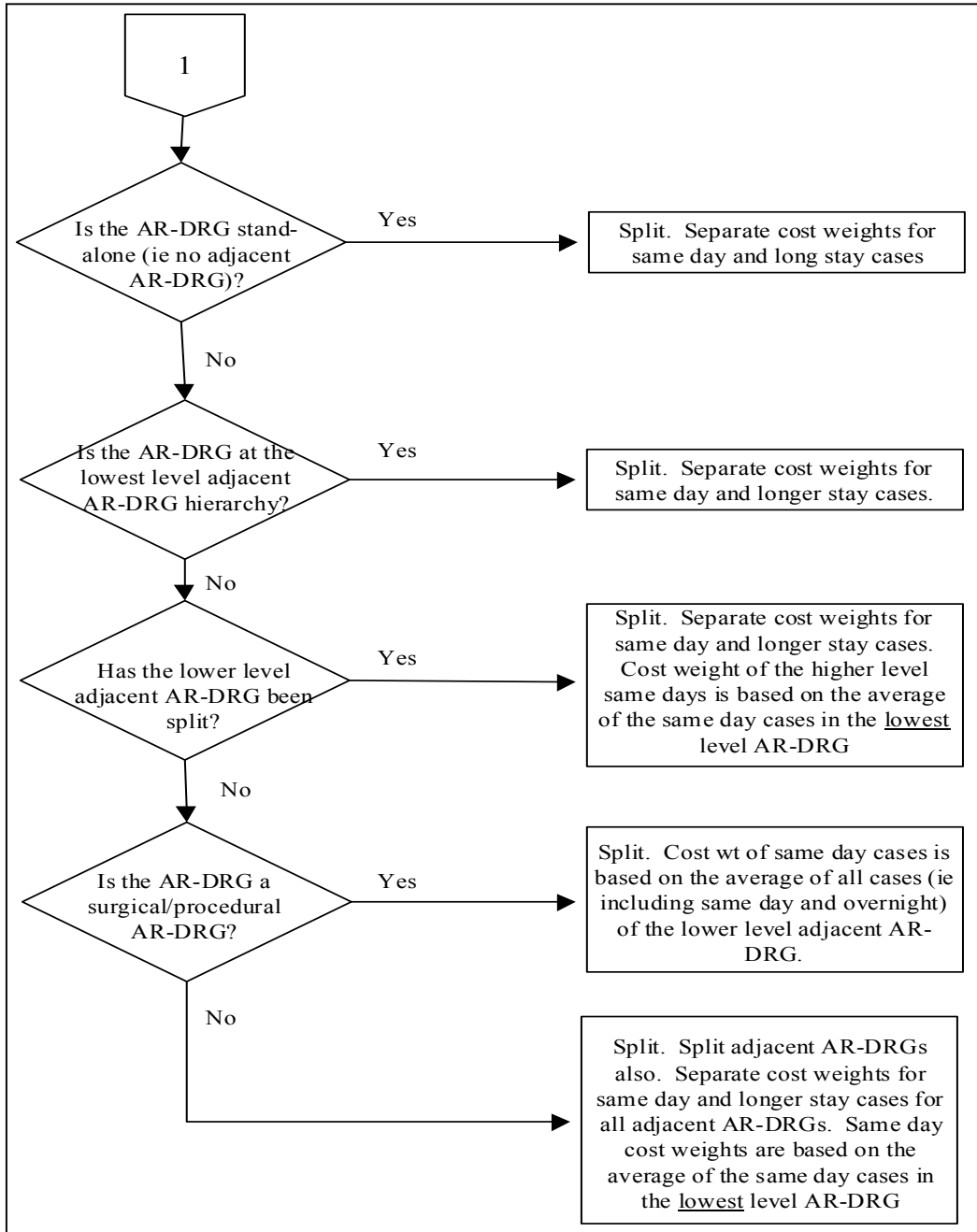
Check to see if there are any DRGs at a lower level in the adjacent DRG which have a higher cost weight. If so, set the cost weight to this weight except where this would take the transfer weight higher than the standard weight excluding ED and ICU.

Table A2 Example of step 2 of transfer weight calculation

DRG	Step 1 Weight	Final Weight
B70A	0.31	0.69
B70B	0.53	0.69
B70C	0.53	0.69
B70D	0.69	0.69
E60A	0.38	0.74
E60B	0.74	0.74
I76A	0.22	0.31
I76B	0.31	0.31
I76C	0.28	0.28
L09A	1.14	1.14
L09B	0.93	1.01
L09C	1.01	1.01

APPENDIX 5:
METHODOLOGY TO
DETERMINE AR-DRGS TO
HAVE SEPARATE SAME DAY
COST WEIGHTS





After this analysis there was a consultation process with clinicians to confirm which AR-DRGs should have separate cost weights where some were added to the list and others removed from it.