New Zealand Casemix Framework For Publicly Funded Hospitals

including

WIESNZ09 Methodology

and

Casemix Purchase Unit Allocation

for the

2009/10 Financial Year

Specification for Implementation on NMDS

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1 Purpose of this document

This document provides the definitions for inclusion of hospital events in casemix funding together with information related to the calculation of cost weights for these events and the assignment of events to purchase units. WIESNZ09 uses the same AR-DRG set as the WIESNZ08 and WIES11C framework, but new cost weights are provided.

This document is the latest in a succession of annual updates that describe New Zealand's casemix funding environment. The documents from earlier years can be viewed on the Ministry of Health website: www.nzhis.govt.nz.

The membership of the project group during the development of this document is given in Appendix 3. Appendix 4 contains a history of the New Zealand casemix environment since 1998/99.

2 Changes effected in this version

This version includes the following major changes:

- The data is now based on events coded in International Classifications of Diseases (ICD-10-AM) 6th Edition which is then mapped to 3rd edition and used to derive ARDRG5.0. (An additional procedure code has been added to the Termination of Pregnancy exclusion to solve a problem caused by this change.)
- A co-payment for scoliosis has been introduced, removing the necessity for these to be invoiced outside the casemix payment.
- The process for adding facilities to the eligible facility list has been improved.
- S05.01 Anaesthesia Inpatients purchase unit is now allocated to all events discharged from S05 Anaesthesia.
- Three new facilities have been added to the eligible facility table.
- The AAA co-payment is now valid for discharges with Tauranga Hospital's facility code.
- A new field has been added to record hours of non-invasive ventilation (NIV) and the field total CPAP hours has been retired.
- Purchase unit W10.01 is included in casemix for events with a discharge date on or after 1 July 2009 (as part of the change in maternity funding) where as it was previously excluded.
- AAA and ASD co-payment funding is based on facility code rather than agency code.

A more detailed list of changes arising during this most recent review is given in 3.2.1.

2.1 Areas for further investigation

2.1.1 Brachytherapy

The Costweights Group has developed a provisional rule to identify these NMDS events but it has not been fully tested. Therefore, manual identification and exclusion of brachytherapy events will be part of the IDF washup negotiations in 08/09 and 09/10.

2.1.2 DRG 963Z – Neonatal DRG inconsistent with weight and age

DRG 963Z is an error DRG which occurs where the weight of the baby is inconsistent with the diagnosis coding. Events falling into this DRG are generally able to be recoded correctly to give a paid DRG, however some events fall into this DRG when they are coded in 6th edition because of a change in the Australian Coding Standards (ACS).

This change affects cases where a baby who has been born prematurely is admitted when it is over 28 days old and over 2500g. In ICD-10-AM 6th Edition the ASC requires the prematurity be coded as the principal diagnosis however if this is reported with an admission weight of >2500g the record goes into DRG 963Z Neonatal Diagnosis is not consistent with age/weight.

The problem is resolved in DRG6.0 which is planned to come into effect in 2010/11. DRG 963Z does not attract any costweights.

The Costweight Group is currently assessing the impact of this issue and considering how to address it to ensure that these events are appropriately funded.

2.1.3 ICD-10-AM based purchase unit allocation for primary maternity

These rules will be reviewed to ensure the excluded purchase unit allocation is correct.

2.1.4 Neonatal and maternity exclusion rules

Events discharged from health specialties for well born babies, with a specified DRG, or more than two diagnosis codes or any procedure codes have historically been included in W06.03 Neonatal casemix. Now that maternity is included in casemix, these events will be examined to decide if they might be included in Maternity casemix instead, reducing the need for the complex Neonatal inclusion rule.

2.1.5 Capsule endoscopies

ICD-10-AM 6th Edition has a specific code for this procedure. A new exclusion rule may need to be developed.

2.1.6 Non Invasive Ventilation hours for neonates (NIV hours)

The NMDS load file for 2009/10 (Version 13.0) includes a field to record the number of hours that a neonate has been on CPAP (total hours on continuous positive airway pressure – for neonates only). CPAP is one type of non-invasive ventilation.

From 1 July 2008 NZ moved to ICD-10-AM 6th edition. The CPAP procedure code is retired in this version and there is a series of Non-Invasive Ventilation (NIV) codes to replace it.

From 1 July 2009 the CPAP hours field will be retired and a new field introduced to record the total hours that a patient has been on NIV. This makes the NIV field consistent with ICD-10-AM 6th Edition clinical coding standards.

3 Introduction

This report specifies the final version of the 09/10 FY[1] WIESNZ09 methodology for casemix purchasing to be used by DHBs. It is the same format as the document used in earlier years, and as with the framework in 05/06, 06/07 07/08 and 08/09, WIESNZ09 is based on the DRG schedule AR-DRG v5.0 and clinical coding in ICD-10-AM 3rd Edition.

The intent of this document is to specify the casemix methodology used by DHBs so that case weighted discharge values can be calculated for all National Minimum Data Set (NMDS) events by the Ministry of Health. Further variables are also defined, as required, to identify casemix purchased Purchase Units (PUs), sometimes also referred to as Service Units, case complexity (for future costing work), and the cost weight version used. Publicly funded events excluded from casemix purchasing are identified and the correct non casemix PU applicable to the event is defined, allowing these events to be combined with the national non-admitted patient data collection (NNPAC). A secondary purpose of this document is to provide a definitive explanation of the DHB casemix purchasing framework for use throughout the health sector. As such, additional information beyond that required by Information Directorate for implementation on the NMDS is provided both as a background and to identify areas that may be subject to revision for future funding arrangements

This specification is described as much as possible in plain English. There are, however, references to lists of International Classifications of Diseases (ICD-10-AM 3rd Edition), Diagnostic Related Groupings (DRGs[2]) and other lists of coded variables from the data dictionary for the NMDS. Such lists, including logical conjunctions of different sets of variables, are provided to exactly identify what is included (or excluded) in the English definition.

The NMDS cost weight file (.ndw file) is distributed by Information Directorate for each file loaded into the NMDS. The file contains the results of the WIES calculation process for each record within the file that is successfully loaded. It gives the cost weight, purchase unit and DRG for each event and a subset of information from the record that was used to calculate each of these. The file comprises a header record containing file information, and a cost weight transaction record for each record loaded to NMDS.

Note that the terms *Hospital and Health Service (HHS)* and *DHB provider arm* may be used interchangeably throughout this document.

3.1 Background

DHBs are responsible for funding their provider arms from their MoH funding packages, using the form of a service level agreement and price volume schedule

[1] Financial Years run from 1 July through to 30 June of the following calendar year and are abbreviated by stringing together the last two digits of the portions of calendar years in question, i.e. 00/01, 01/02, and 02/03 represent the 3 consecutive financial years from 1 July 2000 through 30 June 2003.

[2] Two slightly different DRG versions are in use within the methodology. The DRG version currently in use within the NZ health sector is AR-DRG version 5.0 and all DRG tests on NMDS events refer to this version. However, for the purposes of applying costweights, some AR-DRGs are not clinically homogeneous and in these cases an AR-DRG may be reallocated to a different 'WIES' or 'NZ' DRG referred to in this document as NZdrg50. The NZdrg50 DRGs contain all the AR-DRGs as well as four additional DRG codes (not used in AR-DRG) for the purpose of applying the appropriate costweights to NMDS events.

agreed between a DHB and its provider arm. DHB purchasing intentions, including volume targets, are notified to the MoH in district annual plans. DHBs purchase a range of inpatient events from their provider arms, some of which are funded using this casemix framework, principally Medical/Surgical events. This document extends the existing casemix and cost weight methodology, known as Weighted Inlier Equivalent Separations (WIES), with Amendments for New Zealand from Version WIESNZ08 to Version WIESNZ09. The version for implementation from 1 July 2009 is known as WIESNZ09.

The casemix purchase units appearing in this schedule are those used in DHB price volume schedules and are derived from a mapping of Health Service Speciality codes as set out in this document. See 5.3.

3.2 Recent History of Changes to this Casemix Framework

3.2.1 Changes from WIESNZ08 to WIESNZ09

- A co-payment for scoliosis has been added (see 4.4.4)

- Facilities may be added to the eligible facility list (see 5.2.39) throughout the year. The advent of significant elective surgery initiatives has highlighted the need to develop a more timely procedure for adding facilities subcontracted by DHB provider arms to this framework. From 1 July 2008 the Information Directorate has the ability to add new facility codes to the eligible list during the year. Where this happens the code is WIES eligible for all events discharged in the financial year to which it is added. However only NMDS events that are loaded after the facility code has been made WIES eligible will be included in WIES. Events already on NMDS must be resubmitted.

- Purchase unit S05.01 is now used for all events discharged from health specialty S05 Anaesthetic Services

- Following advice from Bay of Plenty DHB, this facility has been added to the AAA/ASD co-payment calculation rule. (see 4.4.3) Changes to this and other facility specific rules will be made following advice from the DHB of service provision.

- An extra exclusion procedure code for Termination of Pregnancy has been added (see 5.2.21 and 5.2.22). An issue was identified in events submitted to the NMDS in ICD-10-AM 6th Edition for patients whose treatment is a termination of pregnancy in either the 1st or 2nd trimester. When these events are coded in ICD-10-AM 6th edition and submitted to the NMDS they are back-mapped to 3rd Edition for the WIES calculation. However the block [1267] was deleted in 6th Edition so the back mappings did not lead to a procedure code that would exclude these events.
  The solution, which has been implemented from 1 July 2008, was to include a new procedure code in the exclusion criteria for both 1st and 2nd trimester ToPs – 3rd edition code 3564000.

- In version 8 of the WIESNZ09 document Christchurch Hospital has been added to the list of eligible maternity facilities (facility code 4011). This is in addition to Christchurch Women's hospital (facility code 4014). Services provided at Christchurch Women's hospital are being integrated into Christchurch hospital – so eventually Christchurch Women's hospital codes will disappear from recent records reported to the NMDS.

3.2.2 Changes from WIES11C to WIESNZ08

The model for producing the cost weights is the WIES method, but now all data elements are from New Zealand. In particular, only New Zealand cost data has been used. These weights are for use with AR-DRG 5.0 as adapted for use in New Zealand (see footnote 2).

WIESNZ08 includes the following changes from WIES11C:

- Mapping of Carotid Stent cases to a dedicated DRG B04M. See 4.2.3;
- Split of D06Z (Sinus, Mastoid and Complex Middle Ear Procedures) into D06A (Mastoid Procedures) and D06B (Other Sinus and Complex Middle Ear Procedures). See 4.2.4;
- Split of K04Z (Major Procedures for Obesity) into K04A (Major Procedures for Obesity w/o Laparoscopy) and K04B (Major Procedures for Obesity w Laparoscopy). See 4.2.5;
- A new cost weight schedule in Appendix 1 is derived from cost data supplied by New Zealand public hospitals. There are 19 new Same Day DRGs.
- The casemix exclusion rules have been extended to identify the non-casemix purchase units that apply;
- Two new agencies have been added to the list of valid agencies; however they are both excluded from casemix-funded wash-ups.
- New facilities have been added to the casemix-funded facility table.
- Some existing Pregnancy and Childbirth Health Specialty Codes have been retired and new ones introduced to identify events with an independent (non DHB) Lead Maternity Carer (LMC) separately from those with a DHB employed LMC. See below 3.2.2;
- A new Health Specialty Code, D55, has been added to aid the identification of patients convalescing in facilities different from where their main rehabilitation will occur, usually for non-weight bearing and other interim rehabilitation stays. See below 3.2.2;
- The neonatal inclusion rule now includes only events discharged from a secondary or tertiary maternity facility. See 5.2.12;
- Simultaneous transplants of the kidney and pancreas were included in the cost weight development and no longer need to access the High Cost Treatment Pool. See 3.3.3.

3.2.3 New Health Specialty Codes

The five new Health Specialty Codes referred to in 3.2.1 are being introduced with effect from 1 July 2008. The new codes are:

- P60, Maternity Services – Mother no Community LMC
- P61, Maternity Services – Well Newborn no Community LMC
- P70, Maternity Services – Mother with Community LMC

- P71, Maternity Services – Well Newborn with Community LMC
- D55, Non-weight Bearing and other related Convalescence.

3.2.4 Changes from WIES11B to WIES11C

WIES11C includes the following five changes from WIES11B:

- The AAA co-payment has been increased to 5.4077 costweights to better reflect the costs of the stents used;
- More facilities have been added to the list of those eligible for casemix purchases. These are all private surgical hospitals which are subcontracted by DHB provider arms, generally to perform elective inpatient procedures to clear booking lists. They have been included so that DHB provider arms that subcontract to them will have the events included in casemix;
- Correction of an oversight by adding Gisborne hospital to the list of facilities that are eligible for maternity casemix;
- Two health specialty codes have been retired and replaced with four new ones and;
- The purchaser codes list has been trimmed to reflect current purchasing sources and two new codes have been added (34 and 35).

3.2.5 Changes from WIES11A to WIES11B

WIES11B included two changes from WIES11A:

- A new purchase unit and clarification for cases eligible for the AAA and ASD co-payment.
- The new purchase unit S05.01 – Anaesthesiology inpatient services. Since this purchase unit is only used at Waikato DHB, only discharges from there will be allocated to this new service unit.

3.2.6 The Casemix Funding Framework in 2009/10

In 2008/09 the Information Directorate introduced clinical coding in ICD-10-AM 6th Edition. Events coded in this edition will have their codes back-mapped to ICD-10-AM 3rd Edition and from there will be grouped into AR-DRG 5.0. The cost weights and framework that follows in this document will then be applied.

Note that costs for spinal cord stimulators were removed from the cost weights as these cases cannot be consistently identified from a definition based on procedure and diagnosis codes. Service DHBs may continue to invoice Domicile DHBs for these costs. A co-payment for scoliosis has been introduced so invoicing is no longer necessary for these events.

This document continues the framework developed since 1998, but updates the documentation for the changes listed above. The intent of the Casemix Cost Weights project group in making the changes where rules are specified in terms of clinical code sets has been to preserve the current intent of the exclusion rules, including maternity cases.

3.3 Areas for change in the future

The current cost weight schedule is now based solely on New Zealand cost and other data elements.

WIESNZ09 contains cost weights for the new Maternity purchase framework which will become effective from 1 July 2009. New health specialty codes introduced from 1 July 2008 allow for differing employment arrangements for midwives to be analysed in future datasets.

Similarly, NMDS has expanded its range of event end type codes to identify ED discharges and this may be used in future cost weight studies.

The advent of a new mechanism for funding, and budget management of, Pharmaceutical Cancer Treatment (PCT) drug costs means that future cost weight studies will need to be able to remove these costs before developing new cost weights. Funding of this component of cancer treatment is now accessed from other sources.

3.3.1 Maternity/Obstetrics Purchasing

This framework contains the casemix framework for that service which has been effective for data collection and reporting (but not funding) from 1 July 2008. This set of exclusion rules for the casemix Maternity framework was introduced for the 2003/04 year, and has been reviewed for funding to start for the first time in 2009/10. Note that this new framework is the official PU framework in NNPAC effective from 1 July 2008. It may need some further review for effectiveness in conjunction with the expected future devolution of primary maternity services to DHBs.

Note that in the body of this document the term Pregnancy and Childbirth may be used instead of Maternity/Obstetric.

3.3.2 Facilities used in DHB subcontracting

To be valid for casemix funding an event must have both a valid agency and a valid facility recorded. Agencies valid for non casemix funding are the same as those valid for casemix funding, however some facilities are valid for non casemix funding only and these do not appear on the casemix valid facility list in 5.2.39. The advent of significant elective surgery initiatives has highlighted the need to develop a more timely procedure for adding facilities subcontracted by DHB provider arms to this framework. It is expected that Information Directorate and the NPP Casemix Project group will explore ways of facilitating this.

The historical process has been dependent on DHBs advising either Information Directorate or the Casemix Project Group on an annual basis of any changes to the list of facilities they may use during a financial year. The eligible facility list (see 5.2.39) has been updated based on a survey of DHB provider arm electives subcontracting intentions in November 2007. However from 1 July 2008 the Information Directorate has the ability to add new facility codes to the eligible list during the year. Where this happens the code is WIES eligible for the whole of the financial year to which it is added. However only NMDS events that are loaded after the facility code has been made WIES eligible will be included in WIES.

3.3.3 Simultaneous transplants of the kidney and pancreas

Costs for these events were accounted for in developing WIESNZ08 and WIESNZ09, and so the inpatient component of these cases are now funded completely through the casemix schedule. See 5.2.19.

3.3.4 Spinal Cord Stimulators

Note that costs for spinal cord stimulators were removed from the cost weights as these cases cannot be consistently identified from a definition based on procedure and diagnosis codes. There is ongoing work to determine a consistent method for identifying these cases from reported data elements, and to identify all service aspects of spinal cord stimulators.

3.3.5 Cancelled procedures

This version does not change the casemix exclusion rule for cancelled procedures. No change was made because it is difficult to identify the reason why it was cancelled (due to the coding standards). For example patients who are admitted and their procedure is cancelled will still have a principal diagnosis of the reason for their procedure. An additional diagnosis will be Z53.0 to Z53.9 if their procedure was cancelled. Often there is no reason documented in the notes to determine why the procedure was cancelled – eg if contraindication, or theatre services were not available. The intent of this exclusion is to provide an incentive not to cancel operations and further to not fund admissions where the patient does not require hospital services for the night of their stay.

4 WIESNZ09 calculation

The following section describes the derived variables required, the DRG reallocation tests applied (AR-DRG => NZdrg50 DRG), the Mechanical Ventilation calculation, other co-payments, the matching of events with appropriate cost weights and the WIESNZ09 case weight calculation. In what follows the phrases *case weight*, *cost weight*, and *costweight* may be used interchangeably. The table of information required to apply these calculations is provided in the WIESNZ09 file attached in Appendix 1, The file is available from the Information Directorate website: www.nzhis.govt.nz

4.1 Derived variables required in calculation

The following derived variables are used in the WIESNZ09 calculation.

4.1.1 Length of Stay

The Length of Stay (LOS) calculation used in the methodology is specific for use within the WIESNZ09 calculation. It has a maximum of 365 days and minimum of 1 day applied, as well as having any Event Leave Days subtracted from the total elapsed days between admission and discharge dates. The minimum of 1 day is applied to deal with the few cases where Event Leave Days are equal to the difference between the admission and discharge dates. Note that for WIES calculations, same day events are only those where the admit and discharge days have the same date. Hence, the calculated LOS equals the difference in integer days between the discharge and admission dates, minus any Event Leave Days. Further, this is set to 365 if the LOS is greater than 365 or is set to 1 if the LOS=0.

4.2 DRG Reallocations

Details of the DRG shifts prior to the case weight calculation are given in this section. These events, however, should **not** have the original AR-DRG overwritten, and to this end the SAS code in Appendix 2 creates a new variable, NZdrg50, to hold the

reassigned DRG appropriate for the case weight calculation. This WIES DRG, or NZdrg50, contains the unmapped AR-DRGs as well as the additional DRG codes not used in AR-DRG for the purpose of applying the appropriate cost weights to NMDS events.

As in previous years adjustments are made to the original AR-DRG grouping when setting the NZdrg50 field for Peritoneal Dialysis (excluded from casemix purchasing in NZ) and for medical DRGs where the event includes radiotherapy, which are mapped to the AR-DRG5.0 for Radiotherapy.

The following subsections detail the tests for the allocation of AR-DRGs to NZdrg50 DRGs for the purposes of the WIESNZ09 case weight calculation.

4.2.1 Adjustment for Peritoneal Dialysis

In recognition of cost differences between peritoneal and haemodialysis, episodes with a principal diagnosis of peritoneal dialysis (ICD-10-AM 3rd Edition code Z492 *Other dialysis*) are to be assigned an NZdrg50 DRG of L61Y. Note however that both dialysis DRGs are casemix exclusions in New Zealand; see 5.2.23 below.

4.2.2 Adjustment of medical AR-DRGs with radiotherapy

Records with medical DRGs and an ICD-10-AM 3rd edition procedure in the blocks 1786 to 1789 (ie all external beam therapies) are mapped to the AR-DRG R64Z (Radiotherapy). Medical DRGs are those where the number part of the DRG is greater than or equal to 60 (the format of DRG codes is AnnA).

4.2.3 Adjustment for Carotid Stenting

Different cost structures for these cases have led to a mapping to a dedicated DRG as follows:

Records with a DRG of 901Z for which the Principal Diagnosis is either I652 or I653
And
One of the first 30 procedure codes is in {3530906, 3530907}

are assigned the NZdrg50 B04M[3], Extracranial Vascular Procedures mapped from 901Z.

4.2.4 Adjustment for D06Z: Sinus, Mastoid, and Complex Middle Ear Procedures

This split is based on the significantly different cost structures for Mastoid Procedures and other Sinus and Middle Ear procedures in D06Z.

Records with an AR-DRG of D06Z are split into two NZdrg50s as follows:

If one of the first 30 procedure codes is in {'4154500', '4155100', '4155400', '4155700', '4155703', '4156000', '4156300', '4156400', '4156600', '4156601', '4156602'} then NZdrg50 = D06A[4];

[3] Version 7 of the WIESNZ08 document called this DRG B06M - Procedures for Cerebral Palsy, Muscular Dystrophy and Neuropathy. This has been changed to B04M in Version 8.

otherwise NZdrg50 is D06B.

4.2.5 Adjustment for K04Z: Major Procedures for Obesity

This split recognises the significantly different cost structures involved in laparoscopic and open surgery provision.

Records with an AR-DRG of K04Z are split into two NZdrg50s as follows:

If one of the first 30 procedure codes is in {'3039000','3039300','3044500'} then NZdrg50 = K04B

otherwise NZdrg50 is K04A.

4.2.6 All other AR-DRGs

All AR-DRGs v5.0 not reallocated in the above tests are given the same DRG code, ie the NZdrg50 DRG is set to the same value as the AR-DRG v5.0.

4.3 Adjusted Mechanical Ventilation Days

The WIESNZ09 calculation includes a component for Adjusted Mechanical Ventilation Days used to calculate the mechanical ventilation (MV) co-payment. However, in some DRGs the majority of events include mechanical ventilation and the cost of this is already reflected in the case weight for that DRG. Therefore these DRGs have their adjusted MV days set to zero.

4.3.1 DRGs excluded from mechanical ventilation days

Each of the following AR-DRGs has their event's Adjusted Mechanical Ventilation Days set to zero and are ineligible for a MV co-payment.
(A01Z, A03Z, A05Z, L61Y, P01Z, P02Z, P03Z, P04Z, P05Z, P60A, P60B, P61Z, P62Z, P63Z, P64Z, P65A, P65B, P65C, P65D, P66A, P66B, P66C, P66D, P67A, P67B, P67C, P67D, 960Z, 961Z). These DRGs are flagged as 'I' in the field mvelig in the WIESNZ09 table.

For DRGS A06Z, A07Z, A08A, A08B, A40Z, F02Z, F40Z, and W01Z, hours of ventilation need to be > 96 to qualify the event for mechanical ventilation co-payment). These DRGs are flagged as '4' in the field mvelig in the WIESNZ09 table.

4.3.2 Calculation of mechanical ventilation days from hours

For all other AR-DRGs, Adjusted Mechanical Ventilation Days is calculated in the following way:
If hours of ventilation are less than 6 then Adjusted Mechanical Ventilation Days is set to zero.
If hours of ventilation are 6 or more then Adjusted Mechanical Ventilation Days are calculated by adding 12 hours to the hours reported, dividing the result by 24 and rounding up to integer days.
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[4] Version 7 of the WIESNZ08 document included procedure codes 4155701, 4155703, 4156000 and 4156301. These have been excluded from Version 8 of WIESNZ08 because they will not lead an event to DRG D06Z it will go into D02.

4.4 General Calculation

For the WIESNZ09 calculation, each NMDS event is initially allocated its NZdrg50 and this DRG is then matched to the file containing the NZdrg50 cost weights and other associated variables.

NZdrg50 DRGs are no longer flagged as Sameday, Oneday or other DRGs in this file by the SOflag (Same Day/One Day WIES DRG Flag), but events are classed as same day, one day, or multiday as determined from admission and discharge dates or from LOS. The development of the weight schedule has followed the same pattern as before, though the calculation continues to be presented in an easier format. It uses per diem rates for both high and low outliers, inlier weight, a one day weight, and a same day weight.

The base WIES weight for sameday episodes (inlier and low outlier), one-day episodes (inlier and low outliers), and multiday inliers can be read directly from the WIESNZ09 weights table using the appropriate column and row. The base WIES weight for multiday low outliers can be calculated by multiplying the per diem weight given in the WIESNZ09 weights table by the patient's (length of stay – 1) and adding the one day weight. The base WIES weight for high outliers is obtained by multiplying the number of high outlier days by the high outlier per diem weight (from table) and adding the multiday inlier weight (from table). Technical details are provided in the following sections.

An event's LOS is generally compared with the NZdrg50 DRG's low and high LOS boundary points to determine the inlier category (Low, Inlier, High) and which particular cost weight should be applied to it. In the following sections, shortened variable names from the WIES DRG weights file are used. Note that in the following table *VIC-DRG5* is synonymous with AR_DRG v5.0, while DRG_NZ, WIES DRG and NZdrg50 are synonymous for this classification when adapted to New Zealand.

Variable (Column Heading)	Label	Description
Victorian DRG	VIC-DRG5	AR-DRG v5.0
Mechanical ventilation	Mvelig	This describes the way mechanical ventilation severity co-payments are calculated for the VIC-DRG5. Options are :- D: funded provided at least six hours of ventilation is provided. Patients attract a daily rate of 0.7729 WIES E: patients are funded an additional 3.1323 WIES 4: funded for each day of mechanical ventilation after 4 days. Patients attract a daily rate of 0.7729 WIES. I: ineligible for mechanical ventilation co-payments
Other co-payments	Copay	Some groups of patients attract additional funds in recognition of their higher costs. For New Zealand there are co-payments for AAA stent , ASD and scoliosis implants for eligible facilities. See Box 1b and 1c. Now coelig.
Low inlier boundary	Lb	The low length of stay boundary for inliers. Patients with a length of stay of less than the low boundary are classed as low outliers. For most DRG_NZs the low boundary has been set at a third of the estimated average length of stay for the DRG_NZ. Boundaries are truncated to the nearest whole number.

Variable (Column Heading)	Label	Description
High inlier boundary	Hb	The high length of stay boundary for inliers. Patients with a length of stay greater than the high boundary are classed as high outliers. For most DRG_NZs the high boundary has been set at three times the estimated average length of stay for the DRG_NZ. Boundaries are rounded to the nearest whole number.
Inlier average length of stay	alos	The average length of stay (days) for inliers.
VIC-DRG5 designation	Sd_od	Flag for designated sameday (S) or one day (N) VIC-DRG5s Note that this is not used in the WIESNZ09 calculation
Same day weight	Sd	The same day weight is used to allocate WIES to episodes where patients are admitted and discharged on the same day. Depending upon the VIC-DRG5, same day patients may be either low outliers or inliers:- Designated Same day VIC-DRG5s The same day weight is based on the costs of same day patients. Non-Same Day VIC-DRG5s with a low boundary of zero days The same day weight is set at the multiday inlier weight. Non-Same Day VIC-DRG5s with a low boundary of 1 day The same day weight is set based on the average cost of inliers. For medical DRGs the weight is set at half of the inlier average cost and for procedural DRGs is based on 100% of theatre and prosthesis costs and 50% of the average of other costs. Non-Same Day VIC-DRG5s with a low boundary of 2 days or more (low outliers) The same day weight is set at half of the multiday inlier costs based on 100% of theatre and prosthesis costs and 50% of the average of other costs, divided by the low boundary.
One day weight	Od	The one day weight is used to allocate WIES to episodes where patients have a length of stay of one but who were not discharged on the same day as they were admitted. Depending upon the VIC-DRG5, one day patients may be either low outliers or inliers:- Designated Same day VIC-DRG5s The one day weight is based on the costs of all inliers excluding same day patients. If the patient is an inlier they attract the full multiday inlier weight. If the patient is a low outlier they attract the low outlier per diem weight. Designated One day VIC-DRG5s The one day weight is based on the costs of patients with a length of stay of one day. Non-Same/One Day VIC-DRG5s with a low boundary of 1 day or less The one day weight is set at the multiday inlier weight. Non-Same/One Day VIC-DRG5s with a low boundary of 2 days or more (low outliers) The one day weight is based on 100% of theatre and prosthesis costs and 50% of the average of other costs, divided by the low boundary.

Variable (Column Heading)	Label	Description
Multiday low outlier per diem weight	Lo_pd	The low outlier multiday per diem weight is used to allocate WIES to low outliers who have a length of stay of at least two days. Not all VIC-DRG5s have low outliers. No weight is reported in these cases. For most VIC-DRG5s the weight is derived from the average cost of multiday inliers excluding prosthesis and theatre costs, divided by the low boundary The WIES value for low outliers is calculated by multiplying the low outlier multiday per diem weight by the patient's length of stay less one day and then adding the one day weight, ie Low outlier WIES = od + (LOS – 1)*lo_pd
Inlier weight	md_in	The inlier multiday weight is used to allocate WIES to inliers that have a length of stay of at least two days. For designated VIC-DRG5s, same day/one day patients are excluded when deriving the inlier multiday weight.
High outlier per diem	ho_pd	The high outlier multiday per diem weight is used to allocate additional WIES for all days of stay in excess of the high boundary after adjusting for any MV co-payment days. The high outlier multiday per diem rate is based on the average cost of inliers excluding all prosthesis and theatre costs according to the formula:- High factor * (av inlier cost excl prosthesis and theatre costs) / alos Where the high factor is set at 0.7 for surgical Vic-DRG5s, and 0.8 for medical Vic-DRG5s to recognise the days at the end of a patients stay are less resource intensive than days at the beginning of a patients stay. However, some variations exist on this pattern, and the high factor may be set higher than one for some high cost Vic-DRG5s. In addition, maximum and minimum criteria are also used.

4.4.1 Calculating WIESNZ09

To calculate the WIES weight allocated to a patient proceed as follows:-

- Calculate the WIES co-payment for MV(mv_copay) using the precalculated adjusted mechanical ventilation days (adjmvdays) see 4.3 and 4.4.2 (see box 1);
- Calculate the co-payment for AAA, ASD, and scoliosis events (see boxes 1b, 1c);
- Calculate the base WIES allocation using the NZdrg50 DRG and the patient's length of stay adjusted for mechanical ventilation per diem. This can be done using the appropriate weights from the WIESNZ09 weights table; and
- Add the base WIES payment and co-payments (see box 3).

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

4.4.2 Co-payment for Mechanical Ventilation

Technical specifications for mechanical ventilation co-payments are given in box 1.

To be eligible for a mechanical ventilation co-payment the patient must have had at least six hours of continuous mechanical ventilation and have been allocated to a NZdrg50 DRG that is eligible for a mechanical ventilation co-payment. NZdrg50 DRGs are classed as either:

- Eligible for daily co-payments of 0.7729 WIES (column mvelig =“D” in the WIESNZ09 weights table);
- Eligible for a co-payment of 3.1323 (column mvelig = “E” in the WIESNZ09 weights table;
- Eligible for daily co-payments at 0.7729 WIES for ventilated days in excess of four days (96 hours) mechanical ventilation (column mvelig = “4” in the WIESNZ09 weights table); or
- Ineligible for co-payments (column mvelig = “I” in the WIESNZ09 weights table).

Box 1: Calculating Mechanical Ventilation Co-payments

```
Select mv_elig
      case “D” then
                  if  (hours on mechanical ventilation is greater than or equal to 6 ) then
                        Adjmvday = round((hours mechanical ventilation +12)/24)
                         mv_copay =  adjmvday × 0.7729
                    else
                         adjmvday = 0
                         mv_copay =  0
               go to box 1b

      case “E” then
                  if  (hours on mechanical ventilation is greater than or equal to 6 ) then
                        Adjmvday = round((hours mechanical ventilation +12)/24)
                         mv_copay = 3.1323
                    else
                         adjmvday = 0
                         mv_copay =  0
               go to box 1b

      case “4” then
                  if  (hours on mechanical ventilation > 96) then
                        adjmvday = round((hours mechanical ventilation +12)/24) – 4
                        mv_copay = adjmvday × 0.7729

                    else
                         adjmvday = 0
                         mv_copay = 0
               go to box 1b
      otherwise do
                    adjmvday = 0
                    mv_copay = 0
                    go to box 1b
```

Note that additional WIES payments for high outliers do not start until the LOS exceeds high boundary outlier days (column hb in WIESNZ09 table) plus adjusted mechanical ventilation days (“adjmvday” in the technical specifications box 1 above).

4.4.3 Co-payment for AAA and ASD

Technical specifications for abdominal aortic aneurysm and atrial septal defect stent co-payments are given in box 1b in this section. Note that changes to the list of valid agencies will be made by the Casemix Group following advice from the providing DHB.

To be eligible for a AAA co-payment of 5.4077 WIES the facility recorded for the event must be one of the DHBs listed and one of the first 30 ICD-10-AM 3rd Edition procedure code must be 3311600 [762], and the event must fall into one of the following DRGs; F08A or F08B.

To be eligible for an ASD co-payment of 1.1460 WIES the facility recorded for the event must be one of the DHBs listed and one of the first 30 ICD-10-AM 3rd Edition procedure codes must be 3874200 [617], and the event must fall into the DRG F19Z.

Box 1b: Calculating AAA and ASD Co-payments
When event falls into DRG F08A or F08B and
When facility is in ('3260','3214','5311','4911','5811','4011','4211')
and any of the first 30 recorded procedures = '3311600' then aaa_pay = 5.4077
else aaa_pay = 0;

When event falls into DRG F19Z and
When facility is in ('3260','5311','5811', '4011','4211')
and any of the first 30 recorded procedures = '3874200' then asd_pay = 1.1460
else asd_pay = 0;

go to box 1c

4.4.4 Co-payment for Scoliosis implants

This rule applies to all events and is not associated with any specific DRGs. However, the DRGs the co-payment appears on will generally be confined to a small group. The co-payment value is 6.1491 cwds = $23,000 / $3,740.38.

To be eligible for a scoliosis co-payment, the age at admission must be less than 19 years and the facility must be Auckland City, Wellington, or Dunedin and

EITHER the drg50 must be 'I06Z'
OR the drg50 must be 'I09A' and either one of the first 2 diagnoses is in 'M41','Q763','Q675','M962','M963','M965' or one of the first 3 procedures is in '4031600','4867800','4868100','4868400', '4868700','4869000'
OR for any other drg50 both the diagnosis and procedure criteria shown above must apply.

Box 1c: Calculating scoliosis Co-payments
When age at admission < 19 years and when facility in ('3260','5811','4211')
and event falls into DRG I06Z

or event falls into DRGI09A and either any of the first 2 recorded diagnoses in ('M41','Q763','Q675','M962','M963','M965') or any of the first 3 recorded procedures in ('4031600','4867800','4868100','4868400', '4868700','4869000')

or any of the first 2 recorded diagnoses in ('M41','Q763','Q675','M962','M963','M965') and any of the first 3 recorded procedures in ('4031600','4867800','4868100','4868400', '4868700','4869000')

then scol_pay = 6.1491
else scol_pay = 0;

go to box 2a

4.4.5 Base WIES

To calculate a patient's base WIES proceed as follows to determine:

- The patient's NZdrg50.
- The patient's length of stay (LOS).
- The patient's length of stay category (LOS_cat: "S"= same day, "O"= one day, "M"= multiday).
- The number of mechanical ventilation co-payment days ("adjmvday" see box 1a).
- The co-payment, if any for AAA or ASD (see Box1b) or scoliosis (see Box1c).
- The patient's inlier status ("I"= inlier, "L"= low outlier, "H"= high outlier).

The patient's length of stay and length of stay category are derived from the admission date, discharge date and leave days. A maximum length of stay of one year (365 days) is used. Technical specifications are given in Box 2a.

Box 2a: Determining Length of Stay Category and Maximum Length of Stay

Sameday='Y' if admission date = discharge date
Else sameday='N'

If (sameday = 'Y') then
LOS_cat = "S"
go to step/box 2b
else if (sameday = 'N') and (LOS less than or equal to 1[5]) then
LOS_cat = "O"
go to step/box 2b
else

LOS_cat = "M"
go to step/box 2b

The patient's inlier status is determined by comparing the patient's length of stay with the inlier boundaries for the NZdrg50 to which the patient is allocated. The low inlier (lb) and the high inlier (hb) boundaries are given in the WIESNZ09 weights table.

A patient is classified as an inlier when their length of stay is greater than or equal to the low inlier boundary (lb) and less than or equal to the sum of the high inlier boundary plus any mechanical ventilation co-payment days (hb+adjmvday). Patients with a length of stay less than the low inlier boundary are classified as low outliers.

[5] This was changed on 10 October 2001. It was less than one.

Patients with a length of stay greater than the sum of the high inlier boundary and mechanical ventilation co-payment days are classified as high outliers. Technical specifications are given in box 2b below.

Box 2b: Calculate Inlier Status

```
If LOS < lb then
        Inlier = "L"
        go to box 2c
else if LOS > (hb + adjmvday) then
        Inlier = "H"
       go to  box 2c
else
        Inlier = "I"
        go to box 2c
```

Separate columns occur in the WIESNZ09 weights table for episodes that are:

- same day
- one day
- multiday low outliers
- multiday inliers, and
- high outliers.

The base WIES score for sameday episodes (inlier and low outlier), one day episodes (inlier and low outliers), and multiday inliers can be read directly from the WIESNZ09 weights table using the appropriate column and row (NZdrg50). The base WIES score for multiday low outliers can be calculated by multiplying the patient's length of stay less one day, by the per diem weight given in the WIESNZ09 weights table and adding the one day inlier weight (from table). The base WIES score for high outliers is obtained by multiplying the number of high outlier days by the high outlier per diem weight (from table) and adding the multiday inlier weight (from table). Technical details are provided in box 2c.

Box 2c: Calculate Base WIES

```
Select Inlier
   case "L" do                                          "Low Outliers"
              select LOS_cat
                   case  "S" do                         "Same Day"
                              base_WIES = sd
                              go to box 3
                   case "O" do                          "One Day"
                              base_WIES = od
                              go to box 3
                   case "M" do                          "Multi day Low Outlier"
                              base_WIES = (LOS-1) × lo_pd + od

                              go to box 3
   case "I" do                                          "Inlier"
                             select LOS_cat
                   case  "S" do                         "Same Day"
                              base_WIES = sd
                              go to box 3
                   case "O" do                          "One Day"
                              base_WIES = od
```

```
                    go to box 3
            case "M" do                          "Multi day Inlier"
                    base_WIES = md_in
                    go to box 3
case "H" do                                      "High Outlier"
        high_days = max(0, LOS - hb - adjmvday)
        base_WIES = Md_in + high_days × ho_pd
        go to box 3
```

High outlier days are days stayed in excess of the high outlier boundary plus any mechanical co-payment ventilation days ("adjmvdays" - see boxes 1 and 2b).

4.4.6 Final WIES weight

The WIES score is calculated by adding the base WIES and the co-payment WIES. Details are provided in box 3.

Box 3: Calculating WIES Score

```
WIESNZ09 = base_WIES + mv_copay + aaa_pay + asd_pay + scol_pay
```

5 Purchase Unit allocation

The following section describes the derived variables required, the exclusion tests applied and the mappings used to allocate DHB casemix Purchase Units to NMDS events. Each exclusion test indicates the relevant purchase unit.

5.1 Derived variables required in allocation

The following derived variables are required for casemix exclusion testing.

5.1.1 Patient's Age

The patient's age is calculated in integer years as at the date of discharge.

5.1.2 Length of Stay

(Refer to section 4.1.1) The calculated LOS equals the difference in integer days between the discharge and admission dates, minus any Event Leave Days. Further, this is set to 365 if the LOS is greater than 365 or is set to 1 if the LOS=0.

5.2 Exclusions from casemix purchasing

The following section lists the tests that identify whether or not a particular event is allocated to an inpatient casemix purchase unit. It should be noted that some events which are included in the casemix purchase unit allocation methodology will be excluded, by the final rule, from the publicly funded casemix extract used for inter DHB inpatient CWD wash-up. These events are excluded on the basis of Health Purchaser code and Health Agency code where these are not valid for the inter DHB funding wash-up. The exclusion rules below indicate the nationwide Service Framework equivalent purchase unit for NMDS events, which will be generated by Information Directorate and stored in a separate field. The tests are hierarchical and must be applied in the supplied sequence. For example, the Chemotherapy tests assume that the Primary Maternity test has already been applied.

Note - the Information Directorate SAS methodology uses individual exclusion flag fields to generate an overall exclusion flag {Yes/No} for each event. These individual fields indicate where an event could be excluded for more than one reason.

Hospitals can report up to 99 diagnoses, procedure and external cause (E-codes) codes for each record. However the grouper software (AR-DRG v5.0) uses only the first 30 diagnoses and 30 procedure codes (external cause codes are not included in grouper logic). Many of the tests below state how many procedure or diagnoses codes are reviewed to determine if the event is included or excluded from casemix. Where this is not stated the first 30 diagnosis or 30 procedure codes are reviewed. External cause codes are not included in these totals.

DHBs that are concerned about the sufficiency of 30 diagnosis and 30 procedure codes should ensure their coding is prioritised so that the critical codes are included within the first 30 diagnosis and procedure codes for each event.

5.2.1 Base purchase – publicly funded events (EXCLU)

Only publicly funded events as indicated by the purchaser code are included for 2009/10. Publicly funded purchaser codes are 34 MOH funded event, 35 DHB funded event or 20 Overseas resident eligible for DHB funded health care.

Therefore an event will be excluded if it has a Purchaser code which is NOT in (20, 34, 35)

Note that it has been proposed to remove this exclusion rule in future years, allocating a purchase unit on NMDS to all events at publicly funded agencies regardless of purchaser and using the purchaser code where appropriate as an exclusion when extracting data.

5.2.2 Note on Historical Purchaser exclusions

In the past, base DHB service agreements, had a Purchaser code in the range (01, 02, 03, 04, 13, 18). Purchaser codes 01, 02, 03, and 04 were retired in 2004 and can no longer be submitted to the NMDS for discharges after this date. Purchaser codes 13 and 18 were retired from 1 July 2007 and replaced with code 34 (MOH funded purchases) and 35 (DHB funded purchases.

Events with any other Purchaser code are excluded, e.g. Private, ACC direct and Insurers. In addition, any events with Admission Types of “ZW”, which was historically used as a substitute for purchaser A0 and retired from 1 July 2004 but included here for completeness, were excluded.

5.2.3 Publicly Funded Agencies

The agencies listed here have been identified as the providers through which the MoH and DHBs will monitor publicly funded agreements. Only NMDS records with an agency from the following list will be allocated a publicly funded purchase unit. All other events will be excluded. Inclusion in casemix funding requires a combination of agency code as in the following table and facility code as in 5.2.39.

Health Agency code	Agency Name
1011	Northland DHB

Health Agency code	Agency Name
1021	Waitemata DHB
1022	Auckland DHB
1023	Counties Manukau DHB
2031	Waikato DHB
2042	Lakes DHB
2047	Bay of Plenty DHB
2051	Tairawhiti DHB
2071	Taranaki DHB
3061	Hawke's Bay DHB
3081	Mid Central DHB
3082	Whanganui DHB
3091	Capital & Coast DHB
3092	Hutt Valley DHB
3093	Wairarapa DHB
3101	Nelson-Marlborough DHB
4111	West Coast DHB
4121	Canterbury DHB
4123	South Canterbury DHB
4131	Otago DHB
4137	Otago Dental School
4141	Southland DHB
8559	Venturo
8630	Queen Elizabeth Hospital
8656	Mobile Surgical Bus

Retired Agency codes
These codes have been retired but are noted here for historical reasons.

Health Agency Code	Agency name
0223	Heart Surgery South Island
2041	East Bay Health
2043	Western Bay Health
4122	Canterbury DHB (Healthlink South)

5.2.4 Error DRGs

Events coded to some Error AR-DRGs are excluded. Events that contain clinically atypical or invalid information are assigned to one of six Error DRG's in AR-DRG v5.0.

There are three error DRGs that occur because the principal diagnosis does not relate to the principal procedure. These are not excluded from casemix. The Error DRGs in AR-DRG v5.0 that are excluded from casemix are 960Z, 961Z, and 963Z.

5.2.5 Non-Treated Patients (Boarders- BOARDER or cancelled operations- CANC_OP)

Events where no treatment is provided are excluded from casemix funding. These include Boarders who may be admitted or admitted patients whose procedure is subsequently cancelled. The current costing process is such that cost for these events are spread across other casemix-funded events and so are funded indirectly.

Boarders are tested for by checking that the principal diagnosis code is in the range: (Z763, Z764).

Cancelled Operations are tested for by checking that:
The primary operation/procedure code is blank
AND
That the event is non-acute (ie Admission Type not "AC")
AND
Length of Stay is less than 2 days
AND
That one or more of the first six diagnosis codes contain the ICD-10-AM 3rd Edition codes for *Persons encountering health services for specific procedures, not carried out*,
i.e. one (or more) of diagnosis 1-6 is in the range Z530 – Z539:
Z530 *Procedure not carried out because of contraindication*,
Z531 *Procedure not carried out because of patient's decision for reasons of belief or group pressure,*
Z532 *Procedure not carried out because of patient's decision for other and unspecified reasons*,
Z538 *Procedure not carried out for other reasons*,
Z539 *Procedure not carried out, unspecified reason.*

5.2.6 Mental Health Events (EXCLU)

Events that have a Mental Health Speciality code are excluded and, in future versions, will be allocated a purchase unit in the MHIS series. These services have a health speciality code commencing with "Y", and are purchased under other funding arrangements.

5.2.7 Disability and Health of Older People Events

Events that have a Disability Health Speciality code are excluded from casemix funding. These services have a health speciality code commencing with "D", and are purchased under other funding arrangements:

Health Specialties in the range
(a) D00-D04 are allocated to HOP214, Age related AT&R;
(b) D20-D24 are allocated to HOP235, Pychogeriatric AT&R;
(c) D40-D44 relate to care purchased by MoH and the following mapping is proposed for future years but have not been included in the allocation for 08/09; and
D40-D44 are allocated to DSS214, Young physically disabled AT&R.

Other Disability Health Specialty codes relate to residential care, including short term respite care, and are purchased under a variety of non-casemix arrangements. The following mappings have been allocated for the non-casemix purchase unit field in 2009/10 but a further review is required as this mapping is not always correct.

(d) D10 - D12 HOP1006 Aged Continuing Care – Rest Home
(e) D30 - D32 HOP1035 Aged Continuing Care - Specialist

All other events with a Health Specialty code commencing with D are excluded.

5.2.8 Maternity Secondary and Tertiary Facility Table

The following table is sourced from the table of Maternity facilities contained in the document Maternity Services: A Reference Document, HFA, 1999 – Appendix 9[6]. Only the designated secondary and tertiary maternity facilities have been listed, as the intent of the maternity project group was that a casemix purchase framework should only apply for service provided in these facilities.

Document Facility Name	NMDS Facility Name	NMDS Facility Code	Secondary	Tertiary
Whangarei	Whangarei Area Hospital	4111	✓	
North Shore	North Shore	3215	✓	
Waitakere	Waitakere	3216	✓	
National Women's	National Womens	3213	✓	✓
Middlemore	Middlemore	3214	✓	✓
Auckland City	Auckland City	3260	✓	✓
Waikato Hospital	Waikato	5311	✓	✓
Rotorua	Rotorua	5312	✓	
Tauranga	Tauranga	4911	✓	
Whakatane	Whakatane	3311	✓	
Gisborne	Gisborne	3411	✓	
New Plymouth	Taranaki Base	4711	✓	
Wanganui	Wanganui	5711	✓	
Hastings	Hastings Memorial	3612	✓	
Masterton	Masterton	5511	✓	
Palmerston North	Palmerston North	4311	✓	
Wellington	Wellington	5811	✓	✓
Hutt	Hutt	5812	✓	
Blenheim (Wairau)	Wairau	3811	✓	
Nelson	Nelson	3911	✓	
Christchurch Hospital	Christchurch Hospital	4011	✓	✓
Christchurch Women's	Christchurch Womens	4014	✓	✓
Greymouth	Grey Base Hospital	5911	✓	
Timaru	Timaru	4411	✓	
Dunedin	Dunedin	4211	✓	✓
Invercargill	Southland	4511	✓	

[6] http://www.moh.govt.nz/moh.nsf/82f4780aa066f8d7cc2570bb006b5d4d/64f4a80cd43629704c2569d9001a01c9/$FILE/Maternity%20Services%20November%202000%20-%20final%20version.pdf Christchurch Hospital has been added to this list for WIESNZ09 because Canterbury DHB are moving obstetric facilities to this hospital.

5.2.9 Secondary Tertiary Maternity and Neonatal Events

Pregnancy and Childbirth secondary tertiary events are those where the first character of the Health Specialty Code is P, and the facility **is** listed in the secondary/tertiary maternity facility table in section 5.2.8.

In these facilities, well newborn babies, as opposed to 'neonates', will be covered by maternity inpatient casemix. In general, we expect well newborns to fall into AR-DRG P67D and be counted under the maternity inpatients casemix purchase unit W10.01. The rules in section 5.2.11 to 5.2.16 below all relate to secondary tertiary maternity facilities only.

5.2.10 Birth weight

A baby who has an admission weight between 127 and 399 grams will be assigned an admission weight of 400grams. This allows it to be grouped to a neonatal DRG rather than to the DRG 960Z, *Ungroupable*, where no funding would be received.

5.2.11 Postnatal Early Intervention Events (W03012)

Events that have the Postnatal Early Intervention Health Speciality code (P50), and the event occurs in a facility listed in table 5.2.8, are excluded.

5.2.12 Neonatal Inpatient Casemix (PU=W06.03)

This test takes the form of an inclusion rule, as this is easier to specify than the converse exclusion rule. To be potentially included in neonatal casemix volumes an event must occur in a facility listed in table 5.2.8, have a Pregnancy & Childbirth Health Speciality code, and must meet one of three tests (originally agreed by the 98/99 joint HFA/HHS Maternity & Neonates project) which attempt to distinguish between well new-borns and those who require additional health services:

The Health Service Speciality code is in the Pregnancy & Childbirth range (ie where the first character is "P") but is not P50 – ie is in the range (P41, P42, P43, P60, P61, P70, P71[7]) -
AND

{The Health Service Speciality code is in the range (P41, P42, P43)
OR
(The AR-DRG is in the range (P02Z, P03Z, P04Z, P05Z, P06A, P06B, P61Z, P62Z, P63Z, P64Z, P65A, P65B, P65C, P65D, P66A, P66B, P66C, P67A, and P67B))
OR
(The AR-DRG is in the range (P01Z, P60A, P60B, P66D, P67C, P67D) AND (the third ICD diagnosis is NOT blank OR the first ICD procedure is NOT blank))}

5.2.13 Amniocentesis (W03005)

For events where the health speciality code starts with P and is not P50, and the event occurs in a facility listed in table 5.2.8, and is not neonatal (5.2.12), same-day amniocentesis events are excluded from casemix purchasing.

[7] Prior to 1 July 2008 this exclusion rule also included health specialty codes P00, P10, P11, P20, P30, P35. These codes were retired on 1 July 2008.

These events are tested for by checking that:

The admission and discharge dates are the same

AND

The first procedure code is in the range: (1660000, 1661800, 1662100 [1330]).

5.2.14 Chorion Villis Sampling (W03006)

For events where the health speciality code starts with P and is not P50, and the event occurs in a facility listed in table 5.2.8, and is not neonatal (5.2.12), same-day chorion villis sampling events are excluded from casemix purchasing.

These events are tested for by checking that:

The admission and discharge dates are the same

AND

The first procedure code is 1660300 [1330].

5.2.15 Rhesus Isoimmunisation and other isoimmunisation. (W03007)

For events where the health speciality code starts with P and is not P50, and the event occurs in a facility listed in table 5.2.8, and is not neonatal (5.2.12), same-day rhesus isoimmunisation events are excluded from casemix purchasing.

These events are tested for by checking that:

The admission and discharge dates are the same

AND

The principal diagnosis code is in the range: (O360, O361).

5.2.16 Breast feeding / Lactation disorders associated with childbirth (W03010)

For events where the health speciality code starts with P and is not P50, and the event occurs in a facility listed in table 5.2.8, and is not neonatal (5.2.12), same-day breastfeeding/lactation events are excluded from casemix purchasing.

These events are tested for by checking that:

The admission and discharge dates are the same

AND

The principal diagnosis code is in the range: (O9230, O9231, O9240, O9241, O9250, O9251, O9260, O9261, O9270, O9271).

5.2.17 Maternity Casemix

All other events where the health speciality code starts with P and is not P50, and the event occurs in a facility listed in table 5.2.8, and is not neonatal (5.2.12), are allocated to W10.01 Maternity Casemix

5.2.18 Primary Maternity Events (W02007,W02008, W02009, W02010, W02011)

W02007 - Labour and Delivery in a primary facility
W02008 - Postnatal care in a primary facility (mother)
W02009 - Postnatal care in a primary facility (baby)
W02010 - Labour, Delivery, AND Postnatal in a primary facility (mother)
W02011 – Labour without delivery in a primary maternity facility

Pregnancy and Childbirth primary events are those where the first character of the Health Specialty Code is P, and the facility is not listed in the secondary/tertiary facility table in table 5.2.8. These are all excluded from casemix purchasing and will

be allocated a non-casemix purchase unit in the W02 range. Note that this allocation will be reviewed in 2008.

Where the health specialty code is one of P61, P71, P41, P42, and P43 (Maternity - well newborn or Paediatric neonatal care codes) and the facility is not listed in the secondary/tertiary facility table in table 5.2.8, then the event will be allocated to the non-casemix purchase unit W02009.

Events where the health specialty code is P60 or P70 (Maternity services - mother [no community LMC] / [with community LMC]) and the facility is not listed in the secondary/tertiary facility table in table 5.2.8
AND
Any diagnosis contains Z37
AND
Length of Stay >= 2
The event will be allocated to the non-casemix purchase unit W02010

Events where the health specialty code is P60 or P70 (Maternity services - mother [no community LMC] / [with community LMC]) and the facility is not listed in the secondary/tertiary facility table in table 5.2.8
AND
Any diagnosis contains Z37
AND
Length of Stay < 2
The event will be allocated to the non-casemix purchase unit W02007

Events where the health specialty code is P60 or P70 (Maternity services - mother [no community LMC] / [with community LMC]) and the facility is not listed in the secondary/tertiary facility table in table 5.2.8
AND
No diagnosis contains Z37
AND
No diagnosis code contains O47 or (O60 to O75)
AND AR-DRG is NOT in (O66A, O66B)
The event will be allocated to the non-casemix purchase unit W02008

Events where the health specialty code is P60 or P70 (Maternity services - mother [no community LMC] / [with community LMC]) and the facility is not listed in the secondary/tertiary facility table in table 5.2.8
AND
No diagnosis contains Z37
AND
((Any diagnosis code contains O47 or (O60 to O75))
or AR-DRG is in (O66A, O66B)
The event will be allocated to the non-casemix purchase unit W02011

All other events where the health speciality code starts with P, and the facility is not listed in the secondary/tertiary facility table in table 5.2.8, are excluded.

5.2.19 Some Transplants (T0103, T0106, T0111, T0113)

Some organ transplants are not purchased via casemix, for example liver, heart and lung transplants. Note that an age condition is required in this assignment of XPU as from July 2003 discharges from Auckland's Starship facility have used the facility code for Auckland City Hospital (3260). In what follows, age means age at admission.

The following DRGs are excluded (A01Z, A03Z, A05Z) from casemix funding and non-casemix purchase units allocated as follows:-

A01Z at Starship (facility code 3260 and patient's age <16) has XPU T0113 Liver Transplant child

A01Z not at Starship (facility code not 3260 OR patient's age >15) has XPU T0111 Liver Transplant adult.

A05Z has XPU T0103 Heart transplant

A03Z has XPU T0106 Lung Transplant

Note that simultaneous pancreas and kidney transplants are included in casemix funding, and are identified as those cases assigned to AR-DRG A09A where the event includes a procedure code of 9032400 (transplant of the pancreas).

5.2.20 Some Spinal Injuries (S50001 or S50002)

Some Spinal services are excluded as they are not purchased via casemix. Excluded Spinal services are in the Health Speciality code range (S50, S53). Events where the admission type is WN map to S50002, and all other admission types map to S50001.

5.2.21 Surgical Termination of Pregnancy - 2nd trimester (S30009) - 13 to 25 weeks.

Non-acute Surgical Termination of Pregnancy (ToP) events are excluded. These are tested for by checking that:

The AR-DRG v5.0 is equal to O05Z

AND

The event is not acute (ie Admission Type not "AC")

AND

The primary procedure/procedure code is in the range: (3564000[8] [1265], 3564300, 3564301, 3564302 [1267]) AND principal diagnosis is in the range (O040-O049 {O04*}) AND **any one** of the other diagnosis codes is in the range (O092, O093)

5.2.22 Surgical Termination of Pregnancy - 1st trimester (S30006) – 1 to 12 weeks.

Non-acute Surgical Termination of Pregnancy (ToP) events are excluded. These are tested for by checking that:

The AR-DRG v5.0 is equal to O05Z

[8] Procedure code 3564000 added 28 August 2008 because ICD-10-AM 6th edition codes do not map back to any of the other 3rd edition surgical termination codes

AND
The event is not acute (ie Admission Type not "AC")
AND
The primary procedure/procedure code is in the range: (3564000[9] [1265], 3564300, 3564301, 3564302 [1267]) AND principal diagnosis is in the range (O040-O049 {O04*}) AND **none** of the other diagnosis codes is in the range (O092, O093)

5.2.23 Peritoneal Dialysis (M60005)

NZDRG50 L61Y, Peritoneal Dialysis (principal diagnosis of Z49.2 *Other dialysis)*, is excluded from casemix purchasing.

Note: This XPU has a unit of measure of client so each NHI is counted once per year. This is based on PU allocation at Waikato DHB. Future review may be requested by other DHBs.

5.2.24 Renal Haemodialysis (M60008)

NZdrg50 L61Z Renal Dialysis, L61Z, is excluded from casemix purchasing.

5.2.25 Sameday Chemotherapy not for cancer (MS02008)

Sameday cases for Chemotherapy not for cancer are excluded from casemix purchasing. They are tested for by checking that:

The Admission date is the same as the Discharge date
AND
The diag01 or diag02 is ICD-10-AM 3rd Edition Z512 *Other chemotherapy*:

5.2.26 Sameday Chemotherapy for cancer (MS02009, M30020, M54004)

Sameday cases for Chemotherapy for cancer are excluded from casemix purchasing. They are tested for by checking that:

The Admission date is the same as the Discharge date
AND
That diag01 or diag02 is ICD-10-AM 3rd Edition Z511 *Chemotherapy session for neoplasm*

The non-casemix purchase unit is allocated from health specialty codes as follows:
M30 Haematology - M30020
M34 or M54 Paediatric - M54004
All other specialties - MS02009

5.2.27 Sameday Radiotherapy (M50005)

Same day cases for radiotherapy are tested by checking that:

The Admission date is the same as the Discharge date
AND
That diag01 or diag02 is ICD-10-AM 3rd Edition Z510 *Radiotherapy session*

[9] Procedure code 3564000 added 28 August 2008 because ICD-10-AM 6th edition codes do not map back to any of the other 3rd edition surgical termination codes.

5.2.28 Sleep Apnoea Assessment (MS02010)

Some Sleep Apnoea events where there are overnight stays for investigations such as polysomnography, are excluded from casemix purchasing. A review of polysomnography events which did not fall into this exclusion showed only minimal differences so the rule is unchanged. These events are tested for by checking that:

The integer difference in days between the Discharge and Admission dates is less than 2

AND

The AR-DRG v5.0 is E63Z *Sleep Apnoea*.

5.2.29 Note on Anaesthesia coding

Anaesthesia coding in ICD-10-AM 3rd edition includes a large number of codes that are in the block 1910. The following codes are included in each of the exclusions 5.2.30 to 5.2.37. We will refer to these as *block 1910 codes*.

9251410, 9251419, 9251420, 9251429, 9251430, 9251439, 9251440, 9251449, 9251450, 9251459, 9251460, 9251469, 9251490, 9251499, 9251510, 9251519, 9251520, 9251529, 9251530, 9251539, 9251540, 9251549, 9251550, 9251559, 9251560, 9251569, 9251590, 9251599, all [1910].

5.2.30 Lithotripsy (S70006)

Some sameday Lithotripsy events are excluded from casemix purchasing. These events are tested for by checking:

That the Admission and Discharge dates are the same

AND

That the event is non-acute (ie Admission Type not in “AC”)

AND

That the first procedure code is in the range:
(9095600, 9095700 [962], 3654600 [1126], 9219900 [1880]).

AND

That the second procedure code is in the range:
(9095600, 9095700 [962], 3654600 [1126], 9219900 [1880], block 1910 codes, blank).

AND

That the third procedure code is in the range: (9095600, 9095700 [962], 9219900 [1880], 3654600 [1126], block 1910 codes, blank).

5.2.31 Colposcopies (NCSP-20)[10]

Some sameday Colposcopy events are excluded from casemix purchasing. These events are tested for by checking:

That the Admission and Discharge dates are the same

AND

The patient’s age is greater than 15 years old

AND

That the event is non-acute (i.e. Admission Type not in “AC”)

AND

That the first procedure code is in the range:

[10] NCSP-20 is used interchangeably with NCSP20. This formatting difference will be fixed in the NMDS and NNPAC as soon as practical.

(3562000 [1264], 3553902, 3560800, 3560801, 3564600, 3564700 [1275], 3560802, 3561100, 3561800, 3561801 [1276], 3561803 [1278], 3553904, 3561400 [1279], 3553903 [1282], 3561500 [1291])

AND

That the second procedure code is in the range:
(3562000 [1264], 3553902, 3560800, 3560801, 3564600, 3564700 [1275], 3560802, 3561100, 3561800, 3561801 [1276], 3561803 [1278], 3553904 [1279], 3561400 [1279], 3553903 [1282], 3561500 [1291], block 1910 codes, blank)

AND

That the third procedure code is in the range: (block 1910 codes, blank).

5.2.32 Cystoscopies (MS02004)

Some sameday Cystoscopies events are excluded from casemix purchasing. These events are tested for by checking:

That the Admission and Discharge dates are the same

AND

That the event is non-acute (i.e. Admission Type not in “AC”)

AND

The patient’s age is greater than 15 years old

AND

That the primary procedure code is either any code from blocks [1065], [1066], [1067], and [1068], or is in the range: (3680601 [1074], 3680301 [1086], 3681200, 3681201 [1089], 3683902, 3684502, 3684503 [1096], 3683900, 3684500, 3684501 [1097], 3683600 [1098], 3682700 [1108], 3683904, 3684504, 3684505 [1100], 3731500 [1112], 3681501, 3731801 [1116].)

AND

That the second procedure code is either any code from blocks [1065], [1066], [1067] and [1068], or is in the range:
(3680601 [1074], 3680301 [1086], 3681200, 3681201 [1089], 3683902, 3684502, 3684503, [1096], 3683900, 3684500, 3684501 [1097], 3683600 [1098], 3682700 [1108], 3683904, 3684504, 3684505 [1100], 3731500 [1112], 3681501, 3731801 [1116], block 1910 codes, blank).

AND

That the third procedure code is in the range: (block 1910 codes, blank).

5.2.33 Aggregated Gastroenterology codes

In each of the rules 5.2.24, 5.2.25, and 5.2.26 the procedure codes appearing in the second procedure position form a common block, being the concatenation of the codes allowed in each first procedure position. The common block is:

3047303, 4181600 [850], 3047600, 3047601, 3047806, 3047809 [851], 3047810, 4182500 [852], 3047602, 3047811, 3047812, 3047900 [856], 3047304, 3047813, 4182200 [861], 3047807 [870], 3047603 [874], 3047500, 3047501 [882], 3209500 [891], 3207500 [904], 3208400, 3209000 [905], 9030800 [908], 3207501, 3207800, 3208100 [910], 3208401, 3208700, 3209001, 3209300 [911], 3209400 [917], 9031200, 9031201 [931], 3209900, 3210500, 3210800, 9034100 [933], 3044200, 3048400, 3048401 [957], 3045201, 3049100, 3049101 [958], 3045202 [959], 3045101, 3045102, 3045103 [960], 3048500, 3048501 [963], 3045200, 3049400 [971], 3048402 [974], 3047300, 3047305 [1005], 3047801, 3047802, 3047803, 3047815 , 3047816, 3047817 [1007], 3047301, 3047306, 3047804, 3047818 [1008].

For ease of reference in the next three sections we shall refer to this as the *gastro block.*

Note that for events with multiple gastroenterology procedures performed, the allocated purchase unit depends on the principal procedure code. It is recommended that the more complex procedure is coded first.

5.2.34 Endoscopic retrograde cholangiopancreatography (ERCPs), Endoscopic retrograde cholangiography (ERC), and Endoscopic retrograde pancreatography (ERP) (MS02006)

Some sameday ERCP, ERC and ERP events are excluded from casemix purchasing. These events are tested for by checking:
That the Admission and Discharge dates are the same
AND
That the event is non-acute (i.e. Admission Type not in “AC”)
AND
The patient’s age is greater than 15 years old
AND
That the primary procedure code is in the range:
(3044200, 3048400, 3048401 [957], 3045201, 3049100, 3049101 [958], 3045202 [959], 3045101, 3045102, 3045103 [960], 3048500, 3048501 [963], 3045200, 3049400 [971], 3048402 [974]).
AND
That the second procedure code is in the range:
(gastro block, block 1910 codes, blank).
AND
That the third procedure code is in the range: (block 1910 codes, blank).

5.2.35 Colonoscopies (MS02007)

Some sameday Colonoscopies events are excluded from casemix purchasing. These events are tested for by checking:
That the Admission and Discharge dates are the same
AND
That the event is non-acute (ie Admission Type not in “AC”)
AND
The patient’s age is greater than 15 years old
AND
That the first procedure code is in the range:
(3207500 [904], 3208400, 3209000 [905], 9030800 [908], 3207501, 3207800, 3208100 [910], 3208401, 3208700, 3209001, 3209300 [911], 3209400 [917], 9031200, 9031201 [931], 3209900, 3210500, 3210800, 9034100 [933]).
AND
That the second procedure code is in the range:
(gastro block, block 1910 codes, blank).
AND
That the third procedure code is in the range (block 1910 codes, blank).

5.2.36 Gastroscopies (MS02005)

Some sameday Gastroscopies events are excluded from casemix purchasing.
These events are tested for by checking:
That the Admission and Discharge dates are the same
AND
That the event is non-acute (i.e. Admission Type not in “AC”)
AND
The patient’s age is greater than 15 years old
AND
That the primary procedure code is in the range:
(3047303, 4181600 [850], 3047600, 3047601, 3047806, 3047809 [851], 3047810, 4182500 [852], 3047602, 3047811, 3047812, 3047900 [856], 3047304, 3047813, 4182200 [861], 3047807 [870], 3047603 [874], 3047500, 3047501 [882], 3209500 [891], 3047300, 3047305 [1005], 3047801, 3047802, 3047803, 3047815, 3047816, 3047817 [1007], 3047301, 3047306, 3047804, 3047818 [1008]).
AND
That the second procedure code is in the range:
(gastro block, block 1910 codes, blank).
AND
That the third procedure code is in the range (block 1910 codes, blank).

5.2.37 Bronchoscopies (MS02003)

Some sameday Bronchoscopies events are excluded from casemix purchasing.
These events are tested for by checking:
That the Admission and Discharge dates are the same
AND
That the event is non-acute (i.e. Admission Type not in “AC”)
AND
The patient’s age is greater than 15 years old
AND
That the primary procedure code is in the range: (4176403, 4184900, 4185500 [520], 4176404 [532], 4188900, 4188901, 4189800 [543], 4189200, 4189500, 4189801 [544]).
AND
That the second procedure code is in the range:
4176403, 4184900, 4185500 [520], 4176404 [532], 4188900, 4188901, 4189800 [543], 4189200, 4189500, 4189801 [544], block 1910 codes, blank)
AND
That the third procedure code is in the range: (block 1910 codes, blank).

5.2.38 Day Case Blood Transfusions (MS02001)

Some sameday Blood Transfusion events are excluded from casemix purchasing.
These events are tested for by checking:
That the Admission and Discharge dates are the same
AND
That the event is non-acute (i.e. Admission Type not in “AC”)
AND
{That the principal diagnosis is Z51.3 *Blood transfusion without reported diagnosis*
OR

(the first procedure code is in the range :(1370601, 1370602, 1370603, 9206000 [1893])

AND

the second procedure is in the range: (1370601, 1370602, 1370603, 9206000 [1893], blank).

AND

the third procedure is blank}.

5.2.39 Designated Hospital for Casemix Revenue[11]

A range of facilities, listed here, has been identified as valid to provide services at the level required for casemix-funded events. All other facilities historically designated as 'rural' or 'private', are excluded. Note that with DHB sub-contracting the list of included facilities may require updating periodically. Only NMDS records with a facility from the following list in combination with an agency from the table in 5.2.3 will be allocated a casemix-funded purchase unit. If a record includes a facility code which is not listed below it will be excluded from casemix but may be included in non-casemix purchase unit allocation. For this reason the Designated Hospital exclusion is the last exclusion.

Facility Code	Facility Name
3111	Ashburton
3214	Middlemore
3215	North Shore
3216	Waitakere
3250	Manukau SuperClinic
3260	Auckland City Hospital
3311	Whakatane
3411	Gisborne
3611	Napier
3612	Hastings Memorial
3811	Wairau
3911	Nelson
4011	Christchurch
4013	Burwood
4014	Christchurch Womens
4111	Whangarei Area Hospital
4112	Kaitaia
4113	Dargaville
4114	Bay of Islands
4211	Dunedin
4212	Wakari
4311	Palmerston North
4411	Timaru
4511	Southland
4711	Taranaki Base
4712	Hawera

[11] This is a list of the WIES eligible facility codes as at 1 July 2009. Facility codes that have been added during the year (and are valid for the whole year) are listed at the end of this document.

Facility Code	Facility Name
4811	Taumarunui
4911	Tauranga
5011	Thames
5311	Waikato
5312	Rotorua
5313	Te Kuiti
5323	Tokoroa
5329	Taupo General
5511	Wairarapa – previously Masterton
5711	Wanganui
5811	Wellington
5812	Hutt
5814	Porirua
5816	Kenepuru
5818	Paraparaumu
5819	Puketiro
5820	Te Whare O Rangituhi
5911	Grey Base Hospital
8024	Quay Park Surgical Centre Auckland
8206	Southern Cross North Harbour
8218	Southern Cross Brightside
8233	Mercy, Auckland
8255	Gillies Hospital (was Southern Cross Auckland)
8268	Anglesea Braemar Hospital
8270	Southern Cross, Hamilton
8280	Grace Hospital (was Norfolk Southern Cross)
8281	Southern Cross Rotorua
8284	Chelsea Hospital, Gisborne
8292	Royston
8297	Southern Cross New Plymouth
8303	Belverdale Hospital
8313	Aorangi, (was Mercy)
8314	Southern Cross, Palmerston North
8331	Bowen
8351	Manuka Street Trust Hospital Nelson
8366	St Georges
8377	Southern Cross Trust, Christchurch
8383	Bidwell Trust
8394	Mercy Hospital Dunedin
8405	Southern Cross Invercargill
8420	Southern Cross Tauranga
8432	Wakefield
8459	Auckland Surgical Centre
8462	Boulcott Clinic
8471	Southern Cross, Wellington

Facility Code	Facility Name
8473	Braemar Hospital
8477	Lakes Care Surgical Hospital
8482	Royal Navy Hospital
8487	Churchill Trust
8495	Eye Institute
8499	Auckland Eye Hospital
8507	Manor Park Hospital
8549	Endoscopy Auckland
8579	Park St Eye Clinic
8580	Oxford Day Clinic
8595	Ascot Hospital
8630	Queen Elizabeth Hospital, Rotorua
8644	Kensington Hospital
8611	Northern Surgical Centre
8656	Mobile Surgical Bus
8714	Thorndon Eye Clinic
8715	Wellington Eye Clinic
8716	The Rutherford Clinic
8718	Anglesea Procedure Centre
8719	Harley Chambers
8720	Southern Eye Specialists
8721	Dr Ian Dallison's Rooms
8722	Auckland City Surgical Services
8784	Scott Clinic
8757	The Mater Hospital, Sydney
8774	Skin Institute Parnell
8791	Queen Elizabeth Hospital Southern Cross
8792	Urology 161
8867	St Georges Radiology
8912	Bridgewater Day Surgery
8915	Retina Specialists
8916	Milford Eye Clinic
8920	Surgery on Shakespeare
8921	Mercy Endoscopy
8924	Oncology Surgery
8929	Grace Southern Cross Hospital Tauranga

Retired Facility codes

These codes have been retired but are noted here for historical reasons.

Facility Code	Facility Name
8422	Our Lady's Home of Compassion
3211	Auckland
3212	Greenlane
3213	National Women's
3239	Starship Hospital

5.3 Mapping of Health Speciality Codes to Casemix PUs

DHB casemix Purchase Units are derived from a mapping of Health Speciality codes. This mapping only applies for included events, ie any events excluded from casemix purchasing should not be given a casemix PU code. Note that the Information Directorate SAS code gives excluded events a PU code of “EXCLU” rather than blank.

The following health speciality codes are initially remapped to other health service speciality codes: Many of these health specialty codes have been retired from use on the NMDS but are still included here for completeness. In particular, retired pregnancy and childbirth codes which could be mapped to either of the new P range (P60, P61 or P70, P71) have been arbitrarily mapped to P60 and P61)

```
 'M01' , 'M02' , 'M03'         = 'M00'
 'M06' , 'M07'                 = 'M05'
 'M11' , 'M12' , 'M13'         = 'M10'
 'M16' , 'M17' , 'M18' , 'M19' = 'M15'
 'M21' , 'M22' , 'M23'         =  'M20'
'M26' , 'M27' , 'M28'          =  'M25'
 'M31' , 'M32' , 'M33'         = 'M30'
 'M36' , 'M37' , 'M38'         = 'M35'
 'M41' , 'M42' , 'M43'         = 'M40'
 'M46' , 'M47' , 'M48'         = 'M45'
 'M51' , 'M52' , 'M53'         = 'M50'
 'M56' , 'M57' , 'M58'         = 'M55'
 'M61' , 'M62' , 'M63'         = 'M60'
 'M66' , 'M67' , 'M68'         = 'M65'
 'M71' , 'M72' , 'M73'         = 'M70'
 'M76' , 'M77' , 'M78'         = 'M75'
 'M81' , 'M82' , 'M83'         = 'M80'
 'M87' , 'M88'                 = 'M85'
 'M91' , 'M92' , 'M93'         = 'M90'
 'P00' , 'P10' , 'P20'         = 'P60'
 'P30' ,                       = 'P61'
 'S01' , 'S02' , 'S03'         = 'S00'
 'S06' , 'S07'
 'S11' , 'S12' , 'S13'         = 'S10'
 'S16' , 'S17' , 'S18'         = 'S15'
 'S21' , 'S22' , 'S23'         = 'S20'
 'S26' , 'S27' , 'S28'         = 'S25'
 'S31' , 'S32' , 'S33'         = 'S30'
 'S36' , 'S37' , 'S38'         = 'S35'
 'S41' , 'S42' , 'S43'         = 'S40'
 'S46' , 'S47' , 'S48'         = 'S45'
 'S51' , 'S52' , 'S53'         = 'S50'
 'S55' , 'S56' , 'S57'         = 'S59'
 'S61' , 'S62' , 'S63'         = 'S60'
 'S66' , 'S67' , 'S68'         = 'S65'
 'S71' , 'S72' , 'S73'         = 'S70'
 'S76' , 'S77' , 'S78'         = 'S75'
```

And from there mapped to the following purchase units:

```
 'S20'                                          = 'D01.01'
 'S50'                                          = 'EXCLU'
 'M00' , 'M05' , 'M08' , 'M85' , 'M86' , 'M89'  = 'M00.01'
 'M10'                                          = 'M10.01'
 'M14'                                          = 'M10.05'
```

```
'M15'                                                = 'M15.01'
'M20',’M95’,’M96’                                    = 'M20.01'
'M25'                                                = 'M25.01'
'M30'                                                = 'M30.01'
'M34'                                                = 'M34.01'
'M40' , 'M75'                                        = 'M40.01'
'M45'                                                = 'M45.01'
'M49'                                                = 'M49.01'
'M50' , 'M90'                                        = 'M50.01'
'M54' , 'M94'                                        = 'M54.01'
'M24','M29','M39','M44','M55','M59',
'M64','M69','M74','M79','M84',’M97’,’M98’            = 'M55.01'
'M60'                                                = 'M60.01'
'M65'                                                = 'M65.01'
'M35' , 'M70'                                        = 'M70.01'
'M80'                                                = 'M80.01'
'S00', 'S10'                                         = 'S00.01'
'S05', 'S08'                                         = 'S05.01'
'S15' , 'S19'                                        = 'S15.01'
'S25'                                                = 'S25.01'
'S30'                                                = 'S30.01'
'S35'                                                = 'S35.01'
'S40'                                                = 'S40.01'
'S45'                                                = 'S45.01'
'S58' , 'S59'                                        = 'S55.01'
'S24', 'S60' , 'S65'                                 = 'S60.01'
'S70'                                                = 'S70.01'
'S75'                                                = 'S75.01'
'P41' , 'P42' , 'P43'                                = 'W06.03'
'P60','P61','P70','P71'                              = 'W10.01'
 other                                               = 'EXCLU';
```

Reallocation of events to S05.01

There is no longer a requirement for a particular facility code for an event to be mapped to S05.01

Each PU code is then described:

```
'D01.01'='Inpatient Dental treatment (DRGs)'
'M00.01'='General Internal Medical Services - Inpatient Services (DRGs)'
'M10.01'='Cardiology - Inpatient Services (DRGs)'
'M10.05'='Specialist Paediatric Cardiac - Inpatient Services (DRGs)'
'M15.01'='Dermatology - Inpatient Services (DRGs)'
'M20.01'='Endocrinology & Diabetic - Inpatient Services (DRGs)'
'M25.01'='Gastroenterology - Inpatient Services (DRGs)'
'M30.01'='Haematology - Inpatient Services (DRGs)'
'M34.01'='Specialist Paediatric Haematology - Inpatient Services (DRGs)'
'M40.01'='Infectious Diseases (incl Venereology) - Inpatient Services (DRGs)'
'M45.01'='Neurology - Inpatient Services (DRGs)'
'M49.01'='Specialist Paediatric Neurology Inpatient Services (DRGs)'
'M50.01'='Oncology - Inpatient Services (DRGs)'
'M54.01'='Specialist Paediatric Oncology - Inpatient Services (DRGs)'
'M55.01'='Paediatric Medical - Inpatient Services (DRGs)'
'M60.01'='Renal Medicine - Inpatient Services (DRGs)'
'M65.01'='Respiratory - Inpatient Services (DRGs)'
'M70.01'='Rheumatology (incl Immunology) - Inpatient Services (DRGs)'
'M80.01'='Palliative Care - Inpatient Services (DRGs)'
'S00.01'='General Surgery - Inpatient Services (DRGs)'
‘S05.01'='Anaesthesiology – Inpatient Services (DRGs)’
'S15.01'='Cardiothoracic - Inpatient Services (DRGs)'
'S25.01'='Ear, Nose and Throat - Inpatient Services (DRGs)'
'S30.01'='Gynaecology - Inpatient Services (DRGs)'
'S35.01'='Neurosurgery - Inpatient Services (DRGs)'
'S40.01'='Ophthalmology - Inpatient Services (DRGs)'
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'S45.01'='Orthopaedics - Inpatient Services (DRGs)'
'S55.01'='Paediatric Surgical Services (DRGs)'
'S60.01'='Plastic & Burns - Inpatient Services (DRGs)'
'S70.01'='Urology - Inpatient Services (DRGs)'
'S75.01'='Vascular Surgery - Inpatient Services (DRGs)'
'W06.03'='Neonatal Inpatient (DRGs)'
‘W10.01’ = ‘Maternity Inpatient (DRGs)’
‘EXCLU’ ='Not a DRG casemix Purchase Unit'
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5.4 Identifying DHB Casemix-funded Events for inter-DHB Inpatient Flow calculations

The first casemix funding exclusion rules were intended to identify casemix events funded by DHB funding only. This concept has been expanded to include similar events funded directly by the Ministry of Health. As a result, not all casemix-funded events purchased or provided by MoH and DHBs identified in this document should be included in extracts intended to calculate inter DHB casemix-funded flows. To identify these flows for wash-up of 2009/10 actual volumes:

The Casemix Purchase Unit assigned to an event can be any PU except EXCLU;
AND
The Agency Code is a valid casemix agency as shown in section 5.2.3, but is neither 4137 Otago Dental School nor 8559 (Venturo) nor 8630 (Queen Elizabeth Hospital) nor 8656 (Mobile Surgical Bus)
AND
The purchaser code is either 35 DHB funded event or 20 Overseas resident eligible for DHB funded health care.

See note on historical purchaser exclusions in section 5.2.2

5.5 Updates to Version 7 of the WIESNZ 09 document (including new WIES eligible facilities)

Should new facility codes be approved to be added to the WIES eligible list during 2009/10 then they will be documented in this section.

DHBs are reminded that events loaded into the NMDS against these facilities that occur prior to their eligibility will be excluded from casemix and may need to be re-submitted for them to be included.

The following WIES-eligible facilities have been added to Table 5.2.39 in Version 8 of this WIESNZ09 document. These facilities are eligible from 1 July 2009.

Hospital name	Facility code
Scott Clinic	8784
Urology 161	8792
Queen Elizabeth Hospital Southern Cross (QEH SX)	8791

Version 8 of WIESNZ09 also includes the addition of Christchurch Hospital (facility code 4011) to the maternity eligible list in table 5.2.8.

Appendix 1: Table of 09/10 FY DRG cost weights and associated variables for calculating WIESNZ09

This appendix contains some notes on the cost weight schedule for use with AR-DRG V5.0 as adjusted for use in New Zealand.

Variable names translation

Sd {Same Day Costweight}
Od {One Day Costweight}
Lo_pd {Low outlier costweight per diem}
Md_in {Multi day inlier costweight}
Ho_pd {High Outlier per diem costweight}
Lb {Low Boundary Point for LOS}
Hb {High Boundary Point for LOS}
Alos {Average Inlier LOS}

Notes on the WIESNZ09 cost weight schedule

The development of these cost weights is based on casemix events in the National Minimum Data Set supplemented by maternity events that will from 1 July 2009 be casemix-funded. In any given year there can be instances of DRGs that are not used or do not appear in the casemix set as they are excluded from casemix funding. Or there may have been no same day cases and that cost weight is missing from the results. In order to have a complete DRG costweight schedule in Appendix 1 below, for some DRGs two years of data was considered for determining the inlier boundary points when the number of cases per annum was small.

Users of this schedule should note that the following DRGs are non-casemix and are included only for completeness: 960Z, 961Z, 963Z, A01Z, A03Z, and A05Z. As for WIESNZ08 their cost weights shown are those from the state of Victoria's WIES 14 schedule and are not intended for use as they do not reflect relativities for these types of events correctly. Events with an NZdrg50 of L61Y, and L61Z are also not casemix-funded, but their WiesNZ08 weights were derived from the non-casemix PU price for these procedures and the same weights have been retained for WIESNZ09.

The remaining completion steps were:

1. Weights for V63A were set to be those of V63B;
2. For A06Z, A40Z, P06B, W01Z, and Y01Z, the SD and OD weights were set to be a weighted average of the SD and OD weights; and
3. For I29Z, the SD weight is taken from WIESNZ08.

WIESNZ09, for use with AR-DRG 5.0 as adapted for New Zealand

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
901Z	Extensive O.R. Procedure Unrelated to Principal Diagnosis	2	24	8.6	D			1.3786	1.9970	0.6345	3.2660	0.2057	0.7
902Z	Non-Extensive O.R. Procedure Unrelated to Principal Diagnosis	1	16	4.4	D		S	0.4776	1.6235	0.0492	1.6235	0.2077	0.7
903Z	Prostatic O.R. Procedure Unrelated to Principal Diagnosis	6	60	27.4	D			0.9136	1.3124	0.6648	5.3012	0.1224	0.7
960Z	Ungroupable	0	3	1.0	I			0.0000	0.0000	0.0000	0.0000	0.0000	0
961Z	Unacceptable Dx	0	3	9.3	I			0.0000	0.0000	0.0000	0.0000	0.0000	0
963Z	Neonatal Dx not consistant with age/weight	0	3	15.0	D			0.0000	0.0000	0.0000	0.0000	0.0000	0
A01Z	Liver Transplant	9	87	23.9	4			6.2256	7.3687	2.0322	25.6584	0.3621	0.7
A03Z	Lung or Heart/Lung Transplant	8	74	24.0	4			5.5450	6.4729	1.6237	19.4627	0.3621	0.7
A05Z	Heart Transplant	13	123	43.4	4			7.5831	8.5450	1.7758	31.6300	0.3621	0.7
A06Z	Tracheostomy or Ventilation >95 hours	17	39	25.9	4	SCI		2.2404	2.2404	0.6938	13.9450	0.3386	0.7
A07Z	Allogeneic Bone Marrow Transplant	26	59	37.4	4			0.4123	0.7186	0.6084	16.5377	0.3076	0.7
A08A	Autologous Bone Marrow Transplant W Catastrophic CC	14	33	21.3	4			0.2980	0.5442	0.4573	6.9459	0.2271	0.7
A08B	Autologous Bone Marrow Transplant W/O Catastrophic CC	5	13	7.4	4			0.4534	0.7346	0.4499	2.9842	0.2669	0.7
A09A	Renal Transplant W Pancreas Transplant or Catastrophic CC	3	32	10.6	D			3.5971	4.9397	1.8228	10.4080	0.3659	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
A09B	Renal Transplant W/O Pancreas Transplant W/O Catastrophic CC	2	22	7.5	D			2.9222	4.2776	1.3554	6.9883	0.3659	0.7
A40Z	ECMO W/O Cardiac Surgery	10	25	12.3	4			3.0291	3.0291	1.0913	13.9032	0.3659	0.7
A41A	Intubation Age<16 W CC	2	24	8.3	D	SCI		1.2269	2.1049	0.8631	3.8311	0.2906	0.7
A41B	Intubation Age<16 W/O CC	1	12	3.1	D	SCI		1.0738	1.4605	0.0492	1.4605	0.3037	0.7
B01Z	Ventricular Shunt Revision	1	16	4.7	D			1.8527	2.5900	0.0492	2.5900	0.2181	0.7
B02A	Craniotomy W Catastrophic CC	4	45	15.3	D			2.1719	3.3978	1.0926	7.7683	0.2663	0.7
B02B	Craniotomy W Severe or Moderate CC	2	24	8.7	D			2.5134	3.2687	0.8098	4.8883	0.2620	0.7
B02C	Craniotomy W/O CC	1	17	5.9	D			2.6520	3.7453	0.0492	3.7453	0.2670	0.7
B03A	Spinal Procedures W Catastrophic or Severe CC	4	42	15.1	D			2.2760	2.7244	0.7340	5.6604	0.1820	0.7
B03B	Spinal Procedures W/O Catastrophic or Severe CC	2	18	6.0	D			2.1922	2.6959	0.5037	3.7033	0.2346	0.7
B04A	Extracranial Vascular Procedures W Catastrophic or Severe CC	1	14	4.7	D			1.9763	2.8557	0.0492	2.8557	0.2696	0.7
B04B	Extracranial Vascular Procedures W/O Catastrophic or Severe CC	0	8	2.5	D			1.7872	1.7872	0.0000	1.7872	0.2769	0.7
B04M	Extracranial Vascular Procedures mapped from 901Z	0	5	1.7	D			2.0590	2.0590	0.0000	2.0590	0.3659	0.7
B05Z	Carpal Tunnel Release	0	3	1.0	D			0.4058	0.4058	0.0000	0.4058	0.1076	0.7
B06A	Procs for Cerebral Palsy, Muscular Dystrophy, Neuropathy W Cat or Sev	3	36	11.0	D			1.3039	1.7714	0.6233	3.6414	0.1790	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
B06B	Procs for Cerebral Palsy, Muscular Dystrophy, Neuropathy W/O Cat or	0	5	1.5	D			1.0546	1.0546	0.0000	1.0546	0.2466	0.7
B07A	Peripheral and Cranial Nerve & Other Nervous System Procedures W CC	1	14	3.4	D			1.2861	1.8467	0.0492	1.8467	0.2560	0.7
B07B	Peripheral and Cranial Nerve & Other Nervous System Procedures W/O CC	0	5	1.7	D			1.0196	1.0196	0.0000	1.0196	0.2160	0.7
B40Z	Plasmapheresis W Neurological Disease	3	36	8.1	D		S	0.3439	1.6025	0.9097	4.3317	0.3659	0.8
B41Z	Telemetric EEG Monitoring	2	6	3.3	D			0.3395	0.6790	0.3395	1.3580	0.3343	0.8
B60A	Established Paraplegia/Quadriplegia W or W/O O.R. Procs W Catastrophic	8	20	12.7	D			0.2203	0.4363	0.3818	3.4906	0.2199	0.8
B60B	Established Paraplegia/Quadriplegia W or W/O O.R. Procs W/O	2	6	3.6	D			0.2600	0.5147	0.2574	1.0294	0.2301	0.8
B61A	Spinal Cord Conditions W or W/O O.R. Procedures W Catastrophic or	8	19	11.9	D			0.2984	0.5779	0.5057	4.6234	0.3096	0.8
B61B	Spinal Cord Conditions W or W/O O.R. Procedures W/O Catastrophic or	2	6	3.9	D			0.4173	0.8260	0.4130	1.6519	0.3377	0.8
B62Z	Admit for Apheresis	0	3	1.0	D			0.5825	0.5825	0.0000	0.5825	0.3659	0.8
B63Z	Dementia and Other Chronic Disturbances of Cerebral Function	2	25	9.2	D			0.4275	0.8550	0.4275	1.7100	0.1481	0.8
B64A	Delirium W Catastrophic CC	3	28	10.1	D			0.3190	0.6381	0.4254	1.9142	0.1518	0.8
B64B	Delirium W/O Catastrophic CC	1	13	3.9	D			0.4297	0.8554	0.0492	0.8554	0.1771	0.8
B65Z	Cerebral Palsy	0	3	1.0	D			0.4800	0.4800	0.0000	0.4800	0.3659	0.8
B66A	Nervous System Neoplasm W Catastrophic or Severe CC	2	20	7.1	D			0.3985	0.7969	0.3985	1.5939	0.1805	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
B66B	Nervous System Neoplasm W/O Catastrophic or Severe CC	0	9	2.4	D			0.7305	0.7305	0.0000	0.7305	0.2400	0.8
B67A	Degenerative Nervous System Disorders W Cat or Sev CC	2	25	9.2	D			0.5158	0.9923	0.4961	1.9846	0.1735	0.8
B67B	Degenerative Nervous System Disorders Age >59 W/O Cat or Sev	1	14	4.0	D			0.4668	0.9533	0.0492	0.9533	0.1892	0.8
B67C	Degenerative Nervous System Disorders Age <60 W/O Cat or Sev	0	6	1.5	D			0.6302	0.6302	0.0000	0.6302	0.3305	0.8
B68A	Multiple Sclerosis and Cerebellar Ataxia W CC	1	18	5.4	D			0.6793	1.3586	0.0492	1.3586	0.2031	0.8
B68B	Multiple Sclerosis and Cerebellar Ataxia W/O CC	0	4	1.2	D			0.3152	0.3152	0.0000	0.3152	0.2097	0.8
B69A	TIA and Precerebral Occlusion W Catastrophic or Severe CC	1	12	3.7	D			0.4210	0.8420	0.0492	0.8420	0.1835	0.8
B69B	TIA and Precerebral Occlusion W/O Catastrophic or Severe CC	0	7	2.1	D		S	0.2208	0.5545	0.0000	0.5545	0.2108	0.8
B70A	Stroke W Catastrophic CC	3	34	11.4	D			0.3914	0.7776	0.5184	2.3327	0.1632	0.8
B70B	Stroke W Severe CC	2	19	6.7	D			0.3769	0.7513	0.3756	1.5026	0.1802	0.8
B70C	Stroke W/O Catastrophic or Severe CC	1	13	4.2	D		S	0.3527	1.0159	0.0492	1.0159	0.1917	0.8
B70D	Stroke, Died or Transferred < 5 days	0	5	1.8	D			0.5585	0.5585	0.0000	0.5585	0.2494	0.8
B71A	Cranial and Peripheral Nerve Disorders W CC	1	15	4.2	D			0.5452	1.0861	0.0492	1.0861	0.2079	0.8
B71B	Cranial and Peripheral Nerve Disorders W/O CC	0	9	2.6	D		S	0.6479	0.8541	0.0000	0.8541	0.2678	0.8
B72A	Nervous System Infection Except Viral Meningitis W Cat or Sev CC	3	33	11.1	D			0.5393	1.0080	0.6720	3.0240	0.2184	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
B72B	Nervous System Infection Except Viral Meningitis W/O Cat or Sev CC	1	13	3.7	D			0.5632	1.0895	0.0492	1.0895	0.2374	0.8
B73Z	Viral Meningitis	0	7	2.3	D			0.5987	0.5987	0.0000	0.5987	0.2126	0.8
B74Z	Nontraumatic Stupor and Coma	0	8	2.1	D			0.5420	0.5420	0.0000	0.5420	0.2050	0.8
B75Z	Febrile Convulsions	0	3	1.2	D			0.3025	0.3025	0.0000	0.3025	0.2103	0.8
B76A	Seizure W Catastrophic or Severe CC	1	12	3.4	D			0.4505	0.8634	0.0492	0.8634	0.2036	0.8
B76B	Seizure W/O Catastrophic or Severe CC	0	6	1.8	D		S	0.2273	0.5249	0.0000	0.5249	0.2347	0.8
B77Z	Headache	0	5	1.6	D		S	0.2005	0.4294	0.0000	0.4294	0.2160	0.8
B78A	Intracranial Injury W Catastrophic or Severe CC	2	26	9.7	D			0.4508	1.1650	0.5825	2.3299	0.1917	0.8
B78B	Intracranial Injury W/O Catastrophic or Severe CC	1	11	3.5	D		S	0.3165	1.0071	0.0492	1.0071	0.2332	0.8
B79Z	Skull Fractures	0	9	2.4	D		S	0.2735	0.7539	0.0000	0.7539	0.2499	0.8
B80Z	Other Head Injury	0	4	1.3	D		S	0.1971	0.3727	0.0000	0.3727	0.2359	0.8
B81A	Other Disorders of the Nervous System W Catastrophic or Severe CC	2	18	6.8	D			0.3879	0.7665	0.3832	1.5330	0.1801	0.8
B81B	Other Disorders of the Nervous System W/O Catastrophic or Severe	0	6	1.7	D			0.4912	0.4912	0.0000	0.4912	0.2342	0.8
C01Z	Procedures for Penetrating Eye Injury	0	7	2.1	D			1.1844	1.1844	0.0000	1.1844	0.1947	0.7
C02Z	Enucleations and Orbital Procedures	0	7	1.8	D			1.2177	1.2177	0.0000	1.2177	0.2526	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
C03Z	Retinal Procedures	0	3	1.1	D			0.7897	0.7897	0.0000	0.7897	0.1882	0.7
C04Z	Major Corneal, Scleral and Conjunctival Procedures	0	4	1.2	D			0.9693	0.9693	0.0000	0.9693	0.1961	0.7
C05Z	Dacryocystorhinostomy	0	3	1.0	D			0.7909	0.7909	0.0000	0.7909	0.2158	0.7
C10Z	Strabismus Procedures	0	4	1.0	D		S	0.6320	0.7897	0.0000	0.7897	0.2581	0.7
C11Z	Eyelid Procedures	0	5	1.3	D		S	0.5044	0.9088	0.0000	0.9088	0.2608	0.7
C12Z	Other Corneal, Scleral and Conjunctival Procedures	0	3	1.0	D			0.5052	0.5052	0.0000	0.5052	0.1405	0.7
C13Z	Lacrimal Procedures	0	3	1.0	D			0.3688	0.3688	0.0000	0.3688	0.1303	0.7
C14Z	Other Eye Procedures	0	3	1.1	D			0.3900	0.3900	0.0000	0.3900	0.1335	0.7
C15A	Glaucoma and Complex Cataract Procedures	0	5	1.4	D			0.8807	0.8807	0.0000	0.8807	0.1954	0.7
C15B	Glaucoma and Complex Cataract Procedures, Sameday	0	3	1.0	D			0.6642	0.6642	0.0000	0.6642	0.1615	0.7
C16A	Lens Procedures	0	3	1.1	D			0.7864	0.7864	0.0000	0.7864	0.2317	0.7
C16B	Lens Procedures, Sameday	0	3	1.0	D			0.5375	0.5375	0.0000	0.5375	0.1463	0.7
C60A	Acute and Major Eye Infections Age >54 or W (Catastrophic or Severe	0	9	2.3	D			0.3960	0.3960	0.0000	0.3960	0.1406	0.8
C60B	Acute and Major Eye Infections Age <55 W/O Catastrophic or Severe CC	0	5	1.4	D			0.2517	0.2517	0.0000	0.2517	0.1453	0.8
C61Z	Neurological and Vascular Disorders of the Eye	0	5	1.3	D			0.3562	0.3562	0.0000	0.3562	0.2123	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
C62Z	Hyphema and Medically Managed Trauma to the Eye	0	6	1.8	D		S	0.1569	0.3628	0.0000	0.3628	0.1648	0.8
C63A	Other Disorders of the Eye W CC	0	7	2.0	D			0.4622	0.4622	0.0000	0.4622	0.1806	0.8
C63B	Other Disorders of the Eye W/O CC	0	6	1.9	D		S	0.1558	0.4967	0.0000	0.4967	0.2096	0.8
D01Z	Cochlear Implant	0	4	1.1	D			9.9634	9.9634	0.0000	9.9634	0.2777	0.7
D02A	Head and Neck Procedures W Catastrophic or Severe CC	2	24	9.5	D			2.7890	3.4520	0.7101	4.8721	0.2087	0.7
D02B	Head and Neck Procedures W Malignancy or Moderate CC	1	14	4.0	D			1.6000	2.2629	0.0492	2.2629	0.2383	0.7
D02C	Head and Neck Procedures W/O Malignancy W/O CC	0	6	1.9	D			1.4118	1.4118	0.0000	1.4118	0.2642	0.7
D03Z	Surgical Repair for Cleft Lip or Palate Diagnosis	0	7	2.6	D			1.4980	1.4980	0.0000	1.4980	0.2490	0.7
D04A	Maxillo Surgery W CC	0	9	2.7	D			1.7138	1.7138	0.0000	1.7138	0.2560	0.7
D04B	Maxillo Surgery W/O CC	0	6	1.9	D			1.2697	1.2697	0.0000	1.2697	0.2402	0.7
D05Z	Parotid Gland Procedures	0	6	1.9	D			1.8387	1.8387	0.0000	1.8387	0.3124	0.7
D06A	Mastoid Procedures	0	4	1.1	D			1.7508	1.7508	0.0000	1.7508	0.3659	0.7
D06B	Other Sinus and Complex Middle Ear Procedures	0	3	1.1	D			1.0754	1.0754	0.0000	1.0754	0.3073	0.7
D09Z	Miscellaneous Ear, Nose, Mouth & Throat Procedures	0	4	1.2	D		S	0.6159	1.0937	0.0000	1.0937	0.2833	0.7
D10Z	Nasal Procedures	0	3	1.0	D			0.7494	0.7494	0.0000	0.7494	0.2244	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
D11Z	Tonsillectomy and/or Adenoidectomy	0	3	1.1	D		S	0.4638	0.6331	0.0000	0.6331	0.2366	0.7
D12Z	Other Ear, Nose, Mouth & Throat Procedures	0	4	1.2	D			0.8695	0.8695	0.0000	0.8695	0.2295	0.7
D13Z	Myringotomy W Tube Insertion	0	3	1.0	D			0.3350	0.3350	0.0000	0.3350	0.1034	0.7
D14Z	Mouth and Salivary Gland Procedures	0	4	1.2	D			0.6717	0.6717	0.0000	0.6717	0.1992	0.7
D40Z	Dental Extractions and Restorations	0	3	1.0	D			0.4492	0.4492	0.0000	0.4492	0.1489	0.8
D60A	Ear, Nose, Mouth and Throat Malignancy W Catastrophic or Severe	2	19	6.5	D			0.3919	0.7839	0.3919	1.5678	0.1923	0.8
D60B	Ear, Nose, Mouth and Throat Malignancy W/O Catastrophic or	0	6	1.9	D			0.7362	0.7362	0.0000	0.7362	0.3156	0.8
D61Z	Dysequilibrium	0	6	1.9	D		S	0.1820	0.4636	0.0000	0.4636	0.1943	0.8
D62Z	Epistaxis	0	5	1.7	D		S	0.1954	0.4092	0.0000	0.4092	0.1948	0.8
D63A	Otitis Media and URI W CC	0	7	2.1	D		S	0.1996	0.5450	0.0000	0.5450	0.2121	0.8
D63B	Otitis Media and URI W/O CC	0	4	1.4	D		S	0.1903	0.3810	0.0000	0.3810	0.2105	0.8
D64Z	Laryngotracheitis and Epiglottitis	0	4	1.3	D		S	0.1969	0.4000	0.0000	0.4000	0.2386	0.8
D65Z	Nasal Trauma and Deformity	0	6	1.6	D		S	0.2712	0.5318	0.0000	0.5318	0.2743	0.8
D66A	Other Ear, Nose, Mouth and Throat Diagnoses W CC	0	7	2.0	D			0.6149	0.6149	0.0000	0.6149	0.2473	0.8
D66B	Other Ear, Nose, Mouth and Throat Diagnoses W/O CC	0	5	1.6	D		S	0.3334	0.5505	0.0000	0.5505	0.2803	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
D67A	Oral and Dental Disorders Except Extractions and Restorations	0	6	1.8	D		S	0.0000	0.5688	0.0000	0.5688	0.2484	0.8
D67B	Oral and Dental Disorders Except Extractions and Restorations,	0	3	1.0	D			0.2809	0.2809	0.0000	0.2809	0.2247	0.8
E01A	Major Chest Procedures W Catastrophic CC	4	40	13.0	D			1.7643	2.2798	0.7892	5.4366	0.2266	0.7
E01B	Major Chest Procedures W/O Catastrophic CC	2	21	7.2	D			1.6798	2.2829	0.6081	3.4991	0.2370	0.7
E02A	Other Respiratory System O.R. Procedures W Catastrophic CC	3	33	12.4	D			0.7945	1.3112	0.6889	3.3779	0.1747	0.7
E02B	Other Respiratory System O.R. Procedures W Severe CC	1	18	5.4	D		S	0.7299	2.1321	0.0492	2.1321	0.2085	0.7
E02C	Other Respiratory System O.R. Procedures W/O Catastrophic or	0	5	1.5	D		S	0.5232	1.0076	0.0000	1.0076	0.2647	0.7
E40Z	Respiratory System Diagnosis W Ventilator Support	2	22	7.5	D			1.1612	1.3599	0.6729	2.7057	0.2853	0.8
E41Z	Respiratory System Diagnosis W Non-invasive Ventilation	2	27	8.3	D		S	0.2548	1.3302	0.6646	2.6594	0.2547	0.8
E60A	Cystic Fibrosis W Catastrophic or Severe CC	3	33	12.4	D			0.5042	1.0083	0.6722	3.0250	0.1953	0.8
E60B	Cystic Fibrosis W/O Catastrophic or Severe CC	2	22	10.1	D			0.6407	1.2813	0.6407	2.5626	0.2036	0.8
E61A	Pulmonary Embolism W Catastrophic or Severe CC	2	20	7.1	D			0.4174	0.8348	0.4174	1.6695	0.1874	0.8
E61B	Pulmonary Embolism W/O Catastrophic or Severe CC	1	11	3.7	D			0.4580	0.9032	0.0492	0.9032	0.1970	0.8
E62A	Respiratory Infections/Inflammations W Catastrophic CC	2	24	8.2	D			0.4347	0.8681	0.4340	1.7362	0.1697	0.8
E62B	Respiratory Infections/Inflammations W Severe or Moderate CC	1	14	4.4	D			0.4871	0.9727	0.0492	0.9727	0.1760	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
E62C	Respiratory Infections/Inflammations W/O CC	0	8	2.6	D		S	0.2031	0.6373	0.0000	0.6373	0.1933	0.8
E63Z	Sleep Apnoea	1	11	3.3	D		N	0.0000	0.0000	0.0496	0.9116	0.2186	0.8
E64Z	Pulmonary Oedema and Respiratory Failure	1	12	3.4	D			0.4433	0.8680	0.0492	0.8680	0.2060	0.8
E65A	Chronic Obstructive Airways Disease W Catastrophic or Severe CC	2	18	6.2	D		S	0.2375	0.6121	0.3060	1.2242	0.1585	0.8
E65B	Chronic Obstructive Airways Disease W/O Catastrophic or Severe CC	1	12	3.9	D		S	0.2161	0.8121	0.0492	0.8121	0.1679	0.8
E66A	Major Chest Trauma Age >69 W CC	2	20	7.3	D			0.4383	0.8765	0.4383	1.7530	0.1920	0.8
E66B	Major Chest Trauma Age >69 or W CC	1	10	3.2	D			0.4458	0.8917	0.0492	0.8917	0.2238	0.8
E66C	Major Chest Trauma Age <70 W/O CC	0	5	1.7	D			0.4583	0.4583	0.0000	0.4583	0.2140	0.8
E67A	Respiratory Signs and Symptoms W Catastrophic or Severe CC	0	9	2.6	D			0.6619	0.6619	0.0000	0.6619	0.2041	0.8
E67B	Respiratory Signs and Symptoms W/O Catastrophic or Severe CC	0	4	1.3	D			0.3581	0.3581	0.0000	0.3581	0.2237	0.8
E68Z	Pneumothorax	1	12	3.5	D			0.4394	0.8777	0.0492	0.8777	0.1991	0.8
E69A	Bronchitis and Asthma Age >49 W CC	1	11	3.5	D			0.3949	0.7883	0.0492	0.7883	0.1791	0.8
E69B	Bronchitis and Asthma Age >49 or W CC	0	8	2.6	D		S	0.2442	0.6132	0.0000	0.6132	0.1921	0.8
E69C	Bronchitis and Asthma Age <50 W/O CC	0	5	1.6	D		S	0.1872	0.4442	0.0000	0.4442	0.2240	0.8
E70A	Whooping Cough and Acute Bronchiolitis W CC	1	12	3.9	D			0.5122	1.0205	0.0492	1.0205	0.2114	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
E70B	Whooping Cough and Acute Bronchiolitis W/O CC	0	7	2.3	D		S	0.1775	0.6265	0.0000	0.6265	0.2165	0.8
E71A	Respiratory Neoplasms W Catastrophic CC	2	24	8.9	D			0.4793	0.9585	0.4793	1.9170	0.1727	0.8
E71B	Respiratory Neoplasms W Severe or Moderate CC	1	11	3.1	D			0.3960	0.7920	0.0492	0.7920	0.2057	0.8
E71C	Respiratory Neoplasms W/O CC	1	10	3.1	D		S	0.2901	0.8592	0.0492	0.8592	0.2190	0.8
E72Z	Respiratory Problems Arising from Neonatal Period	2	20	5.8	D		N	0.3403	0.3403	0.4697	1.2797	0.1751	0.8
E73A	Pleural Effusion W Catastrophic CC	2	23	8.5	D			0.4591	0.9182	0.4591	1.8365	0.1721	0.8
E73B	Pleural Effusion W Severe CC	1	13	4.0	D			0.4764	0.9529	0.0492	0.9529	0.1903	0.8
E73C	Pleural Effusion W/O Catastrophic or Severe CC	0	7	2.0	D			0.5254	0.5254	0.0000	0.5254	0.2076	0.8
E74A	Interstitial Lung Disease W Catastrophic CC	3	32	12.1	D			0.3794	0.7588	0.5059	2.2765	0.1505	0.8
E74B	Interstitial Lung Disease W Severe CC	2	18	6.6	D			0.3397	0.6795	0.3397	1.3589	0.1652	0.8
E74C	Interstitial Lung Disease W/O Catastrophic or Severe CC	1	12	3.3	D			0.3836	0.7672	0.0492	0.7672	0.1835	0.8
E75A	Other Respiratory System Diagnosis Age >64 W CC	1	14	4.3	D			0.4528	0.9049	0.0492	0.9049	0.1668	0.8
E75B	Other Respiratory System Diagnosis Age >64 or W CC	1	10	3.1	D		S	0.2277	0.7388	0.0492	0.7388	0.1934	0.8
E75C	Other Respiratory System Diagnosis Age <65 W/O CC	0	5	1.7	D		S	0.2186	0.4809	0.0000	0.4809	0.2294	0.8
F01A	Implantation or Replacement of AICD, Total System W Cat or Sev CC	2	21	6.6	D			8.5134	9.0546	0.6280	10.3106	0.2681	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
F01B	Implantation or Replacement of AICD, Total System W/O Cat or Sev	0	8	1.9	D			8.0124	8.0124	0.0000	8.0124	0.3659	0.7
F02Z	AICD Component Implantation/Replacement	1	14	3.8	4			3.5668	4.6064	0.0492	4.6064	0.3659	0.7
F03Z	Cardiac Valve Proc W CPB Pump W Invasive Cardiac Investigation	8	72	25.3	D			4.9841	5.2332	0.9122	12.5306	0.2305	0.7
F04A	Cardiac Valve Proc W CPB Pump W/O Invasive Cardiac Inves W Cat	3	35	11.1	D			5.1733	5.6102	1.1386	9.0260	0.3218	0.7
F04B	Cardiac Valve Proc W CPB Pump W/O Invasive Cardiac Inves W/O Cat	3	27	9.2	D			4.5616	4.9418	0.9011	7.6451	0.3095	0.7
F05A	Coronary Bypass W Invasive Cardiac Inves W Catastrophic CC	6	58	19.1	D			3.7921	4.1476	1.0002	10.1489	0.2641	0.7
F05B	Coronary Bypass W Invasive Cardiac Inves W/O Catastrophic CC	5	48	16.3	D			3.2469	3.6721	0.9432	8.3879	0.2536	0.7
F06A	Coronary Bypass W/O Invasive Cardiac Inves W Catastrophic or	3	30	9.9	D			3.6014	4.0474	0.9995	7.0460	0.3174	0.7
F06B	Coronary Bypass W/O Invasive Cardiac Inves W/O Catastrophic or	2	22	7.5	D			3.3886	4.0580	0.9330	5.9241	0.3477	0.7
F07A	Other Cardiothoracic/Vascular Procedures W CPB Pump W	4	38	12.2	D			4.3674	4.7058	1.1771	9.4144	0.3597	0.7
F07B	Other Cardiothoracic/Vascular Procedures W CPB Pump W/O	2	27	9.0	D			3.9048	4.7036	1.0839	6.8713	0.3388	0.7
F08A	Major Reconstruct Vascular Procedures W/O CPB Pump W	4	42	14.4	D	AAA		2.6936	3.5783	0.9942	7.5549	0.2577	0.7
F08B	Major Reconstruct Vascular Procedures W/O CPB Pump W/O	2	19	6.6	D	AAA		2.4522	3.1737	0.6686	4.5108	0.2837	0.7
F09A	Other Cardiothoracic Procedures W/O CPB Pump W Catastrophic CC	3	28	10.6	D			2.1074	2.7806	0.8669	5.3814	0.2572	0.7
F09B	Other Cardiothoracic Procedures W/O CPB Pump W/O Catastrophic	1	16	5.6	D			2.4604	3.5724	0.0492	3.5724	0.3121	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
F10Z	Percutaneous Coronary Intervention W AMI	1	10	3.2	D			1.3830	2.0722	0.0492	2.0722	0.3052	0.7
F11A	Amputation for Circ System Except Upper Limb and Toe W Catastrophic	6	56	17.2	D			1.4517	1.7988	0.6017	5.4091	0.1762	0.7
F11B	Amputation for Circ System Except Upper Limb and Toe W/O	4	41	14.1	D			1.2434	1.6324	0.5834	3.9659	0.1543	0.7
F12Z	Cardiac Pacemaker Implantation	1	11	3.1	D			1.8035	2.3757	0.0492	2.3757	0.2591	0.7
F13Z	Upper Limb and Toe Amputation for Circulatory System Disorders	2	27	9.9	D			1.0792	1.6651	0.5859	2.8368	0.1654	0.7
F14A	Vascular Procs Except Major Reconstruction W/O CPB Pump W	2	23	7.9	D			1.6119	2.3608	0.7733	3.9074	0.2749	0.7
F14B	Vascular Procs Except Major Reconstruction W/O CPB Pump W	1	10	2.5	D			1.2055	1.9418	0.0492	1.9418	0.3659	0.7
F14C	Vascular Procs Except Major Reconstruction W/O CPB Pump W/O	0	5	1.5	D			1.4421	1.4421	0.0000	1.4421	0.3659	0.7
F15Z	Percutaneous Coronary Intervention W/O AMI W Stent Implantation	0	7	2.1	D			1.7692	1.7692	0.0000	1.7692	0.3383	0.7
F16Z	Percutaneous Coronary Intervention W/O AMI W/O Stent Implantation	1	10	3.1	D			0.8632	1.4049	0.0492	1.4049	0.2449	0.7
F17Z	Cardiac Pacemaker Replacement	0	5	1.3	D			1.6029	1.6029	0.0000	1.6029	0.3309	0.7
F18Z	Cardiac Pacemaker Revision Except Device Replacement	0	9	2.5	D			1.6614	1.6614	0.0000	1.6614	0.2987	0.7
F19Z	Other Trans-Vascular Percutaneous Cardiac Intervention	0	6	1.8	D	ASD		2.2483	2.2483	0.0000	2.2483	0.3424	0.7
F20Z	Vein Ligation and Stripping	0	3	1.1	D			1.0218	1.0218	0.0000	1.0218	0.2592	0.7
F21A	Other Circulatory System O.R. Procedures W Catastrophic CC	4	40	16.3	D			1.0141	1.6981	0.7913	4.8634	0.1816	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
F21B	Other Circulatory System O.R. Procedures W/O Catastrophic CC	1	18	4.1	D			1.0682	1.6222	0.0492	1.6222	0.1908	0.7
F40Z	Circulatory System Diagnosis W Ventilator Support	2	23	7.6	4			1.1378	2.1997	1.0791	4.3578	0.3659	0.8
F41A	Circulatory Disorders W AMI W Invasive Cardiac Inves Proc W Cat or	1	16	5.2	D			0.9388	1.7322	0.0492	1.7322	0.2439	0.8
F41B	Circulatory Disorders W AMI W Invasive Cardiac Inves Proc W/O Cat	1	12	4.0	D		S	0.7724	1.3351	0.0492	1.3351	0.2508	0.8
F42A	Circulatory Disorders W/O AMI W Invasive Cardiac Inves Proc W	1	11	3.2	D			0.7801	1.2846	0.0492	1.2846	0.2541	0.8
F42B	Circulatory Disorders W/O AMI W Invasive Cardiac Inves Proc W/O	1	10	3.2	D		S	0.5480	1.3369	0.0492	1.3369	0.2702	0.8
F60A	Circulatory Disorders W AMI W/O Invasive Cardiac Inves Proc W Cat or	2	20	6.9	D			0.3813	0.7617	0.3808	1.5233	0.1758	0.8
F60B	Circulatory Disorders W AMI W/O Invasive Cardiac Inves Proc W/O Cat	1	12	4.1	D			0.5153	1.0298	0.0492	1.0298	0.1997	0.8
F60C	Circulatory Disorders W AMI W/O Invasive Cardiac Inves Proc, Died	1	10	2.8	D			0.3776	0.7788	0.0492	0.7788	0.2213	0.8
F61Z	Infective Endocarditis	4	40	14.5	D			0.3924	0.7763	0.5822	3.1050	0.1712	0.8
F62A	Heart Failure and Shock W Catastrophic CC	3	27	9.8	D		S	0.3174	0.6187	0.4125	1.8562	0.1517	0.8
F62B	Heart Failure and Shock W/O Catastrophic CC	1	14	4.6	D		S	0.2019	0.9211	0.0492	0.9211	0.1609	0.8
F63A	Venous Thrombosis W Catastrophic or Severe CC	1	15	4.7	D			0.5178	1.0355	0.0492	1.0355	0.1771	0.8
F63B	Venous Thrombosis W/O Catastrophic or Severe CC	0	7	2.2	D		S	0.2070	0.5477	0.0000	0.5477	0.1964	0.8
F64Z	Skin Ulcers for Circulatory Disorders	1	17	5.0	D			0.4675	0.9350	0.0492	0.9350	0.1491	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
F65A	Peripheral Vascular Disorders W Catastrophic or Severe CC	1	17	5.4	D		S	0.2995	1.3472	0.0492	1.3472	0.1982	0.8
F65B	Peripheral Vascular Disorders W/O Catastrophic or Severe CC	1	9	2.6	D		S	0.3221	0.7531	0.0492	0.7531	0.2312	0.8
F66A	Coronary Atherosclerosis W CC	0	9	2.5	D			0.6091	0.6091	0.0000	0.6091	0.1927	0.8
F66B	Coronary Atherosclerosis W/O CC	0	6	1.8	D		S	0.2099	0.4593	0.0000	0.4593	0.2082	0.8
F67A	Hypertension W CC	0	9	2.7	D			0.6958	0.6958	0.0000	0.6958	0.2036	0.8
F67B	Hypertension W/O CC	0	5	1.5	D			0.3666	0.3666	0.0000	0.3666	0.1935	0.8
F68Z	Congenital Heart Disease	0	5	1.2	D			0.4534	0.4534	0.0000	0.4534	0.2982	0.8
F69A	Valvular Disorders W Catastrophic or Severe CC	1	18	5.1	D			0.5331	1.0661	0.0492	1.0661	0.1689	0.8
F69B	Valvular Disorders W/O Catastrophic or Severe CC	0	8	2.0	D		S	0.2317	0.4789	0.0000	0.4789	0.1933	0.8
F70A	Major Arrhythmia and Cardiac Arrest W Catastrophic or Severe CC	1	15	4.9	D			0.6984	1.3476	0.0492	1.3476	0.2210	0.8
F70B	Major Arrhythmia and Cardiac Arrest W/O Catastrophic or Severe CC	0	8	2.4	D			0.6876	0.6876	0.0000	0.6876	0.2248	0.8
F71A	Non-Major Arrhythmia and Conduction Disorders W Catastrophic	1	14	4.4	D		S	0.2646	1.0343	0.0492	1.0343	0.1865	0.8
F71B	Non-Major Arrhythmia and Conduction Disorders W/O	0	6	1.9	D		S	0.2467	0.4990	0.0000	0.4990	0.2123	0.8
F72A	Unstable Angina W Catastrophic or Severe CC	1	12	4.0	D			0.4527	0.9054	0.0492	0.9054	0.1814	0.8
F72B	Unstable Angina W/O Catastrophic or Severe CC	0	8	2.5	D			0.6238	0.6238	0.0000	0.6238	0.1957	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
F73A	Syncope and Collapse W Catastrophic or Severe CC	1	11	3.2	D			0.3552	0.7103	0.0492	0.7103	0.1772	0.8
F73B	Syncope and Collapse W/O Catastrophic or Severe CC	0	5	1.6	D		S	0.2044	0.4076	0.0000	0.4076	0.2072	0.8
F74Z	Chest Pain	0	4	1.3	D		S	0.2254	0.3823	0.0000	0.3823	0.2339	0.8
F75A	Other Circulatory System Diagnoses W Catastrophic CC	2	22	7.8	D			0.5188	1.0347	0.5174	2.0694	0.2131	0.8
F75B	Other Circulatory System Diagnoses W Severe CC	1	13	3.8	D			0.5115	1.0230	0.0492	1.0230	0.2137	0.8
F75C	Other Circulatory System Diagnoses W/O Catastrophic or Severe CC	1	9	2.7	D		S	0.3135	0.7620	0.0492	0.7620	0.2236	0.8
G01A	Rectal Resection W Catastrophic CC	5	47	16.0	D			2.1152	2.5394	0.7522	6.3003	0.2058	0.7
G01B	Rectal Resection W/O Catastrophic CC	3	27	9.5	D			1.8623	2.2754	0.5622	3.9621	0.1860	0.7
G02A	Major Small and Large Bowel Procedures W Catastrophic CC	4	43	14.4	D			1.6435	2.1028	0.7484	5.0963	0.1943	0.7
G02B	Major Small and Large Bowel Procedures W/O Catastrophic CC	2	21	7.7	D			1.4025	1.9250	0.5021	2.9292	0.1832	0.7
G03A	Stomach, Oesophageal and Duodenal Procedures W Malignancy	4	44	15.1	D			2.1141	2.6735	0.9162	6.3383	0.2259	0.7
G03B	Stomach, Oesophageal and Duodenal Procedures W/O	3	34	11.9	D			1.6993	2.2649	0.8586	4.8407	0.2267	0.7
G03C	Stomach, Oesophageal and Duodenal Procedures W/O	1	11	3.9	D			1.5037	2.0932	0.0492	2.0932	0.2132	0.7
G04A	Peritoneal Adhesiolysis Age >49 W CC	3	33	11.4	D			0.8918	1.8852	0.6755	3.9118	0.1863	0.7
G04B	Peritoneal Adhesiolysis Age >49 or W CC	2	20	7.2	D			1.2449	1.7102	0.4678	2.6459	0.1817	0.7

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G04C	Peritoneal Adhesiolysis Age <50 W/O CC	1	10	3.3	D			1.1293	1.5967	0.0492	1.5967	0.1961	0.7
G05A	Minor Small and Large Bowel Procedures W CC	2	21	7.4	D			1.1732	1.6205	0.4559	2.5323	0.1731	0.7
G05B	Minor Small and Large Bowel Procedures W/O CC	1	11	3.8	D			1.0685	1.5315	0.0492	1.5315	0.1720	0.7
G06Z	Pyloromyotomy Procedure	1	11	3.6	D			0.9424	1.5207	0.0492	1.5207	0.2257	0.7
G07A	Appendicectomy W Catastrophic or Severe CC	1	18	6.1	D			1.4713	2.2339	0.0492	2.2339	0.1845	0.7
G07B	Appendicectomy W/O Catastrophic or Severe CC	0	8	2.7	D			1.3097	1.3097	0.0000	1.3097	0.2027	0.7
G08A	Abdominal and Other Hernia Procedures Age >59 or W (Cat or	0	9	2.9	D			1.3651	1.3651	0.0000	1.3651	0.1902	0.7
G08B	Abdominal and Other Hernia Procedures Age 1 to 59 W/O Cat or	0	4	1.4	D			0.8444	0.8444	0.0000	0.8444	0.2014	0.7
G09Z	Inguinal and Femoral Hernia Procedures Age>0	0	3	1.1	D			0.7490	0.7490	0.0000	0.7490	0.2004	0.7
G10Z	Hernia Procedures Age<1	0	4	1.4	D		S	0.5218	0.8803	0.0000	0.8803	0.2657	0.7
G11A	Anal and Stomal Procedures W Catastrophic or Severe CC	1	13	3.9	D			0.9319	1.4159	0.0492	1.4159	0.1771	0.7
G11B	Anal and Stomal Procedures W/O Catastrophic or Severe CC	0	5	1.7	D		S	0.4539	0.8414	0.0000	0.8414	0.2015	0.7
G12A	Other Digestive System O.R. Procedures W Catastrophic or	3	29	11.0	D			1.1427	1.6257	0.6637	3.6168	0.1905	0.7
G12B	Other Digestive System O.R. Procedures W/O Catastrophic or	1	10	3.3	D			0.8556	1.3104	0.0492	1.3104	0.1957	0.7
G42A	Other Gastroscopy for Major Digestive Disease	1	13	3.9	D			0.5680	1.0859	0.0492	1.0859	0.2113	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
G42B	Other Gastroscopy for Major Digestive Disease, Sameday	0	3	1.0	D			0.3320	0.3320	0.0000	0.3320	0.1984	0.8
G43Z	Complex Colonoscopy	0	9	2.8	D			0.7254	0.7254	0.0000	0.7254	0.1945	0.8
G44A	Other Colonoscopy W Catastrophic or Severe CC	2	21	7.6	D			0.5056	0.9366	0.4327	1.8020	0.1818	0.8
G44B	Other Colonoscopy W/O Catastrophic or Severe CC	1	11	3.6	D			0.5016	0.9392	0.0492	0.9392	0.1967	0.8
G44C	Other Colonoscopy, Sameday	0	3	1.0	D			0.3299	0.3299	0.0000	0.3299	0.1535	0.8
G45A	Other Gastroscopy for Non-Major Digestive Disease	1	10	3.0	D			0.4681	0.8542	0.0492	0.8542	0.2034	0.8
G45B	Other Gastroscopy for Non-Major Digestive Disease, Sameday	0	3	1.0	D			0.3497	0.3497	0.0000	0.3497	0.1850	0.8
G46A	Complex Gastroscopy W Catastrophic or Severe CC	2	24	8.0	D			0.6231	1.1514	0.5297	2.2107	0.2123	0.8
G46B	Complex Gastroscopy W/O Catastrophic or Severe CC	1	13	4.1	D			0.6439	1.2021	0.0492	1.2021	0.2175	0.8
G46C	Complex Gastroscopy, Sameday	0	3	1.0	D			0.3756	0.3756	0.0000	0.3756	0.2065	0.8
G60A	Digestive Malignancy W Catastrophic or Severe CC	1	15	4.6	D		S	0.2524	1.1793	0.0492	1.1793	0.2073	0.8
G60B	Digestive Malignancy W/O Catastrophic or Severe CC	0	9	2.6	D		S	0.2646	0.7963	0.0000	0.7963	0.2462	0.8
G61A	GI Haemorrhage Age >64 or W (Catastrophic or Severe CC)	0	9	2.8	D		S	0.2573	0.7073	0.0000	0.7073	0.2004	0.8
G61B	GI Haemorrhage Age <65 W/O Catastrophic or Severe CC	0	5	1.6	D		S	0.2144	0.4424	0.0000	0.4424	0.2161	0.8
G62Z	Complicated Peptic Ulcer	1	14	3.6	D			0.4250	0.8098	0.0492	0.8098	0.1805	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
G63Z	Uncomplicated Peptic Ulcer	0	4	1.2	D			0.2885	0.2885	0.0000	0.2885	0.1853	0.8
G64Z	Inflammatory Bowel Disease	0	7	2.1	D			0.6130	0.6130	0.0000	0.6130	0.2377	0.8
G65A	GI Obstruction W CC	1	15	4.6	D			0.5346	1.0692	0.0492	1.0692	0.1873	0.8
G65B	GI Obstruction W/O CC	0	7	2.2	D			0.5361	0.5361	0.0000	0.5361	0.1948	0.8
G66A	Abdominal Pain or Mesenteric Adenitis W CC	0	8	2.5	D		S	0.2066	0.6364	0.0000	0.6364	0.2075	0.8
G66B	Abdominal Pain or Mesenteric Adenitis W/O CC	0	5	1.6	D		S	0.1947	0.4134	0.0000	0.4134	0.2027	0.8
G67A	Oesophagitis, Gastroent & Misc Digestive System Disorders Age>9 W	1	13	4.0	D		S	0.2141	0.9136	0.0492	0.9136	0.1824	0.8
G67B	Oesophagitis, Gastroent & Misc Digestive Systm Disorders Age>9	0	6	2.0	D		S	0.1858	0.4705	0.0000	0.4705	0.1929	0.8
G68A	Gastroenteritis Age <10 W CC	0	6	2.0	D			0.5853	0.5853	0.0000	0.5853	0.2322	0.8
G68B	Gastroenteritis Age <10 W/O CC	0	5	1.5	D		S	0.1692	0.4246	0.0000	0.4246	0.2200	0.8
G69Z	Oesophagitis and Misc Digestive System Disorders Age<10	0	4	1.3	D			0.3161	0.3161	0.0000	0.3161	0.1966	0.8
G70A	Other Digestive System Diagnoses W CC	1	11	2.9	D			0.3854	0.7636	0.0492	0.7636	0.2080	0.8
G70B	Other Digestive System Diagnoses W/O CC	0	7	2.1	D		S	0.2298	0.5549	0.0000	0.5549	0.2107	0.8
H01A	Pancreas, Liver and Shunt Procedures W Catastrophic CC	4	43	14.5	D			2.6285	3.2096	0.9388	6.9648	0.2425	0.7
H01B	Pancreas, Liver and Shunt Procedures W/O Catastrophic CC	2	24	9.2	D			1.9450	2.6504	0.7146	4.0796	0.2168	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
H02A	Major Biliary Tract Procedures W Malignancy or Catastrophic CC	4	41	14.1	D			1.5787	2.0490	0.7296	4.9673	0.1931	0.7
H02B	Major Biliary Tract Procedures W/O Malignancy W (Severe or Moderate	2	24	9.1	D			1.3609	1.9626	0.6017	3.1661	0.1849	0.7
H02C	Major Biliary Tract Procedures W/O Malignancy W/O CC	1	14	4.3	D			1.0530	1.6381	0.0492	1.6381	0.1892	0.7
H05A	Hepatobiliary Diagnostic Procedures W Catastrophic or Severe CC	3	28	9.6	D			1.2551	1.6946	0.6210	3.5577	0.2042	0.7
H05B	Hepatobiliary Diagnostic Procedures W/O Catastrophic or Severe CC	1	11	3.2	D			0.8786	1.3572	0.0492	1.3572	0.2072	0.7
H06Z	Other Hepatobiliary and Pancreas O.R. Procedures	2	27	9.3	D			1.0877	1.8488	0.7611	3.3710	0.2294	0.7
H07A	Open Cholecystectomy W Closed CDE or W Catastrophic CC	3	33	10.8	D			1.3973	1.8684	0.7030	3.9774	0.2058	0.7
H07B	Open Cholecystectomy W/O Closed CDE W/O Catastrophic CC	1	16	5.8	D			1.6613	2.3993	0.0492	2.3993	0.1774	0.7
H08A	Laparoscopic Cholecystectomy W Closed CDE or W (Cat or Sev CC)	1	15	5.3	D			1.5427	2.2885	0.0492	2.2885	0.1979	0.7
H08B	Laparoscopic Cholecystectomy W/O Closed CDE W/O Cat or Sev CC	0	5	1.7	D			1.2612	1.2612	0.0000	1.2612	0.2566	0.7
H40Z	Endoscopic Procedures for Bleeding Oesophageal Varices	1	16	5.4	D			1.1235	2.0831	0.0492	2.0831	0.2967	0.8
H41A	ERCP Complex Therapeutic Procedure W Catastrophic or Severe	2	26	9.4	D			0.6782	1.2871	0.6119	2.5109	0.2084	0.8
H41B	ERCP Complex Therapeutic Procedure W/O Catastrophic or	1	14	4.6	D			0.7410	1.4217	0.0492	1.4217	0.2377	0.8
H42A	ERCP Other Therapeutic Procedure W Catastrophic or Severe CC	2	25	8.2	D			0.5946	1.1142	0.5278	2.1698	0.2055	0.8
H42B	ERCP Other Therapeutic Procedure W Moderate CC	1	14	4.8	D			0.6881	1.3342	0.0492	1.3342	0.2171	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
H42C	ERCP Other Therapeutic Procedure W/O CC	1	11	3.6	D			0.5776	1.1046	0.0492	1.1046	0.2342	0.8
H60A	Cirrhosis and Alcoholic Hepatitis W Catastrophic CC	2	24	8.6	D			0.5642	1.1064	0.5532	2.2127	0.2069	0.8
H60B	Cirrhosis and Alcoholic Hepatitis W Severe CC	0	9	2.4	D			0.7142	0.7142	0.0000	0.7142	0.2381	0.8
H60C	Cirrhosis and Alcoholic Hepatitis W/O Catastrophic or Severe CC	0	8	2.3	D			0.5754	0.5754	0.0000	0.5754	0.2042	0.8
H61A	Malignancy of Hepatobiliary Sys,Panc (Age>69 W Cat or Sev CC) or W Cat	2	19	6.6	D			0.3918	0.7788	0.3894	1.5575	0.1876	0.8
H61B	Malignancy of Hepatobiliary Sys,Panc (Age>69 W/O Cat or Sev CC) or W/O	1	9	2.8	D			0.3922	0.7845	0.0492	0.7845	0.2246	0.8
H62A	Disorders of Pancreas Except for Malignancy W Catastrophic or Severe	2	22	8.0	D			0.4865	0.9546	0.4773	1.9091	0.1906	0.8
H62B	Disorders of Pancreas Except for Malignancy W/O Catastrophic or	1	11	3.5	D			0.4059	0.8109	0.0492	0.8109	0.1840	0.8
H63A	Disorders of Liver Except Malig, Cirrhosis, Alcoholic Hepatitis W	1	16	4.6	D			0.6705	1.3133	0.0492	1.3133	0.2280	0.8
H63B	Disorders of Liver Excep Malig, Cirrhosis, Alcoholic Hepatitis W/O	1	9	2.9	D		S	0.2871	0.8272	0.0492	0.8272	0.2276	0.8
H64A	Disorders of the Biliary Tract W CC	1	14	4.6	D			0.5437	1.0873	0.0492	1.0873	0.1901	0.8
H64B	Disorders of the Biliary Tract W/O CC	0	8	2.7	D		S	0.1976	0.6263	0.0000	0.6263	0.1843	0.8
I01Z	Bilateral or Multiple Major Joint Procedures of Lower Extremity	2	27	7.7	D			4.1830	5.1036	0.9261	6.9558	0.3351	0.7
I02A	Microvascular Tissue Transfer or (Skin Graft W Cat or Sev CC),	9	82	34.6	D			3.0315	3.3476	0.6358	9.0701	0.1303	0.7
I02B	Skin Graft W/O Catastrophic or Severe CC, Excluding Hand	3	34	13.2	D			2.3164	2.8155	0.6766	4.8451	0.1615	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
I03A	Hip Revision W Catastrophic or Severe CC	4	39	13.1	D			3.1595	3.5516	0.6061	5.9761	0.1727	0.7
I03B	Hip Replacement W Cat or Sev CC or Hip Revision W/O Cat or Sev CC	2	26	8.9	D			2.6099	3.1176	0.5091	4.1358	0.1605	0.7
I03C	Hip Replacement W/O Catastrophic or Severe CC	1	17	5.9	D			2.8877	3.5532	0.0492	3.5532	0.1575	0.7
I04Z	Knee Replacement and Reattachment	2	18	6.2	D			2.7116	3.0583	0.3476	3.7534	0.1558	0.7
I05Z	Other Major Joint Replacement and Limb Reattachment Procedures	1	14	4.5	D			2.6694	3.3184	0.0492	3.3184	0.2004	0.7
I06Z	Spinal Fusion W Deformity	3	27	9.0	D	SCI		2.9848	3.2883	0.4246	4.5620	0.1480	0.7
I07Z	Amputation	6	61	20.7	D			1.9794	2.3434	0.6416	6.1927	0.1562	0.7
I08A	Other Hip and Femur Procedures W Catastrophic or Severe CC	3	35	11.1	D			1.6797	2.0943	0.5567	3.7644	0.1585	0.7
I08B	Other Hip and Femur Procedures W/O Catastrophic or Severe CC	2	19	6.8	D			1.5343	1.9438	0.4095	2.7628	0.1687	0.7
I09A	Spinal Fusion W Catastrophic or Severe CC	4	37	12.0	D	SCI		3.5082	3.9029	0.6252	6.4037	0.1950	0.7
I09B	Spinal Fusion W/O Catastrophic or Severe CC	2	18	6.3	D	SCI		3.0351	3.5110	0.4807	4.4725	0.2124	0.7
I10A	Other Back and Neck Procedures W Catastrophic or Severe CC	3	33	10.5	D			1.6944	2.1508	0.6155	3.9974	0.1841	0.7
I10B	Other Back and Neck Procedures W/O Catastrophic or Severe CC	1	16	5.4	D			1.8196	2.5776	0.0492	2.5776	0.1968	0.7
I11Z	Limb Lengthening Procedures	1	14	4.0	D			1.8031	2.4375	0.0492	2.4375	0.2220	0.7
I12A	Infect/Inflam of Bone & Joint W Misc Musc Sys & Conn Tiss Procs W Cat	5	54	19.4	D			1.5136	1.9410	0.6894	5.3881	0.1555	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
I12B	Infect/Inflam of Bone & Joint W Misc Musc Sys & Conn Tiss Procs W Sev	3	34	12.0	D			1.2649	1.6730	0.5442	3.3055	0.1423	0.7
I12C	Infect/Inflam Bone & Joint W Misc Musc Sys & Conn Tiss Proc W/O Cat	1	17	4.8	D			1.2299	1.8151	0.0492	1.8151	0.1689	0.7
I13A	Humerus, Tibia, Fibula and Ankle Procedures W Catastrophic or	3	34	11.3	D			1.8344	2.2517	0.5730	3.9707	0.1598	0.7
I13B	Humerus, Tibia, Fibula and Ankle Procedures Age >59 W/O Cat or Sev	2	21	7.1	D			1.4505	1.8425	0.3920	2.6266	0.1536	0.7
I13C	Humerus, Tibia, Fibula and Ankle Procedures Age <60 W/O Cat or Sev	1	11	3.6	D			1.4048	1.8815	0.0492	1.8815	0.1860	0.7
I14Z	Stump Revision	3	28	6.7	D			0.9069	1.2215	0.4194	2.4798	0.1972	0.7
I15Z	Cranio-Facial Surgery	1	13	4.3	D			2.0657	2.8118	0.0492	2.8118	0.2547	0.7
I16Z	Other Shoulder Procedures	0	5	1.7	D			1.3195	1.3195	0.0000	1.3195	0.2195	0.7
I17Z	Maxillo-Facial Surgery	1	10	3.2	D			1.5507	2.1009	0.0492	2.1009	0.2424	0.7
I18Z	Other Knee Procedures	1	10	3.1	D		S	0.6299	1.4805	0.0492	1.4805	0.1828	0.7
I19Z	Other Elbow or Forearm Procedures	0	7	2.3	D			1.5521	1.5521	0.0000	1.5521	0.2006	0.7
I20Z	Other Foot Procedures	0	7	2.1	D			1.2337	1.2337	0.0000	1.2337	0.1988	0.7
I21Z	Local Excision & Removal of Internal Fixation Devices of Hip and Femur	0	5	1.2	D			0.8580	0.8580	0.0000	0.8580	0.2242	0.7
I23Z	Local Excision & Removal of Internal Fixation Device Excl Hip and Femur	0	7	1.8	D		S	0.4801	1.1674	0.0000	1.1674	0.2262	0.7
I24Z	Arthroscopy	0	5	1.4	D			0.7504	0.7504	0.0000	0.7504	0.1608	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
I25Z	Bone and Joint Diagnostic Procedures including Biopsy	1	15	3.4	D			0.7587	1.2464	0.0492	1.2464	0.2028	0.7
I27A	Soft Tissue Procedures W Catastrophic or Severe CC	2	24	7.7	D		S	0.4112	1.5471	0.4370	2.4210	0.1582	0.7
I27B	Soft Tissue Procedures W/O Catastrophic or Severe CC	0	8	2.5	D		S	0.5349	1.3038	0.0000	1.3038	0.1981	0.7
I28A	Other Connective Tissue Procedures W CC	2	26	8.3	D			1.4961	2.0333	0.5492	3.1316	0.1844	0.7
I28B	Other Connective Tissue Procedures W/O CC	0	7	2.2	D			1.1726	1.1726	0.0000	1.1726	0.1868	0.7
I29Z	Knee Reconstruction Or Revision	1	12	3.3	D		S	1.6155	1.8853	0.0492	1.8853	0.2041	0.7
I30Z	Hand Procedures	0	5	1.6	D		S	0.5387	1.0124	0.0000	1.0124	0.2161	0.7
I60Z	Femoral Shaft Fractures	2	22	6.5	D			0.4393	0.8786	0.4393	1.7572	0.2177	0.8
I61Z	Distal Femoral Fractures	1	16	3.4	D			0.4262	0.8524	0.0492	0.8524	0.2006	0.8
I63Z	Sprains, Strains and Dislocations of Hip, Pelvis and Thigh	0	6	1.7	D		S	0.2329	0.6343	0.0000	0.6343	0.2937	0.8
I64A	Osteomyelitis W CC	3	31	10.4	D			0.3942	0.7885	0.5257	2.3655	0.1812	0.8
I64B	Osteomyelitis W/O CC	2	19	6.5	D		S	0.1936	0.7856	0.3928	1.5711	0.1919	0.8
I65A	Connective Tissue Malignancy, including Pathological Fx W Cat or	1	17	5.4	D			0.7014	1.4005	0.0492	1.4005	0.2085	0.8
I65B	Connective Tissue Malignancy, including Pathological Fx W/O Cat or	0	8	2.6	D			0.8675	0.8675	0.0000	0.8675	0.2700	0.8
I66A	Inflammatory Musculoskeletal Disorders W Cat or Sev CC	2	22	8.4	D			0.5393	1.0786	0.5393	2.1572	0.2066	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
I66B	Inflammatory Musculoskeletal Disorders W/O Cat or Sev CC	0	7	1.8	D			0.5413	0.5413	0.0000	0.5413	0.2377	0.8
I67A	Septic Arthritis W Catastrophic or Severe CC	3	32	9.8	D			0.3931	0.7863	0.5242	2.3589	0.1923	0.8
I67B	Septic Arthritis W/O Catastrophic or Severe CC	1	13	3.7	D			0.4258	0.8516	0.0492	0.8516	0.1820	0.8
I68A	Non-surgical Spinal Disorders W CC	1	18	5.7	D			0.6286	1.2510	0.0492	1.2510	0.1759	0.8
I68B	Non-surgical Spinal Disorders W/O CC	0	9	2.5	D			0.6044	0.6044	0.0000	0.6044	0.1909	0.8
I68C	Non-surgical Spinal Disorders, Sameday	0	3	1.0	D			0.2280	0.2280	0.0000	0.2280	0.1824	0.8
I69A	Bone Diseases & Spec Arthropathies Age >74 W Catastrophic or Severe	2	21	7.4	D			0.3580	0.7161	0.3580	1.4322	0.1540	0.8
I69B	Bone Diseases & Spec Arthropathies Age >74 or W (Catastrophic or	1	13	4.2	D		S	0.1486	0.8852	0.0492	0.8852	0.1675	0.8
I69C	Bone Diseases & Spec Arthropathies Age <75 W/O Catastrophic or Severe	1	9	2.9	D		S	0.1902	0.8887	0.0492	0.8887	0.2447	0.8
I70Z	Non-specific Arthropathies	0	7	2.1	D			0.5210	0.5210	0.0000	0.5210	0.2005	0.8
I71A	Other Musculotendinous Disorders Age >69 W CC	1	11	3.3	D			0.3484	0.6968	0.0492	0.6968	0.1705	0.8
I71B	Other Musculotendinous Disorders Age >69 or W CC	0	8	2.2	D		S	0.2128	0.5411	0.0000	0.5411	0.2009	0.8
I71C	Other Musculotendinous Disorders Age <70 W/O CC	0	6	1.7	D		S	0.1973	0.4590	0.0000	0.4590	0.2149	0.8
I72A	Specific Musculotendinous Disorders Age >79 or W (Cat or Sev CC)	1	14	4.1	D			0.4473	0.8946	0.0492	0.8946	0.1754	0.8
I72B	Specific Musculotendinous Disorders Age <80 W/O Cat or Sev CC	0	8	2.5	D		S	0.2018	0.5647	0.0000	0.5647	0.1838	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
I73A	Aftercare of Musculoskeletal Implants/Prostheses Age >59 W Cat	2	22	8.3	D			0.4151	0.8301	0.4151	1.6602	0.1601	0.8
I73B	Aftercare of Musculoskeletal Implants/Prostheses Age >59 or W	0	8	2.2	D			0.4978	0.4978	0.0000	0.4978	0.1820	0.8
I73C	Aftercare of Musculoskeletal Implants/Prostheses Age <60 W/O	0	5	1.5	D			0.4777	0.4777	0.0000	0.4777	0.2631	0.8
I74A	Injury to Forearm, Wrist, Hand or Foot Age >74 W CC	1	14	4.0	D			0.3877	0.7755	0.0492	0.7755	0.1570	0.8
I74B	Injury to Forearm, Wrist, Hand or Foot Age >74 or W CC	0	8	2.1	D		S	0.2025	0.5570	0.0000	0.5570	0.2105	0.8
I74C	Injury to Forearm, Wrist, Hand or Foot Age <75 W/O CC	0	4	1.2	D		S	0.2029	0.5457	0.0000	0.5457	0.3504	0.8
I75A	Injury to Shoulder, Arm, Elbow, Knee, Leg or Ankle Age >64 W CC	2	21	8.1	D			0.3963	0.7906	0.3953	1.5812	0.1559	0.8
I75B	Injury to Shoulder, Arm, Elbow, Knee, Leg or Ankle Age >64 or W CC	1	11	3.2	D		S	0.2139	0.7416	0.0492	0.7416	0.1838	0.8
I75C	Injury to Shoulder, Arm, Elbow, Knee, Leg or Ankle Age <65 W/O CC	0	5	1.6	D		S	0.2059	0.5156	0.0000	0.5156	0.2545	0.8
I76A	Other Musculoskeletal Disorders Age >69 W CC	2	18	6.7	D			0.2897	0.5600	0.2800	1.1200	0.1343	0.8
I76B	Other Musculoskeletal Disorders Age >69 or W CC	0	8	2.5	D		S	0.2508	0.6576	0.0000	0.6576	0.2107	0.8
I76C	Other Musculoskeletal Disorders Age <70 W/O CC	0	5	1.6	D		S	0.2686	0.4970	0.0000	0.4970	0.2526	0.8
I77A	Fractures of Pelvis W Catastrophic or Severe CC	2	26	8.6	D			0.4098	0.8195	0.4098	1.6390	0.1518	0.8
I77B	Fractures of Pelvis W/O Catastrophic or Severe CC	1	12	3.6	D			0.3736	0.7472	0.0492	0.7472	0.1641	0.8
I78A	Fractures of Neck of Femur W Catastrophic or Severe CC	2	20	7.3	D			0.3572	0.7143	0.3572	1.4287	0.1561	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
I78B	Fractures of Neck of Femur W/O Catastrophic or Severe CC	0	9	2.2	D			0.4982	0.4982	0.0000	0.4982	0.1826	0.8
J01Z	Microvascular Tissue Transfer for Skin, Subcutaneous Tissue & Breast	2	22	8.9	D			2.9574	3.6623	0.7156	5.0934	0.2254	0.7
J06A	Major Procedures for Malignant Breast Conditions	0	7	2.3	D			1.6910	1.6910	0.0000	1.6910	0.2885	0.7
J06B	Major Procedures for Non-Malignant Breast Conditions	0	5	1.5	D			1.1526	1.1526	0.0000	1.1526	0.2694	0.7
J07A	Minor Procedures for Malignant Breast Conditions	0	4	1.2	D			0.8991	0.8991	0.0000	0.8991	0.2801	0.7
J07B	Minor Procedures for Non-Malignant Breast Conditions	0	3	1.1	D			0.6243	0.6243	0.0000	0.6243	0.1824	0.7
J08A	Other Skin Graft and/or Debridement Procedures W Catastrophic or	2	21	6.3	D		S	0.5407	1.3161	0.3528	2.0217	0.1572	0.7
J08B	Other Skin Graft and/or Debridement Procedures W/O Catastrophic or	0	7	2.4	D		S	0.4389	1.2183	0.0000	1.2183	0.2151	0.7
J09Z	Perianal and Pilonidal Procedures	0	4	1.3	D			0.7235	0.7235	0.0000	0.7235	0.1967	0.7
J10Z	Skin, Subcutaneous Tissue and Breast Plastic O.R. Procedures	0	5	1.6	D		S	0.4444	1.1738	0.0000	1.1738	0.2645	0.7
J11Z	Other Skin, Subcutaneous Tissue and Breast Procedures	0	3	1.0	D			0.4053	0.4053	0.0000	0.4053	0.1317	0.7
J12A	Lower Limb Procs W Ulcer/Cellulitis W Cat CC	6	56	18.7	D			0.9582	1.2596	0.5077	4.3056	0.1371	0.7
J12B	Lower Limb Procs W Ulcer/Cellulitis W/O Cat CC W Skin Graft/Flap	3	34	11.7	D			0.9340	1.3054	0.4952	2.7912	0.1339	0.7
J12C	Lower Limb Procs W Ulcer/Cellulitis W/O Cat CC W/O Skin Graft/Flap	2	20	6.8	D			0.6924	1.0324	0.3399	1.7123	0.1391	0.7
J13A	Lower Limb Procs W/O Ulcer/Cellulitis W Skin Graft W (Cat	2	27	9.7	D			0.9601	1.4427	0.4825	2.4078	0.1394	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
J13B	Lower Limb Procs W/O Ulcer/Cellulitis W/O (Skin Graft and	0	9	2.9	D			0.9321	0.9321	0.0000	0.9321	0.1572	0.7
J14Z	Major Breast Reconstructions	1	17	6.3	D			2.3444	3.4524	0.0492	3.4524	0.2474	0.7
J60A	Skin Ulcers	1	18	5.6	D			0.5516	1.1032	0.0492	1.1032	0.1577	0.8
J60B	Skin Ulcers, Sameday	0	3	1.0	D			0.1911	0.1911	0.0000	0.1911	0.1529	0.8
J62A	Malignant Breast Disorders (Age >69 W CC) or W (Cat or Sev CC)	1	13	3.6	D			0.4503	0.9005	0.0492	0.9005	0.2023	0.8
J62B	Malignant Breast Disorders (Age>69 W/O CC) or W/O (Cat or Sev CC)	0	5	1.3	D			0.3999	0.3999	0.0000	0.3999	0.2484	0.8
J63Z	Non-Malignant Breast Disorders	0	5	1.7	D			0.5740	0.5740	0.0000	0.5740	0.2649	0.8
J64A	Cellulitis Age >59 W Catastrophic or Severe CC	2	20	7.0	D			0.3398	0.6796	0.3398	1.3592	0.1553	0.8
J64B	Cellulitis (Age >59 W/O Catastrophic or Severe CC) or Age <60	0	8	2.5	D			0.6313	0.6313	0.0000	0.6313	0.1998	0.8
J65A	Trauma to the Skin, Subcutaneous Tissue and Breast Age >69	1	11	3.2	D		S	0.1998	0.6904	0.0492	0.6904	0.1736	0.8
J65B	Trauma to the Skin, Subcutaneous Tissue and Breast Age <70	0	3	1.1	D			0.2787	0.2787	0.0000	0.2787	0.2017	0.8
J67A	Minor Skin Disorders	0	7	2.3	D			0.5720	0.5720	0.0000	0.5720	0.2026	0.8
J67B	Minor Skin Disorders, Sameday	0	3	1.0	D			0.2409	0.2409	0.0000	0.2409	0.1927	0.8
J68A	Major Skin Disorders	1	11	3.4	D			0.4069	0.8122	0.0492	0.8122	0.1932	0.8
J68B	Major Skin Disorders, Sameday	0	3	1.0	D			0.3363	0.3363	0.0000	0.3363	0.2691	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
K01Z	Diabetic Foot Procedures	5	51	17.8	D			1.4108	1.7907	0.6218	4.8999	0.1525	0.7
K02Z	Pituitary Procedures	1	17	5.9	D			2.2927	3.3340	0.0492	3.3340	0.2458	0.7
K03Z	Adrenal Procedures	2	22	5.7	D			1.6264	2.2009	0.6080	3.4169	0.2972	0.7
K04A	Major Procedures for Obesity W/O Laparoscopy	2	22	7.1	D			1.5387	2.1358	0.5971	3.3301	0.2351	0.7
K04B	Major Procedures for Obesity W Laparoscopy	1	10	3.9	D			1.7954	2.7103	0.0605	2.7103	0.3284	0.7
K05Z	Parathyroid Procedures	0	9	3.4	D			1.9746	1.9746	0.0000	1.9746	0.2543	0.7
K06Z	Thyroid Procedures	0	6	2.1	D			1.8248	1.8248	0.0000	1.8248	0.2980	0.7
K07Z	Obesity Procedures	2	23	7.5	D			1.3051	1.6913	0.3862	2.4636	0.1442	0.7
K08Z	Thyroglossal Procedures	0	4	1.5	D			1.0027	1.0027	0.0000	1.0027	0.2651	0.7
K09Z	Other Endocrine, Nutritional and Metabolic O.R. Procedures	2	21	8.4	D			1.3551	2.0000	0.6650	3.3300	0.2211	0.7
K40Z	Endoscopic or Investigative Procedure for Metabolic Disorders	1	11	3.1	D			0.4840	0.8163	0.0492	0.8163	0.1623	0.7
K60A	Diabetes W Catastrophic or Severe CC	1	16	5.0	D			0.5638	1.1169	0.0492	1.1169	0.1802	0.8
K60B	Diabetes W/O Catastrophic or Severe CC	0	9	2.8	D		S	0.2251	0.7408	0.0000	0.7408	0.2100	0.8
K61Z	Severe Nutritional Disturbance	3	30	11.7	D			0.4194	0.8250	0.5500	2.4749	0.1694	0.8
K62A	Miscellaneous Metabolic Disorders W Catastrophic CC	2	22	8.1	D			0.4392	0.8686	0.4343	1.7373	0.1708	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
K62B	Miscellaneous Metabolic Disorders Age >74 or W Severe CC	1	10	3.0	D			0.3434	0.6822	0.0492	0.6822	0.1829	0.8
K62C	Miscellaneous Metabolic Disorders Age <75 W/O Catastrophic or Severe	0	5	1.5	D			0.3876	0.3876	0.0000	0.3876	0.2047	0.8
K63Z	Inborn Errors of Metabolism	0	6	1.4	D			0.3674	0.3674	0.0000	0.3674	0.2096	0.8
K64A	Endocrine Disorders W Catastrophic or Severe CC	2	19	6.6	D			0.3729	0.7409	0.3705	1.4819	0.1786	0.8
K64B	Endocrine Disorders W/O Catastrophic or Severe CC	0	6	1.8	D			0.4813	0.4813	0.0000	0.4813	0.2146	0.8
L02A	Operative Insertion of Peritoneal Catheter for Dialysis W Cat or Sev	5	48	18.6	D			0.9431	1.3748	0.6907	4.8285	0.1625	0.7
L02B	Operative Insertion of Peritoneal Catheter for Dialysis W/O Cat or Sev	0	8	2.1	D			1.1180	1.1180	0.0000	1.1180	0.2588	0.7
L03A	Kidney, Ureter and Major Bladder Procedures for Neoplasm W Cat or	3	31	9.5	D			2.1523	2.6828	0.7332	4.8824	0.2434	0.7
L03B	Kidney, Ureter and Major Bladder Procedures for Neoplasm W/O Cat or	1	15	4.9	D			1.8470	2.6804	0.0492	2.6804	0.2391	0.7
L04A	Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm W Cat	3	30	10.1	D			1.0595	1.5544	0.6600	3.5344	0.2052	0.7
L04B	Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm W Sev	1	14	4.7	D			1.5377	2.2710	0.0492	2.2710	0.2207	0.7
L04C	Kidney, Ureter and Major Bladder Procedures for Non-Neoplasm W/O	1	9	3.0	D			1.2989	1.8220	0.0492	1.8220	0.2270	0.7
L05A	Transurethral Prostatectomy W Catastrophic or Severe CC	2	19	6.7	D			1.0097	1.3645	0.3548	2.0740	0.1490	0.7
L05B	Transurethral Prostatectomy W/O Catastrophic or Severe CC	0	6	1.9	D			1.1318	1.1318	0.0000	1.1318	0.2461	0.7
L06A	Minor Bladder Procedures W Catastrophic or Severe CC	1	14	4.6	D			0.8848	1.4196	0.0492	1.4196	0.1700	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
L06B	Minor Bladder Procedures W/O Catastrophic or Severe CC	0	6	1.7	D			0.7953	0.7953	0.0000	0.7953	0.1854	0.7
L07A	Transurethral Procedures Except Prostatectomy W Catastrophic or	1	11	3.3	D			0.8947	1.3553	0.0492	1.3553	0.1973	0.7
L07B	Transurethral Procedures Except Prostatectomy W/O Catastrophic or	0	5	1.6	D		S	0.6716	0.9120	0.0000	0.9120	0.2137	0.7
L08A	Urethral Procedures W CC	0	6	1.9	D			1.2250	1.2250	0.0000	1.2250	0.2171	0.7
L08B	Urethral Procedures W/O CC	0	4	1.4	D			0.9686	0.9686	0.0000	0.9686	0.2119	0.7
L09A	Other Procedures for Kidney and Urinary Tract Disorders W Cat CC	4	36	12.1	D			0.9925	1.4458	0.6871	4.1944	0.2118	0.7
L09B	Other Procedures for Kidney and Urinary Tract Disorders W Sev CC	1	16	5.1	D			1.4060	2.2310	0.0492	2.2310	0.2282	0.7
L09C	Other Procedures for Kidney and Urinary Tract Disorders W/O Cat or	0	7	2.2	D			1.2056	1.2056	0.0000	1.2056	0.2460	0.7
L40Z	Ureteroscopy	0	5	1.7	D		S	0.7145	1.0411	0.0000	1.0411	0.2711	0.8
L41Z	Cystourethroscopy, Sameday	0	3	1.0	D			0.6026	0.6026	0.0000	0.6026	0.2233	0.8
L42Z	ESW Lithotripsy for Urinary Stones	0	5	1.4	D			1.2187	1.2187	0.0000	1.2187	0.3005	0.8
L60A	Renal Failure W Catastrophic CC	3	27	9.8	D			0.4031	0.7999	0.5333	2.3997	0.1957	0.8
L60B	Renal Failure W Severe CC	1	15	4.8	D			0.6129	1.2177	0.0492	1.2177	0.2020	0.8
L60C	Renal Failure W/O Catastrophic or Severe CC	1	10	3.0	D			0.4016	0.8013	0.0492	0.8013	0.2109	0.8
L61Y	Peritoneal Dialysis	0	3	1.0	I			0.1261	0.1261	0.0000	0.1261	0.0000	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
L61Z	Admit for Renal Dialysis	0	3	1.0	D			0.1261	0.1261	0.0000	0.1261	0.0000	0.7
L62A	Kidney and Urinary Tract Neoplasms W Catastrophic or Severe CC	1	14	4.0	D			0.5098	1.0196	0.0492	1.0196	0.2052	0.8
L62B	Kidney and Urinary Tract Neoplasms W/O Catastrophic or Severe CC	0	5	1.6	D			0.6464	0.6464	0.0000	0.6464	0.3168	0.8
L63A	Kidney and Urinary Tract Infections W Catastrophic CC	2	25	9.0	D			0.4730	0.9400	0.4700	1.8800	0.1672	0.8
L63B	Kidney and Urinary Tract Infections Age >69 or W Severe CC	1	13	4.1	D		S	0.1948	0.8499	0.0492	0.8499	0.1678	0.8
L63C	Kidney and Urinary Tract Infections Age <70 W/O Catastrophic or Severe	0	7	2.2	D		S	0.1870	0.5366	0.0000	0.5366	0.1962	0.8
L64Z	Urinary Stones and Obstruction	0	5	1.6	D		S	0.2348	0.6303	0.0000	0.6303	0.3124	0.8
L65A	Kidney and Urinary Tract Signs and Symptoms W Catastrophic or Severe	1	11	3.1	D			0.4009	0.7996	0.0492	0.7996	0.2037	0.8
L65B	Kidney and Urinary Tract Signs and Symptoms W/O Catastrophic or	0	6	1.9	D		S	0.2265	0.5040	0.0000	0.5040	0.2118	0.8
L66Z	Urethral Stricture	0	4	1.1	D			0.4279	0.4279	0.0000	0.4279	0.3047	0.8
L67A	Other Kidney and Urinary Tract Diagnoses W Catastrophic CC	2	20	7.2	D			0.4467	0.8780	0.4390	1.7559	0.1942	0.8
L67B	Other Kidney and Urinary Tract Diagnoses W Severe CC	1	11	3.3	D			0.4435	0.8856	0.0492	0.8856	0.2178	0.8
L67C	Other Kidney and Urinary Tract Diagnoses W/O Catastrophic or	0	9	2.7	D		S	0.2085	0.8139	0.0000	0.8139	0.2379	0.8
M01Z	Major Male Pelvic Procedures	1	13	4.1	D			1.7796	2.4913	0.0492	2.4913	0.2464	0.7
M02A	Transurethral Prostatectomy W Catastrophic or Severe CC	1	11	3.5	D			1.0445	1.5194	0.0492	1.5194	0.1881	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
M02B	Transurethral Prostatectomy W/O Catastrophic or Severe CC	0	6	2.1	D			1.1156	1.1156	0.0000	1.1156	0.2143	0.7
M03A	Penis Procedures W CC	1	13	2.4	D			0.9936	1.3797	0.0492	1.3797	0.2252	0.7
M03B	Penis Procedures W/O CC	0	5	1.2	D			0.8315	0.8315	0.0000	0.8315	0.2216	0.7
M04A	Testes Procedures W CC	0	9	2.2	D			1.1214	1.1214	0.0000	1.1214	0.2182	0.7
M04B	Testes Procedures W/O CC	0	3	1.1	D		S	0.5887	0.8515	0.0000	0.8515	0.2691	0.7
M05Z	Circumcision	0	3	1.0	D			0.5406	0.5406	0.0000	0.5406	0.1560	0.7
M06A	Other Male Reproductive System O.R. Procedures for Malignancy	0	6	1.9	D			1.5761	1.5761	0.0000	1.5761	0.3659	0.7
M06B	Other Male Reproductive System O.R. Procedures Except for	0	7	1.5	D			0.7965	0.7965	0.0000	0.7965	0.1772	0.7
M40Z	Cystourethroscopy W/O CC	0	6	2.1	D			0.6917	0.6917	0.0000	0.6917	0.1822	0.8
M60A	Malignancy, Male Reproductive System W Catastrophic or Severe CC	1	13	3.5	D			0.4943	0.9886	0.0492	0.9886	0.2264	0.8
M60B	Malignancy, Male Reproductive System W/O Catastrophic or Severe	1	12	3.9	D		S	0.1959	1.1722	0.0492	1.1722	0.2382	0.8
M61A	Benign Prostatic Hypertrophy W Catastrophic or Severe CC	1	17	4.1	D			0.4426	0.8382	0.0501	0.8382	0.1626	0.8
M61B	Benign Prostatic Hypertrophy W/O Catastrophic or Severe CC	0	4	1.5	D			0.2906	0.2906	0.0000	0.2906	0.1571	0.8
M62A	Inflammation of the Male Reproductive System W CC	0	9	2.5	D			0.6145	0.6145	0.0000	0.6145	0.1939	0.8
M62B	Inflammation of the Male Reproductive System W/O CC	0	4	1.4	D			0.3480	0.3480	0.0000	0.3480	0.2039	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
M63Z	Sterilisation, Male	0	3	1.0	D			0.4533	0.4533	0.0000	0.4533	0.3626	0.8
M64Z	Other Male Reproductive System Diagnoses	0	3	1.1	D			0.2855	0.2855	0.0000	0.2855	0.2132	0.8
N01Z	Pelvic Evisceration and Radical Vulvectomy	3	29	12.3	D			1.5724	1.9931	0.6574	3.9652	0.1684	0.7
N02A	Uterine, Adnexa Procedure for Ovarian or Adnexal Malignancy W	2	26	8.8	D			1.3520	1.9356	0.5909	3.1174	0.1876	0.7
N02B	Uterine, Adnexa Procedure for Ovarian or Adnexal Malignancy W/O	1	13	4.6	D			1.2133	1.8648	0.0492	1.8648	0.1962	0.7
N03A	Uterine, Adnexa Procedure for Non-Ovarian or Adnexal Malignancy W	2	21	7.2	D			1.3079	1.8068	0.4989	2.8047	0.1938	0.7
N03B	Uterine, Adnexa Procedure for Non-Ovarian or Adnexal Malignancy W/O	1	14	4.7	D			1.2882	1.9565	0.0492	1.9565	0.1983	0.7
N04Z	Hysterectomy for Non-Malignancy	1	11	3.8	D			1.2329	1.7614	0.0492	1.7614	0.1966	0.7
N05A	Oophorectomies & Complex Fallopian Tube Procs for Non-Malig	1	17	5.5	D			1.4199	2.1215	0.0492	2.1215	0.1927	0.7
N05B	Oophorectomies & Complex Fallopian Tube Procs for Non-Malig	1	9	3.3	D		S	0.9529	1.5260	0.0492	1.5260	0.2024	0.7
N06Z	Female Reproductive System Reconstructive Procedures	0	7	2.3	D			1.1368	1.1368	0.0000	1.1368	0.1790	0.7
N07Z	Other Uterine & Adnexa Procedures for Non-Malignancy	0	7	2.2	D		S	0.5690	1.2603	0.0000	1.2603	0.2172	0.7
N08Z	Endoscopic Procedures for Female Reproductive System	0	6	2.0	D		S	0.5487	1.0663	0.0000	1.0663	0.2089	0.7
N09Z	Conisation, Vagina, Cervix and Vulva Procedures	0	4	1.2	D			0.5807	0.5807	0.0000	0.5807	0.1846	0.7
N10Z	Diagnostic Curettage or Diagnostic Hysteroscopy	0	3	1.0	D			0.5061	0.5061	0.0000	0.5061	0.1630	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
N11A	Other Female Reproductive Sys O.R. Procs Age >64 or W Malignancy or W	2	21	7.8	D			0.9745	1.4515	0.4770	2.4056	0.1720	0.7
N11B	Other Female Reproductive System O.R. Procs Age <65 W/O Malignancy	0	7	2.0	D			0.8409	0.8409	0.0000	0.8409	0.1852	0.7
N60A	Malignancy, Female Reproductive System W Catastrophic or Severe CC	1	13	3.6	D			0.5000	0.9999	0.0492	0.9999	0.2194	0.8
N60B	Malignancy, Female Reproductive System W/O Catastrophic or Severe	0	7	2.1	D			0.6848	0.6848	0.0000	0.6848	0.2636	0.8
N61Z	Infections, Female Reproductive System	0	7	2.4	D		S	0.1979	0.5591	0.0000	0.5591	0.1887	0.8
N62A	Menstrual and Other Female Reproductive System Disorders W	0	5	1.6	D			0.5001	0.5001	0.0000	0.5001	0.2509	0.8
N62B	Menstrual and Other Female Reproductive System Disorders W/O	0	5	1.6	D		S	0.2501	0.4277	0.0000	0.4277	0.2105	0.8
O01A	Caesarean Delivery W Catastrophic CC	2	25	7.6	D			0.8346	1.2130	0.3877	1.9883	0.1429	0.7
O01B	Caesarean Delivery W Severe CC	1	16	5.1	D			0.9265	1.4547	0.0492	1.4547	0.1441	0.7
O01C	Caesarean Delivery W/O Catastrophic or Severe CC	1	11	3.9	D			0.7744	1.1816	0.0492	1.1816	0.1477	0.7
O02A	Vaginal Delivery W O.R. Procedure W Catastrophic or Severe CC	1	11	3.3	D			0.7349	1.1742	0.0492	1.1742	0.1913	0.7
O02B	Vaginal Delivery W O.R. Procedure W/O Catastrophic or Severe CC	1	8	2.4	D			0.4745	0.7651	0.0492	0.7651	0.1984	0.8
O03Z	Ectopic Pregnancy	0	7	2.5	D			1.3250	1.3250	0.0000	1.3250	0.2578	0.8
O04Z	Postpartum and Post Abortion W O.R. Procedure	0	8	2.5	D		S	0.4062	0.9541	0.0000	0.9541	0.1931	0.7
O05Z	Abortion W O.R. Procedure	0	4	1.4	D		S	0.4561	0.7161	0.0000	0.7161	0.2348	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
O60A	Vaginal Delivery W Catastrophic or Severe CC	1	11	3.2	D			0.4002	0.7994	0.0492	0.7994	0.1992	0.8
O60B	Vaginal Delivery W/O Catastrophic or Severe CC	1	6	1.8	D			0.2094	0.4187	0.0492	0.4187	0.1897	0.8
O60C	Vaginal Delivery Single Uncomplicated W/O Other Condition	1	5	1.3	D			0.1369	0.2738	0.0492	0.2738	0.1632	0.8
O61Z	Postpartum and Post Abortion W/O O.R. Procedure	0	6	2.0	D			0.3697	0.3697	0.0000	0.3697	0.1514	0.8
O63Z	Abortion W/O O.R. Procedure	0	4	1.3	D		S	0.2191	0.3564	0.0000	0.3564	0.2238	0.8
O64A	False Labour Before 37 Weeks or W Catastrophic CC	0	5	1.6	D			0.2522	0.2522	0.0000	0.2522	0.1267	0.8
O64B	False Labour After 37 Weeks W/O Catastrophic CC	0	3	1.0	D			0.1128	0.1128	0.0000	0.1128	0.0882	0.8
O66A	Antenatal & Other Obstetric Admission	0	6	1.8	D			0.3786	0.3786	0.0000	0.3786	0.1650	0.8
O66B	Antenatal & Other Obstetric Admission, Sameday	0	3	1.0	D			0.1507	0.1507	0.0000	0.1507	0.1205	0.8
P01Z	Neonate, Died or Transf <5 Days of Admission W Significant O.R.	0	8	2.5	I			1.7055	1.7055	0.0000	1.7055	0.3659	0.7
P02Z	Cardiothoracic/Vascular Procedures for Neonates	16	37	21.3	I			3.4884	3.9184	0.8062	16.8175	0.3659	0.7
P03Z	Neonate, AdmWt 1000-1499 g W Significant O.R. Procedure	35	80	55.1	I			0.6367	0.8653	0.4443	16.4150	0.2035	0.7
P04Z	Neonate, AdmWt 1500-1999 g W Significant O.R. Procedure	25	58	41.0	I			0.5296	0.7615	0.4452	11.8915	0.1979	0.7
P05Z	Neonate, AdmWt 2000-2499 g W Significant O.R. Procedure	18	41	28.1	I			1.1873	1.4682	0.5305	11.0174	0.3598	1
P06A	Neonate, AdmWt > 2499 g W Significant O.R. Procedure W Multi	7	69	21.4	E			1.5424	1.7066	0.8484	7.6451	0.2271	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
P06B	Neonate, Adm Wt > 2499 g W Significant O.R. Proc W/O Multi Major	6	14	9.4	E			0.8121	0.8121	0.3486	2.9037	0.1868	0.7
P60A	Neonate Died or Transf <5 Days of Adm, W/O Significant O.R. Proc,	0	4	1.4	I			0.4441	0.4441	0.0000	0.4441	0.3094	1
P60B	Neonate Died/Transf <5 Days of Adm, W/O Significant O.R. Proc, Not	0	5	1.8	I			0.9629	0.9629	0.0000	0.9629	0.3659	1
P61Z	Neonate, AdmWt < 750 g	31	72	53.2	I			0.2737	0.5474	0.5297	16.9680	0.3192	1
P62Z	Neonate, AdmWt 750-999 g	19	45	29.9	I			0.2466	0.4933	0.4673	9.3724	0.3137	1
P63Z	Neonate, AdmWt 1000-1249 g W/O Significant O.R. Procedure	17	40	27.7	I			0.2270	0.4541	0.4273	7.7189	0.2788	1
P64Z	Neonate, AdmWt 1250-1499 g W/O Significant O.R. Procedure	20	47	32.0	I			0.2071	0.4142	0.3935	8.2836	0.2590	1
P65A	Neonate, AdmWt 1500-1999 g W/O Significant O.R. Proc W Multi Major	19	44	33.7	I			0.2140	0.4280	0.4054	8.1311	0.2413	1
P65B	Neonate, AdmWt 1500-1999 g W/O Significant O.R. Procedure W Major	15	36	25.4	I			0.2177	0.4354	0.4064	6.5309	0.2571	1
P65C	Neonate, AdmWt 1500-1999 g W/O Significant O.R. Procedure W Other	12	27	19.2	I			0.1951	0.3901	0.3576	4.6812	0.2444	1
P65D	Neonate, AdmWt 1500-1999 g W/O Significant O.R. Procedure W/O	9	21	14.9	I			0.1834	0.3669	0.3261	3.3020	0.2219	1
P66A	Neonate, AdmWt 2000-2499 g W/O Significant O.R. Proc W Multi Major	10	24	16.4	I			0.2382	0.4764	0.4287	4.7636	0.2322	0.8
P66B	Neonate, AdmWt 2000-2499 g W/O Significant O.R. Procedure W Major	8	20	14.3	I			0.2251	0.4503	0.3940	3.6024	0.2767	1.1
P66C	Neonate, AdmWt 2000-2499 g W/O Significant O.R. Procedure W Other	6	15	9.5	I			0.1926	0.3852	0.3210	2.3110	0.2421	1
P66D	Neonate, AdmWt 2000-2499 g W/O Significant O.R. Procedure W/O	1	10	3.1	I			0.2580	0.5160	0.0492	0.5160	0.1648	1

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
P67A	Neonate, AdmWt > 2499 g W/O Significant O.R. Procedure W Multi	2	26	8.6	I			0.6412	1.2825	0.6412	2.5650	0.2972	1
P67B	Neonate, AdmWt > 2499 g W/O Significant O.R. Procedure W Major	1	14	4.3	I			0.5702	1.1405	0.0492	1.1405	0.3149	1.2
P67C	Neonate, AdmWt > 2499 g W/O Significant O.R. Procedure W Other	1	13	4.1	I			0.4233	0.8465	0.0492	0.8465	0.1642	0.8
P67D	Neonate, AdmWt > 2499 g W/O Significant O.R. Procedure W/O	0	6	2.0	I			0.2640	0.2640	0.0000	0.2640	0.1071	0.8
Q01Z	Splenectomy	2	19	6.8	D			1.5096	2.0752	0.6158	3.3068	0.2546	0.7
Q02A	Other O.R. Procedure of Blood & Blood Forming Organs W Cat or Sev	3	30	8.6	D		S	0.6711	1.5611	0.6491	3.5085	0.2391	0.7
Q02B	Other O.R. Procedure of Blood & Blood Forming Organs W/O Cat or	0	9	2.9	D		S	0.5531	1.4324	0.0000	1.4324	0.2538	0.7
Q60A	Reticuloendothelial and Immunity Disorders W Catastrophic or Severe	1	17	5.6	D		S	0.3646	1.8364	0.0492	1.8364	0.2634	0.8
Q60B	Reticuloendothelial and Immunity Disorders W/O Cat or Sev CC W	1	12	4.0	D		S	0.3203	1.1815	0.0492	1.1815	0.2385	0.8
Q60C	Reticuloendothelial and Immunity Disorders W/O Cat or Sev CC W/O	0	8	2.6	D		S	0.6225	0.7302	0.0000	0.7302	0.2219	0.8
Q61A	Red Blood Cell Disorders W Catastrophic CC	1	16	4.9	D		S	0.2414	1.2525	0.0492	1.2525	0.2051	0.8
Q61B	Red Blood Cell Disorders W Severe CC	1	10	3.0	D		S	0.1958	0.8570	0.0492	0.8570	0.2294	0.8
Q61C	Red Blood Cell Disorders W/O Catastrophic or Severe CC	0	6	2.0	D		S	0.1974	0.6353	0.0000	0.6353	0.2591	0.8
Q62Z	Coagulation Disorders	0	9	2.6	D		S	0.3439	0.8780	0.0000	0.8780	0.2653	0.8
R01A	Lymphoma and Leukaemia W Major O.R. Procedures W Catastrophic or	4	42	14.2	D			1.4980	1.9950	0.8178	5.2661	0.2143	0.7

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
R01B	Lymphoma and Leukaemia W Major O.R. Procedures W/O Catastrophic or	1	14	4.3	D			1.3216	2.0663	0.0492	2.0663	0.2422	0.7
R02A	Other Neoplastic Disorders W Major O.R. Procedures W Cat or Sev CC	3	28	9.9	D			1.7158	2.2158	0.6824	4.2630	0.2171	0.7
R02B	Other Neoplastic Disorders W Major O.R. Procedures W/O Cat or Sev CC	1	11	3.5	D			1.5598	2.2188	0.0492	2.2188	0.2622	0.7
R03A	Lymphoma and Leukaemia W Other O.R. Procedures W Catastrophic or	5	51	17.2	D		S	0.5408	1.8109	0.8946	6.2840	0.2278	0.7
R03B	Lymphoma and Leukaemia W Other O.R. Procedures W/O Catastrophic or	1	13	3.3	D		S	0.6718	1.5317	0.0492	1.5317	0.2515	0.7
R04A	Other Neoplastic Disorders W Other O.R. Procedures W Cat or Sev CC	2	25	9.0	D		S	0.6096	1.4765	0.5229	2.5222	0.1619	0.7
R04B	Other Neoplastic Disorders W Other O.R. Procedures W/O Cat or Sev CC	1	11	3.0	D		S	0.5225	1.3814	0.0492	1.3814	0.2172	0.7
R60A	Acute Leukaemia W Catastrophic CC	11	26	19.1	D			0.3345	0.6667	0.6061	7.3337	0.3072	0.8
R60B	Acute Leukaemia W Severe CC	1	15	4.7	D		S	0.3117	1.9832	0.0492	1.9832	0.3389	0.8
R60C	Acute Leukaemia W/O Catastrophic or Severe CC	1	12	4.0	D		S	0.3901	1.5698	0.0492	1.5698	0.3164	0.8
R61A	Lymphoma and Non-Acute Leukaemia W Catastrophic CC	3	30	10.7	D			0.5720	1.1386	0.7591	3.4159	0.2544	0.8
R61B	Lymphoma and Non-Acute Leukaemia W/O Catastrophic CC	1	10	3.1	D			0.5360	1.0720	0.0492	1.0720	0.2785	0.8
R61C	Lymphoma and Non-Acute Leukaemia, Sameday	0	3	1.0	D			0.3109	0.3109	0.0000	0.3109	0.2487	0.8
R62A	Other Neoplastic Disorders W CC	1	16	4.5	D			0.5417	1.0833	0.0492	1.0833	0.1933	0.8
R62B	Other Neoplastic Disorders W/O CC	0	7	2.0	D			0.6702	0.6702	0.0000	0.6702	0.2629	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
R63Z	Chemotherapy	0	8	2.1	D			0.6850	0.6850	0.0000	0.6850	0.2557	0.8
R64Z	Radiotherapy	2	24	8.1	D		S	0.3128	1.1221	0.5610	2.2442	0.2222	0.8
S60Z	HIV, Sameday	0	3	1.0	D			0.2787	0.2787	0.0000	0.2787	0.2230	0.8
S65A	HIV-Related Diseases W Catastrophic CC	4	43	12.4	D			0.5935	1.1086	0.8314	4.4343	0.2866	0.8
S65B	HIV-Related Diseases W Severe CC	2	25	7.9	D			0.7094	1.4188	0.7094	2.8375	0.2889	0.8
S65C	HIV-Related Diseases W/O Catastrophic or Severe CC	1	16	4.0	D			0.7998	1.5996	0.0492	1.5996	0.3215	0.8
T01A	O.R. Procedures for Infectious and Parasitic Diseases W Catastrophic	5	49	17.8	D			1.5157	1.9600	0.7846	5.8830	0.1923	0.7
T01B	O.R. Procedures for Infectious and Parasitic Diseases W Severe or	2	24	8.2	D			1.1004	1.5778	0.4789	2.5356	0.1631	0.7
T01C	O.R. Procedures for Infectious and Parasitic Diseases W/O CC	1	14	4.5	D			1.0308	1.5767	0.0492	1.5767	0.1688	0.7
T60A	Septicaemia W Catastrophic or Severe CC	2	20	7.0	D			0.4991	1.0019	0.5009	2.0038	0.2274	0.8
T60B	Septicaemia W/O Catastrophic or Severe CC	1	11	3.5	D			0.4522	0.9043	0.0492	0.9043	0.2050	0.8
T61A	Postoperative & Post-traumatic Infections Age >54 or W (Cat or Sev	1	12	3.6	D			0.3935	0.7840	0.0492	0.7840	0.1744	0.8
T61B	Postoperative & Post-traumatic Infections Age <55 W/O Cat or Sev	0	8	2.6	D			0.5912	0.5912	0.0000	0.5912	0.1847	0.8
T62A	Fever of Unknown Origin W CC	1	11	3.1	D			0.4284	0.8568	0.0492	0.8568	0.2239	0.8
T62B	Fever of Unknown Origin W/O CC	0	6	1.9	D		S	0.1728	0.5101	0.0000	0.5101	0.2130	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
T63A	Viral Illness Age >59 or W CC	0	8	2.4	D		S	0.1936	0.6245	0.0000	0.6245	0.2069	0.8
T63B	Viral Illness Age <60 W/O CC	0	4	1.4	D		S	0.1853	0.3885	0.0000	0.3885	0.2157	0.8
T64A	Other Infectious and Parasitic Diseases W Catastrophic or Severe	2	20	6.4	D			0.4408	0.8607	0.4304	1.7215	0.2156	0.8
T64B	Other Infectious and Parasitic Diseases W/O Catastrophic or	0	9	2.5	D			0.6537	0.6537	0.0000	0.6537	0.2081	0.8
U40Z	Mental Health Treatment, Sameday, W ECT	0	3	1.0	D			0.1529	0.1529	0.0000	0.1529	0.0939	0.8
U60Z	Mental Health Treatment, Sameday, W/O ECT	0	3	1.0	D			0.2102	0.2102	0.0000	0.2102	0.1682	0.8
U61A	Schizophrenia Disorders with Mental Health Legal Status	0	8	1.0	D			0.6641	0.6641	0.0000	0.6641	0.3659	0.8
U61B	Schizophrenia Disorders W/O Mental Health Legal Status	0	8	1.2	D			0.6362	0.6362	0.0000	0.6362	0.3659	0.8
U62A	Paranoia & Acute Psych Disorder W Cat/Sev CC or W Mental Health	2	19	7.6	D			0.4935	0.9871	0.4935	1.9741	0.2086	0.8
U62B	Paranoia & Acute Psych Disorder W/O Cat/Sev CC W/O Mental Health	1	11	3.6	D			0.3910	0.7820	0.0492	0.7820	0.1738	0.8
U63A	Major Affective Disorders Age >69 or W (Catastrophic or Severe CC)	2	25	8.2	D			0.4257	0.8513	0.4257	1.7026	0.1662	0.8
U63B	Major Affective Disorders Age <70 W/O Catastrophic or Severe CC	1	10	2.3	D			0.3114	0.6228	0.0547	0.6228	0.2135	0.8
U64Z	Other Affective and Somatoform Disorders	1	12	3.4	D			0.3584	0.7168	0.0492	0.7168	0.1683	0.8
U65Z	Anxiety Disorders	0	6	1.6	D			0.4381	0.4381	0.0000	0.4381	0.2227	0.8
U66Z	Eating and Obsessive-Compulsive Disorders	4	37	11.7	D			0.3199	0.6398	0.4798	2.5590	0.1751	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
U67Z	Personality Disorders and Acute Reactions	0	9	2.4	D			0.5601	0.5601	0.0000	0.5601	0.1854	0.8
U68Z	Childhood Mental Disorders	1	9	3.7	D			0.6355	1.2709	0.0619	1.2709	0.2754	0.8
V60A	Alcohol Intoxication and Withdrawal W CC	0	8	2.0	D			0.4962	0.4962	0.0000	0.4962	0.1940	0.8
V60B	Alcohol Intoxication and Withdrawal W/O CC	0	4	1.2	D		S	0.1806	0.2834	0.0000	0.2834	0.1849	0.8
V61Z	Drug Intoxication and Withdrawal	0	7	1.7	D			0.3732	0.3732	0.0000	0.3732	0.1711	0.8
V62A	Alcohol Use Disorder and Dependence	1	11	3.6	D			0.3512	0.6770	0.0492	0.6770	0.1498	0.8
V62B	Alcohol Use Disorder and Dependence, Sameday	0	3	1.0	D			0.1954	0.1954	0.0000	0.1954	0.1564	0.8
V63A	Opioid Use Disorder and Dependence	0	7	1.5	D			0.3038	0.3038	0.0000	0.3038	0.1657	0.8
V63B	Opioid Use Disorder and Dependence - left against medical	0	7	1.5	D			0.3038	0.3038	0.0000	0.3038	0.1657	0.8
V64Z	Other Drug Use Disorder and Dependence	0	3	1.1	D			0.2661	0.2661	0.0000	0.2661	0.1926	0.8
W01Z	Ventilation or Craniotomy Procs for Multiple Significant Trauma	14	34	22.7	4			2.7279	2.7279	0.7177	12.6601	0.3334	0.7
W02Z	Hip, Femur and Limb Procs for Multiple Significant Trauma, incl	5	46	16.7	D			2.9681	3.4068	0.7779	7.2962	0.2042	0.7
W03Z	Abdominal Procedures for Multiple Significant Trauma	3	32	10.5	D			1.3730	2.3485	0.8121	4.7848	0.2445	0.7
W04Z	Other O.R. Procedures for Multiple Significant Trauma	4	41	14.1	D			1.8859	2.5956	0.7705	5.6777	0.2035	0.7
W60Z	Multiple Trauma, Died or Transf to Another Acute Care Facility, LOS<5	0	5	1.8	D			2.3393	2.3393	0.0000	2.3393	0.3659	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
W61Z	Multiple Trauma Without Significant Procedures	2	18	6.9	D			0.4576	1.1552	0.5776	2.3105	0.2668	0.8
X02Z	Microvascular Tissue Transfer or Skin Grafts for Injuries to Hand	0	8	2.2	D			1.1005	1.1005	0.0000	1.1005	0.2128	0.7
X04A	Other Procedures for Injuries to Lower Limb Age >59 or W CC	2	21	7.0	D			1.1803	1.5652	0.3976	2.3603	0.1600	0.7
X04B	Other Procedures for Injuries to Lower Limb Age <60 W/O CC	0	7	2.4	D			1.1936	1.1936	0.0000	1.1936	0.1859	0.7
X05Z	Other Procedures for Injuries to Hand	0	5	1.6	D		S	0.3737	0.8806	0.0000	0.8806	0.2143	0.7
X06A	Other Procedures for Other Injuries W Catastrophic or Severe CC	2	18	6.1	D			0.9786	1.4298	0.4307	2.2912	0.1975	0.7
X06B	Other Procedures for Other Injuries W/O Catastrophic or Severe CC	0	6	1.7	D			0.8452	0.8452	0.0000	0.8452	0.1969	0.7
X07A	Skin Graft for Injuries Ex Hand W Microvascular Tiss Tfr or W (Cat or	3	34	13.0	D			1.2217	1.6392	0.5593	3.3171	0.1351	0.7
X07B	Skin Graft for Injuries Ex Hand W/O Microvascular Tiss Tfr W/O Cat or	2	20	8.3	D			1.1110	1.5446	0.4336	2.4118	0.1460	0.7
X60A	Injuries Age >64 W CC	1	15	4.8	D		S	0.2063	0.9735	0.0492	0.9735	0.1609	0.8
X60B	Injuries Age >64 W/O CC	0	7	2.1	D		S	0.1826	0.4809	0.0000	0.4809	0.1841	0.8
X60C	Injuries Age <65	0	5	1.5	D		S	0.2055	0.4946	0.0000	0.4946	0.2572	0.8
X61Z	Allergic Reactions	0	4	1.2	D		S	0.1903	0.3373	0.0000	0.3373	0.2282	0.8
X62A	Poisoning/Toxic Effects of Drugs & Other Substances Age >59 or W CC	0	7	2.0	D		S	0.2148	0.6535	0.0000	0.6535	0.2628	0.8
X62B	Poisoning/Toxic Effects of Drugs & Other Substances Age <60 W/O CC	0	4	1.2	D		S	0.1891	0.3645	0.0000	0.3645	0.2395	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
X63A	Sequelae of Treatment W Catastrophic or Severe CC	1	12	3.3	D			0.4352	0.8805	0.0492	0.8805	0.2116	0.8
X63B	Sequelae of Treatment W/O Catastrophic or Severe CC	0	6	2.0	D		S	0.2300	0.5473	0.0000	0.5473	0.2205	0.8
X64A	Other Injury, Poisoning and Toxic Effect Diagnosis Age >59 or W CC	1	11	2.8	D		S	0.1993	0.7201	0.0492	0.7201	0.2041	0.8
X64B	Other Injury, Poisoning and Toxic Effect Diagnosis Age <60 W/O CC	0	4	1.2	D		S	0.1936	0.3798	0.0000	0.3798	0.2489	0.8
Y01Z	Severe Full Thickness Burns	19	44	30.3	D			5.7256	5.7256	0.7472	19.8191	0.3461	0.7
Y02A	Other Burns W Skin Graft Age >64 or W (Cat or Sev CC) or W Complicating	4	41	15.2	D			1.7201	2.2259	0.8378	5.5772	0.2062	0.7
Y02B	Other Burns W Skin Graft Age <65 W/O (Cat or Sev CC) W/O	1	16	5.2	D			1.4544	2.3077	0.0492	2.3077	0.2338	0.7
Y03Z	Other O.R. Procedures for Other Burns	1	11	3.4	D			0.7331	1.1524	0.0492	1.1524	0.2575	1
Y60Z	Burns, Transferred to Another Acute Care Facility < 5 Days	0	3	1.0	D			0.2277	0.2277	0.0000	0.2277	0.1822	0.8
Y61Z	Severe Burns	0	6	1.6	D			0.4721	0.4721	0.0000	0.4721	0.2950	1
Y62A	Other Burns Age >64 or W (Cat or Sev CC) or W Complicating Proc	1	11	2.9	D			0.3629	0.7079	0.0492	0.7079	0.2443	1
Y62B	Other Burns Age <65 W/O (Cat or Sev CC) W/O Complicating Proc	0	6	1.8	D		S	0.1793	0.5405	0.0000	0.5405	0.3087	1
Z01A	O.R. Procedures W Diagnoses of Other Contacts W Health Services W	1	9	2.3	D			1.0141	1.4036	0.0492	1.4036	0.2390	0.7
Z01B	O.R. Procedures W Diagnoses Other Contacts W Health Services W/O	0	4	1.4	D			0.9339	0.9339	0.0000	0.9339	0.3410	1
Z40Z	Follow Up W Endoscopy	0	3	1.2	D			0.4451	0.4451	0.0000	0.4451	0.2085	0.8

nzdrg50	nzdrg50 description	lb	hb	Inlier alos	mvelig	coelig	Same Day	sd	od	lo_ pd	md_ in	ho_ pd	hfac
Z60A	Rehabilitation W Catastrophic or Severe CC	6	14	8.8	D			0.1431	0.2862	0.2385	1.7170	0.1560	0.8
Z60B	Rehabilitation W/O Catastrophic or Severe CC	4	10	6.4	D			0.1519	0.3038	0.2279	1.2152	0.1517	0.8
Z60C	Rehabilitation, Sameday	0	3	1.0	D			0.1305	0.1305	0.0000	0.1305	0.1044	0.8
Z61Z	Signs and Symptoms	0	7	1.7	D			0.4412	0.4412	0.0000	0.4412	0.2049	0.8
Z62Z	Follow Up W/O Endoscopy	0	3	1.0	D			0.3844	0.3844	0.0000	0.3844	0.3019	0.8
Z63A	Other Aftercare W Catastrophic or Severe CC	1	18	5.0	D			0.4843	1.0178	0.0492	1.0178	0.2028	1
Z63B	Other Aftercare W/O Catastrophic or Severe CC	0	9	2.5	D			0.5671	0.5671	0.0000	0.5671	0.2279	1
Z64A	Other Factors Influencing Health Status	0	9	2.3	D			0.6101	0.6101	0.0000	0.6101	0.2085	0.8
Z64B	Other Factors Influencing Health Status, Sameday	0	3	1.0	D			0.3556	0.3556	0.0000	0.3556	0.2845	0.8
Z65Z	Multiple, Other and Unspecified Congenital Anomalies	0	6	1.0	D			0.3647	0.3647	0.0000	0.3647	0.2790	0.8

Appendix 2: SAS Code to calculate WIESNZ09 and Assign PU

```
** SAS program to calculate wiesnz09 costweight values, to determine
2009/2010 Casemix Purchase Unit allocation, and 2009/2010 excluded
purchase unit values. Based on programs for 11A, from Steve Gillett,
revised by BB and SD, and for 11B,11C.
   Weights based on NZ costs. Clinical codes are Icd10 V3. Drg
version is AR_DRG v5.0.
 NB: Some retired agency, facility, health specialty  and purchaser
codes have been retained in this program to enable requests for data
outside of the 0910 financial year.
     Further facility codes may be added when requested by DHB's.
Refer to the supplementary document on the NZHIS website.
**;

options nomlogic nomrecall nodetails nomerror nomprint nosymbolgen;

** location of weights dataset **;
libname cwd '/sasfs/work/wiesnz09';
run;

%macro wiesnz09(indata,
                outdata,
                reqdrg2,
                keep);

%let wdata = cwd.Wiesnz09 ;

** define formats                                  **;
Proc format;
value $newpu
  'S20'                                              = 'D01.01'
  'S50'                                              = 'EXCLU'
  'M00' , 'M05' , 'M08' , 'M85' , 'M86' , 'M89'      = 'M00.01'
  'M10'                                              = 'M10.01'
  'M14'                                              = 'M10.05'
  'M15'                                              = 'M15.01'
  'M20','M95','M96'                                  = 'M20.01'
  'M25'                                              = 'M25.01'
  'M30'                                              = 'M30.01'
  'M34'                                              = 'M34.01'
  'M40' , 'M75'                                      = 'M40.01'
  'M45'                                              = 'M45.01'

  'M49'                                              = 'M49.01'
  'M50' , 'M90'                                      = 'M50.01'
  'M54' , 'M94'                                      = 'M54.01'
  'M24','M29','M39','M44','M55','M59',
  'M64','M69','M74','M79','M84','M97','M98'          = 'M55.01'
  'M60'                                              = 'M60.01'
  'M65'                                              = 'M65.01'
  'M35','M70'                                        = 'M70.01'
  'M80'                                              = 'M80.01'
  'S00','S10'                                        = 'S00.01'
  'S05', 'S08'                                       = 'S05.01'
  'S15' , 'S19'                                      = 'S15.01'
  'S25'                                              = 'S25.01'
  'S30'                                              = 'S30.01'
  'S35'                                              = 'S35.01'
  'S40'                                              = 'S40.01'
```

```
  'S45'                                          = 'S45.01'
  'S58' , 'S59'                                  = 'S55.01'
  'S24', 'S60' , 'S65'                           = 'S60.01'
  'S70'                                          = 'S70.01'
  'S75'                                          = 'S75.01'
  'P41' , 'P42' , 'P43'                          = 'W06.03'
  'P00','P10','P20','P30',
  'P60','P61','P70','P71'                        = 'W10.01'
   other                                         = 'EXCLU';

value $remap
  'M01' , 'M02' , 'M03'          = 'M00'
  'M06' , 'M07'                  = 'M05'
  'M11' , 'M12' , 'M13'          = 'M10'
  'M16' , 'M17' , 'M18' , 'M19' = 'M15'
  'M21' , 'M22' , 'M23'          = 'M20'
  'M26' , 'M27' , 'M28'          = 'M25'
  'M31' , 'M32' , 'M33'          = 'M30'
  'M36' , 'M37' , 'M38'          = 'M35'
  'M41' , 'M42' , 'M43'          = 'M40'
  'M46' , 'M47' , 'M48'          = 'M45'
  'M51' , 'M52' , 'M53'          = 'M50'
  'M56' , 'M57' , 'M58'          = 'M55'
  'M61' , 'M62' , 'M63'          = 'M60'
  'M66' , 'M67' , 'M68'          = 'M65'
  'M71' , 'M72' , 'M73'          = 'M70'
  'M76' , 'M77' , 'M78'          = 'M75'
  'M81' , 'M82' , 'M83'          = 'M80'
  'M87' , 'M88'                  = 'M85'
  'M91' , 'M92' , 'M93'          = 'M90'
  'P00' , 'P10' , 'P20'          = 'P60'
  'P30'                          = 'P61'
  'S01' , 'S02' , 'S03'          = 'S00'
  'S06' , 'S07'
  'S11' , 'S12' , 'S13'          = 'S10'
  'S16' , 'S17' , 'S18'          = 'S15'
  'S21' , 'S22' , 'S23'          = 'S20'
  'S26' , 'S27' , 'S28'          = 'S25'
  'S31' , 'S32' , 'S33'          = 'S30'
  'S36' , 'S37' , 'S38'          = 'S35'
  'S41' , 'S42' , 'S43'          = 'S40'
  'S46' , 'S47' , 'S48'          = 'S45'
  'S51' , 'S52' , 'S53'          = 'S50'
  'S55' , 'S56' , 'S57'          = 'S59'
  'S61' , 'S62' , 'S63'          = 'S60'
  'S66' , 'S67' , 'S68'          = 'S65'
  'S71' , 'S72' , 'S73'          = 'S70'
  'S76' , 'S77' , 'S78'          = 'S75'
other = '???';

value $PU_name
   'D01.01' = 'Inpatient Dental treatment (DRGs)'
   'M00.01' = 'General Internal Medical Services - Inpatient Services
(DRGs)'
   'M10.01' = 'Cardiology - Inpatient Services (DRGs)'
   'M10.05' = 'Specialist Paediatric Cardiac - Inpatient Services
(DRGs)'
   'M15.01' = 'Dermatology - Inpatient Services (DRGs)'
   'M20.01' = 'Endocrinology & Diabetic - Inpatient Services (DRGs)'
   'M25.01' = 'Gastroenterology - Inpatient Services (DRGs)'
   'M30.01' = 'Haematology - Inpatient Services (DRGs)'
```

```
   'M34.01' = 'Specialist Paediatric Haematology - Inpatient Services
(DRGs)'
   'M40.01' = 'Infectious Diseases (incl Venereology) - Inpatient
Services  (DRGs)'
   'M45.01' = 'Neurology - Inpatient Services (DRGs)'
   'M49.01' = 'Specialist Paediatric Neurology Inpatient Services
(DRGs)'
   'M50.01' = 'Oncology - Inpatient Services (DRGs)'
   'M54.01' = 'Specialist Paediatric Oncology - Inpatient Services
(DRGs)'
   'M55.01' = 'Paediatric Medical - Inpatient Services (DRGs)'
   'M60.01' = 'Renal Medicine - Inpatient Services (DRGs)'
   'M65.01' = 'Respiratory - Inpatient Services (DRGs)'
   'M70.01' = 'Rheumatology (incl Immunology) - Inpatient Services
(DRGs)'
   'M80.01' = 'Palliative Care - Inpatient Services (DRGs)'
   'S00.01' = 'General Surgery - Inpatient Services (DRGs)'
   'S05.01' = 'Anaesthesiology - Inpatient Services (DRGs)'
   'S15.01' = 'Cardiothoracic - Inpatient Services (DRGs)'
   'S25.01' = 'Ear, Nose and Throat - Inpatient Services (DRGs)'
   'S30.01' = 'Gynaecology - Inpatient Services (DRGs)'
   'S35.01' = 'Neurosurgery - Inpatient Services (DRGs)'
   'S40.01' = 'Ophthalmology - Inpatient Services (DRGs)'
   'S45.01' = 'Orthopaedics - Inpatient Services (DRGs)'
   'S55.01' = 'Paediatric Surgical Services (DRGs)'
   'S60.01' = 'Plastic & Burns - Inpatient Services (DRGs)'
   'S70.01' = 'Urology - Inpatient Services (DRGs)'
   'S75.01' = 'Vascular Surgery - Inpatient Services (DRGs)'
   'W10.01' = 'Maternity Inpatient (DRGs)'
   'W06.03' = 'Neonatal Inpatient (DRGs)'
    other  = 'Not a DRG casemix Purchase Unit';



value $notret
    'Z530','Z531','Z532','Z538','Z539' = 1
                                  other = 0;
value $error
    '960Z', '961Z', '963Z' = 'Y'
                     other = 'N';
value $transp
    'A01Z', 'A03Z', 'A05Z' = 'Y'
                     other = 'N';
value $B1910lk
     '9251410','9251419','9251420','9251429','9251430','9251439',
     '9251440','9251449','9251450','9251459','9251460','9251469',
     '9251490','9251499','9251510','9251519','9251520','9251529',
     '9251530','9251539','9251540','9251549','9251550','9251559',
     '9251560','9251569','9251590','9251599',' ' = 1
                                            other = 0;

value $COLPOa
    '3562000',
    '3553902','3560800','3560801','3564600','3564700',
    '3560802','3561100','3561800','3561801',
    '3561803',
    '3553904','3561400',
    '3553903',
    '3561500'        = 1
               other = 0;
```

```
value $cystosa
      '3680300','3686000','3686001',
      '3681800','3681801','3682400','3682401',
      '3682101','3682103','3683301',
      '3685700','3680302','3680602',
      '3680601',
      '3680301',
      '3681200','3681201',
      '3683902','3684502','3684503',
      '3683900','3684500','3684501',
      '3683600',
      '3682700',
      '3683904','3684504','3684505',
      '3731500',
      '3681501','3731801'      = 1
                        other = 0;

value $BlkGast
       '3047303','4181600',
       '3047600','3047601','3047806','3047809',
       '3047810','4182500',
       '3047602','3047811','3047812','3047900',
       '3047304','3047813','4182200',
       '3047807',
       '3047603',
       '3047500','3047501',
       '3209500',
       '3207500',
       '3208400','3209000',
       '9030800',
       '3207501','3207800','3208100',
       '3208401','3208700','3209001','3209300',
       '3209400',
       '9031200','9031201',
       '3209900','3210500','3210800','9034100',
       '3044200','3048400','3048401',
       '3045201','3049100','3049101',
       '3045202',
       '3045101','3045102','3045103',
       '3048500','3048501',
       '3045200','3049400',
       '3048402',
       '3047300','3047305',
       '3047801','3047802','3047803','3047815','3047816','3047817',
       '3047301','3047306','3047804', '3047818',' ' = 1
                                              other = 0;


value $ERCPa
    '3044200','3048400','3048401',
    '3045201','3049100','3049101',
    '3045202',
    '3045101','3045102','3045103',
    '3048500','3048501',
    '3045200','3049400',
    '3048402'
                = 1
          other = 0;

value $COLONsa
```

```
    '3207500',
    '3208400','3209000',
    '9030800',
    '3207501','3207800','3208100',
    '3208401','3208700','3209001','3209300',
    '3209400',
    '9031200','9031201',
    '3209900','3210500','3210800','9034100'  = 1
                                        other = 0;


value $GASTRa
    '3047303','4181600',
    '3047600','3047601','3047806','3047809',
    '3047810','4182500',
    '3047602','3047811','3047812','3047900',
    '3047304','3047813','4182200',
    '3047807',
    '3047603',
    '3047500','3047501',
    '3209500',
    '3047300','3047305',
    '3047801','3047802','3047803','3047815','3047816','3047817',
    '3047301','3047306','3047804','3047818'
                             = 1
                    other = 0;

value $BRON
    '4176403','4184900','4185500',
    '4176404',
    '4188900','4188901','4189800',
    '4189200','4189500','4189801'
                = 1
          other = 0;


/*
        Formats desage and desfac were put in in order to identify
the
        combination of a range of Agencies and Facilities that have
         been identified as the providers through which the MoH and
DHBs
         will monitor its base casemix service agreements.  All other
         facilities (historically designated as "rural")   are
excluded.
*/
value $desage
    '0223','1011','1021','1022','1023',
    '2031','2041','2042','2043','2047','2051','2071',
    '3061','3081','3082','3091','3092','3093','3101',
    '4111','4121','4122','4123','4131','4141',
    '8559','8630','8656','4137'            = 1
                                     other = 0;

value $desfac
    '4111','4112','3211','3212','3213',
    '3214','3215','3216','3239','3260',
    '5011',
    '3311','4911','3411','5311','5312',
    '5313','5323','4811','5329',
    '4711','4712','3611','3612','5711',
```

```
    '4311','5511','5812','5816','5811',
    '3811','3911','4011','4013','4014',
    '3111','5911','4411','4211','4511',
    '3250','3220','3221','3240','4113',
    '4114','8270','8331','8432','8595',
    '8233','8422','8366','8377','8580',
    '4212','8507','8462','8471','5818',
    '5819','5820','5814','8313','8314',
    '8630','8656','8218','8268','8280',
    '8420','8579','8206','8024','8255',
    '8459','8912','8281','8477','8297',
    '8292','8867','8383','8405','8916',
    '8915','8495','8499','8284','8394',
    '8757','8351','8929','8920','8921',
    '8924','8718','8487','8549','8719',
    '8720','8721','8303','8473','8482',
    '8644','8714','8715','8716','8774',
    '8722','8611',’8784’,’8792’,’8791’
                                    = 1
                                other = 0;

value $matfac
    '4111','3215','3216','3213','3214',
    '3260','3411',
    '5311','5312','4911','3311','4711',
    '5711','3612','5511','4311','5811',
    '5812','3811','3911',’4011’'4014',
    '5911',’4411','4211','4511' = 'Y'
                   other = 'N';

value $RTfmt

'1500000','1500300','1510000','1510300',
'1520300','1520400','1520700','1520800',
     '1560000','1560001',
     '1560002','1560003','1560004' = 1
                              other = 0;

value $matdrgs
      'O01A','O01B','O01C','O02A','O02B',
      'O60A','O60B','O060C'              = 'Deliv'
      'O04Z','O61Z'                      = 'Postn'
      'O63Z','O64A','O64B','O66A','O66B' = 'Anten'

      other                              = 'Notmat';

run;

options missing = 0;

%*-------------------------------------------------------------------
*;
%*---   First set WIES parameters and set up logical names        ---
*;
%*---     for the new wies variables based upon parameter endw    ---
*;
%*---     wies                                                    ---
*;
%*-------------------------------------------------------------------
*;
```

```
%*---- Data set specifications ---;
%let numcode=30;


%*-- ICD10 V3 codes --*;
 %let aaacode='3311600';
 %let aaadig=7;
 %let asdcode='3874200';
 %let asddig=7;

%*---- Codes for facilities specified for copayments  ---*;

%let aaahosp='3260','3214','5311','4911','5811','4021','4211';
%let asdhosp='3260','5311','5811','4021','4211';
%let scolhosp='3260','5811','4211' ;

%*---- Copayment WIES rates -------;

%let mv_pay=0.7729;
%let nmv_pay=3.1323;
%let aaa_pay=5.4077;
%let asd_pay=1.1460;
%let scol_pay=6.1491;

%*-------------------------------------------------------------------
*;
%*---   Next read in weights to formats from weight file          ---
*;
%*-------------------------------------------------------------------
*;

%*---  MV eligibility ---*;
 data wmvft;
   set &wdata;
   type = 'C';
   fmtname ='wmvft';
   label = substr(mvelig,1,1);
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=wmvft;
 run;

 %*---  Co payment eligibility ---*;
 data wcoft;
   set &wdata;
   type = 'C';
   fmtname ='wcoft';
   label = substr(coelig,1,2);
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=wcoft;

%*---  Inlier low boundary ---*;
 data wlbft;
   set &wdata;
   type = 'I';
   fmtname ='wlbft';
   label = lb;
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=wlbft;
```

```
 %*---  Inlier high boundary ---*;
 data whbft;
   set &wdata;
   type = 'I';
   fmtname ='whbft';
   label = hb;
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=whbft;

%*---  High outlier per diem  ---*;
 data hopdft;
   set &wdata;
   type = 'I';
   fmtname ='hopdft';
   label = ho_pd;
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=hopdft;

 %*---  low outlier per diem ---*;
 data lopdft;
   set &wdata;
   type = 'I';
   fmtname ='lopdft';
   label = lo_pd;
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=lopdft;

 %*---  multiday inlier  ---*;
 data mdinft;
   set &wdata;
   type = 'I';
   fmtname ='mdinft';
   label = md_in;
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=mdinft;


 %*---  same day  ---*;
 data sdft;
   set &wdata;
   type = 'I';
   fmtname ='sdft';
   label = sd;
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=sdft;

 %*---  one  day - total weight ---*;
 data odft;
   set &wdata;
   type = 'I';
   fmtname ='odft';
   label = od;
   start=&reqdrg2;
   keep start type fmtname label;
 proc format cntlin=odft;
```

```
 %*-----  Read process data -------*;
 Data &outdata ;

 length NONMEDSG deshosp BOARDER CANC_OP ERR_DRG XPLANT SPINAL
TERMPREG
          RENAL  SLEEP LITHO sdchemo sdrad
          COLPO CYSTO ERCP COLON GASTRO BRONCHO TRANSFUS base $1
       Xpu $14       ;

     set &indata ;
     length copay $6;

       ** assign nzdrg50 from drg_50 and specified rules   **;
       nzdrg50 = drg_50 ;

     array ops {30}  op01-op30;                 /* 30 ops processed
*/
     array diags {30}  diag01-diag30;           /* 30 diagnoses
processed */

     ** assign nzdrg50 = R64Z radiotherapy as appropriate **;
       radio='N';
     drgnumb=input(substr(nzdrg50,2),2.);
      do i = 1 to 30;
       if (put(ops(i),$RTfmt.) = 1) then radio='Y';
      end;

     if (radio = 'Y') and (drgnumb ge 60) then nzdrg50 = 'R64Z';

     if substr(diag01,1,4) = 'Z492' then nzdrg50='L61Y';

     ** make new drg splits                      **;
     ** set mastoid split                       **;
     if drg_50 = 'D06Z' then do;
       nzdrg50 = 'D06B';
       do i = 1 to 30;
        if ops(i) in ('4154500','4155100','4155400','4155700',
                      '4155703','4156000','4156300','4156400',
                      '4156600','4156601','4156602'
                   ) then  nzdrg50 = 'D06A';

      end;
                              end;

     ** set lapararoscopy split                  **;
     if drg_50 = 'K04Z' then do;
         nzdrg50 = 'K04A';
         do i = 1 to 30 ;
          if ops(i) in ('3039000','3039300','3044500') then nzdrg50 =
'K04B';
         end;
                              end;

       ** reassign drg for B04M carotid stent**;
     if drg_50 = '901Z' then do;
       opflag = 'N';
       do i = 1 to 30 ;
         if ops(i) in ('3530906','3530907') then opflag = 'Y';
       end;
```

```
     if (diag01 in ('I652','I653') and opflag = 'Y') then nzdrg50 =
'B04M';
                              end;


     ** set age at discharge           **;
     age=year(evendate)-year(dob);
     if month(evendate) < month(dob) then age=age-1;
     if month(evendate) = month(dob) and day(evendate) < day(dob)
then
     age=age-1;

       ** set age at admission           **;
     ageadm=year(evstdate)-year(dob);
     if month(evstdate) < month(dob) then ageadm=ageadm-1;
     if month(evstdate) = month(dob) and day(evstdate) < day(dob)
then
     ageadm=ageadm-1;


      ** determine if this is a scoliosis event                    **;

  clin3a = substr(diag01,1,3);
  clin3b = substr(diag02,1,3);
  clin4a = substr(diag01,1,4);

  if (clin3a = 'M41'
  or clin3b = 'M41'
  or clin4a in ('Q763','Q675','M962','M963','M965')
  or clin4b in  ('Q763','Q675','M962','M963','M965'))
        then scol_diag = 'Y';
        else scol_diag = 'N';
  if op01 in ('4031600','4867800','4868100','4868400',
                                    '4868700','4869000')
  or op02 in ('4031600','4867800','4868100','4868400',
                                    '4868700','4869000')
  or op03 in ('4031600','4867800','4868100','4868400',
                                    '4868700','4869000')
        then implant = 'Y';
        else implant = 'N';

  if ageadm < 19
     and (drg_50 = 'I06Z'
            or (drg_50 = 'I09A' and (scol_diag = 'Y'
                                     or implant = 'Y'))
            or (scol_diag = 'Y' and implant = 'Y')) then do;
            ** event is defined as scoliosis **;
              ScolFlag = 'Y';
                                                        end;
  else ScolFlag = 'N';


     LOS = max(1,min(sum(evendate, -evstdate, -(evntlvd/1)), 365)) ;

     **---- get WEIGHTS from formats -----**;
     lb = input(&reqdrg2,wlbft.);
     hb = input(&reqdrg2,whbft.);
     mv_elig = put(&reqdrg2,wmvft.);
     ho_pd = input(&reqdrg2,hopdft. );
     lo_pd = input(&reqdrg2,lopdft. );
     md_in = input(&reqdrg2,mdinft. );
```

```
     sd = input(&reqdrg2,sdft. );
     od = input(&reqdrg2,odft. );
     copay = put(&reqdrg2,wcoft.);

       ** now go through the exclusion criteria **;
       ** set some flags to be used later       **;
       zflag = 'N';  oflag ='N'; T2Flag = 'N';
       do i = 1 to 30;
         if substr(diags(i),1,3) = 'Z37' then zflag = 'Y';
         if (substr(diags(i),1,3) = 'O47'
         or 'O60' <= substr(diags(i),1,3) <= 'O75') then oflag = 'Y';
         if i > 1 and substr(diags(i),1,4) in ('O092','O093') then
T2flag = 'Y';
       end;

       *REMAP THE HEALTH SPECIALITY CODES;
     if not(put(hlthspec, $remap.) = '???') then hlthspec =
put(hlthspec, $remap.);

     *BELOW IS INCLUSION RULE FOR NEONATAL INPATIENT (CASEMIX)
SERVICES;
     *Requirement for secondary/tertiary maternity facility added in
*;
     if substr(hlthspec,1,1)='P' and put(facility,$matfac.) = 'Y'
        and ((hlthspec in ('P41','P42','P43'))
             or
             (nzdrg50 in ('P02Z','P03Z','P04Z','P05Z','P06A','P06B',
                       'P61Z','P62Z','P63Z','P64Z',
                       'P65A','P65B','P65C','P65D',
                       'P66A','P66B','P66C','P67A','P67B'))
             or
             (nzdrg50 in ('P01Z','P60A','P60B','P66D','P67C','P67D')
              and (diag03 ne ' ' or op01  ne ' ')
             ))
      then NEONATE='Y';
      else NEONATE='N';

     if hlthspec = 'P50' then NEONATE = 'N';  * specifically exclude
this code;

       *BELOW IS EXCLUSION RULE FOR NON MEDICAL/SURGICAL SERVICES;
     *Exclude maternity only if at non tertiary/secondary facility;
     *Determine maternity events but continue to use nonmedsg
exclusion;
     if (substr(hlthspec,1,1)='P' and (hlthspec ne 'P50') and
(neonate ='N')
       and put(facility,$matfac.) = 'Y')
       then materny = 'Y';
     else if (substr(hlthspec,1,1)='P' and (hlthspec ne 'P50') and
(neonate   ='N')
       and put(facility,$matfac.) = 'N')
       then materny = 'N';
       else materny = 'X';

     if ((substr(hlthspec,1,1) in ('D','Y')) or (materny = 'N'))
        then NONMEDSG='Y';
        else NONMEDSG='N';

     *DEFINE BASE CONTRACT PAYMENTS;
     If compress(purchasr) in
('01','02','03','04','13','20','34','35')
```

```
  then base = 'Y';
  else base = 'N';
if compress(adm_typ) = 'ZW' then base = 'N';

*BELOW IS EXCLUSION RULE FOR DESIGNATED HOSPITAL PURCHASING;
If (put(agency, $desage.)*put(facility, $desfac.))
  then Deshosp = 'Y';
  else deshosp='N';

*BELOW ARE EXCLUSION RULES FOR NON-TREATED PATIENTS;
if diag01 in ('Z763','Z764')
  then BOARDER='Y';
  else BOARDER='N';

if (put(diag01, $notret.) + put(diag02, $notret.) +
  put(diag03, $notret.) + put(diag04, $notret.) +
  put(diag05, $notret.) + put(diag06, $notret.))
  and (op01=' ') and (adm_typ ne 'AC') and (LOS<2)
  then CANC_OP='Y';
  else CANC_OP='N';

   *BELOW IS EXCLUSION RULE FOR ERROR DRGS;
 err_drg = put(nzdrg50, $error.);

 *BELOW IS EXCLUSION RULE FOR TRANSPLANTS (LIVER, HEART, LUNG);
 xplant  = put(nzdrg50, $transp.);

 *BELOW IS EXCLUSION RULE FOR SPINAL INJURIES;
 if HLTHSPEC in ('S50','S53')
   then SPINAL='Y';
   else SPINAL='N';

 *BELOW IS EXCLUSION RULE FOR SURGICAL TERMINATION OF PREGNANCY;
 if nzdrg50='O05Z'
   and adm_typ ne 'AC'
   and op01 in ('3564000','3564300','3564301','3564302')
   and   substr(diag01,1,3) = 'O04'
   then TERMPREG='Y';
   else TERMPREG='N';
  *  the above diag01 code collects o04, not 004.
    Its been capitalised above, so dont get confused;

  *BELOW IS EXCLUSION RULE FOR RENAL DIALYSIS;
  if nzdrg50 in ('L61Z','L61Y')
    then RENAL='Y';
    else RENAL='N';

  *BELOW ARE EXCLUSION RULES FOR CHEMOTHERAPY/RADIOTHERAPY;
  if (diag01 in ('Z511', 'Z512') or diag02 in ('Z511', 'Z512'))
and
   (evendate=evstdate) then SDCHEMO='Y';
    else SDCHEMO='N';

  if  (((diag01 = 'Z510') or (diag02 = 'Z510'))
    and (evstdate = evendate))
      then SDRAD = 'Y';
      else SDRAD = 'N';

   *BELOW IS EXCLUSION RULE FOR SLEEP APNOEA;
   if nzdrg50 = ('E63Z') and (evendate-evstdate < 2)
     then SLEEP='Y';
```

```
          else SLEEP='N';

        *BELOW IS EXCLUSION RULE FOR LITHOTRIPSY;
        if op01 in  ('9095600','9095700','3654600','9219900')
          and (op02 in ('9095600','9095700','3654600','9219900')
          or put(op02,$B1910lk.) = 1)
          and (op03 in ('9095600','9095700','3654600','9219900')
          or put(op03,$B1910lk.) = 1)
          and evendate=evstdate and adm_typ ne 'AC'
          then LITHO='Y';
          else LITHO='N';

        *BELOW IS EXCLUSION RULE FOR COLPOSCOPIES;
        if put(op01, $COLPOa.) = 1
          and(put(op02, $COLPOa.) = 1 or put(op02,$B1910lk.) = 1)
          and (put(op03,$B1910lk.) = 1)
          and evendate=evstdate and age>15 and adm_typ ne 'AC'
          then COLPO='Y';
          else COLPO='N';

        *BELOW IS EXCLUSION RULE FOR CYSTOSCOPIES;
        if ((put(op01, $CYSTOSa.) = 1)
          and ((put(op02, $CYSTOSa.) = 1) or  (put(op02, $B1910lk.) =
1))
          and (put(op03, $B1910lk.) = 1)
          and (evendate=evstdate) and age>15 and adm_typ ne 'AC')
          then CYSTO='Y';
          else CYSTO='N';

        *BELOW IS EXCLUSION RULE FOR ERCPs;

        if (put(op01, $ERCPa.) = 1
          and (put(op02, $BlkGast.) = 1 or put(op02, $B1910lk.)=1)
          and (put(op03,$B1910lk.)=1)
          and (evendate=evstdate) and adm_typ ne 'AC' and age>15)
          then ERCP='Y';
          else ERCP='N';

        *BELOW IS EXCLUSION RULE FOR COLONOSCOPIES;  **check optest2
list **;
        if (  (put(op01, $COLONsa.) = 1)
          and (put(op02, $BlkGast.) = 1 or put(op02, $B1910lk.)=1)
          and (put(op03,$B1910lk.)=1) )
          and evendate=evstdate and adm_typ ne 'AC' and age>15
          then COLON='Y';
          else COLON='N';

        *BELOW IS EXCLUSION RULE FOR GASTROSCOPIES;
        if ( (put(op01, $GASTRa.) = 1)
          and (put(op02, $BlkGast.) = 1 or put(op02, $B1910lk.)=1)
          and (put(op03,$B1910lk.)=1))
          and evendate=evstdate and adm_typ ne 'AC' and age>15
          then GASTRO='Y';
          else GASTRO='N';

        *BELOW IS EXCLUSION RULE FOR BRONCHOSCOPIES;
        if ( (put(op01, $bron.) = 1)
          and (put(op02, $bron.) = 1 or put(op02,$B1910lk.) = 1 )
            and (put(op03,$B1910lk.) = 1) )
          and evendate=evstdate and adm_typ ne 'AC' and age>15
          then BRONCHO='Y';
```

```
          else BRONCHO='N';

         *BELOW IS EXCLUSION RULE FOR DAY CASE BLOOD TRANSFUSIONS;
         if (diag01='Z513'
             or (op01 in ('1370601','1370602','1370603','9206000')
                 and op02 in ('
','1370601','1370602','1370603','9206000')
                 and op03 =' '))
           and evendate=evstdate and adm_typ ne 'AC'
           then TRANSFUS='Y';
           else TRANSFUS='N';


         *Following 4 exclusions relate to maternity events only;

         *Below is Amniocentesis exclusion;
           if (materny = 'Y' and evstdate=evendate and op01 in
('1660000','1661800','1662100'))
              then amnio='Y';
              else amnio = 'N';

         *Below is Chorio Villis Sampling exclusion;
            If (materny = 'Y' and evstdate=evendate and op01 =
'1660300')
               then chorio = 'Y';
               Else chorio = 'N';

         *Below is Rhesus Isoimmunisation exclusion;
           If (materny = 'Y' and evstdate=evendate and
substr(diag01,1,4) in ('O360','O361'))
              then rhesus = 'Y';
              else rhesus = 'N';

         *Breast feeding/lactation exclusion *;
           if ( materny = 'Y' and evstdate=evendate
           and diag01 in
('O9230','O9231','O9240','O9241','O9250','O9251',
                        'O9260','O9261','O9270','O9271'))
              then bfl = 'Y';
              else bfl = 'N';


         *BELOW CREATES A MASTER EXCLUSION VARIABLE TO IDENTIFY ALL
EXCLUDED EVENTS;
         if NONMEDSG='Y' or Deshosp='N' or BOARDER='Y' or CANC_OP='Y'
or ERR_DRG='Y'
         or XPLANT='Y' or SPINAL='Y' or TERMPREG='Y' or RENAL='Y' or
SDCHEMO ='Y'
         or SDRAD = 'Y' or SLEEP='Y' or LITHO='Y' or COLPO='Y' or
CYSTO='Y'
         or ERCP='Y' or COLON='Y' or GASTRO='Y' or BRONCHO='Y' or
TRANSFUS='Y'
         or base = 'N' or amnio = 'Y' or chorio = 'Y' or rhesus = 'Y'
or bfl = 'Y'
         then EXCLU='Y';
         else EXCLU='N';

         *BELOW MAPS EVENTS TO CASEMIX PURCHASED UNITS OR IDENTIFIES
AS CASEMIX EXCLUSIONS;
         if EXCLU='N' then
           do;
```

```
            if NEONATE='Y' then PU='W06.03';
              else if (agency = '2031' and facility = '5311' and
hlthspec = 'S05')
            then pu = 'S05.01';
            else pu = put(hlthspec, $newpu.);
          end;
        else PU='EXCLU';
            if pu ne 'EXCLU' then Xpu = 'Included';
        PU_name=put(PU,$PU_name.);


      ** Order of allocation of Xpu is hierarchical       **;
      ** and only applies to excluded events             **;
  if pu = 'EXCLU' then do;
    select;
      when (Base = 'N')                        Xpu = 'NonBase';

      when (put(nzdrg50,$error.)='Y')          Xpu = 'ErrorDrg';

      when (Boarder = 'Y')                     Xpu = 'Boarder';

      when (Canc_op = 'Y' )                    Xpu = 'Cancelled Op';

      when (substr(hlthspec,1,1) = 'Y')        Xpu = 'MHIS';

      when (substr(hlthspec,1,1) = 'D') if 'D00' <= hlthspec <= 'D04'
                                          then Xpu = 'HOP214';
                                          else if 'D20' <= hlthspec
<= 'D24'
                                          then Xpu = 'HOP235';
                                        else if hlthspec in
('D10','D11','D12')
                                          then Xpu = 'HOP1006';
                                        else if hlthspec in
('D30','D31','D32')
                                          then Xpu = 'HOP1035';
                                          else Xpu = 'Disability
'||hlthspec;

      when (put(facility,$matfac.) = 'Y'
            and hlthspec = 'P50')              Xpu = 'W03012';

      when (substr(hlthspec,1,1) = 'P'
      and put(facility,$matfac.) = 'Y'
      and neonate = 'N'
      and evstdate=evendate and
      op01 in ('1660000','1661800','1662100')) Xpu= 'W03005';

      when (substr(hlthspec,1,1) = 'P'
      and put(facility,$matfac.) = 'Y'
      and neonate = 'N'
      and evstdate=evendate and
      op01 = '1660300')                        Xpu = 'W03006';

      when (substr(hlthspec,1,1) = 'P'
      and put(facility,$matfac.) = 'Y'
      and neonate = 'N'
      and evstdate=evendate and
      diag01 in ('O360','O361'))               Xpu = 'W03007';

      when (substr(hlthspec,1,1) = 'P'
```

```
      and put(facility,$matfac.) = 'Y'
      and neonate = 'N'
      and evstdate=evendate and
      diag01 in ('O9230','O9231','O9240','O9241',
    'O9250','O9251','O9260','O9261','O9270','O9271'))
                                                Xpu = 'W03010';

      when (substr(hlthspec,1,1) = 'P'
          and put(facility,$matfac.) = 'N')    do; *Primary
maternity*;
                                      if hlthspec in
('P61','P71','P41',
                               'P42','P43') then Xpu = 'W02009';
                                           else if hlthspec in
('P60','P70')
             and zflag = 'Y' and los >= 2 then Xpu = 'W02010';
                                           else if hlthspec in
('P60','P70')
              and zflag = 'Y' and los < 2 then Xpu = 'W02007';
                                           else if hlthspec in
('P60','P70')
              and zflag = 'N' and oflag = 'N'
              and nzdrg50 not in ('O66A','O66B')
                                           then Xpu = 'W02008';
                                           else if hlthspec in
('P60','P70')
                and zflag = 'N' and (oflag = 'Y' or nzdrg50 in
('O66A','O66B'))
                                           then Xpu = 'W02011';
                                           else Xpu = 'Primary
'||hlthspec;
                                                  end;

      when (xplant = 'Y')                          do; * Transplant
exclusion *;
                  if facility = '3260' and ageadm < 16 and nzdrg50 =
'A01Z'
                                           then Xpu = 'T0113';
                                           else
                  if ((facility ne '3260' or ageadm >15) and nzdrg50
= 'A01Z')
                                           then Xpu = 'T0111';
                                           else
                  if nzdrg50 = 'A03Z'      then Xpu = 'T0106';
                                           else
                  if nzdrg50 = 'A05Z'      then Xpu = 'T0103';
                                              end;

      when (spinal = 'Y')
                       if adm_typ = 'WN' then Xpu = 'S50002';
                                           else Xpu = 'S50001';

      when (termpreg = 'Y' and T2flag = 'Y' )  Xpu = 'S30009';

      when (termpreg = 'Y' and T2flag = 'N' )  Xpu = 'S30006';

      when (renal = 'Y')
                      if nzdrg50 = 'L61Y' then Xpu = 'M60005';
                 else if nzdrg50 = 'L61Z' then Xpu = 'M60008';

      when (SDChemo = 'Y' and
```

```
                    (substr(diag01,1,4) = 'Z512' or
                     substr(diag02,1,4) = 'Z512'))
                                              Xpu = 'MS02008';

      when (SDChemo = 'Y' and
                    (substr(diag01,1,4) = 'Z511' or
                     substr(diag02,1,4) = 'Z511'))        do;
                       if hlthspec = 'M30' then Xpu = 'M30020';
       else if hlthspec in ('M34','M54')  then Xpu = 'M54004';
                                          else Xpu = 'MS02009';
                                                    end;

      when (SDRad = 'Y')                      Xpu = 'M50005';

      when (Sleep = 'Y')                      Xpu = 'MS02010';

      when (Litho = 'Y')                      Xpu = 'S70006';

      when (Colpo = 'Y')                      Xpu = 'NCSP-20';

      when (Cysto = 'Y')                      Xpu = 'MS02004';

      when (Ercp = 'Y')                       Xpu = 'MS02006';

      when (Colon = 'Y')                      Xpu = 'MS02007';

      when (Gastro = 'Y')                     Xpu = 'MS02005';

      when (Broncho = 'Y')                    Xpu = 'MS02003';

      when (Transfus = 'Y')                   Xpu = 'MS02001';

      when (Deshosp = 'N')                    Xpu = 'Deshosp';

      when (substr(hlthspec,1,1) = 'P'
            and put(facility,$matfac.) = 'Y')  Xpu = 'Secondary Mat
'||hlthspec;

      otherwise                               Xpu = 'Investigate';
        end;
       end;

       ** set variable to indicate casemix funded IDF events **;
       if pu not in ('EXCLU','W10.01')
          and agency not in ('4137','8559','8630','8656')
          and purchasr in ('35','20')
          then DhbCmfIdf = 'Y';
          else DhbCmfIdf = 'N';

   *** Now continue with wies calculation ***;

       ** get value for sameday **;
       if evstdate=evendate then sameday = 'Y';
       else sameday = 'N';

     *----- step one  - eligible DRGs -----*;

     *----- set WIES to zero for ineligible records -----*;
     if (&reqdrg2 in ('960Z','961Z','963Z') ) then do;

             BaseWIES = 0;
```

```
             mv_copay = 0;
             add_mv = 0;
             aaa_copay = 0;
             asd_copay = 0;
                                                  end;
      else do;

        *-------------------------------------------------------------
------*;
        *---------- Box 1:   Mechanical ventilation copayments first
-----*;
        *-------------------------------------------------------------
------*;
  *--- Check for adult mechanical ventilation ---*;

             cmvhrs=hmvhrs;
         if cmvhrs=. then cmvhrs=0;

         select (mv_elig);
            when ('D')
                if (cmvhrs >= 6)   then do;
                    adjmvday= round((cmvhrs + 12)/24);
                    mv_copay = adjmvday *&mv_pay ;
                                    end;
                  else do;
                    adjmvday = 0;
                    mv_copay = 0;
                      end;
            when ('E')
                if (cmvhrs >= 6)  then do;
                    adjmvday= round((cmvhrs + 12)/24);
                    mv_copay = &nmv_pay;
                                    end;
                  else do;
                    adjmvday = 0;
                    mv_copay = 0;
                      end;


            when ('4')
                if (cmvhrs gt 96) then do;
                    adjmvday= round((cmvhrs + 12)/24) - 4;
                    mv_copay = adjmvday *&mv_pay ;
                                   end;
                  else do;
                    adjmvday = 0;
                    mv_copay = 0;
                      end;
            otherwise do;
                    adjmvday = 0;
                    mv_copay = 0;
                      end;
        end;

        *-------------------------------------------------------------
------*;
        *---------- Box 1b:   Copayments  ----------------------------
------*;
        *-------------------------------------------------------------
------*;
```

```
            aaasepn = 0;
            asdsepn = 0;
        *--- Check ICD10 Lists to find copayment info ---;
        do i = 1 to &numcode;
               *--- Oper list for AAA stent, ASD and Colonoscopes  --
-;
           toper = substr(ops{i},1,&aaadig);
           if toper in (&aaacode) then aaasepn = 1;
           toper = substr(ops{i},1,&asddig);
           if toper in (&asdcode) then asdsepn = 1;
        end;

       *---- Add copayment based upon DRG classification --*;
         aaa_copay=0;
         asd_copay=0;
        select (copay);
           When ('AA') if ((aaasepn = 1) and (facility in
(&aaahosp)))  then aaa_copay = &aaa_pay;
           When ('AS') if ((asdsepn = 1) and (facility in
(&asdhosp)))  then asd_copay = &asd_pay;
           otherwise do;
                aaa_copay = 0;
                asd_copay = 0;
                    end;
        end;

** copayment for scoliosis event **;
            if scolflag = 'Y' and (facility in ((&scolhosp)))
               then scol_copay = &scol_pay ;


        *-------------------------------------------------------------
--*;
        *---------- Box 2a: LOS category ----------------------------
--*;
        *-------------------------------------------------------------
--*;
        if los ne . then do;
               if sameday eq 'Y' then los_cat = 'S';
               else if los <= 1 then los_cat = 'O';
               else  los_cat = 'M';
                        end;

        else  los_cat='E' ;         *---- set to E for error  ---;


*-------------------------------------------------------------------*;
        *---------- Box 2b: Inlier category                 -----*;
*-------------------------------------------------------------------*;
        if (los lt lb) then inlier='L';
        else if (los gt (HB + adjmvday)) then inlier='H';
        else inlier='I';

*-------------------------------------------------------------------*;
*---------- Box 2c: Calculate Base WIES                      -----*;
*-------------------------------------------------------------------*;
        select (Inlier);
          when ('L') do;  *---- Same day cases --;
               select (los_cat);
                   when ('S') BaseWIES= sd;
```

```
                    when ('O') BaseWIES= od;
                    when ('M') BaseWIES= od + (los -1) * lo_pd;
                    otherwise  BaseWIES=0;
               end;
                     end;
          when ('I') do;  *---- Inlier calculations --;
               select (los_cat);
                    when ('S') BaseWIES= sd;
                    when ('O') BaseWIES= od;
                    when ('M') BaseWIES= md_in;
                    otherwise  BaseWIES=0;
               end;
                     end;
          when ('H') do;  *---- high outlier calculations --;
                    high_day = max(0,los-hb-adjmvday);
                    BaseWIES = md_in + high_day * ho_pd;
                     end;
          Otherwise do;
                    BaseWIES=0;
                     end;
        end;
*-------------------------------------------------------------------*;
*---------- Box 3: Total WIES                                 -----*;
*-------------------------------------------------------------------*;
        wiesnz09 = BaseWIES +  mv_copay + aaa_copay + asd_copay ;

   end;   *--- processing eligible records ---*;

%if &keep ne K %then %do;
   drop nonmedsg deshosp boarder canc_op err_drg xplant spinal
renal sdchemo sdrad sleep litho colpo cysto   ercp
   colon gastro broncho transfus base neonate drgnumb i  age los
   radio mv_elig  lb hb  md_in ho_pd lo_pd sd od inlier adjmvday
   los_cat  mv_copay  high_day  materny amnio chorio sameday   add_mv
copay termpreg cmvhrs
   rhesus bfl aaa_copay asd_copay BaseWIES aaasepn asdsepn toper  ;
                    %end;
   run;
%Mend wiesnz09;
/*to run macro eg
libname cwd ‘location of weight file’;
run;
%wiesnz09(jul08jun09,w08Out,nzdrg50, K);*/
```

Appendix 3: Casemix Cost Weights Project Group Membership

Members of the project team during 2008 were:

Name	Affiliation
Angela Pidd	Information Directorate
Barbara Bridger	Information Directorate
Catherine Ross	Bay of Plenty DHB
Pirom Tawngdee	Capital & Coast DHB
Kelly Thompson	Auckland DHB
Justine Tringham	Auckland DHB
Mark Jackson	Ministry of Health
Graham Arnold	Otago DHB
Michael Rains	DHBNZ
Tina Stacey	Waikato DHB
Weiguo Ding	Ministry of Health
Phil Gibbs	Nelson Marlborough DHB
Shelly Wadhwa	Waikato DHB

Appendix 4: New Zealand Casemix History

The following table summarises the New Zealand casemix funding environment since 1998. This includes the clinical coding classification, DRG set, cost weight version as designated in New Zealand, and unit prices for casemix-purchased events.

Implementation Year	Coding System	DRG List	Cost Weights
1998/99	ICD-9-CMA-II Australian 2nd clinical modification to ICD-9	AN-DRG 3. 1	WIES 5, with no adjustment from the Victorian set.
1999/00	ICD-10-AM 1st Edition	AN-DRG 3. 1 Coding back-mapped to ICD 9 and grouped to this DRG set.	As for 1998/99
2000/01	ICD-10-AM 1st Edition	AR-DRG 4.1,	WIES 5, adapted to include NZ costs for blood and pre-admission clinics.
2001/02	ICD-10-AM 2nd Edition	AR-DRG 4.1	WIES 8, with NZ LOS profile and NZ costs as for 2000/01. Where NZ ALOS was significantly different from Victorian ALOS, an adjustment to nursing/ward costs was made.
2002/03 and 2003/04	ICD-10-AM 2nd Edition	AR-DRG 4.2	WIES 8 as for 2001/02
2004/05	ICD-10-AM 3rd Edition	AR-DRG 4.2, coding back-mapped to ICD 10-AM 2nd Edition	WIES 8 as for 2001/02
2005/06, 2006/07, and 2007/08	ICD-10-AM 3rd Edition	AR-DRG 5.0	WIES 11, with NZ LOS profile, NZ costs for blood and pre-admission clinics, also for some costs where jurisdictional differences were identified – mainly pharmaceutical costs and stent / implant / prostheses utilization. Other costs from

Implementation Year	Coding System	DRG List	Cost Weights
			Victorian data were those associated to the NZ morbidity profile.
2008/09	ICD-10-AM 6th Edition	AR-DRG 5.0, as modified for use in New Zealand, coding back-mapped to ICD-10-AM 3rd Edition	WIESNZ08, which uses Victoria's WIES model for the weight development, but only New Zealand data elements, in particular NZ-only cost data.
2009/10	ICD-10-AM 6th Edition	AR-DRG 5.0 as modified for use in New Zealand, coding back mapped to ICD-10-AM 3rd Edition.	WIESNZ09, developed in same manner as WIESNZ08.

Note that the above table states the official Australian DRG set used as the basis for the Victorian implementation. New Zealand's implementation preserved the Victorian adjustments to the DRG sets and these are identified in the casemix framework document for each year. Though there were some other splits in the first two years listed, the splits were limited to bone marrow transplants and dialysis until 2008/09, when new splits for Carotid stenting, some ear procedures and obesity procedures were introduced. Note that dialysis is not funded by casemix, but the split provides a way to directly identify the peritoneal provision. Further DRG mappings are identified in the casemix framework document.

Unit Prices used in Purchasing

In the following table, Neonatal refers to all events assigned a Purchase Unit of W06.03, and Medical & Surgical covers all other Purchase Units for events included in casemix funding.

From 2002/03, these have been the inter-district flow (IDF) prices, thus in some cases there may be some variation for local provision. Note also that with effect from 2006/07 a common unit price has been set for medical-surgical and for neonatal casemix events.

Financial Year	Medical & Surgical	Neonatal
1998/99	2,433.62	None
1999/00	2,399.22	2,761.48
2000/01	2,487.16	2,732.47
2001/02	2,479.01	2,677.23
2002/03	2,617.72	2,827.03
2003/04	2,728.55	2.946.72
2004/05	2,854.88	3,024.37
2005/06	2,949.09	3,124.17
2006/07	3,151.01	3,151.01
2007/08	3,740.38	3,740.38
2008/09	3,985.32	3,985.32
2009/10	4315.48	4315.48