

Pricing and funding for safety and quality: Avoidable hospital readmissions

Background

In 2017, all Australian governments signed the Addendum to the National Health Reform Agreement and committed to improve Australian health outcomes through safety and quality reforms. This is supported by the collaborative work program between the Independent Health and Aged Care Pricing Authority (IHACPA) and the Australian Commission on Safety and Quality in Health Care (the Commission) to incorporate safety and quality measures into the pricing and funding of public hospital services across three key areas:

Sentinel
events

Hospital
acquired
complications

Avoidable
hospital
readmissions

Definition

An avoidable hospital readmission occurs when a patient who has been discharged from hospital (the index admission) is admitted again within a certain time interval (the readmission), and the readmission:

- is clinically related to the index admission
- has the potential to be avoided through improved clinical management and/or appropriate discharge planning in the index admission.

Overview

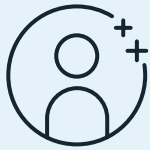
- At the request of the Australian Health Ministers' Advisory Council and in consultation with clinical and consumer experts, the Commission developed a list of conditions considered to be avoidable hospital readmissions.
- The list of conditions and condition-specific intervals were approved by the Australian Health Ministers' Advisory Council in June 2017.
- The avoidable hospital readmissions list and specifications are available on the [Commission's website](#).
- Version 1.0 of the avoidable hospital readmissions list is outlined in **Table 1**.

Table 1

Avoidable Hospital Readmissions List Version 1.0

Readmission condition	Readmission diagnosis	Readmission interval (days)
1 Pressure injury	• Stage III ulcer	14
	• Stage IV ulcer	7
	• Unspecified decubitus ulcer and pressure area	14
2 Infections	• Urinary tract infection	7
	• Surgical site infection	30
	• Pneumonia	7
	• Blood stream infection	2
	• Central line and peripheral line associated blood stream infection	2
	• Multi-resistant organism	2
	• Infection associated with devices, implants and grafts	90
	• Infection associated with devices, implants and grafts in genital tract or urinary system	30
	• Infection associated with peritoneal dialysis catheter	2
	• Gastrointestinal infections	28
3 Surgical complications	• Postoperative haemorrhage/haematoma	28
	• Surgical wound dehiscence	28
	• Anastomotic leak	28
	• Cardiac vascular graft failure	28
	• Pain following surgery	14
	• Other surgical complications	28
	4 Respiratory complications	• Respiratory failure including acute respiratory distress syndromes
• Aspiration pneumonia		14
5 Venous thromboembolism	• Venous thromboembolism	90
6 Renal failure	• Renal failure	21
7 Gastrointestinal bleeding	• Gastrointestinal bleeding	2
8 Medication complications	• Drug-related respiratory complications/depression	2
	• Hypoglycaemia	4
9 Delirium	• Delirium	10
10 Cardiac complications	• Heart failure and pulmonary oedema	30
	• Ventricular arrhythmias and cardiac arrest	30
	• Atrial tachycardia	14
	• Acute coronary syndrome including unstable angina, STEMI and NSTEMI	30
11 Other	• Constipation	14
	• Nausea and vomiting	7

Development of the funding approach



Reducing avoidable hospital readmissions supports better health outcomes, improves patient safety and leads to greater efficiency in the health system.



In July 2019, IHACPA commenced a 24-month shadow period to trial three funding options intended to assist in preventing avoidable hospital readmissions.



Following analysis of the funding options and jurisdictional and public consultation, the funding approach was finalised for implementation from 1 July 2021.

How is the funding approach applied?



A risk-adjusted reduction is applied to the index episode, based on the total price of the associated readmission.



A risk adjustment model has been derived for each readmission condition, which assigns the risk of being readmitted for each episode of care, based on the most clinically relevant and statistically significant risk factors for that readmission condition.



These risk factors contribute to assigning a complexity group (low, moderate or high) to the patient, which is used to calculate the funding reduction from the index episode.



Further information on the avoidable hospital readmissions risk adjustment model and application of the funding approach is available within the latest version of the [National Pricing Model Technical Specifications](#).

Case study

The following clinical example demonstrates the application of the avoidable hospital readmissions risk adjustment model and funding adjustment to an individual episode of care.

Index admission and avoidable hospital readmission

A 54-year-old female patient underwent an emergency appendicectomy following a diagnosis of appendicitis. At the index admission, she was assigned to the Diagnosis Related Group (DRG) G07B (Appendicectomy, Minor Complexity) and the hospital received 1.2583 national weighted activity unit (NWAU).

Seven days after this patient was discharged, she was readmitted to the same hospital as she was experiencing acute pain to her lower right abdomen. The price weight for the readmission was 0.8316 NWAU.



Application of the risk adjustment model

Pain following surgery within a readmission interval of 14 days is a readmission condition (surgical complications). As such, there is a funding impact to the hospital for the index admission episode, based on the risk adjusted total NWAU of the readmission episode.

This requires taking into account the risk factor variables for the readmission category and calculating a complexity score, which is used to assign the patient to a complexity group. The risk factor variables for surgical complications include age group, number of admissions in the past year, number of interventions in the index episode, emergency admission, Indigenous status, patient remoteness, Major Diagnostic Category, DRG type and chronic condition flags.

Low complexity group

At the time of admission, the patient was otherwise fit and healthy, with no comorbidities.

Moderate complexity group

At the time of admission, the patient's medical history included hypertension and type 2 diabetes managed with oral medication.

High complexity group

At the time of admission, the patient's medical history included cirrhosis of the liver, chronic renal failure, chronic obstructive pulmonary disease and type 2 diabetes managed with insulin.



Calculation of the funding adjustment

Once the complexity group has been assigned, the final adjusted NWAU for the index admission can be calculated. This is determined by multiplying the NWAU of the readmission and the funding reduction, then subtracting the total from NWAU of the index admission.

Low complexity group

As this patient was assigned to a low complexity group, funding for the index admission is reduced by 100% of the readmission episode NWAU.

Funding for the index admission NWAU of 1.2583 was therefore reduced by 100% of 0.8316 to a total NWAU of 0.4267 for the episode of care.

Moderate complexity group

As this patient was assigned to a moderate complexity group, funding for the index admission is reduced by 26.6% of the readmission episode NWAU.

Funding for the index admission NWAU of 1.2583 was therefore reduced by 26.6% of 0.8316 to a total NWAU of 1.0371 for the episode of care.

High complexity group

As this patient was assigned to a high complexity group, funding for the index admission is reduced by 25.5% of the readmission episode NWAU.

Funding for the index admission NWAU of 1.2583 was therefore reduced by 25.5% of 0.8316 to a total NWAU of 1.0462 for the episode of care.

Further information

Visit ihacpa.gov.au/safety-and-quality to learn more about the Independent Health and Aged Care Pricing Authority. Get in touch with us via the details below.

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Find us online to connect with us.

Independent Health and Aged Care Pricing Authority

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