

Independent Hospital Pricing Authority

Impact of New Health Technology Framework

Version 4.2 May 2018



IHPA

Impact of New Health Technology Framework – Version 4.2 May 2018

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Acronyms and Abbreviations

ABF	Activity Based Funding
AR-DRGs	Australian Refined Diagnosis Related Groups
CAC	Clinical Advisory Committee
CATAG	Council of Australian Therapeutic Advisory Groups
IHPA	Independent Hospital Pricing Authority
HealthPACT	Health Policy Advisory Committee on Technology
HTA	Health Technology Assessment
MSAC	Medical Services Advisory Committee
NEC	National Efficient Cost
NEP	National Efficient Price
PLAC	Prostheses List Advisory Committee
TGA	Therapeutic Goods Administration
the Act	<i>National Health Reform Agreement Act 2011</i>

Definitions

Activity based funding	<p>Refers to an activity comprising in-scope public hospital services which will be funded by the Australian Government in the manner described at Clause A32(c) of the National Health Reform Agreement (NHRA).</p> <p>An activity based funding (ABF) activity may take the form of a separation, presentation or service event.</p>
Clinical Advisory Committee	<p>The Clinical Advisory Committee (CAC) is established under the National Health Reform Act 2011 to “advise the Pricing Authority in relation to developing and specifying classification systems for health care and other services provided by public hospitals”.</p> <p>Hence, IHPA, through its CAC, will monitor the potential impact of new health technology on models of care that have not yet been incorporated in the classification and costing of public hospital services.</p>
Health Technology	<p>Includes new medicines; diagnostics, devices, equipment and supplies; medical and surgical procedures; support systems; and organisational and managerial systems used in prevention, screening, diagnosis, treatment and rehabilitation.¹</p>
Health Technology Assessment	<p>Current health technology assessment (HTA) processes usually compare the proposed service with the way in which this patient would otherwise be treated, so that the primary measure of a health outcome is the comparative effectiveness of the service. This is combined with comparative safety to determine net clinical benefit, and then combined with comparative cost to determine incremental cost-effectiveness (or through a cost minimisation approach if the net clinical benefit of the proposed medical service is ‘non inferior’ rather than superior to the comparator).²</p>
Pricing Authority	<p>The governing body of IHPA established under <i>the National Health Reform Act 2011</i>.</p>
Pricing Guidelines	<p>In order to be transparent about how it makes decisions that involve policy choices, IHPA has developed a set of Pricing Guidelines.</p> <p>These Pricing Guidelines are used to explain the key decisions made by IHPA in the Pricing Framework for Australian Public Hospital Services. The Pricing Guidelines may also be used by governments and other stakeholders to evaluate whether IHPA is undertaking its work in accordance with the explicit policy objectives included in the Pricing Guidelines.³</p>

¹ Department of Health and Ageing (2009) Review of Health Technology Assessment in Australia. <www.health.gov.au/internet/main/publishing.nsf/Content/hta-review-report>

² For more information, see the Department of Health’s HTA webpage at <www.health.gov.au/internet/hta/publishing.nsf/Content/about-1>

³ The Pricing Guidelines are available on IHPA’s website at <www.ihipa.gov.au/publications/pricing-framework-australian-public-hospital-services-2018-19>

1. Executive Summary

1.1 Background

One of the principles adopted by the Independent Hospital Pricing Authority (IHPA) to guide its decision-making is fostering clinical innovation. IHPA's Pricing Guidelines state that the "pricing of public hospital services should respond in a timely way to introduction of evidence-based, effective new health technology and innovations in models of care that improve patient outcomes". However, there are several factors that might work against this outcome including:

- The time lag in the National Hospital Cost Data Collection meaning that the National Efficient Price (NEP) and the National Efficient Cost (NEC) will be set based on the technology and model of care that were in operation three years ago.
- It may take time for new health technology and innovations in care to be adopted more broadly, and for their impact on costs to become routinely captured in national costing data. Similar issues apply to the updating of Activity Based Funding (ABF) classifications such as the Australian Refined Diagnosis Related Groups (AR-DRGs).

The NEP partially accounts for the continuous adoption of new health technology and processes. The cost of technology improvements is inherent in the indexation methodology used to project the three year old empirical data to the NEP year. In effect, the indexation rate includes a component reflecting the average increase in cost over the previous five years that was associated with the introduction of new health technology and improvement in quality. This is an average increase to all prices rather than attributing it to the specific hospital services that benefit from the new health technology.

IHPA recognises that there are parallel national and state or territory-based processes for the evaluation of new health technology, including 'rapid review' type processes where clinical feedback on new health technology and changing models of care feed into updates to ABF models. IHPA also notes that state and territory governments may wish to fund new health technology outside existing ABF arrangements as part of piloting and evaluating the more widespread introduction of new health technology into their public hospitals.

IHPA expects that these existing technology evaluation and supplementary funding mechanisms will continue. IHPA's core function is the pricing of public hospital services and it was not established to take on a major technology evaluation role.

IHPA's Clinical Advisory Committee (CAC) has an important 'watching brief' on new health technology. The CAC was established under Section 177 of the *National Health Reform Act 2011* to "advise the Pricing Authority in relation to developing and specifying classification systems for health care and other services provided by public hospitals". Hence, IHPA has access to clinical expertise and can consider the extent to which classifications are reflective of new health technology and changing models of care.

1.2 Objective

The objective of the IHPA *Impact of New Health Technology Framework* (the Framework) is to outline the process by which IHPA, through the CAC, will monitor and review the impact of new health technologies on the existing classifications in order to accurately account for them in the pricing of public hospital services.

In consultation with the CAC, IHPA will:

- review monitoring reports on the emergence of new health technologies and submissions received from other stakeholders;
- review the impact of new health technologies on the classification systems currently used by IHPA to determine the NEP; and
- determine whether and how the classification systems should be adjusted in response.

1.3 Scope

The scope of this Framework includes the monitoring and identification of new health technologies used to deliver health services in Australian public hospitals, for the purpose of assessing the need to undertake further classification development work.

1.4 Timeframe for review and prioritisation

IHPA, in consultation with the CAC, will monitor and review new health technologies on an annual basis, based on reports received from government advisory bodies and submissions received from other stakeholders. The Pricing Authority will determine whether a new health technology should be referred to the appropriate body as a priority for classification development by 31 May each year.

Subsequent steps

Organisations that provide submissions to IHPA under the Framework should be mindful that accounting for new health technologies within the classification system is a lengthy process.

There are a series of distinct steps in recognising new health technologies in the classification system.

The initial step is to introduce diagnosis or procedure codes in the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) classification system, which will allow the identification of new technologies in the activity and cost data provided to IHPA.

Once the ICD-10-AM information is collected in the activity data sets and patient costing systems, IHPA may be able to assess if an adjustment to the pricing process is warranted.

The activity and cost data is then used in the AR-DRG refinement process to determine if the new technology is sufficiently different from existing approaches to warrant a new DRG.

IHPA's high level classification development cycle is set out below (Figure 1) in reference to the hypothetical introduction of a new procedure code for admitted patients.

Figure 1: Classification development cycle for AR-DRG



1.5 Review

The CAC Chair, Pricing Authority (IHPA Board) and Chief Executive Officer of IHPA will review this Framework, including associated documentation, annually or as required.

The Framework was last reviewed in April 2018.

2. Overview

2.1 Scope and types of new health technologies considered by IHPA

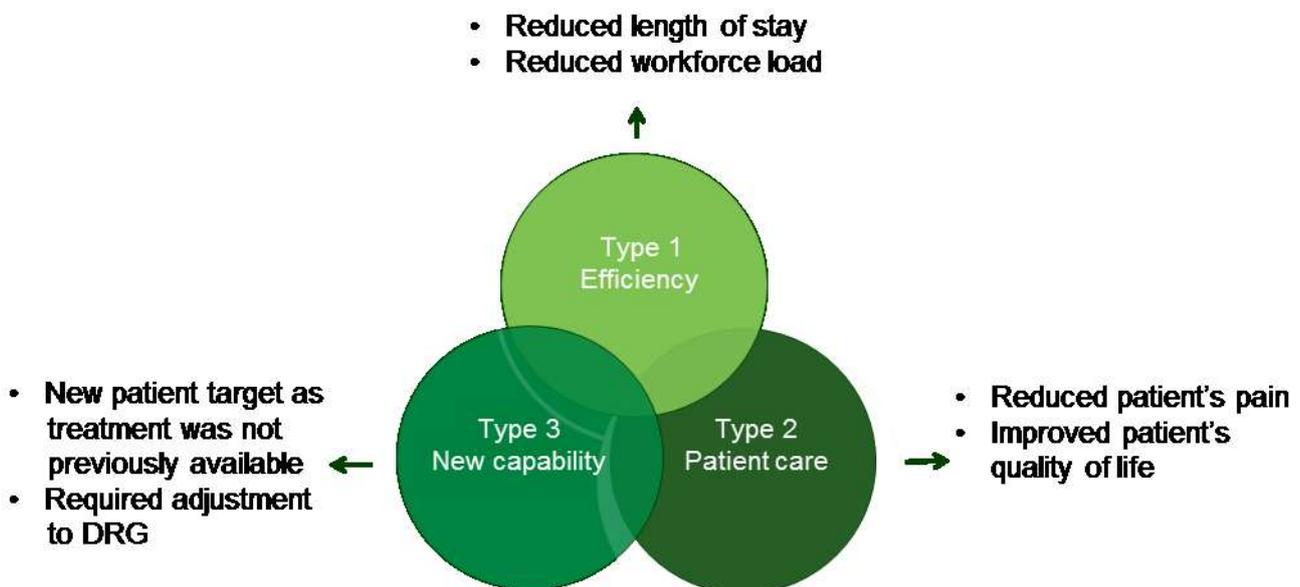
Health technologies include new medicines; diagnostics, devices, equipment and supplies; medical and surgical procedures; support systems; and organisational and managerial systems used in prevention, screening, diagnosis, treatment and rehabilitation.

As a result of the rapid spread of these technologies and associated service delivery models, changes may take place in the period between the collection of the costing data (e.g. 2012-13) and the period for which IHPA is pricing (e.g. 2015-16). These changes need to be identified and assessed by IHPA and accounted for in the national pricing model if necessary.

IHPA has identified three (3) types of new health technologies which are expected to impact to various degrees on public hospital services. Some of these impacts may already be captured in the NEP/NEC by the indexation methodology.

Figure 2 depicts the three types of health technologies and their likely impacts on public hospital services.

Figure 2: Types of new health technologies and their expected impacts



Type 1 – impacting on the efficiency of hospital service delivery

This type of new health technology is incremental and continual, and impacts on the efficiency of hospital service delivery. Expected impacts may include but are not limited to:

- reduced patient length of stay;
- reduced workforce load;
- reduced re-admissions.

- The expected impact of an improvement in efficiency is a reduction in the cost of delivering care for those hospitals using the new health technology. These improvements are being made incrementally and constantly, and the net benefit from the introduction of these improvements is reflected in the indexation rates used to determine the NEP/NEC.

Type 2 – impacting on the quality of patient care

This type of new health technology is incremental and continual, and impacts on the quality of outputs or outcomes. Expected impacts may include but are not limited to:

- reduced patient's pain;
- improvement in patient's quality of life; and
- reduced re-admissions.

An improvement in the quality of patient care may result in higher costs for those hospitals using the new health technology. These improvements in quality are being made incrementally and constantly and the net costs associated with their introductions are by and large taken account of in the indexation rates used to determine the NEP/NEC.

Therefore, type 1 and type 2 may have opposite impacts on the costs of providing public hospital services, but these are accounted for in average terms in determining the NEP/NEC.

Type 3 – new capability

This type of new health technology would provide major advances in capability such as the introduction of new procedures that enable treatments not available previously. This type of new health technology could include the introduction of services using new gene technology, nanotechnology, robotic-assisted surgery, image-guided surgery, new stem cell technology or organ or cell xenotransplantation. Expected impacts may include but are not limited to:

- new patients receiving care;
- existing DRG classification may not adequately reflect the new model of care; and
- changes to resource utilisation and costs associated with patient care.

This type of major new health technology may have a variety of impacts on the NEP/NEC, including significant cost impacts for services that may not fit appropriately into the underlying classification systems. Further study would be required to assess how best they could be accommodated within the current or modified classification systems.

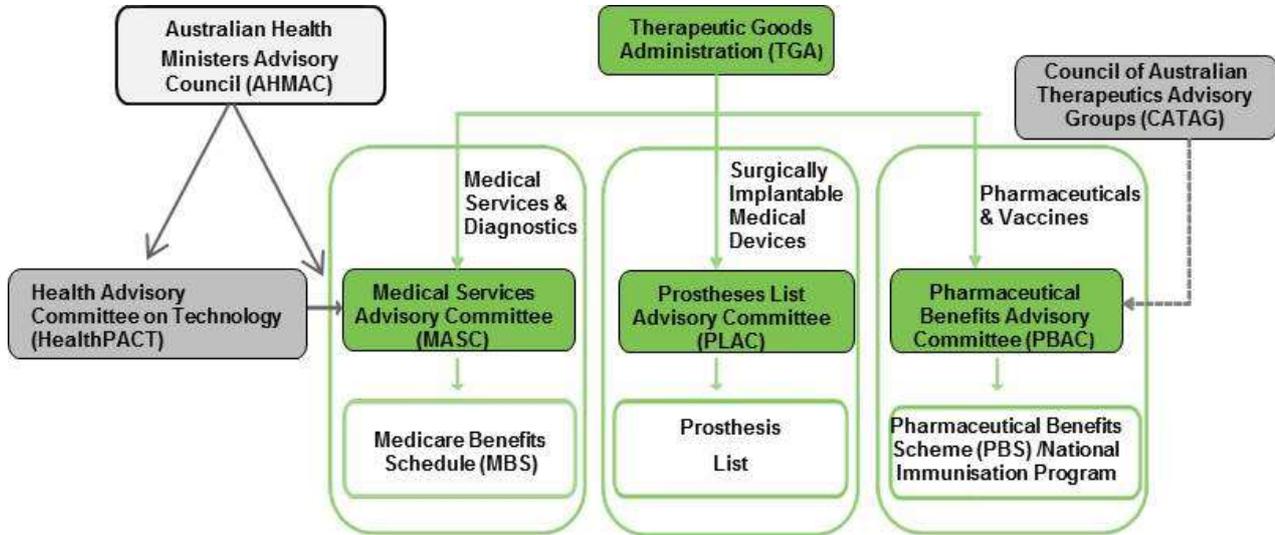
2.2 Government organisations involved in monitoring the impact of new health technologies in Australia

A number of Commonwealth and state and territory agencies and advisory groups exist to monitor new health technologies, regulate the market, and manage reimbursement and post-implementation management. These include:

- Health Policy Advisory Committee on Technology (HealthPACT)
- Medical Services Advisory Committee (MSAC)
- Pharmaceutical Benefits Advisory Committee (PBAC)
- Prostheses List Advisory Committee (PLAC)
- Therapeutic Goods Administration (TGA)
- Council of Australian Therapeutics Advisory Groups (CATAG)

Figure 3 describes how these bodies interact.

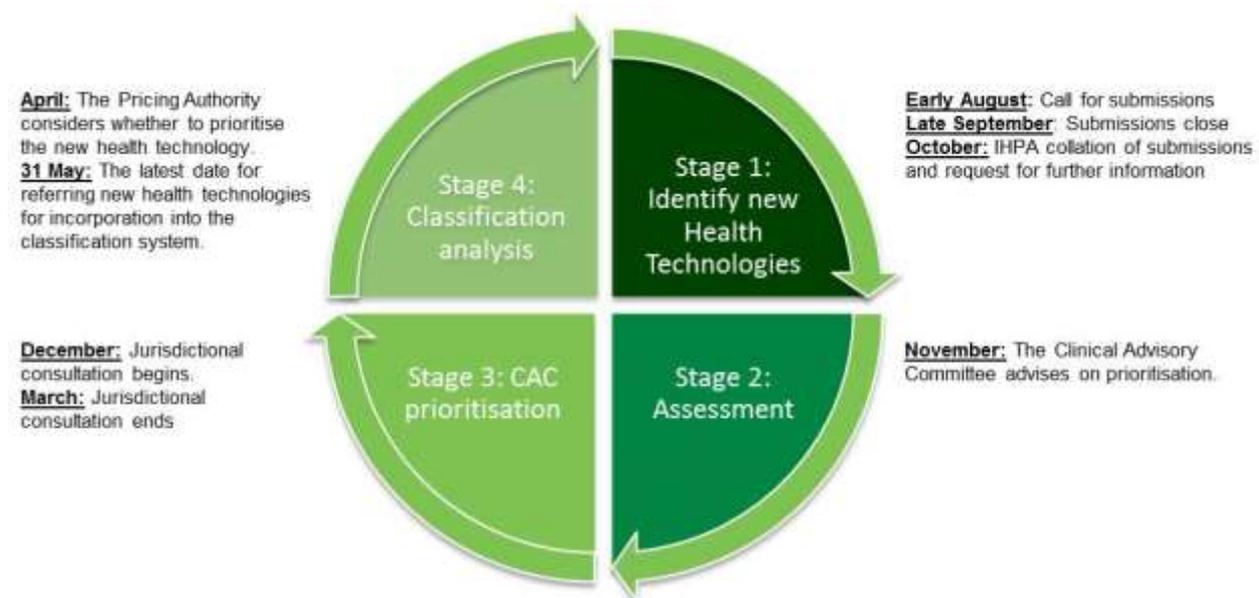
Figure 3: Organisations involved in monitoring the impact of new health technologies in Australia



3. New health technology prioritisation process

The key stages and dates regarding the identification, prioritisation and assessment of new health technologies are outlined below.

Figure 4: Prioritisation framework



Stage 1: Identify new health technologies

(1a) Annual submissions from government advisory committees and other stakeholders

IHPA will annually request reports from HealthPACT and MSAC on new health technologies; in particular for medical procedures and devices that are unlikely to be adequately accounted for in the national pricing model and which will be used within the public hospital system. IHPA will also consider submissions made under the Framework from other interested stakeholders, for example from the Medical Technology Association of Australia and manufacturers of medical devices.

The introduction of new pharmaceuticals in public hospitals can lower costs, improve the quality of patient care and lead to better overall health outcomes. For this reason IHPA has advised CATAG to maintain a watching brief on new high cost drugs (not covered by the Pharmaceutical Benefits Scheme). However, the administration of pharmaceuticals is not routinely coded for admitted patients and the costs are not disaggregated within the National Hospital Cost Data Collection.

This complicates the assessment of whether the drugs are accounted for in the national pricing model and limits the ability of IHPA to better account for them through classification development. IHPA will only consider submissions for drugs where CATAG is confident that they will have a material impact on the public hospital system.

Where the detail is available, IHPA will request the following information:

- description of the technology;
- uptake/implementation in Australia by state/territory and by year;
- details of the TGA approval;
- cost of the technology, average cost per episode of care;
- studies completed / planned including impact on service delivery, patient's quality of life, other evaluation, cost-effectiveness and cost-benefit analyses;
- international experience;
- implementation schedule; and
- details of any alternative model(s) of care, costs, and impacts on patients.

Where there is no TGA approval for the new health technology⁴, IHPA will assume that it is research related and no further analysis will occur (unless it is used by patients under the TGA Special Access Scheme).

The new health technologies must not be already funded by any other Commonwealth programs or research funding sources.

(1b) Advice from jurisdictions

States and territories are able to make submissions to assist IHPA in accounting for new health technologies prior to updated costing data being available. However, IHPA notes that jurisdictions have access to forums through which the incorporation of specific new health technologies into the classification system may be suggested and considered (such as the Diagnosis Related Group Technical Group and the International Classification of Diseases Technical Group).

Some states and territories already have existing technology assessment processes through which they may provide regular advice to IHPA if they wish.

(1c) Initial review of submissions

IHPA determines its initial shortlist of new health technologies for further investigation by CAC based on the following considerations:

- uptake – whether the technology is in use in Australian public hospitals or its expected uptake in Australian public hospitals; where uptake is expected to be small, classification development is a low priority;
- cost difference – the difference between the price weight for the most frequently mapped DRG and the technology's cost estimate; where the difference is small, classification development is a low priority;
- materiality – the total cost of the mapped DRGs and the number of patients;
- feasibility of classification development – diagnostic tests and pharmaceuticals will generally be excluded from consideration as they are not currently coded for admitted patients and cannot be accounted for without imposing an additional reporting burden on jurisdictions for uncertain benefit. IHPA also considers the maturity of the classification and whether classification development to account for the technology is

⁴ TGA approval is not required for new medical procedures, as they do not constitute therapeutic goods.

possible. For example, the Tier 2 non-admitted classification is clinic-based and does not differentiate between different technologies used in the clinic to treat patients.

Stage 2: CAC prioritisation

IHPA will seek advice from the CAC on which technologies should be progressed to Stage 3 to further investigate whether they are adequately accounted for in the classification system.

- CAC may also draw on the expertise of relevant clinical stakeholders when considering the new health technology, such as seeking the advice of clinical colleges.

Stage 3: Assessment

(3a) IHPA consults with jurisdictions on new health technology implementation

IHPA will consult with jurisdictions through its Jurisdictional Advisory Committee to confirm whether the new health technology is used across the jurisdictions and whether it is adequately accounted for in the national pricing model. IHPA will give jurisdictions (in writing):

- details of the new health technologies identified in Stage 2;
- an invitation to make a written submission to IHPA about the following within 45 days:
- take-up / implementation by hospital and by year;
- cost of the technology (may also include costing data such as average cost per episode of care);
- studies completed / planned including impact on service delivery, patient's quality of life, other evaluation, cost effectiveness analyses, cost-benefit analyses;
- implementation schedule; and
- details of changes to model(s) of care and associated impacts.
- where applicable, IHPA will request that the jurisdictions provide supporting evidence to assist the assessment at the national level.

(3b) IHPA reviews written submissions

Where required, IHPA may:

- request additional evidence (e.g. data, information, agreements, etc.) to clarify facts and ambiguities in the assessment process;
- consult further where required; and
- seek expert input / advice.

To support the timeliness of the investigation, additional information will generally be requested to be provided within 45 days after receiving the written request.

Stage 4: Classification analysis

(4a) Conduct additional work

Based on the recommendations of the CAC and advice from the jurisdictions, IHPA will conduct additional analysis to assess the impact on classification systems.

Recommendations for AR-DRG change are subject to clinical review and data impact analysis which will be managed by the DRG Technical Group. Specialty clinical reference groups will be called on as required to provide clinical advice on requests for changes to the AR-DRG.

IHPA will be mindful not to expand the number of AR-DRGs unnecessarily and will seek to balance additions to the list of AR-DRGs with reductions in under-utilised DRGs.

(4b) Pricing Authority approves the recommendations

Any classification changes that IHPA proposes will then be presented to the Pricing Authority for approval.

The Pricing Authority will refer prioritised new health technologies to the Australian Consortium for Classification Development (for refinement of the procedural classification) or to the body responsible for classification development by 31 May.

This date coincides with the closing of the public submission period regarding the classification used for admitted acute patients, which is the AR-DRG system, the ICD-10-AM and the Australian Classification of Health Interventions (ACHI). IHPA has identified the admitted acute setting as the most relevant to the majority of the new health technologies IHPA will receive under the Framework. Referral of a technology for classification development does not constitute a recommendation for supplementary funding.

Subsequently, IHPA will advise those who have made submissions on the outcome of the assessment process.

Independent Hospital Pricing Authority

**Level 6, 1 Oxford Street
Sydney NSW 2000**

**Phone 02 8215 1100
Email enquiries.ihpa@ihpa.gov.au
Twitter [@IHPAnews](https://twitter.com/IHPAnews)**

www.ihpa.gov.au