Health Technology Assessment Policy and Methods Review

Australian market authorisation, funding and assessment pathways and timelines

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1 Contents

2 Introduction

2.1 Purpose and structure of paper

The purpose of this paper is to provide an overview of market authorisation, assessment pathways, funding pathways and timeframes for health technologies that are in the scope of the terms of reference for the Health Technology Assessment (HTA) Policy and Methods Review (HTA Review).

The technologies in scope for the HTA Review as identified in the terms of reference[1] are as follows:

1. all medicines and vaccines
2. highly specialised therapies (such as cell and gene therapies)
3. other health technologies (for example a pathology test or an imaging technology) that improve health outcomes associated with the technologies defined in points 1 and 2, and
4. foreseeable changes in healthcare that may influence the need, accessibility, effectiveness or cost-effectiveness of new health technologies.

This paper details assessment pathways for the health technologies funded through the following schemes and arrangements:

1. Pharmaceutical Benefits Scheme (PBS)
2. National Immunisation Program (NIP)
3. Life Saving Drugs Program (LSDP)
4. Medicare Benefits Schedule (MBS)
5. PBS MBS codependent technologies
6. National Health Reform Agreement (NHRA) addendum 2020–25 High cost, Highly Specialised Therapies (HST) arrangements, and
7. National Blood Arrangements (NBA)

This paper details the steps necessary for health technologies to gain market authorisation and then funding under the above schemes, timeframes for each of the steps and relevant recent examples of technologies that have been funded or subsidised in Australia. This paper also provides an overview of feedback from stakeholders specific to the different pathways heard through the Standing Committee on Health, Aged Care, and Sport (Standing Committee) Inquiry into approval processes for new drugs and novel medical technologies (Inquiry).

This paper does not consider in detail the methodologies that are used to assess health technologies, or issues raised about them through the Inquiry, or funding and assessment pathways used outside of Australia. These matters have been considered across other papers developed to inform the HTA Review.

2.2 Overview of the pathway from development to public funding

Once a new health technology is developed, clinical and non-clinical studies need to be undertaken to establish that it is safe and effective. Once these studies are sufficiently progressed, the companies that supply these technologies will make decisions to seek market authorisation and public funding in the countries that they would like to supply the health technology in.

[1] Department of Health and Aged Care, HTA Review terms of reference, https://www.health.gov.au/resources/publications/health-technology-assessment-policy-and-methods-review-terms-of-reference

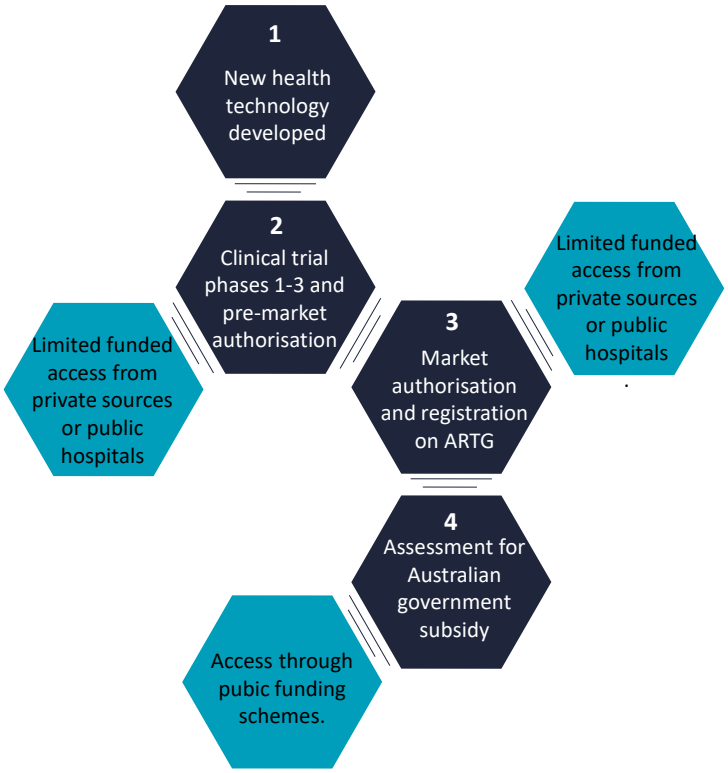
Before health technologies can be made broadly accessible to Australians, companies are usually required to seek authorisation from the Therapeutic Goods Administration (TGA) for them to be marketed, and approval of funding through one of Australia's subsidy or funding schemes, or under state and territory funding arrangements. Manufacturers or suppliers of health technologies are responsible for making applications for market authorisation and funding as they hold the information that is necessary to support these decisions (such as information from clinical and non-clinical studies). Applications for market authorisation are assessed by the TGA. Applications for public funding of health technologies are assessed by advisory bodies such as the Pharmaceutical Benefits Advisory Committee (PBAC) and the Medical Services Advisory Committee (MSAC) or state and individual hospital HTA bodies. After health technologies are assessed, arrangements for funding need to be agreed between funders and companies (such as price, circumstances under which the health technology is funded, and management of risk) before funding can be made available to Australians.

Responsibility for health funding is shared between the Commonwealth, state and territory governments (Figure 2). The Australian Government is directly responsible for funding medical services that are listed on the MBS, and health technologies that are subsidised and funded through the PBS, LSDP and NIP (Figure 3). The Commonwealth, state and territory governments are jointly responsible for funding public hospital treatments, including treatments with high cost HSTs (Figure 3).

Prior to market authorisation and funding, Australians are able to obtain limited access to some health technologies through the TGA's special access scheme and authorised prescriber arrangements, personal importation scheme arrangements, the medical treatment overseas program, clinical trials and company medicines access programs.[2]

[2] TGA, Unapproved Therapeutic Goods, https://www.tga.gov.au/products/unapproved-therapeutic-goods.

Figure 1: Overview – typical pathway from health technology development to access for Australians



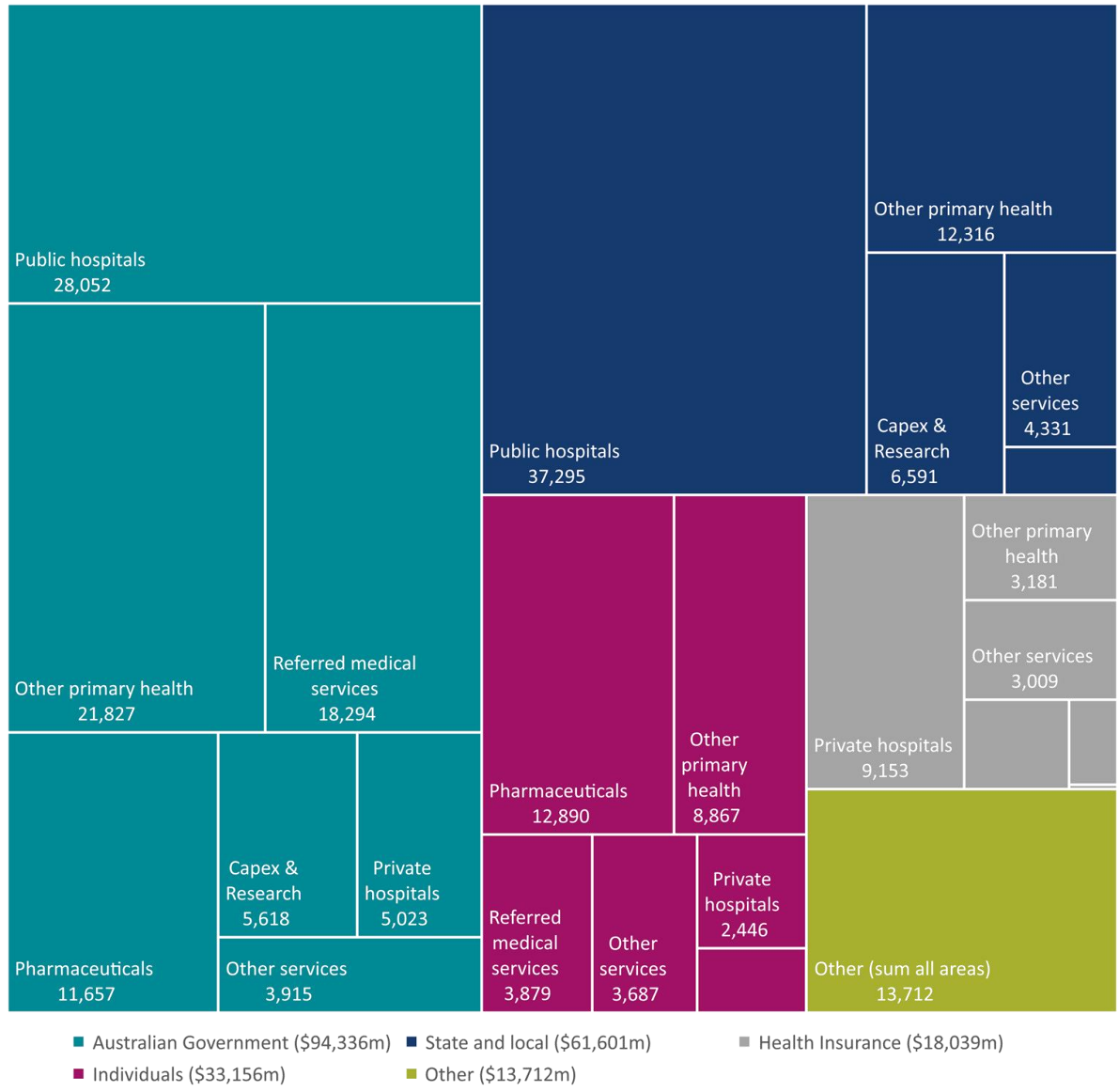
2.3 Assessment and funding of health technologies

Healthcare in Australia is delivered through a combination of public and private facilities, and is funded by all levels of government, as well as private health insurers and individual co-payments.

Australia's total health expenditure in 2020–21 was estimated by the Australian Institute of Health and Welfare (AIHW) to be $221 billion across Commonwealth, state and territory governments, private health insurance providers, individuals, and other non-government funders (Figure 2).[3]

[3] Australian Institute of Health and Welfare, https://www.aihw.gov.au/getmedia/dfcb6ed2-dfcd-42e8-8c1e-75f5f7ccbfa7/AIHW-HWE-89-HEA-2020-21-data-tables.xls.aspx

Figure 2: Total health expenditure by area of expenditure and source of funds 2020–21 ($m)



Note: 'Other' includes health spending funded by non-government sources

The pathways for assessment and funding of medicines, vaccines, highly specialised therapies, medical services, and blood products are set out in Figure 3.

Medicines

In Australia, medicines are funded by the Commonwealth through schemes such as the PBS and LSDP, and jointly funded by the Commonwealth, state and territory governments through public hospital funding arrangements. They are also funded privately through health insurance, patient co-payments and other sources, for instance the arrangements put in place by companies relating to clinical trials and the compassionate access of medicines.

Medicines that are subsidised through the PBS are supplied in community pharmacies, private hospitals, and public hospitals (limited to outpatients, day-admitted patients and patients upon discharge). To obtain access to a medicine subsidised through the PBS, in most circumstances, patients must pay a co-payment of $31.60 or $7.70 for concession cardholders as of 2024. The PBS patient co-payment amounts are updated on 1 January each year, in line with changes to Consumer

Price Index[4]. The remaining cost of the medicine is subsidised through the PBS. PBS subsidy is solely funded by the Commonwealth.

For a medicine to be subsidised through the PBS, a sponsor (a person or company responsible for import of or manufacturing the medicine) must provide a submission to the PBAC for it to be listed on the PBS. The PBAC must then recommend the listing of the medicine. When making a recommendation to list a medicine on the PBS, the PBAC must consider the effectiveness and cost of the medicine compared to alternative therapies. If the medicine costs more than alternative therapies, the PBAC must be satisfied that it provides a significant improvement in efficacy or reduction in toxicity when compared to the alternative therapies. Post-recommendation steps must then be successfully completed for the medicine to be subsidised through the PBS.

Processes for assessment and funding of medicines through the PBS and timeframes are described in Section 4.

Vaccines

In Australia, the procurement of vaccines is predominantly funded by the Commonwealth through the NIP. State and territory health departments coordinate and oversee immunisation service delivery and vaccine distribution. Vaccines are delivered through a range of health services including general practices, local council immunisation clinics, community health centres, Aboriginal Medical Services, pharmacies and schools (for adolescents).

The PBAC assesses vaccines for subsidy under the NIP or PBS. Before seeking listing on the PBS or NIP, sponsors are required to seek advice from the Australian Technical Advisory Group on Immunisation (ATAGI). One of the major roles of ATAGI is to provide the PBAC with technical advice in relation to the consideration of listing a vaccine on the NIP or PBS.

Processes for assessment and funding of vaccines for listing on the NIP and timeframes are described in Section 5.

Medicines for ultra-rare diseases

Medicines for rare and ultra-rare diseases are subsidised through the PBS. Where the PBAC assesses that a medicine for an ultra-rare disease is clinically effective but not cost effective, it may be eligible for funding by the Commonwealth through the LSDP.

Sponsors are required to seek consideration by the PBAC before submitting an application for listing on the LSDP. There are several specific criteria for medicines to be funded through the LSDP that must be addressed in the application for funding[5]. Applications for funding are assessed by the LSDP Expert Panel.

Processes for assessment and funding of medicines through the LSDP and timeframes are described in Section 6.

Health services (test and procedures)

In Australia, tests and procedures are funded through the MBS and under public hospital funding arrangements. Tests and procedures can also be privately funded through private health insurance

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[4] Cheaper medicines, benefits and cost savings, https://www.health.gov.au/cheaper-medicines/benefits-and-cost-savings

[5] Life Saving Drugs Program medicine eligibility criteria, https://www.health.gov.au/our-work/life-saving-drugs-program/for-medicine-sponsors#medicine-eligibility-criteria

arrangements or paid for directly by individual patients or by other sources. Tests and procedures are delivered through a range of health services.

MSAC appraises new medical services proposed for public funding, and for private and outpatient services under the MBS, and provides advice to the Australian Government on whether a new medical service should be publicly funded (and if so, under what circumstances). When deciding whether to support public funding of a test or procedure, MSAC undertakes an assessment of comparative safety, clinical effectiveness, cost-effectiveness, and total cost of the test or procedure, using the best available evidence.

Processes for MBS listing, and PBS MBS codependent listings and timeframes are described in sections 7 and 8.

Highly specialised therapies

Highly specialised therapies (HSTs) such as gene therapies can be funded by the Commonwealth through the PBS. High cost, HSTs that are delivered in public hospitals (which can include gene and gene-modified cell therapies) are jointly funded by the Commonwealth, state and territory governments under the high cost, HST arrangements in the NHRA addendum 2020–25[6].

Products that fulfill the high cost, HST criteria under the NHRA are appraised by MSAC. When deciding whether to support public funding of a high cost, HST, MSAC undertakes an assessment of comparative safety, clinical effectiveness, cost-effectiveness, and total cost of the therapy, using the best available evidence.

Processes for assessment and funding of HSTs and timeframes are described in Section 9.

Blood products, blood-related products and blood-related services

Blood products, blood-related products (such as blood plasma) and blood-related services are jointly funded by the Commonwealth, state and territory governments.

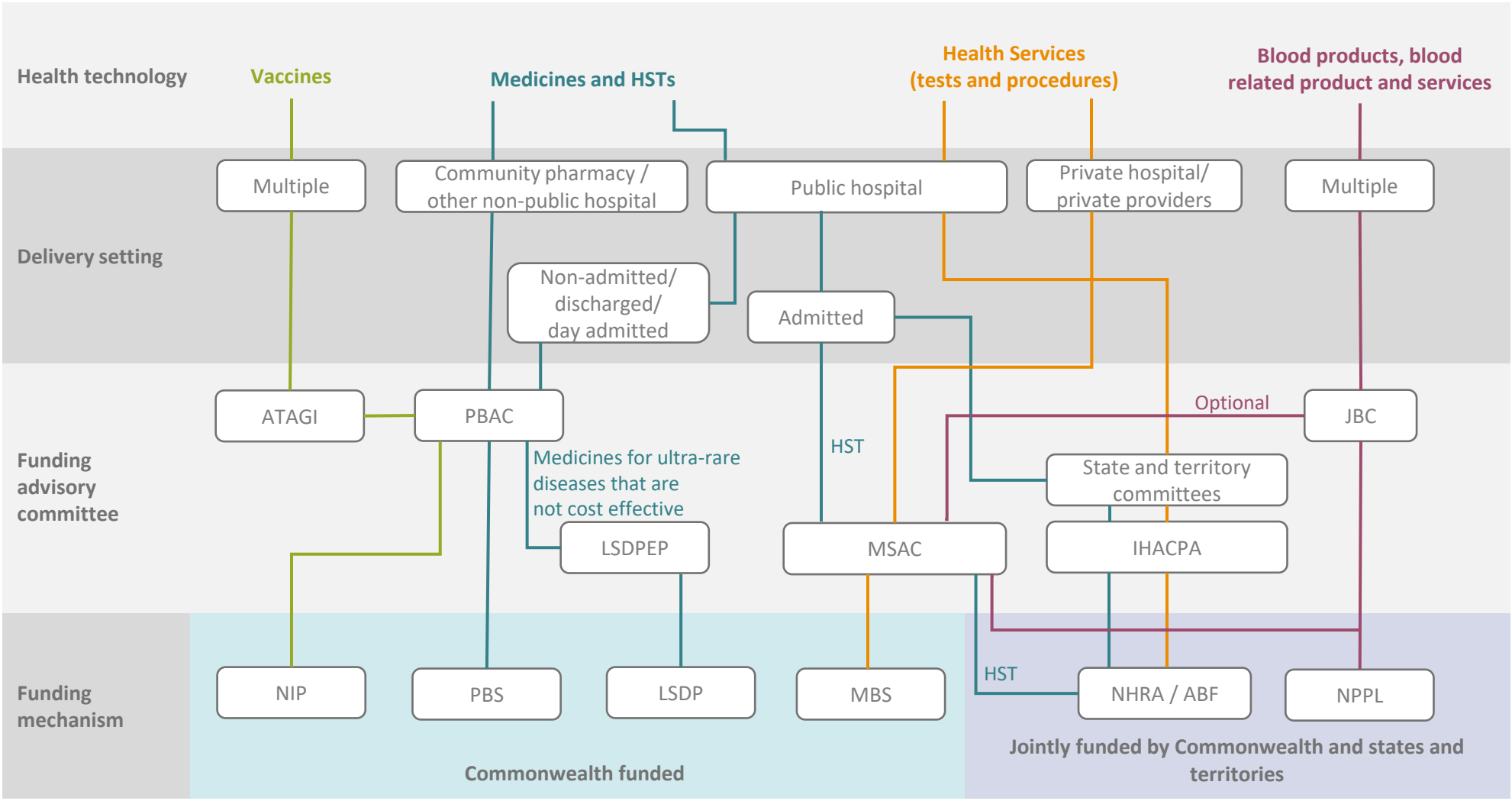
They are considered by the Jurisdictional Blood Committee (JBC) which may refer the product to MSAC for evaluation of comparative clinical and cost-effectiveness. If MSAC supports funding a product, the NBA will then seek JBC's agreement to supply before a funding decision is made by all health ministers to include the product on the National Product Price List[7].

Processes for the assessment and funding of blood products and timeframes are set out in Section 10.

[6] National Health Reform Agreement addendum 2020-2025 https://www.health.gov.au/our-work/2020-25-national-health-reform-agreement-nhra

[7] National Product Price List, https://blood.gov.au/national-product-price-list

Figure 3. Funding pathways for Commonwealth funded health technologies



Acronyms: ABF = Activity Based Funding; ATAGI = Australian Technical Advisory Group on Immunisation; IHACPA = Independent Health and Aged Care Pricing Authority; JBC = Jurisdictional Blood Committee; LSDPEP = Life Saving Drugs Program Expert Panel; LSDP = Life Saving Drugs Program; MBS = Medicare Benefits Schedule; MSAC = Medical Services Advisory Committee; NIP = National Immunisation Program; PBAC = Pharmaceutical Benefits Advisory Committee; PBS = Pharmaceutical Benefits Scheme; NHRA = National Health Reform Agreement; NPPL = National Product Price List.

3 Market authorisation for therapeutic goods in Australia

3.1 Background

Market authorisation is the approval needed to supply a therapeutic good in Australia. For most technologies in scope for the HTA Review, market authorisation involves it being listed on the Australian Register of Therapeutic Goods (ARTG). Market authorisation is a different HTA process to that which is undertaken for a product to be approved for government funding.

To sell a therapeutic good in Australia, the supplier (company or individual) must either have their own ARTG entry for that therapeutic good or have a retail arrangement with a sponsor that does, or be exempt under section 18 or 19 of the *Therapeutic Goods Act 1989 (Cth)* (TG Act).

The TG Act and associated regulations and orders set out the requirements for therapeutic goods to be included on the ARTG, including advertising, labelling and product appearance. Some provisions such as the scheduling of substances are covered by the TG Act and implemented by states and territories.[8]

3.1.1 What is a therapeutic good?

Under the TG Act, therapeutic goods are broadly defined as products for use in humans in connection with:

- preventing, diagnosing, curing or alleviating a disease, ailment, defect or injury
- influencing, inhibiting or modifying a physiological process
- testing the susceptibility of a person to a disease or ailment
- influencing, controlling or preventing conception, and
- testing for pregnancy.

This includes things that are:

- used as an ingredient or component in the manufacture of therapeutic goods
- used to replace or modify parts of the anatomy.

3.1.2 What is the role of the TGA in regulating therapeutic goods?

The TGA is Australia's regulatory authority responsible for regulating the supply, import, export, manufacturing and advertising of therapeutic goods. The TGA has primary responsibility for assuring the quality, safety and efficacy of all products that make therapeutic claims.

The TGA regulates therapeutic goods through:

- pre-market assessment
- post-market monitoring and enforcement of standards, and
- licensing of Australian manufacturers and verifying overseas manufacturers' compliance with the same standards as their Australian counterparts.[9]

Broadly, there are 4 main categories of therapeutic goods on the ARTG:

[8] TGA, TGA legislation, https://www.tga.gov.au/about-tga/legislation
[9] TGA, How TGA regulates, https://www.tga.gov.au/how-we-regulate/advertising/legal-framework/act-regulations-and-code-offences/how-tga-regulates

- medicines
- biologicals
- medical devices
- other therapeutic goods.

The TGA has different classifications for the therapeutic goods in these categories and regulates each therapeutic good according to its level of risk.

3.1.3 How the TGA assesses therapeutic goods

The TGA takes a tiered, risk management approach to regulation based on an assessment of the risks compared to the benefits of the therapeutic products. When assessing the risk-benefit balance for higher risk therapeutic goods such as prescription medicines, medical devices and class 3 and 4 biologicals, the TGA evaluates data provided by the applicant on the therapeutic good's quality, safety and performance for the proposed use. The TGA's approval of a therapeutic good for market authorisation is based on its assessment that the benefits of the product outweigh the risks.

The level of TGA regulatory control increases with the level of risk the therapeutic good can pose, which also determines how consumers can access these products.

A product's 'risk' is determined by a number of factors, including whether:

- the product contains a substance scheduled in the Poisons Standard
- the product's use can result in significant adverse effects
- the product is used to treat life-threatening or very serious illnesses
- there may be any adverse effects from prolonged use or inappropriate self-medication.[10]

The TGA employs medical officers who have medical registration with the Australian Health Practitioner Regulation Agency, scientists, pharmacists and other highly qualified and experienced staff to ensure market authorisation decisions are made with the appropriate expertise. The TGA also has access to independent expert advice via a number of advisory committees, including clinical and scientific experts.[11]

3.2 Market approval process for medicines

3.2.1 Categories and definitions

The TGA defines medicines as 'therapeutic goods (other than biologicals) that are represented to achieve, or are likely to achieve, their principal intended action by pharmacological, chemical, immunological or metabolic means in or on the body of a human; and any other therapeutic goods declared by the Secretary, for the purpose of the definition of a therapeutic device, not to be therapeutic devices'. [12]

Medicines are further broken down into the following types:

- prescription medicines
- over-the-counter (OTC) medicines, and
- complementary medicines.

Medicines 'registered' on the ARTG are higher risk medicines and have more rigorous controls placed on them relative to medicines 'listed' on the ARTG that carry lower risk.

[10] TGA, Risk management approach, https://www.tga.gov.au/about-work-tga-risk-management-approach
[11] TGA, TGA regulatory framework, https://www.tga.gov.au/tga-regulatory-framework
[12] TGA, Acronyms and glossary, https://www.tga.gov.au/resources/acronyms-and-glossary-terms

Registered medicines are always evaluated for efficacy (the extent to which they have the ability to bring about their intended effects). Most 'listed' medicines are not assessed for efficacy.

All prescription medicines are ‘registered’ medicines. Most OTC medicines are considered lower risk and are ‘listed’ on the ARTG.

Table 1. TGA risk-based approach to regulation and assessment of medicines

Attribute	Listed	Assessed listed	Registered
ARTG/AUST number	AUST L	AUST L(A)	AUST R
Pre-market efficacy assessment	No	Yes	Yes
Ingredients	From a list of pre-approved ingredients only	From a list of pre-approved ingredients only	Ingredients are assessed pre-market
Indications (conditions the medicine says it will treat)	From a list of pre-approved conditions only	Conditions are assessed pre-market	Conditions are assessed pre-market
Subject to post-market compliance reviews	Yes	Yes	No
Subject to post-market surveillance (e.g. adverse event monitoring)	Yes	Yes	Yes
Available off-the-shelf	Yes	Yes	Some
Need for a prescription from a health professional	No	No	Some
Able to use 'TGA assessed' claim	No	Yes	Yes, for registered complementary medicines
Type of medicines included	Some OTC and most complementary medicines		All prescription medicines, most OTCs and few complementary

3.2.2 What assessment is made and what information is used to make the assessment?

For the TGA to assess the evidence of the risks compared to the benefits of a medicine, applications for registration are made in the form of a dossier that contains necessary data to demonstrate the quality, safety and efficacy of the medicine. The dossier is based on a ‘common technical document’ (CTD) which was developed by the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) and adopted by the TGA in 2004. The CTD requires information and data in the dossier to be grouped into 5 modules as follows:

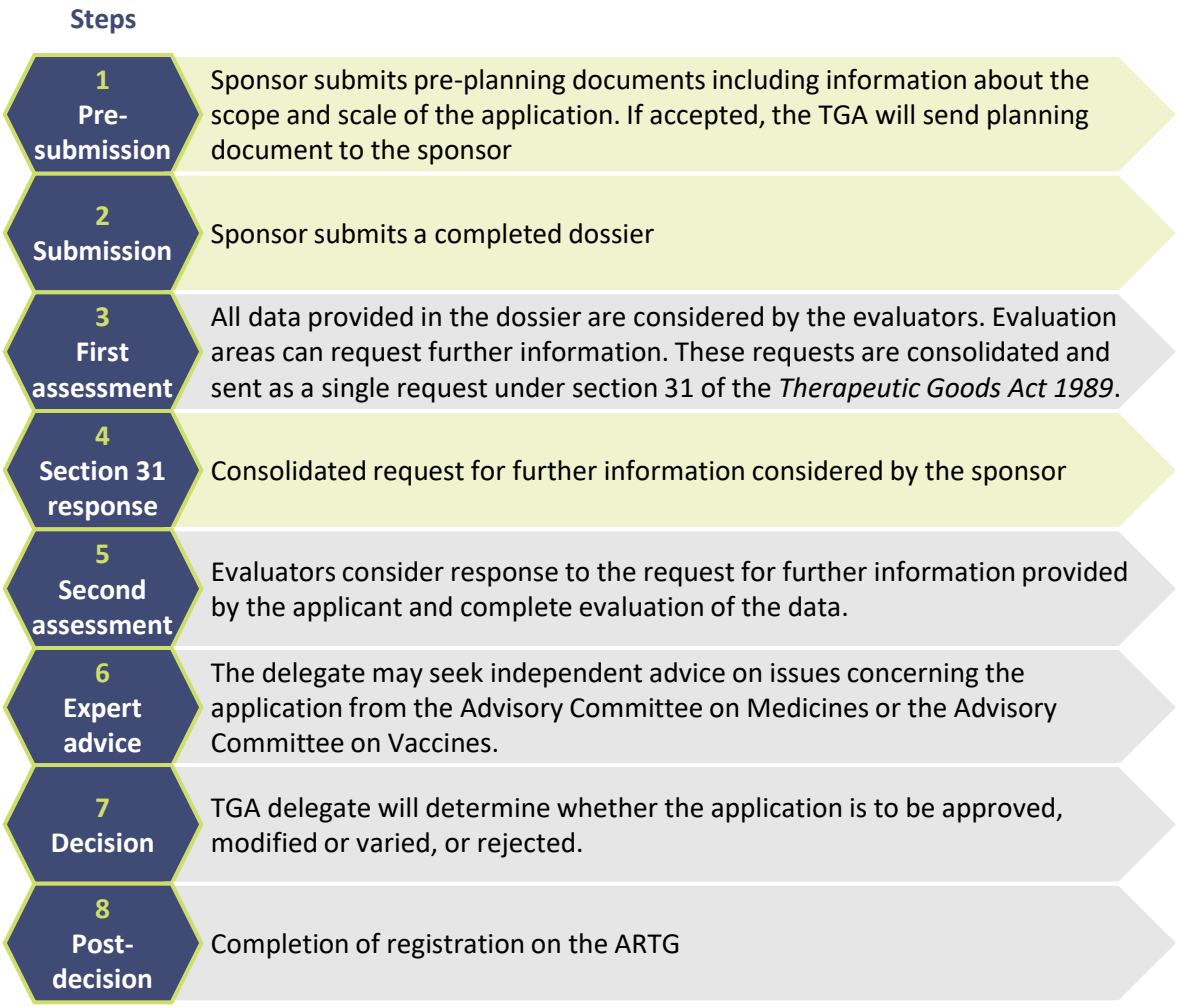
1. administrative information and prescribing information for Australia
2. common technical document summaries (summarises information in modules 3, 4 and 5)
3. quality
4. safety (non-clinical study reports containing pharmaco-toxicological data), and
5. efficacy (clinical study reports containing clinical data relevant to the application).

3.2.3 Pathways from application to approval

There are 3 pathways the TGA can use to assess prescription medicines: the standard pathway, the priority review pathway and the provisional approval pathway. Priority review and provisional

approval are pathways that fast-track approval of new prescription medicines or new uses, making them available to patients sooner than they would be if they were assessed under the standard pathway.

Figure 4: Medicine standard pathway steps



Priority registration

The standard prescription medicines registration process consists of 8 phases as outlined in Figure 4. The priority registration process has the same 8 phases but with some modifications to reduce timeframes:

- The priority registration process has greater flexibility between phases. Milestones are dynamic which allows the application to progress to the next phase more quickly.
- Sponsors receive rolling questions during the evaluation phase. If sponsors respond to all rolling questions by the end of the first round of evaluation the evaluation can proceed to the next phase.
- There are more flexible arrangements for accessing expert advice.[13]

[13] TGA, Priority registration process, https://www.tga.gov.au/resources/publication/publications/priority-registration-process

The priority review pathway target timeframe of 150 working days is up to 3 months shorter than the standard prescription medicines registration process which has a target timeframe of 220 working days.

The flexible approach taken on priority applications is much more resource intensive than the standard pathway. This is not a feasible option for all medicines, so the pathway is reserved only for medicines that treat serious and life-threatening conditions.

Eligibility criteria for medicine priority registration

1. New prescription medicine or new indication for existing medicine.
2. The indication of the medicine is the treatment, prevention or diagnosis of a serious condition.
3. Either:
    - no therapeutic good intended to treat, prevent or diagnose the condition is included on the register, or
    - there is substantial evidence demonstrating that the medicine provides a significant improvement in efficacy or safety of the treatment prevention or diagnosis of the condition compared to those goods.
4. There is substantial evidence demonstrating the medicine provides a major therapeutic advance.[14]

Sponsors must apply for a priority determination prior to making a submission. The TGA recommends that this priority determination application is submitted 3 months before submission for registration.

Provisional approval

Under the standard pathway, a medicine is not available until after all clinical trials have been completed. The provisional approval pathway allows sponsors to apply for time-limited provisional registration on the ARTG on the basis of preliminary clinical data. This makes the medicine available on the market for a limited period while the pharmaceutical company completes final clinical trials. This can enable authorisation of a medicine up to 2 years earlier than via the standard pathway.

The provisional approval pathway consists of 5 steps:

1. provisional determination
2. pre-market registration
3. the provisional registration period
4. extension of provisional registration, and
5. transition to full registration.[15]

For a medicine to be approved through the provisional pathway, the TGA must be assured that the benefit to patients from the treatment outweighs the risks of waiting for the data normally required.

Eligibility criteria for medicine provisional approval

1. New prescription medicine or new indication for existing medicine.
2. The indication of the medicine is the treatment, prevention or diagnosis of a serious condition.
3. Either:

[14] TGA, Priority review pathway, https://www.tga.gov.au/priority-review-pathway-prescription-medicines
[15] TGA Provisional approval pathway, https://www.tga.gov.au/provisional-approval-pathway-prescription-medicines

- no therapeutic good intended to treat, prevent or diagnose the condition is included in the register, or
- there is preliminary clinical data demonstrating that the medicine provides a significant improvement in efficacy or safety of the treatment prevention or diagnosis of the condition compared to those goods.

4. Preliminary clinical data demonstrating that the medicine is likely to provide a major therapeutic advance.
5. Applicant has provided sufficient evidence of a plan to submit comprehensive clinical data.[16]

3.3 Approval process for biologicals

3.3.1 Categories and definitions

The TG Act sets the definition of biological therapeutic goods. Under the TG Act, specific therapeutic goods may be declared to either be or not be biologicals irrespective of whether they meet the definition, for the purposes of regulation and the ARTG.

Once approved, biologicals are included on the ARTG.

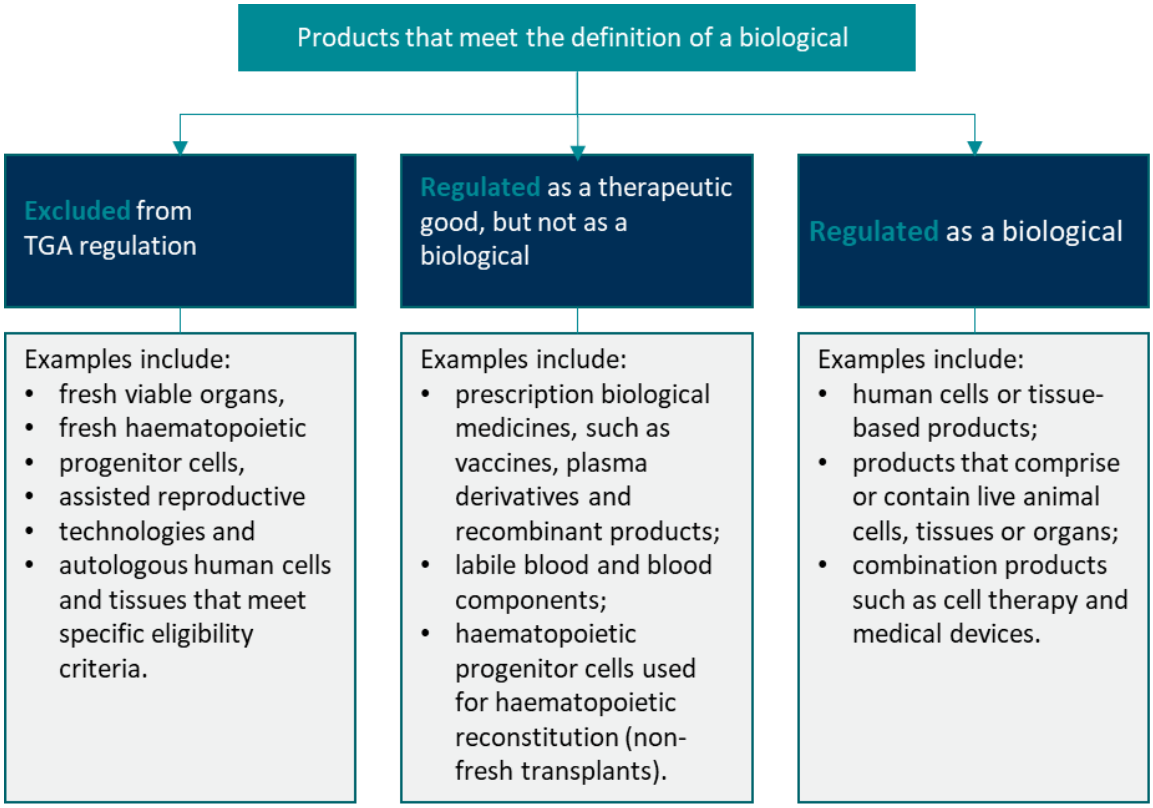
Therapeutic Goods Act 1989 (Cth), 32A meaning of biological

1. Subject to subsection (3), a ***biological*** is a thing that:
   a. either comprises, contains or is derived from human cells or human tissues; or
   b. is specified under subsection (2); and
2. is represented in any way to be, or is, whether because of the way in which it is presented or for any other reason, likely to be taken to be:
   a. for use in the treatment or prevention of a disease, ailment, defect or injury affecting persons; or
   b. for use in making a medical diagnosis of the condition of a person; or
   c. for use in influencing, inhibiting or modifying a physiological process in persons; or
   d. for use in testing the susceptibility of persons to a disease or ailment; or
   e. for use in the replacement or modification of parts of the anatomy in persons.
3. The Secretary may, by legislative instrument, specify things for the purposes of subparagraph (1)(a)(ii).
4. The Secretary may, by legislative instrument, determine that a specified thing is not a biological for the purposes of this Act

The TGA regulates products that meet the definition of a biological in 3 ways as shown in Figure 5.

[16] TGA Provisional approval pathway, https://www.tga.gov.au/how-we-regulate/supply-therapeutic-good/supply-prescription-medicine/application-process/provisional-approval-pathway

Figure 5: Regulation of products that meet the definition of a biological[17]



As with the other categories of therapeutic goods regulated by the TGA, the regulatory framework for biologicals applies different levels of regulation to products based on the risks associated with their use. It is designed to be flexible enough to accommodate emerging technologies.[18]

The TGA has further classified products regulated as a biological according to the level of risk to patients associated with their use. This will be influenced by the level of processing applied to the biological and the intended use of the product, but also the level of external governance and clinical oversight. Classification of biologicals is based on the following:

Classification of biologicals:

- Class 1 biologicals are low risk and have an appropriate level of external governance and clinical oversight.
- Class 2 biologicals are low risk.
- Class 3 biologicals are medium risk.
- Class 4 biologicals are high risk. [19]

A sponsor must determine the class the biological before they can apply to the TGA for the biological to be included on the ARTG.

Class 1 biologicals will be included on the ARTG, following a declaration of compliance. However, they do not require manufacturers to hold a Good Manufacturing Practice (GMP) licence or certificate, and do not require pre-market assessment of supporting data. [19]

[17] TGA, Regulated biological, https://www.tga.gov.au/resources/resource/guidance/what-regulated-biological
[18] TGA, Regulatory framework biologicals, https://www.tga.gov.au/regulatory-framework-biologicals
[19] TGA, Classification of biologicals, https://www.tga.gov.au/resources/resource/guidance/classification-biologicals

Class 1 and Class 4 biologicals must be mentioned in Schedule 16 of the *Therapeutic Goods Regulations 1990*.

3.3.2 What assessment is made and what information is used to make the assessment?

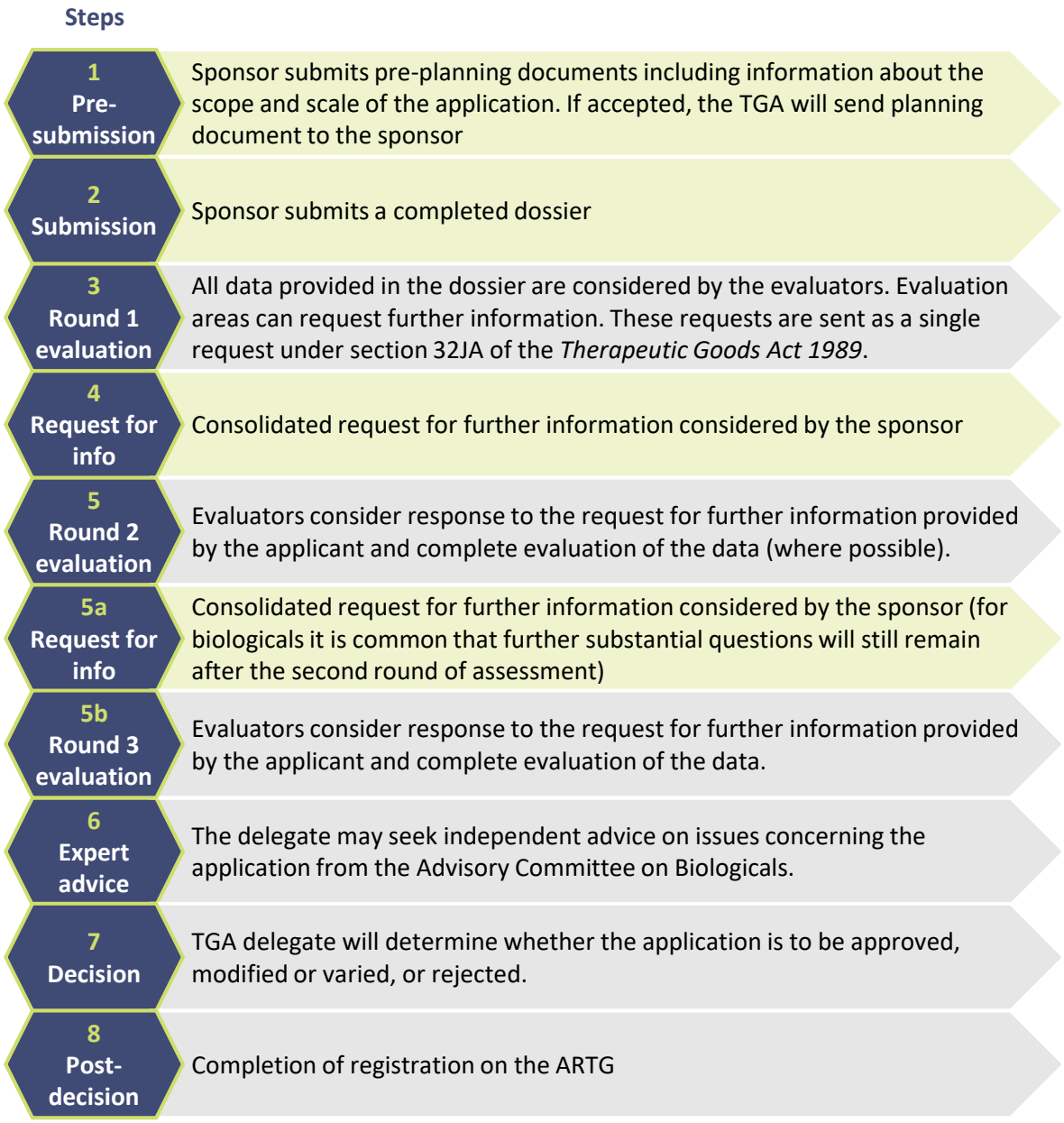
Applications for registrations of biological goods are made in the form of a dossier that contains necessary data to demonstrate its quality, safety and efficacy. The information required depends on the class of biological. The structure of the dossier for biologicals is similar to the dossier for medicines. It comprises:

1. introduction
2. scope
3. risk management
4. quality and manufacturing aspects
5. intended use (Class 2 biologicals only)
6. non-clinical development – fundamental biological, pharmacological and toxicological information (Class 3 and 4 biologicals only), and
7. clinical development – information from clinical development studies (Class 3 and 4 biologicals only)

3.3.3 Pathways from application to approval

The steps for inclusion of class 2, 3 and 4 biologicals on the ARTG are similar to the steps described in the registration of prescription medicines shown in Figure 4. However, there is an additional step to enable a further request for information from the sponsor and an additional round of evaluation to assess further information that can be used during the assessment if required.

Figure 6. Biological standard pathway steps – class 2, 3 & 4



Priority inclusion pathway

As with the pathway for registering prescription medicines, biologicals have a priority pathway that follows the same principles and method to fast-track access to life-saving biologicals.[20]

The priority inclusion pathway also consists of 8 phases. However, similar to the priority pathway for prescription medicines, the priority pathway for biologicals includes modifications to reduce timeframes:

- The priority inclusion pathway has greater flexibility between phases, which allows the application to progress to the next phase more quickly.

[20] TGA, Biologicals priority applicant determination, https://www.tga.gov.au/resources/resource/guidance/priority-inclusion-process-guidance-sponsors-biologicals-priority-applicant-determination

- The sponsor will receive rolling questions during the evaluation phase. If they can respond to all rolling questions by the end of the first round of evaluation a stop clock will not be applied, and the evaluation can proceed to the next phase.
- There are more flexible arrangements for accessing expert advice.

Eligibility criteria for priority pathway for a biological

1. New biological or an existing biological that has a new intended use or therapeutic indication.
2. The biological is indicated for the treatment, prevention or diagnosis of a life threatening or seriously debilitating condition.
3. Either:
    - no therapeutic good intended to treat, prevent or diagnose the condition is included in the register; or
    - there is substantial evidence demonstrating that the biological provides a significant improvement in efficacy or safety of the treatment prevention or diagnosis of the condition compared to those goods.
4. There is substantial evidence demonstrating that the biological provides a major therapeutic advance.[21]

3.4 Approval process for medical devices

Medical devices are defined under section 41BD of the TG Act. There are further definitions under the *Therapeutic Goods (Medical Devices – Specified Articles) Instrument 2020*. Therapeutics are defined as medical devices where they:

- are used for humans
- are intended to diagnose, prevent, monitor, treat or alleviate a disease or injury, or to investigate or modify the anatomy or physiological functions of the body, and
- do not achieve their principal intended action in or on the human body by pharmacological, immunological or metabolic means.

For example, implantable prostheses are medical devices due to their function to replace and/or modify the human anatomy and/or a physiological process.

In Australia, in vitro diagnostic (IVD) medical devices are also regulated as a subset of medical devices. IVD medical devices are defined in the *Therapeutic Goods (Medical Devices) Regulations 2002*. Typically, IVD medical devices are pathology tests (and related instrumentation) used to carry out testing on human samples where the results are intended to assist in clinical diagnosis or in making decisions concerning clinical management. IVD medical devices can also be intended for use by a health professional at the point of care or for use by lay persons for self-testing. [22]

Before a medical device can be supplied in Australia, the sponsor must ensure (and be able to demonstrate) the device meets applicable Essential Principles set out in Schedule 1 of the *Therapeutic Goods (Medical Devices) Regulations 2002* to ensure it is safe and performs as intended.

[21] TGA, Priority Review Pathway Biologicals, https://www.tga.gov.au/how-we-regulate/supply-therapeutic-good/supply-biological/application-process-supplying-biological/priority-review-pathway-biologicals
[22] TGA, Medical devices and IVD, https://www.tga.gov.au/overview-medical-devices-and-ivd-regulation

There are 6 general Essential Principles that apply to all devices (relating to health and safety, including long-term safety, with benefits outweighing the risks), and a further 9 Essential Principles about design and construction that apply to devices on a case-by-case basis.

The process a sponsor follows to have their medical device included on the ARTG is as follows:

- confirm the product is a medical device that needs to be included on the ARTG
- determine what 'kind of medical device' it is and its classification
- have appropriate conformity assessment documentation that relates to the manufacturer's quality management system, and if required, documentation that relates to product assessment
- have on hand evidence to support compliance with the Essential Principles, and
- submit an application for their medical device to be included.

Medical devices, including IVD medical devices, are assessed against the Essential Principles based on their intended purpose and risk-based classification. The regulatory framework for medical devices spans the life of the device and includes:

- **pre-market authorisation**
- **inclusion on the ARTG**
- **post-market monitoring:** continuing compliance with all regulatory, safety and performance requirements and standards.

3.5 Timeframes to regulatory approval

The TGA is required by legislation to complete its evaluation for approval of a medicine in the standard pathway within 255 working days. In practice, the TGA works to various target timeframes.

Table 2. Target timeframes for different regulatory approval pathways

Pathway	Target timeframe (working days)	Pathway Description
Error! Reference source not found. (for prescription medicines)	220	Designed to improve the efficiency and timeliness of the registration of prescription medicines without compromising the scientific rigour of the evaluation process, thus ensuring the maintenance of appropriate standards of quality, safety, and efficacy.[23]
Error! Reference source not found. (for prescription medicines)	150	Provides a formal mechanism for faster assessment of vital and life-saving prescription medicines. Unlike provisional medicines, a medicine approved under priority review will receive ongoing approval, identical to approval under the standard pathway.[24]
Error! Reference source not found.	220	Provides access to certain promising new medicines where the TGA assesses that the benefit of early availability of the medicine

[23] TGA, Fast track approval pathways, https://www.tga.gov.au/fast-track-approval-pathways
[24] TGA, Priority review pathway: prescription medicines, https://www.tga.gov.au/priority-review-pathway-prescription-medicines

Pathway	Target timeframe (working days)	Pathway Description
(for prescription medicines)		outweighs the risk inherent in the fact that additional data are still required.[25] Provisional registration: Maximum of 6 years
Standard inclusion pathway (for biologicals)	255	Process specific for the inclusion of new biologicals on the ARTG that are new biological entities or new biological based on a parent biological already on the ARTG.[26]
Priority review pathway (for biologicals)	150	Provides a formal mechanism for faster assessment of vital and life-saving biologicals. The target timeframe of 150 working days is up to 105 days shorter than the timeframe for the standard assessment pathway.[27]
Medium and high-risk medical devices	255 days for completing the conformity assessment	

[25] TGA, Provisional approval pathway: prescription medicines, https://www.tga.gov.au/provisional-approval-pathway-prescription-medicines
[26] TGA, Standard pathway, https://www.tga.gov.au/how-we-regulate/supply-therapeutic-good-0/supply-biological/application-process-supplying-biological/standard-pathway
[27] TGA, Priority review pathway for biologicals, https://www.tga.gov.au/how-we-regulate/supply-therapeutic-good-0/supply-biological/priority-review-pathway-biologicals

4 Pharmaceutical Benefits Scheme

4.1 Background

The PBS is established under the *National Health Act 1953* (NH Act). It is the main funding program for medicines in Australia.[28] It is a demand-driven program that subsidises the cost of listed medicines at the point of dispensing (in community pharmacies or in public and private hospitals in certain circumstances).

A limited version of the PBS began in 1948, offering free medicines for pensioners and 139 'life-saving and disease preventing' medicines free of charge to the general public. The PBS became a comprehensive scheme offering access to a wide range of medicines in 1960. As of 30 June 2023, there were 928 different medicines in 5,261 brands listed on the PBS.

Medicines that are subsidised through the PBS are listed on the Schedule of Pharmaceutical Benefits (the Schedule). Changes to the Schedule are made every month by amendments to the *National Health (Listing of Pharmaceutical Benefits) Instrument 2012*, which is made under the NH Act.[28]

Most PBS medicines are dispensed by community pharmacies and used by patients at home. These are known as 'General Schedule' or 'section 85' medicines because they are dispensed under section 85 of the NH Act.

Some PBS medicines are supplied through special arrangements under section 100 of the NH Act where normal supply arrangements are not suitable. For example, some medicines may require special storage or dispensing, specialist monitoring during treatment, or administration in a hospital outpatient setting.

Such medicines are subsidised through the PBS under a number of 'Section 100' programs, including:

- the **Highly Specialised Drugs Program** for PBS medicines, which must be prescribed by or under the guidance of a treating specialist, and dispensed by a hospital pharmacy (with some exceptions)
- **Efficient Funding of Chemotherapy** arrangements for PBS cancer medicines that are administered through infusion or injection
- programs for PBS-subsided supply of **botulinum toxin**, **human growth hormone** and **In Vitro Fertilisation (IVF)** medicines, and
- the **Opiate Dependence Treatment Program**, which funds the cost of methadone and other medicines for the treatment of opioid addiction, and Take-Home Naloxone Program.

In addition to the above programs for specific medicines, section 100 of the NH Act also allows for the supply of a number of PBS medicines to remote area Aboriginal Health Services (AHS). Under these arrangements, patients of an approved AHS can receive medicines at the time of consultation without being charged and without the need for a normal PBS prescription.

[28]Australian Parliament House, The Pharmaceutical Benefits Scheme, https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/pubs/rp2122/Quick_Guides/ThePharmaceuticalBenefitsScheme

4.2 Listing process for PBS medicines

The listing of a medicine on the PBS is generally initiated by the sponsor making a submission to the PBAC for consideration. This is because sponsors decide themselves whether to supply medicines to particular markets and, if so, under what circumstances. The also usually hold the scientific data and other information necessary to inform the PBAC's consideration.

Before a medicine can be listed on the PBS, it must first be approved for use in Australia by the TGA and included on the ARTG.

Sponsors are permitted to make submissions for PBS listing as soon as an application is submitted for ARTG registration – and the TGA and the PBAC applications are progressed in parallel. A recommendation for PBS listing will generally not be able to be made until the TGA application is sufficiently progressed and a TGA Delegate's Overview is available.

4.2.1 Who considers submissions for PBS listing?

Applications for PBS listing are considered by the PBAC, an independent expert body appointed by the Australian Government. The PBAC comprises experts from a range of areas including clinicians, health economists, epidemiologists and consumer representatives.

The PBAC's primary responsibility is to make recommendations to the Government about which medicines should be subsidised through the PBS. A new medicine cannot be listed on the PBS unless the PBAC makes a positive recommendation for its listing.

4.2.2 Submission categories

There are 6 categories for initial submissions for listing medicines on the PBS. These categories were developed with the pharmaceutical industry through the Access to Medicines Working Group as part of the 2017–22 Strategic Agreement with Medicines Australia, and introduced in 2021. They are intended to:

- provide greater transparency on the type of submissions being considered by the PBAC and the level and the complexity of activities required to assess these submissions
- better align departmental and PBAC work and cost recovery arrangements based on the expected complexity of a submission, and
- clearly differentiate between initial submissions and resubmissions.

Table 3. Categories of submissions for PBS listing[29]

[29] PBS website, PBS Procedure guidance, https://www.pbs.gov.au/info/industry/listing/listing-steps

Category	Type of PBS listing request
Category 1	A first-in-class medicine, and/or a medicine for a new population. • A first-in-class medicine represents a drug with a unique mechanism of action that has not been considered by the PBAC. • A new population could include a disease or medical condition not previously considered by the PBAC. • A disease is intended to cover whole diseases when all stages and genetic subtypes are considered. OR A drug with a codependent technology that requires an integrated codependent submission to PBAC and MSAC. OR A drug with a TGA provisional determination related to the proposed population.
Category 2	A new medicine, or new indication of a currently listed medicine, or a material change to a currently listed indication and the criteria for a Category 1 submission are not met. A request for the PBAC to reconsider an existing recommendation where there is a change to the clinical, economic and/or financial information most recently relied on by the PBAC. May be required for a new form or strength of an already-listed medicine that is not bioequivalent to an existing listed form of the medicine. This may be necessary to demonstrate that the new form delivers similar clinical outcomes to the existing form.
Category 3	A change to an existing listing that does not change the population or cost-effectiveness of the medicine and the criteria for a Category 4 submission are not met.
Category 4	A request to consider PBS listing of a new pharmaceutical item of a listed medicine. Consideration as an exempt item (Exempt item as per subsection 84AH of the NH Act). A request to consider including a listed medicine on the prescriber bag, or varying an existing prescriber bag listing. A change to the existing, or the addition of a new form or manner of administration, of a listed medicine. A change to the maximum quantity and/or number of repeats of a listed medicine. A change or addition to the prescriber type(s) of a listed medicine.

Category	Type of PBS listing request
Committee secretariat submissions	Committee secretariat submissions relate to applications where the requested listing changes do not require the PBAC to consider comparative effectiveness, cost-effectiveness or clinical need: • there is no difference in patient safety or population for the new pharmaceutical item in the submission compared to an already-listed pharmaceutical item, and • there is no financial effect associated with the proposed change to the PBS.
New brand or new oral form of existing pharmaceutical item	Applications that do not require the PBAC consideration for listing an additional brand (a generic medicine) or new oral form of an existing TGA-approved and PBS-listed pharmaceutical item should be lodged directly to the Department of Health and Aged Care. Evidence of equivalence from the TGA must also be provided.

4.2.3 What assessment is made and what information is used to make the assessment?

When deciding whether to recommend a medicine for listing on the PBS, the PBAC undertakes an assessment of effectiveness and cost of the medicine in comparison to alternative therapies. If PBAC recommends listing of a new medicine on the PBS that is more costly than alternative therapies, it must satisfy itself that any additional cost of a medicine over alternative therapies is commensurate with a significant improvement in efficacy or reduction in toxicity compared to the alternatives.

How the PBAC makes its assessment depends on the submission type as set out in Table 4.

Table 4. What assessment is made for different PBAC submissions

Category	What assessment is made
Category 1	These submissions require the PBAC to assess the magnitude of clinical improvement or toxicity reduction, the incremental cost and the comparative costs and outcomes where an economic evaluation is required to support a claim of cost-effectiveness, cost-utility or cost minimisation.
Category 2	These submissions require the PBAC to assess the magnitude of clinical improvement or toxicity reduction, the incremental cost and the comparative costs and outcomes where an economic evaluation is required to support a claim of cost-effectiveness, cost-utility or cost minimisation.
Category 3	Although the PBAC will assess the clinical need for, and clinical effectiveness of, the requested listing, an economic evaluation is not necessary to support the claims made in the submission. Additionally, the financial estimates do not require the PBAC to assess any substantial financial implications for the supply of a listed medicine.
Category 4	Varies depending on the submission, an economic evaluation is not necessary to support the claims made in the submission.

The PBAC Guidelines provide detailed instructions on what information is required by the committee to support a proposed new medicine, and the most appropriate form of clinical evidence and economic evaluation for specific submissions.[30]

[30] PBS website, the PBAC Guidelines, https://pbac.pbs.gov.au/home.html

Category 1 and 2 submissions to the PBAC include the following sections as set out in the committee's guidelines. [31]

Table 5. Sections for submission to the PBAC

Section	Description
Section 1 Context	Describes the proposed medicine, its intended use on the PBS and rationale for funding, and the therapy(ies) likely to be most replaced by prescribers in practice (the 'main comparator')
Section 2 Clinical evaluation	Provides the best available evidence comparing the clinical performance of the proposed medicine with that of the main comparator (preferably from direct randomised trials, or, if these are not available, from other suitable trials or studies). Concludes with a therapeutic conclusion stating whether the proposed medicine is superior, noninferior or inferior to the main comparator, taking account of any differences between the trial population and circumstances of use, and those proposed for the listing (applicability).
Section 3 Economic evaluation	Presents an economic evaluation of the consequences of substituting the proposed medicine for the main comparator in the context of the listing requested.
Section 4 Use of the medicine in practice	Includes the predicted extent of use of the medicine, and financial analyses for the PBS/Repatriation Pharmaceutical Benefits Scheme (RPBS) and the Australian Government health budget
Section 5 - Options to present additional relevant information	Includes any other relevant information to support a submission

4.2.4 Consideration of evidence from patients, consumers and others

When deciding whether to recommend a medicine for listing on the PBS, the PBAC also considers less-readily quantifiable factors, including evidence and input from consumers (patients, family members, carers) and other stakeholders that can be provided after a submission is received from a sponsor.

Individuals, health professionals and other interested parties can provide input about medicines or vaccines being considered by the PBAC via an online form on the Office of Health Technology Assessment consultation hub, up to 3 weeks before the PBAC meeting. The form is updated in week 8 of the cycle to include early pathway resubmissions, and previous positive PBS listing recommendations that have not been progressed by the applicant, allowing interested parties to provide input to these items.[32]

Consumer comments are provided to the PBAC's consumer representative, who reviews and collates the comments for the PBAC's agenda. All comments received are considered by the PBAC as part of the committee's consideration of the relevant application to subsidise a medicine. Consumer comments are considered at the same time as the application and other technical papers are considered.

[31] PBS website, the PBAC Guidelines, https://pbac.pbs.gov.au/content/information/files/pbac-guidelines-version-5.pdf

[32] PBS website, the PBAC Meeting Agenda and Consumer Comments, https://www.pbs.gov.au/info/industry/listing/elements/pbac-meetings/pbac-consumer-comments

Consumer hearings provide a further opportunity for patient groups/organisations to engage with the PBAC. The PBAC can convene meetings with stakeholders: where there is a submission for a medicine that has not been recommended or deferred.

4.2.5 Pathway from PBAC submission to PBS listing

Submissions to the PBAC are evaluated over a 17-week cycle. Category 1 and 2 submissions are typically evaluated by external evaluators who prepare commentaries about the evidence provided in the submission.

After commentaries have been prepared, they are provided back to sponsors for comment before being considered by the PBAC's subcommittees.

PBAC subcommittees

The PBAC has two main subcommittees, the Economic Sub-Committee (PBAC ESC) and the Drug Utilisation Sub-Committee (DUSC).

- The PBAC ESC assesses clinical and economic evaluations of medicines submitted to the PBAC for listing and advises the PBAC on the technical aspects of these evaluations. For certain submissions the PBAC ESC advises on the financial costs.
- DUSC advises the PBAC on estimates of projected usage and financial cost for medicines for certain submissions and the actual utilisation of medicines after they have been funded.

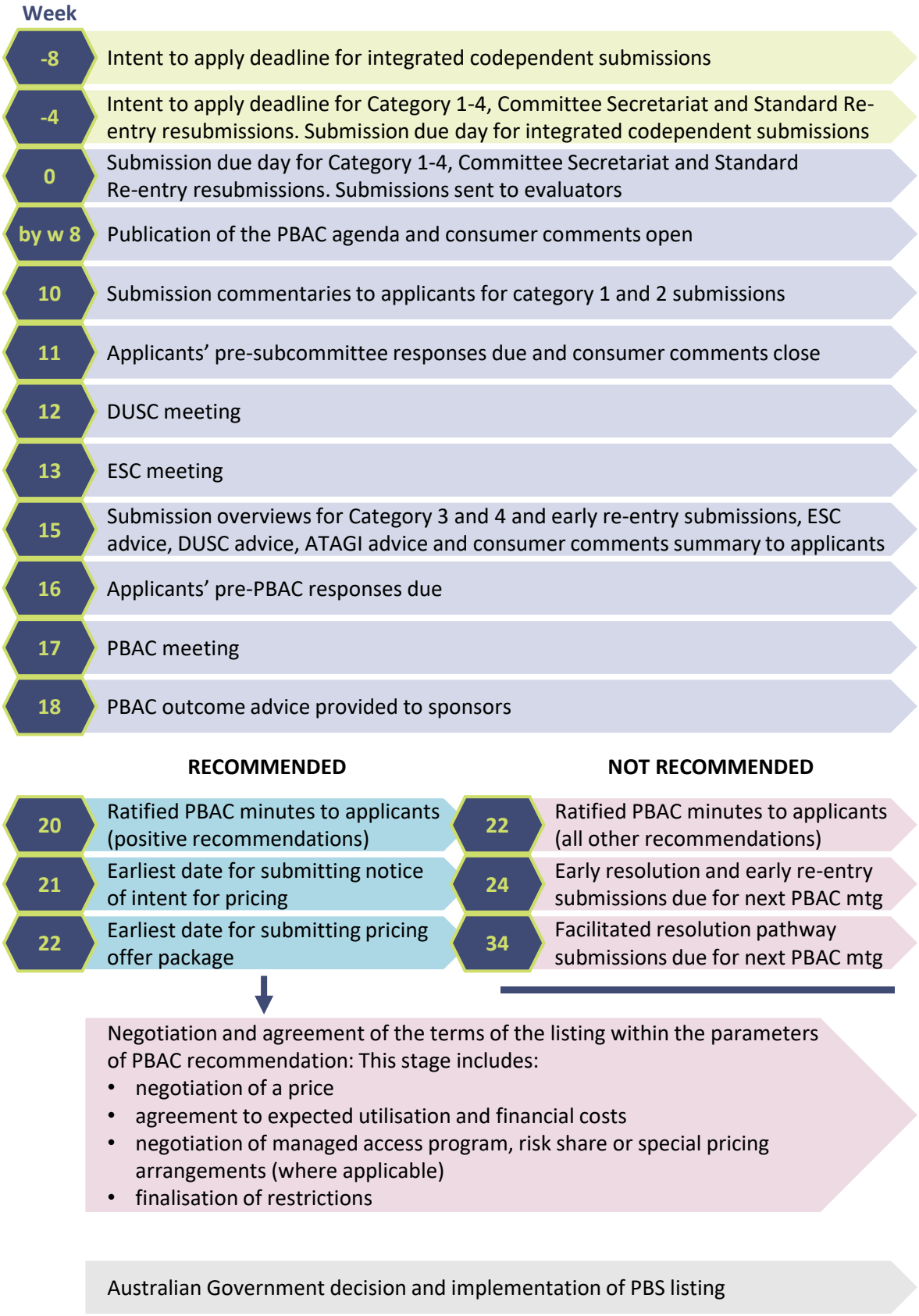
Once the PBAC's subcommittees have provided their advice, sponsors are given an opportunity to comment on their advice before it is considered at the PBAC meeting.

In its decision-making process, the PBAC considers the information provided by the sponsor in submissions, commentaries on the submissions prepared by external evaluators, advice from its two subcommittees and consumer comments.

Following a positive recommendation from the PBAC, several additional processes must be completed before the medicine can be listed on the PBS (see Figure 7 below). The PBAC's recommendation may be conditional on certain terms of listing. In these instances, the sponsor needs to agree on these terms to progress the recommendation to listing. If the PBAC does not recommend a medicine for listing on the PBS, it may nominate one of the early resubmission pathways.

The pathway from PBAC submission to listing on the PBS, including resubmission pathways is set out in Figure 7.

Figure 7 – Pathway to PBS listing



Pricing pathways

There are 5 different pricing pathways to progress a positive PBAC recommendation.

Table 6. Pricing pathways following positive PBAC recommendation

Category	Detail
All submissions	A high-level outcome of the PBAC's advice is provided to the applicant 1 week after the meeting (week 18). For applications that are recommended, details of the PBAC's advice will be included in the PBAC minutes received by the applicant in the third week (week 20) after the PBAC meeting.
Pricing pathway A - Facilitated	The PBAC will determine whether a submission is eligible for Pricing Pathway A as part of its recommendation. Notification in week 18 includes whether pricing Pathway A applies. Pricing Pathway A can apply for submissions where the PBAC considers that: • the medicine is expected to provide a substantial and clinically relevant improvement in efficacy, or reduction of toxicity, over any alternative therapies, and • the medicine addresses a high and urgent unmet clinical need, and • it would be in the public interest for the submission to be recommended to follow this pathway. In relation to the public interest component of the criteria, the PBAC will have regard to whether it is likely that the interests of the Australian public will be advanced by the recommendation being progressed via Pricing Pathway A, noting that the submission must also meet the first two criteria. An applicant will either accept the PBAC's Pricing Pathway A recommendation or nominate another pricing pathway via the Notice of Intent for Pricing form. A case manager will be assigned where the applicant has accepted the PBAC's recommendation for Pricing Pathway A.
Pricing pathway B – New deed	Pricing Pathway B applies for submissions which require negotiation and finalisation of a new deed of agreement where there are no similar arrangements in place. This could include an assessment of proposed risk-sharing, managed entry and/or special pricing arrangements.
Pricing pathway C – Existing deed	Pricing Pathway C applies to submissions which require third-party responsible person notification of changes to an existing deed of agreement, and/or where an applicant has received a positive PBAC recommendation to list within the scope of existing arrangements, whether these relate to the new listing or to another existing listing. Where required, the deed's original responsible person(s) will be notified of the provision of information to the new applicant. Refer to Section 8.1.2 for additional guidance.
Pricing pathway D – no deed	Pricing Pathway D applies to submissions which do not involve negotiation of a new or existing deed of agreement.
Secretariat pricing	The secretariat pricing pathway applies to changes to listings of existing medicines which do not require a new price.

Resubmission pathways

Resubmission pathways for submissions not recommended by the PBAC were introduced in 2019. The purpose of these pathways is to:

- provide clear and transparent resubmission processes for submissions that are not recommended by the PBAC
- support the PBAC's decision-making process and provide a framework for the committee to assist applicants in the development of their resubmission
- support access to medicines through solution-focused pathways where issues can be easily resolved, and
- enable efficient use of the PBAC's time by focusing on more complex resubmissions.

All applicants with a 'not recommended' PBAC outcome are able to lodge a resubmission via the Standard Re-entry Pathway.

Based on the PBAC's assessment of the level of additional information required, issues to be addressed before further PBAC consideration, and whether a medicine or vaccine represents 'High Added Therapeutic Value' (HATV), the PBAC may nominate an Early Resolution, Early Re-entry or Facilitated Resolution Pathway. Should the applicant not accept the PBAC-nominated resubmission pathway, but still wish for further PBAC consideration, the Standard Re-entry Pathway applies.

The PBAC will nominate a resubmission pathway based on its independent assessment of:

1. the issues for resolution, and
2. whether the medicine or vaccine represented HATV for the proposed population:
    - the medicine or vaccine addresses a high and urgent unmet clinical need, and
    - the medicine or vaccine is expected to provide a substantial and clinically relevant improvement in efficacy, or reduction of toxicity, over any alternative therapies.

Table 7. Resubmission pathways following the PBAC decision to not recommend listing[33]

Category	Details
Standard re-entry pathway	The Standard Re-entry Pathway is the default pathway for resubmissions, including where the PBAC did not nominate a resubmission pathway. The Standard Re-entry Pathway also applies where: • an applicant chooses not to accept the PBAC-nominated resubmission pathway, or • an Early Re-entry or Early Resolution Pathway has been nominated by the PBAC and an applicant decides to address issues other than those identified by the PBAC (including a subset of issues), or • an applicant decides to lodge their resubmission later than the allowable timelines for the other pathways, or • an Early Re-entry, Early Resolution or Facilitated Resolution Pathway resubmission receives a 'not recommended' outcome.
Early re-entry pathway	An Early Re-entry Pathway may be nominated by the PBAC where the committee considers that the remaining issues could be easily resolved and the medicine does not represent High Added Therapeutic Value (HATV) for the proposed population. This would include circumstances where:

[33] PBS website, PBS Procedure Guidance, https://www.pbs.gov.au/info/industry/listing/listing-steps

Category	Details
	• new clinical study data requiring evaluation is not considered necessary by the PBAC to support the clinical claims to be made in the resubmission, and • a revised model structure or input variable changes (beyond those specified by the PBAC) are not necessary to support the economic claims, or to estimate the utilisation and financial impacts to be made in the resubmission. Applicants who accept this pathway are eligible for PBAC consideration at the immediate next meeting or the following meeting. Where an applicant chooses not to accept the PBAC-nominated pathway, addresses additional issues, or is unable to meet the lodgement timeframes, the Standard Re-entry Pathway would apply.

Early resolution pathway	The PBAC may nominate an Early Resolution Pathway where it considers that the remaining issues could be easily resolved, including when:
	• new clinical study data requiring evaluation is not considered necessary by PBAC to support the clinical claims to be made in the resubmission, and
	• a revised model structure or input variable changes (beyond those specified by the PBAC) are not necessary to support the economic claims, or to estimate the utilisation and financial impacts to be made in the resubmission, and
	• where the medicine or vaccine meets the HATV criteria:
	  ○ the medicine or vaccine addresses a high and urgent unmet clinical need, and
	  ○ the medicine or vaccine is expected to provide a substantial and clinically relevant improvement in efficacy, or reduction of toxicity, over any alternative therapies.
	
	Applicants who accept this pathway are eligible to have the PBAC consider their revisions out-of-session (before the main meeting), unless the Department of Health and Aged Care, in consultation with the PBAC Chair, identifies an unexpected issue such that the resubmission needs consideration at the next main committee meeting.
	
	Where an applicant chooses not to accept the PBAC-nominated pathway, or is unable to meet the lodgement timeframes, the Standard Re-entry Pathway would apply.

Facilitated resolution pathway	A Facilitated Resolution Pathway may be nominated by the PBAC where the committee considers the issues for resolution could be explored through a workshop and where the medicine meets the HATV criteria. Applicants who accept this pathway are eligible for a solution-focused workshop with one or more PBAC members. It is expected that Facilitated Resolution Pathway resubmissions will require evaluation of a new and/or updated model structure and/or input variable changes to support the economic claims or estimate the utilisation and financial impact in the resubmission. This may also include other substantial changes from the previous submission that require re-evaluation.

Category	Details
	Where an applicant chooses not to accept the PBAC-nominated pathway, addresses additional issues, or is unable to meet the lodgement timeframes, the Standard Re-entry Pathway would apply.

4.3 Recent reforms – PBS process improvements

Under the 2017–22 Strategic Agreement with Medicines Australia, the Commonwealth committed to working with Medicines Australia on a number of objectives to improve the efficiency, transparency and timeliness of the PBS listing processes.[34] Key process improvements implemented under the 2017–22 Strategic Agreement included:

- development of the Health Products Portal, a digital channel:
  - for industry to interact with government about regulated and reimbursed health-related products and services, and
  - that facilitates the online submission of applications for listing medicines on the PBS
- introduction of the new submission categories (Table 3)
- introduction of pricing pathways following positive PBAC recommendation (Table 6)
- introduction of resubmission pathways for submissions not recommended by the PBAC (Table 7), and
- revised cost-recovery arrangements to support process improvements.

4.4 Issues raised through the House of Representatives Inquiry

In its inquiry, the House of Representatives Standing Committee on Health, Aged Care and Sport heard broad views about the performance of the current HTA system in Australia for medicines ranging from claims that there was for the most part no problem with access to medicine to claims that Australia's system was preventing medicines from being available. The Standing Committee noted that it was a widely held view among submitters that the HTA process for medicines in Australia takes too long to provide access.

Several submitters perceived that the main cause of delay for many medicines was the multiple submissions that were required before a positive recommendation could be made by PBAC. Stakeholders also noted that the submission and valuation process was being used for pricing and commercial negotiation purposes with companies seeking higher prices in first submissions to the PBAC before seeking lower prices in subsequent submissions.

Several submitters stated that there should be processes for earlier dialog for upcoming submissions, earlier negotiation of prices and greater encouragement of parallel submissions to the TGA and the PBAC. Several submitters held the view that there should be greater harmonisation of evidentiary requirements for regulatory and reimbursement submissions.

Several submitters expressed the view that the performance of the PBAC should be measured and reported, with pharmaceutical companies saying it should be measured by the time it takes for a medicine to be listed on the PBS after registration on the Australian Register of Therapeutic Goods.

4.5 Timeframes to PBS Listing

4.5.1 Timeframes for PBS listing

[34] PBS website, PBS Process improvement, https://www.pbs.gov.au/info/general/pbs-process-improvements

Timeframes to PBS listing in 2021 and 2022 are set out in Table 8. Listing timeframes for post-PBAC processes reflect the arrangements that were implemented in 2021. The impact of the new resubmission pathways which started in 2021 are reflected in these data where the PBAC considered submissions in 2021 and 2022 and resubmission pathways were used by applicants, but not where the PBAC considered submissions before 2021.

Table 8. Time to PBS listing – 2021–22 listings – headline figures

Analysis characteristics	Details			
Measures	Minimum, median, average and maximum timeframes for subsidy of medicines through the PBS from earliest application to EMA or FDA to PBS listing			
Listing type	New medicines and extension of listing for existing PBS-listed medicine to a new population Breakdown for listings where the PBAC was satisfied the medicine offered an improvement in efficacy or reduction in toxicity over alternative therapies.			
Time period	2021–2022			
Data sources	PBS Medicines Status, EMA, FDA, and TGA websites.			
New Drugs (all)	**Min**	**Median**	**Average**	**Max**
First EMA or FDA approval to PBS listing	11 months	37 months	47 months	205 months
PBAC submission to PBS listing	9 months	17 months	22 months	75 months
ARTG registration to PBS listing	2 months	21 months	25 months	84 months
Extension (all)	**Min**	**Median**	**Average**	**Max**
PBAC submission to PBS listing	9 months	12 months	15 months	45 months
ARTG registration to PBS listing	2 months	15 months	23 months	152 months
New Drugs (improvement)	**Min**	**Median**	**Average**	**Max**
First EMA or FDA approval to PBS listed	19 months	47 months	58 months	205 months
PBAC submission to PBS listing	11 months	17 months	24 months	64 months
ARTG registration to PBS listing	6 months	22 months	26 months	79 months
Extension (improvement)	**Min**	**Median**	**Average**	**Max**
PBAC submission to PBS listing	9 months	14 months	17 months	45 months
ARTG registration to PBS listing	2 months	16 months	24 months	128 months

4.5.2 Breakdown of timing of different steps in the PBS listing process

There are a number of decisions and steps that need to be undertaken by different entities between first submission for regulatory approval globally and PBS listing that determine how long it takes for a medicine to be listed on the PBS. The timeframe to PBS listing from the launch of a new medicine can be broken down into the following broad stages:

1. The time it takes a company to apply for TGA registration after first applying for market authorisation internationally
2. The time it takes a company to make a PBAC submission after it has applied for TGA registration
3. The time between PBAC submission and the earliest date a pricing offer (PO) can be made (including resubmissions) after a positive recommendation
4. The time it takes a company to make a PO after the earliest date a PO can be made
5. The time it takes for the Australian Government and the company to agree the price and other terms of implementation such as special pricing arrangements, access criteria and sharing of risk
6. The time it takes for the Government to implement the PBS listing after terms of implementation have been agreed.

Progression between stages requires either a decision from a company, the PBAC or Government, or for different entities in the listing process to come to agreement about aspects of the listing. The time taken for new medicines (new molecular entities) and new indications for existing medicines that listed on the PBS in 2021 and 2022 to progress through each stage varies significantly (see Figures 8 and 9 below). Further example timelines, including an overview of reasons why the PBAC did not recommend listing at particular meetings, are set out at Appendix 12.

Figure 8. Median and example timeframes for new drug listings on the PBS in 2021 and 2022

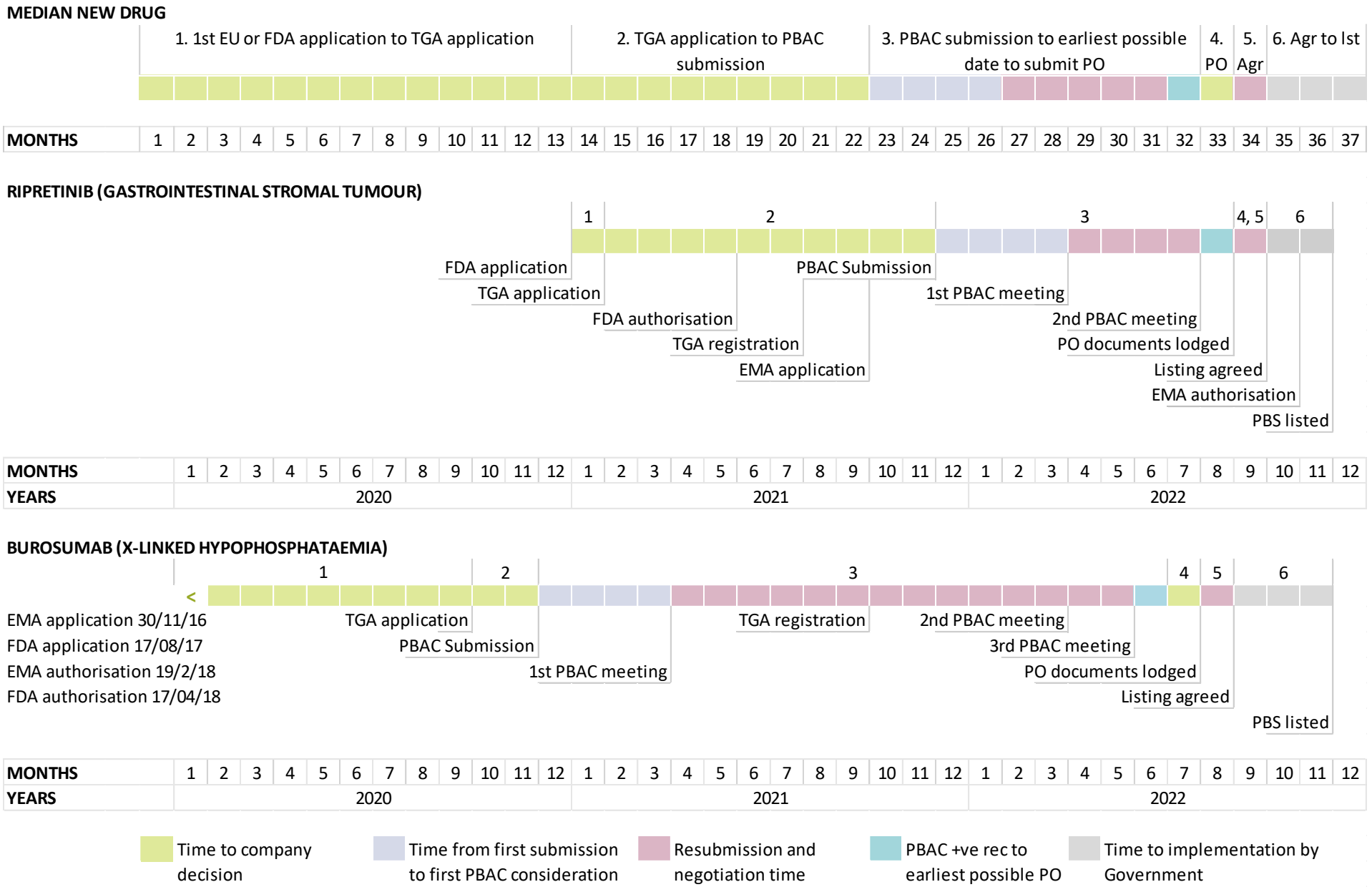


Figure 9. Minimum, median and maximum timeframes for new drug and indication listings on the PBS - 2021 and 2022

Example drugs that had timeframes close to the min, median and max timeframes are included for listings where the PBAC was satisfied they represented an improvement over alternative therapies. PO = pricing offer; <= = less than or equal to; GIST = gastrointestinal stromal tumour; NC = solid tumours harbouring neurotrophic receptor tyrosine kinase (NTRK) gene fusions; IGF = insulin-like growth factor 1; Dravet = Dravet syndrome; IMCD = idiopathic multicentric Castleman's disease; PAH = pulmonary arterial hypertension; MM = multiple myeloma; SCC = squamous cell carcinoma; PC = prostate cancer; CF = cystic fibrosis; CC = colorectal cancer; SMA ext = extension to spinal muscular atrophy listing; PPB = prevention of preterm birth; cGVHD = chronic graft versus host disease; MPKU = maternal phenylketonuria; HF = heart failure; NSCLC = non-small cell lung cancer; GI = gastrointestinal.

Minimum timeframes

The minimum timeframe from PBAC submission to the earliest date for a pricing offer was 5 months, while the minimum timeframe for all other stages was one month or less. There were:

- examples of companies submitting to the TGA before or in the same month they submitted to the FDA or EMA
- examples of companies submitting to the PBAC in the same month as they submit to the TGA, and
- and examples of new medicines being recommended the first time they were considered by the PBAC.

There were no examples of medicines being recommended first time where the PBAC ultimately accepted they provided an improvement in efficacy or reduction in toxicity over alternatives (Figures 8 and 9). For these medicines, a resubmission or subsequent consideration by the PBAC was always required.

Median timeframes

In the majority of circumstances, medicines took longer than the minimum possible timeframe to progress through each stage. However, some stages are significantly more variable than others. The stages up to the earliest possible date to make a pricing offer are highly variable, while the stages after the earliest date a pricing offer are less variable and range from one to 4 months in the majority of circumstances (Figures 8 and 9).

Maximum timeframes

For each timeframe, there were examples of medicines taking several years to move through stages prior to the earliest date a pricing offer could be made. After this stage, outliers took several months to move through particular stages.

4.5.3 Other reporting on PBS medicine listing timeframes

Different entities report on timeframes to listing of a medicine on the PBS as set out in tables 9 to 12. These include:

- the Centre for Innovation and Regulatory Science (CIRS) – HTA dock[35]
- Medicines Australia – Medicines Matter report[36]
- Pharmaceutical Research and Manufacturers of America (PhRMA) Global Access to New Medicines Report[37]
- Metrics for PBS process improvements.[38]

The CIRS HTA Dock, Medicines Australia Medicines Matter, and PhRMA Global Access to New Medicines reports compare timeframes for subsidy through the PBS with other jurisdictions internationally. The timeframes as reported in these publications are set out below.

[35] CIRS, HTA Dock briefing, https://cirsci.org/publications/cirs-rd-briefing-89-review-of-hta-outcomes-and-timelines-in-australia-canada-europe-and-the-uk-2018-2022/

[36] Medicines Australia, Medicines Matter, https://www.medicinesaustralia.com.au/publications/medicines-matter/

[37] PhRMA, Global Access to New Medicines Final Report https://phrma.org/-/media/Project/PhRMA/PhRMA-Org/PhRMA-Refresh/Report-PDFs/A-C/2023-04-20-PhRMA-Global-Access-to-New-Medicines-Report-FINAL-1.pdf

[38] PBS website, PBS process improvements, https://www.pbs.gov.au/info/general/pbs-process-improvements

Different publications use years, months or days to report on timeframes. All timeframes have been converted to months rounded to the nearest month.

Table 9. CIRS – HTA dock

Study details	Parameters		
Objective	To determine regulatory and reimbursement timeframes in different countries and their determinants.		
Listing type	New active substances launched in relevant jurisdictions		
Time period	2018–2022		
Comparison countries	9 countries: Australia, Canada, England, France, Germany Poland, Netherlands, Scotland, Sweden		
Measure	**Country**	**Result**	**Rank (9 countries)**
Median regulatory approval to HTA recommendation 2022 (where recommended 1st time)	Australia	3 months	1st
	Canada	8 months	4th
	England	11 months	7th
	France	6 months	3rd
	Germany	6 months	2nd
	Netherlands	12 months	8th
	Poland	16 months	9th
	Scotland	9 months	5th
	Sweden	10 months	6th
Median regulatory submission to HTA recommendation 2022 (where recommended 1st time)	Australia	15 months	1st
	Canada	19 months	2nd
	England	26 months	8th
	France	20 months	4th
	Germany	20 months	3rd
	Netherlands	25 months	7th
	Poland	30 months	9th
	Scotland	24 months	5th
	Sweden	24 months	6th
Proportion new active substances recommended at the first submission in 2022	Australia	29%	8th
	Canada	71%	6th
	England	93%	2nd
	France	93%	1st
	Germany	62%	7th
	Netherlands	74%	5th
	Poland	28%	9th
	Scotland	83%	3rd
	Sweden	82%	4th

Table 10. Medicines Australia - Medicines Matter report

Study details	Parameters		
Objective	To compare timelines for medicine registration and reimbursement in different healthcare systems with Australia		
PBS listing type	New molecular entities launched globally (NME) (263 launched)		
Time period	2016–2021		
Comparison countries	20 OECD countries (OECD-20)		
Measure	**Country**	**Result**	**Rank (OECD-20)**
Average time from registration to reimbursement	Australia	15 months	11th
	Canada	Not reported	Not reported
	France	8 months	6th
	Germany	4 months	2nd
	UK	5 months	4th
	OECD-20 average	**13 months**	

Number of new molecular entities reimbursed	Australia Canada France Germany UK **OECD-20 average**	74 NMEs 71 NMEs 119 NMEs 165 NMEs 151 NMEs **123.6 NMEs**	16th 17th 6th 1st 3rd
Proportion of registered new molecular entities reimbursed	Australia Canada France Germany UK **OECD-20 average**	45% 33% 58% 80% 76% **55.4%**	13th 18th 6th 2nd 3rd

Table 11. PhRMA - Global Access to New Medicines Report 2023

Study details	Parameters		
Objective	To compare timelines for medicine launch and reimbursement globally		
Listing type	New active substances (460) launched globally		
Time period	2012–2021		
Comparison countries	G20 countries		
Measure	**Country**	**Result**	**Rank (G20)**
Average time from global first launch to public reimbursement	Australia Canada France Germany UK **G20 average**	47 months 52 months 34 months 11 months 27 months **46 months**	10th 12th 5th 2nd 4th
Average time from local launch to public reimbursement	Australia Canada France Germany UK **G20 average**	26 months 34 months 15 months 0 months 15 months **19 months**	16th 20th 9th Equal 1st 8th
Proportion of globally launched medicines reimbursed	Australia Canada France Germany UK **G20 average**	24% 21% 43% 61% 48% **28%**	9th 11th 6th 2nd 4th

Table 12. Metrics for PBS process improvements

Study details	Parameters
Objective	To report on metrics for the Stage 1 and Stage 2 PBS process improvements
Listing type	All PBAC submissions
Time period	PBAC submissions from 1 July 2021 to 30 June 2022
Comparison countries	NIL
Measure	**Outcome**
Time from PBAC minutes to PBS listing (for applicants who lodged pricing offer package in the earliest possible week)	**Median:** 3 months **Average:** 3 months **Proportion:** 20 out of 44 listings

Time from PBAC minutes to PBS listing (all other applicants)	**Median:** 5 months **Average:** 5 months **Proportion:** 24 out of 44 listings
Time from PBAC minutes to PBS listing for submissions seeking a higher price over existing alternatives recommended first time	**Average:** 5 months
Time from PBAC minutes to PBS listing for cost minimisation submissions recommended first time	**Median:** 4 months **Average:** 5 months
Proportion of initial submissions recommended first time	**Proportion:** 56% (59 out of 105)
Proportion of initial submissions recommended first time where higher price than existing alternative sought	**Proportion:** 11% (4 out of 37)

Limitations of timeframe to reimbursement analyses

The methods for analysing and reporting on regulatory and reimbursement approval timelines vary between different studies. This can lead to differences in findings for similar metrics.

Reports on new molecular entities and new active substances authorised and reimbursed are based on the first registered indication in respective jurisdictions. The first registered and funded indication can vary between international jurisdictions. Inclusion of repurposed medicines in statistics can significantly skew averages – where for example the repurposed medicine gained market authorisation many years ago for an indication that was not reimbursed or was later withdrawn and then gained market authorisation for a new indication that was reimbursed. It is unclear to what extent such outliers have been included or excluded in the different reports. The raw data that supports the Figures in the CIRS, Medicines Australia and PhRMA reports is not publicly available.

Comparison of the numbers of new medicines reimbursed in different countries can also be misleading as a measure of access as it may not reflect differences between national and local schemes for funding or the availability and performance of alternative health technologies in various countries.

Medicines funded for inpatients in public hospitals in Australia, for example, are unlikely to be captured in international comparisons. In other countries, the medicines may be funded but for a smaller population than indicated or a subset of the overall population based on level of insurance.

5 National Immunisation Program

5.1 Background

The National Immunisation Program (NIP) provides free vaccines to eligible people to help reduce diseases that can be prevented by vaccination. The current NIP consists of a schedule (the NIP Schedule) of recommended vaccines by age group and/or medical risk. Vaccines on the NIP are made available free of charge to Australians in the recommended age groups and risk groups. To date, the NIP Schedule includes vaccines against 17 diseases: hepatitis B, diphtheria, tetanus, pertussis (whooping cough), Haemophilus influenzae type b (Hib), polio, pneumococcal, rotavirus, measles, mumps, rubella, meningococcal, varicella (chickenpox), hepatitis A, human papillomavirus (HPV), influenza and herpes zoster.[39]

5.2 Listing process for new vaccines

5.2.1 Who considers applications?

In 2005, the NH Act was amended to provide for the consideration of vaccines by the PBAC. Under the NH Act, the Minister cannot designate a vaccine (necessary for funding through the NIP) unless the PBAC has recommended to the Minister that the vaccine be a designated vaccine.

As part of the reforms in 2005, the ATAGI was given a strengthened role in providing technical advice to the PBAC on new vaccines. Before making a submission to the PBAC, sponsors seeking listing of a vaccine on the NIP must first seek advice from the ATAGI.

5.2.2 What assessment is made and what information is used to make the assessment?

The ATAGI assesses the suitability of the proposed clinical claim for the vaccine for the requested population. The ATAGI Guidelines set out in detail what information needs to be provided by the vaccine sponsor as part of a request for ATAGI advice. These guidelines provide instructions for what evidence ATAGI requires to provide advice on a new vaccine or changes to existing NIP listings. Requests for ATAGI advice require assessment of the proposed population, intervention, comparator, and outcomes (PICO) for the NIP listing, information on clinical management, evidence evaluation and identification of translational issues in the proposed PICO, issues associated with vaccine cost-effectiveness in an Australian setting, and expected use and implementation.

The ATAGI provides a technical interpretation of clinical trial data assessing the efficacy of the vaccine and contextualised advice about the suitability and feasibility of any proposed change to the NIP in Australia.

Similar to requirements for making recommendations about medicines, the PBAC must consider the effectiveness and cost of the new vaccine, compared to alternative options, whether or not involving the use of other vaccines. When recommending a vaccine that is more costly than alternative vaccines be a designated vaccine, the PBAC must be satisfied that the vaccine provides an improvement in efficacy or reduction in toxicity over alternative vaccines for some patients.

[39] Department of Health and Aged Care, National Immunisation Strategy for Australia 2019 to 2024, https://www.health.gov.au/resources/publications/national-immunisation-strategy-for-australia-2019-to-2024

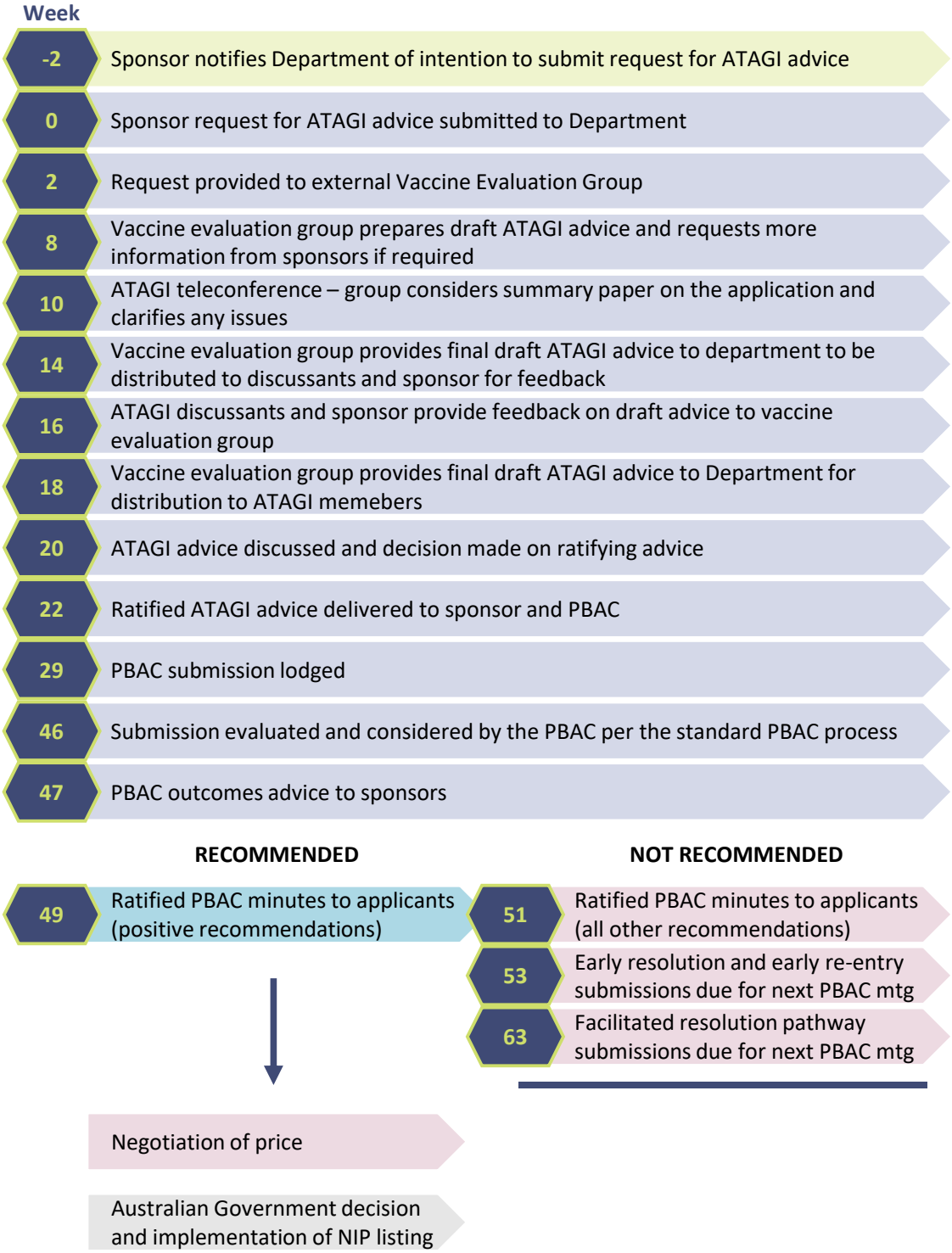
5.2.3 Consideration of evidence from patients, consumers and others

Evidence from patients, consumers and others is considered through the existing consultation mechanisms for PBAC submissions.

5.2.4 Pathway from submission to the ATAGI to NIP listing

The steps for obtaining advice from the ATAGI through to NIP funding are set out in Figure 10.

Figure 10. Pathway from submission to ATAGI to NIP listing



Post-PBAC process

Following a positive PBAC recommendation, a price must be agreed between the Department of Health and Aged Care (Department) and the sponsor. Approval is then sought from the Government to fund the vaccine through the NIP. Following Government approval of the vaccine, it is listed on the National Health (Immunisation Program – Designated Vaccines) Determination 2014 (No.1). These steps need to occur before execution of any contract for supply with the sponsor.

5.3 Issues raised through the House of Representatives Inquiry

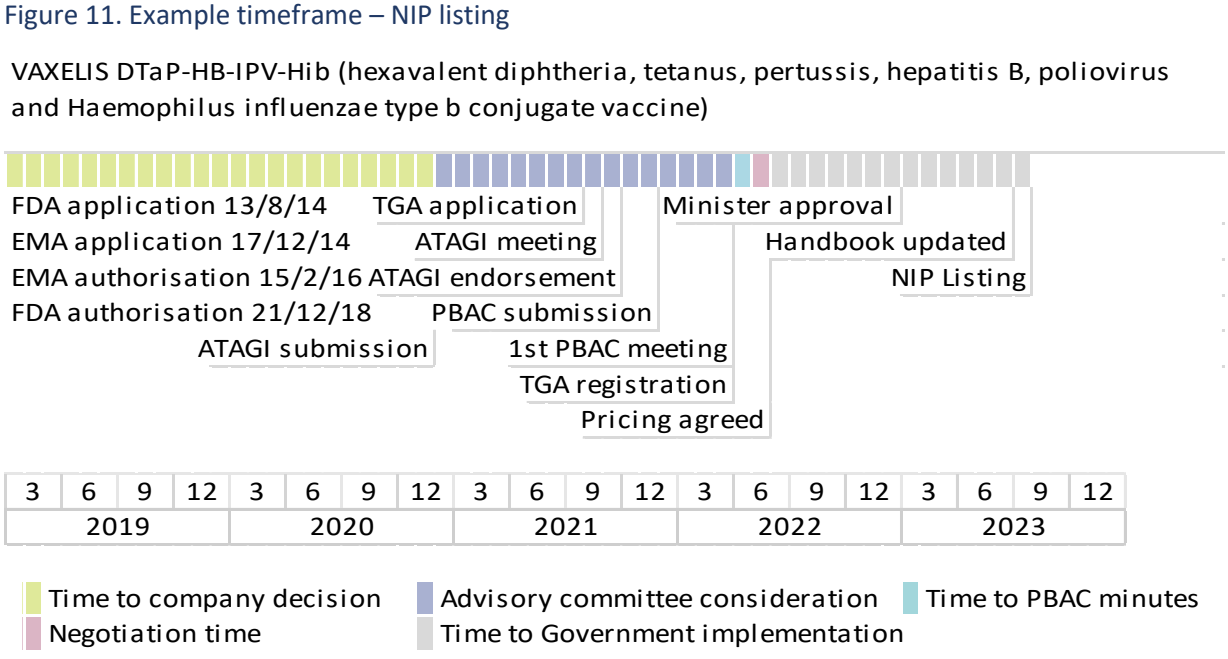
No significant issues were raised about the pathway to funding of vaccines through the NIP in the inquiry. Several pharmaceutical companies expressed concerns about how vaccines are valued and the extent to which broader impacts of preventative treatments should be incorporated in evaluation. These issues will be discussed in later papers.

5.4 Timeframes to NIP listing

The minimum timeframe from application to ATAGI to PBAC submission is 29 weeks. The PBAC process takes a further 20 weeks before sponsors receive PBAC minutes and can commence pricing negotiations with the department.

An example timeframe for a recent NIP listing (VAXELIS DTaP-HB-IPV-Hib) is provided in Figure 11. It took 16 months from ATAGI submission to being recommended by the PBAC and a further 2 months for pricing to be agreed. It took a further 16 months for it to be funded through the NIP.

Figure 11. Example timeframe – NIP listing



Key timeframes	Time
First EU or FDA application to TGA application	86 M
TGA application to ATAGI submission	-8 M
ATAGI submission to price agreement	18 M
Price agreement to date NIP listing will be effective	16 M
Total application to listing	32 M

6 Life Saving Drugs Program

6.1 Background

The Life Saving Drugs Program (LSDP) pays for specific essential medicines to treat patients with ultra-rare and life-threatening diseases. Funding for medicines on the LSDP is separate to the PBS. There are currently 18 medicines, including one generic medicine, on the LSDP for the treatment of 11 conditions.[40] To be funded through the LSDP medicines must meet the following criteria.

LSDP criteria

- The TGA has approved the medicine to treat an ultra-rare disease (prevalence of 1:50,000 people or less in the Australian population – around 500 people).
- Doctors can identify the disease with reasonable diagnostic precision.
- Studies show that the disease reduces patients' age-specific life expectancy.
- Evidence predicts that a patient's life will be longer if they use the medicine.
- The PBAC has:
    - accepted that the medicine is clinically effective, and
    - not recommended PBS listing for cost-effectiveness reasons.
- There is no other medicine listed on the PBS, or available for public hospital inpatients, that doctors can use as a life-saving treatment for the disease. It is possible to list new medicines on the LSDP if there are already other LSDP medicines that treat the same condition.
- There are no non-drug treatments (such as surgery or radiotherapy) that medical authorities regard as suitable and cost-effective for the condition.
- The cost of the medicine would be an unreasonable financial burden for the patient or their guardian. The cost is defined as the cost per dose multiplied by the expected number of doses in a one-year period for the patient.[41]

6.2 Listing process for drugs on the Life Saving Drugs Program

6.2.1 Who considers applications?

Applications to fund a medicine through the LSDP are considered by the LSDP Expert Panel (LSDP EP). The role of the LSDP EP is to provide advice and assistance to Australia's Chief Medical Officer (CMO) on a range of matters relating to new medicines seeking funding, including assessment of how the medicine addresses the LSDP guidelines for medicine use and testing requirements, suitable pricing arrangements, and data collection required for future reviews. The LSDP EP will also advise on any other matters that may relate to the LSDP, as directed by the Minister or CMO.[42]

[40] Department of Health and Aged Care, About the LSDP, https://www.health.gov.au/our-work/life-saving-drugs-program/about-the-lsdp

[41] Department of Health and Aged Care, LSDP eligibility criteria, https://www.health.gov.au/our-work/life-saving-drugs-program/for-medicine-sponsors#medicine-eligibility-criteria

[42] Department of Health and Aged Care, Life Saving Drugs Program Expert Panel, https://www.health.gov.au/committees-and-groups/life-saving-drugs-program-expert-panel

6.2.2 What assessment is made and what information is used to make the assessment?

The LSDP EP assesses whether the drug meets the criteria for funding through the LSDP. Materials considered by the LSDP EP will include:

- the sponsor's application
- assessment (overview) of the submission prepared by the LSDP Secretariat
- relevant materials from the PBAC consideration, including ratified minutes/advice from the committee and its sub-committees, pre-sub-committee and pre-PBAC responses from sponsors
- consumer comments received by the PBAC additional written stakeholder input to the LSDP EP, and
- presentations made to the expert panel at the meeting.

6.2.3 Consideration of evidence from patients, consumers and others

Evidence from patients, consumers and others are considered through the existing consultation mechanisms through the PBAC submission processes. Additional written stakeholder input may be considered by the LSDP EP.

6.2.4 Pathway from PBAC submission to LSDP listing

All new drugs funded through the LSDP first require a submission to PBAC. If the PBAC considers a medicine to be clinically effective, but does not recommend the medicine be listed on the PBS because it is not cost-effective, a sponsor may submit an application for the medicine to be funded through the LSDP. At this time, the sponsor may seek advice from the department on the preparation of an application for a new medicine to be funded through the LSDP.

LSDP assessment process

When an application is received for a new medicine to be funded through the LSDP, the LSDP EP Secretariat will prepare an overview of the application to assist the LSDP EP in its considerations. The sponsor of the medicine will receive this overview and can provide written comments, and may request to respond to issues raised face-to-face at the LSDP EP meeting.

Following a meeting of the LSDP EP, sponsors receive the LSDP EP's advice to the CMO and have one week to prepare a response to the LSDP EP advice and to provide this to the department. The LSDP EP advice and sponsor's response will be sent to the CMO for consideration.

In the event that additional clinical information is provided by the sponsor that would significantly change the cost-effectiveness of the medicine, such that it may meet the PBS cost-effectiveness criteria, the LSDP EP may recommend to the sponsor to reapply to the PBAC for consideration for listing on the PBS.[43]

Post-LSDP process

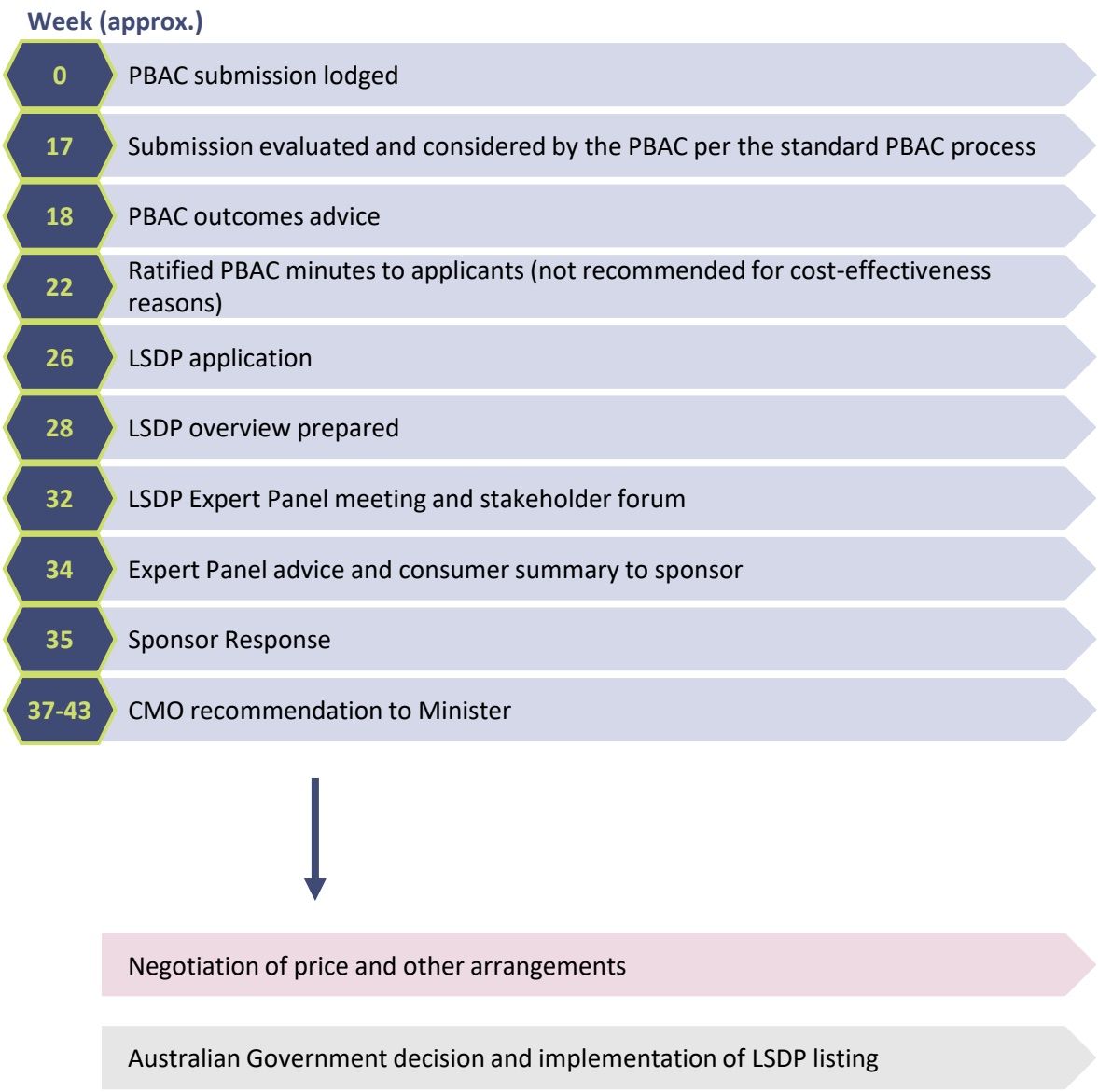
The CMO will make a recommendation to the Minister within 2-6 weeks of receiving the LSDP EP advice and the sponsor's response to this advice.

After the recommendation is made, pricing and other arrangements are negotiated with the sponsor based on any pricing parameters determined by the LSDP EP. Negotiated arrangements are put to

[43] Department of Health and Aged Care, Procedure guidance for medicines funded through the Life Saving Drugs Program (LSDP), https://www.health.gov.au/sites/default/files/documents/2020/10/procedure-guidance-for-medicines-funded-through-the-life-saving-drugs-program-lsdp.pdf

the Australian Government for decision. Following a positive Government decision, deed and treatment guidelines are finalised before funding is made available.

Figure 12. Pathway from PBAC submission to LSDP listing



6.3 Recent reform to the LSDP

6.3.1 Post-market review of the LSDP

In April 2014, the then Minister for Health announced the Post-market Review of the LSDP (LSDP Review). The purpose of the review was to ensure that Australians with ultra-rare conditions continued to have subsidised access to much-needed medicines.[44]

The LSDP Review examined issues such as access and equity, value for money and the future administration of the program. A number of recommendations were made, including that

[44] PBS website, Review of the Life Saving Drugs Program, https://www.pbs.gov.au/info/reviews/life-saving-drugs

consideration be given to the value of medicines for ultra-rare diseases to consider matters beyond cost-effectiveness.

The outcomes of the Government response to the LSDP Review included the establishment of the LSDP EP and introduction of reviews of existing medicines listed on the program.

6.3.2 LSDP medicines reviews

In October 2018, the LSDP EP commenced reviews of existing medicines listed on the LSDP (LSDP Medicines Reviews). The purpose of the LSDP Medicines Reviews was to explore the suitability of each medicine for listing on the program, the appropriateness of the eligibility or exclusion criteria and testing, and avenues to improve the program's overall value for money. Following the LSDP Medicines Reviews, the LSDP EP made 51 recommendations including 3 overarching recommendations to improve the LSDP's overall sustainability. These overarching recommendations considered the need for a clearly stated rationale for the program, additional pricing criteria, and improvements to data collection and management.[45] In addition, the LSDP EP recommended that if the value for money of any LSDP medicine approached a level that could be considered cost-effective in terms of a PBS listing, the medicine should be reconsidered for suitability on the PBS.

6.4 Issues raised through the House of Representatives Inquiry

Companies that submitted to the inquiry expressed concern that there were no clear assessment or funding pathways for rare disease treatments that need to be initiated as inpatient supply at the time of diagnosis but transition to the outpatient setting. Pharmaceutical industry representatives also expressed the view that the 2-step consideration (by the PBAC and then the LSDEP) for LSDP listings created unnecessary delay.

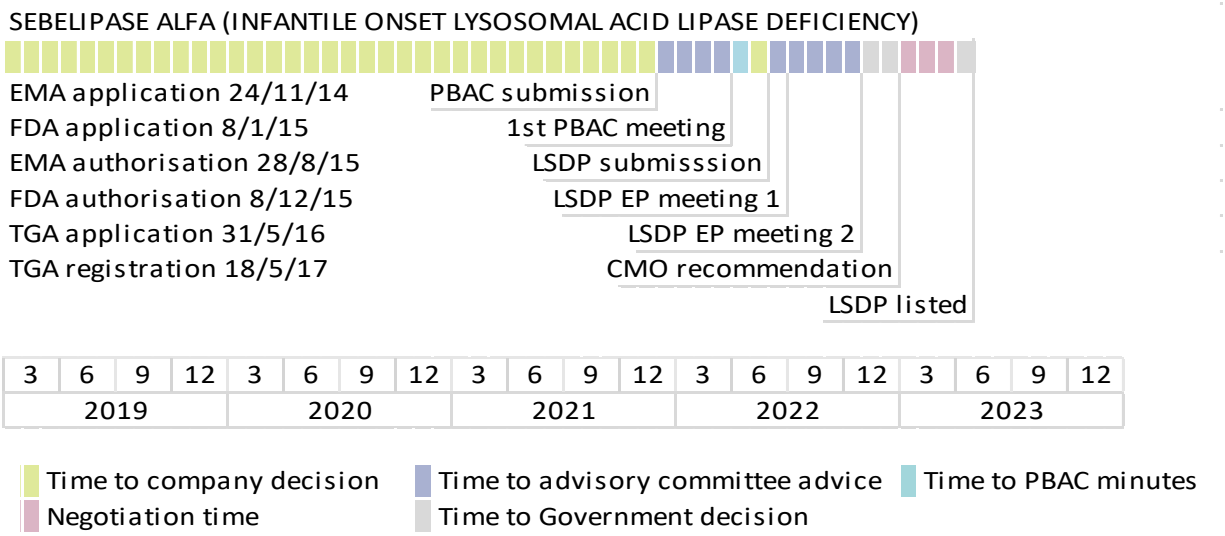
6.5 Timeframes to LSDP listing

Medicines are added to the LSDP infrequently. The minimum timeframe from PBAC submission to a recommendation to the Minister from the CMO is approximately 8 to 10 months. Finalisation of implementation arrangements can take a number of months after the CMO has made a recommendation.

The timeframe for the LSDP's most recent listing, sebelipase alfa, is set out in Figure 13. The PBAC submission was made over 5 years after application to the TGA. It took 17 months from PBAC submission to LSDP listing. The additional consideration by the LSDP EP after consideration by the PBAC took 6 months. After it received a positive recommendation from the CMO, it took further 4 months to be funded through the LSDP.

[45] Department of Health and Aged Care, Life Saving Drugs Program Medicines Reviews, https://www.health.gov.au/resources/publications/life-saving-drugs-program-lsdp-medicines-reviews-recommendations

Figure 13. Example timeframe – LSDP listing of sebelipase alfa



Key timeframes	Time
First EU or FDA application to TGA application	19 M
TGA application to PBAC submission	67 M
PBAC submission to CMO recommendation	13 M
CMO recommendation to LSDP listing	4 M
Total application to listing	17 M

7 Medicare Benefits Schedule

7.1 Background

The main funding mechanism in Australia for health technologies that are not medicines is the Medical benefits Schedule (MBS).

The MBS is established under the *Health Insurance Act 1973*.[46] It is a list of medical services, including consultations, procedures and tests, each of which has an associated fee-for-service set by Government known as the 'Schedule fee'. The MBS also sets out the rate/s at which the benefit for that service is to be calculated, as well as providing guidance on the clinical and administrative circumstances under which benefits can be claimed.

The MBS is an uncapped, demand-driven programme. Once a particular service is included on the MBS, its utilisation is largely a matter for health professionals and their clinical decision making in consultation with their patients.[47] Services on the MBS are subject to stringent eligibility criteria which limit their use to particular circumstances.

7.2 Process for listing health technologies on the MBS

The application for listing a health technology on the MBS can be initiated by a medical profession, the medical industry and other stakeholders with an interest in seeking Australian Government funding.

7.2.1 Who considers applications to list health technologies on the MBS?

Applications to list health technologies on the MBS are assessed by MSAC. MSAC is a non-statutory committee established in 1998 by the Australian Minister for Health and Aged Care. It was established to improve health outcomes for patients by ensuring that new and existing medical procedures attracting funding under the MBS are supported by evidence of their comparative safety, clinical effectiveness, cost-effectiveness and total cost. MSAC's role is to provide advice to the Australian Government on whether a new medical service or other health technologies should be publicly funded (and if so, its circumstances), other than medicines that would be subsidised through the PBS.

Health technologies considered by MSAC include:

- medical services (eligible for MBS listing)
- other programs (blood products and blood-related products, or screening programs)
- high cost, HSTs delivered as state-based services.

There are currently two subcommittees of MSAC, the Evaluation Sub-Committee (MSAC ESC) and the Population Intervention Comparator and Outcome (PICO) Advisory Sub-committee (PASC).

PASC confirms the population, intervention, prior test (for investigative technologies only), comparator and outcomes (PICO/PPICO) of the application's proposed medical service.

[46] MBS Online, What legislation covers the MBS, http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/faq-legislation
[47] MSAC website, What is the MBS and Medicare?, http://www.msac.gov.au/internet/msac/publishing.nsf/Content/factsheet-03

MSAC ESC provides advice on the quality, validity and relevance of internal and external assessments for applications being considered by MSAC.

7.2.2 What assessment is made and what information is used to make the assessment?

MSAC conducts appraisals of health technologies and provides advice to Government on whether they should be publicly funded and under what circumstances.

When conducting its appraisal, MSAC considers an HTA that summarises the best evidence of the benefits, harms and costs of the health technology to determine its value. The value of a health technology involves clinical effectiveness, safety, costs, economic implications, and may include information encompassing the value of knowing, ethical, organisational, patient and social, legal or environmental aspects, and whether a rule of rescue applies.

Health impacts and costs are measured against what is already used (called the comparator). This helps decide whether the extra benefits from a new health technology justify any extra costs to the health care system.

This information is provided as a health technology assessment report for MSAC to consider.

7.2.3 Consideration of evidence from patients, consumers and other stakeholders

MSAC also receives evidence and input from consumers (patients, family members, carers) and other stakeholders through pathways other than the assessment report process. These include:

- formal targeted public consultation at the start of an MSAC application
- consumer comments provided within the specified consultation period before the health technology is considered.

There are two main points in the process where consultation feedback obtained:

1. prior to the meeting of PASC
2. prior to MSAC's consideration of the application.

The applications scheduled for consideration by MSAC and its subcommittees (MSAC ESC and PASC) are published before each meeting.

7.2.4 Pathway from MSAC submission to MBS listing

The MSAC process includes four broad stages.[48]

1. **Preassessment Stage**: The Department receives an application form for funding and assesses its suitability to progress.
2. **PICO confirmation stage**: A PICO confirmation is developed to guide the application. This is reviewed and confirmed by PASC. Public and targeted consultation is undertaken at this stage of the process to inform PASC.
3. **Application assessment**: An HTA is undertaken. The resulting assessment report is reviewed and discussed by MSAC ESC. Public and targeted consultation is undertaken at this stage of the process to inform MSAC.
4. **MSAC appraisal**: MSAC reviews and discusses the assessment report and MSAC ESC advice. MSAC advises the Minister for Health about whether the health technology should be funded on the MBS or another funding program.

There are three pathway types through the MSAC process.

[48] MSAC Website, The MSAC Guidelines, http://www.msac.gov.au/internet/msac/publishing.nsf/Content/MSAC-Guidelines

- **Expedited**: If an applicant's PICO is very clear in the application form stage, the Department and the MSAC Executive may agree that the application can bypass PASC and progress straight to the development of an assessment report.
- **Standard**: This is the primary pathway in which the majority of applications will progress through the MSAC process. This pathway will generally involve the development of a PICO Confirmation by an HTA Group; consideration at one PASC meeting; and the development of an assessment report for consideration by MSAC ESC and MSAC.
- **Comprehensive**: The comprehensive pathway will follow the same steps as the Standard pathway but will require more than one consideration by PASC and have a formal consultation period between the two PASC meetings.

In consultation with the applicant, the Department will decide on the most appropriate pathway for each application to progress through the MSAC process.

Pre assessment

The purpose of this stage is to ensure the application is suitable for consideration by MSAC and if so, that the applicant is aware of the process, likely pathway, and evidence expected to be provides. During this stage the following occurs:

- the suitability and triage process
- application Progression Record acknowledgement and finalisation
- targeted consultation.

PICO confirmation

The PICO Confirmation is developed by an HTA Group and the relevant clinical management algorithms to progress an assessment are determined. At the end of this step, the applicant, Department and PASC aim to have an agreed PICO to undertake a systematic review of the evidence and generate an economic evaluation/model. During this stage the following occurs:

- PICO confirmation development by an HTA group
- public and targeted consultation
- applicant comment on the PICO confirmation
- PASC Meeting (PICO confirmation ratification).

Application assessment

Evidence outlined in the PICO confirmation is presented in an assessment report. Assessment reports are undertaken either as a contracted assessment or a submission-based assessment.

For contracted assessments (now called a Department Contracted Assessment Reports [DCAR]), the Department organises, coordinates, and covers the costs associated with developing and preparing the necessary MSAC documents for consideration. Applicants are allowed to engage with the HTA group contracted to undertake the assessment, although this is facilitated via the Department.

For submission-based assessments (now called an Applicant Developed Assessment Report [ADAR]), applicants are responsible for organising, coordinating, and covering the costs associated with developing and preparing MSAC documents.

For ADARs, the Department will coordinate and cover the costs for an HTA group to develop a commentary to evaluate an ADAR.

In addition, a summary of the feedback from any formal public consultation or otherwise received throughout the process are presented alongside the assessment report.

A 2-stage approach to submitting the assessment report is available as an option (i.e. will be considered by MSAC ESC and MSAC twice) where the context and clinical evaluation sections are assessed first before subsequently preparing and submitting the economic evaluation and financial implications sections for assessment in a following round.

MSAC appraisal

This step is where MSAC undertakes a rigorous and transparent appraisal of the evidence presented to it before advice is provided to Government for consideration. MSAC will consider a wide range of information, including the assessment report; the independent commentary of the ADAR, feedback from the applicant and MSAC ESC; any feedback on the MSAC ESC report provided by the applicant and/or other relevant parties.

MSAC's advice to the Minister is made public on the MSAC website via a Public Summary Document (PSD), which explains the rationale for MSAC's advice.

Post-MSAC process for MBS listing

Once MSAC has considered an application, its advice will inform a decision by the Minister of Health in relation to public funding. For MBS listings, new policy proposals will be developed by the Department and include liaison with central agencies and the applicant/clinical experts where relevant.

The Department will provide advice to the Minister on the MSAC deliberations and seek authority to put forward the new policy proposals through the Budget or Mid-Year Economic Fiscal Outlook (MYEFO) process. The Budget is brought down by the Treasurer on the second Tuesday of May each year.

The Government also provides a Mid-Year Economic Outlook which updates information contained in the Budget, by the end of January each year. The Government will decide whether public funding should be granted based on the MSAC advice and advice from the Department.

Recent reforms

In 2020, A review of the Therapeutic Guidelines (version 2.0, March 2016) and Investigative Guidelines (version 3.0, July 2017) was undertaken to ensure the MSAC assessment processes align with best practice in HTA for therapeutic and investigative medical technologies and services.[49] Two reference groups were established - the Guidelines Review Steering Committee, and the Technical Reference Group - to provide strategic and technical oversight, respectively.

The MSAC Guidelines Review addressed technical method issues raised by MSAC and stakeholders since the last substantial revision. There is now only one set of technical guidelines – which combine Therapeutic and Investigative Guidelines.

Other changes included:

- The structure is no longer mapped to MSAC templates – it now follows 'Technical Guidance' topics, that can be used like a 'manual' (i.e. the MSAC Guidelines do not need to be read beginning to end).

[49] MSAC Website, Guidelines for preparing assessments for the MSAC, http://www.msac.gov.au/internet/msac/publishing.nsf/Content/MSAC-Guidelines

- There are updated PICO Confirmation and Assessment Report Templates, with signposted guidance to the relevant sections of the MSAC Guidelines.
- There are options to present additional relevant information such as the Inclusion of the 'Value of Knowing' and 'Other Relevant Considerations'.
- The revised Guidelines provide guidance for newer technologies, including genetic testing for heritable diseases and other screening tests, incorporating information that used to be in the Clinical Utility Card (CUC) Proforma.
- There is an exemplar/facilitated approach for investigative/diagnostic genetic tests.
- 'Key Consideration Boxes' and more images/diagrams to better visualise concepts have been added.

7.3 Issues raised through the House of Representatives Inquiry

The Standing Committee heard from some stakeholders that the MSAC processes are not as transparent or consistent as PBAC processes. In particular, stakeholders commented that there is no calendar that details the milestones and deadlines for MSAC processes.

Stakeholders also pointed to the absence of a commitment from Government to commit funding for MSAC recommendations, and absence of delegation from the Minister to implement MSAC recommendations, as occurs for PBAC recommendations.

7.4 Timeframes to MBS listing

MSAC process

The length of time of the MSAC process is particular to each application, and will depend on a number of factors including the time it takes to determine suitability and the MSAC pathway that the application follows. For example, a pathway that involves more than one PASC consideration will take longer than just one or no PASC consideration.

The 'pre assessment' stage is measured from when the completed application form is submitted to when the PICO confirmation for the application is considered at PASC and should take approximately 20 weeks. This applies to applications following a standard or comprehensive pathway.

The assessment phase of the MSAC process does not vary as greatly as the pre-assessment phase. Once the Department receives an assessment report (either submission based or contracted), the assessment phase of the MSAC process takes approximately 22 weeks.

Post-MSAC

There are no specific timeframes for listing on the MBS. However, once approved, the Department will implement the decision of Government through amendment to regulations and/or other instruments for the listing of the recommended service on the MBS.

8 PBS MBS codependent technologies

8.1 Background

A codependent technology is a medical technology/service that relies on another technology to achieve its intended purpose or enhance its effect.[50] Codependent technologies in scope for the HTA Review are those that improve health outcomes associated with medicines, vaccines and HSTs.

The cost-effectiveness and financial implications of the joint use of the technologies are considered as part of the advice to Government on whether codependent technologies should be funded.[51]

8.2 Process for listing PBS and MBS codependent technologies

8.2.1 Who considers submissions?

The medicine component of the codependent submission is assessed by PBAC while the other technology (such as a pathology test) is assessed by MSAC.

8.2.2 What assessment is made and what information is used to make the assessment?

PBAC and MSAC assess the magnitude of clinical improvement or toxicity reduction, the incremental cost and the comparative costs and outcomes where an economic evaluation is required to support a claim of cost-effectiveness, cost-utility or cost-minimisation. For the medicine component, the same information as required for a Category 1 PBAC submission is assessed. For the other technology, the same information as required by MSAC for the particular type of technology is assessed.

8.2.3 Consideration of evidence from patients, consumers and others

Evidence from patients, consumers and others are considered through the existing consultation mechanisms for PBAC and MSAC submission processes.

8.2.4 Pathway from application to listing of a codependent technology

There are two different codependent submission processes: integrated and streamlined. [51]

Table 13. Integrated vs Streamlined Codependent Submission[51,52,53]

Integrated codependent submission	Streamlined codependent submission
• Involves submission of a medicine to the PBAC which also involves a codependent test or other investigative services that either: is not listed on the MBS; or requires a substantial amendment to the MBS to list it as intended. • A combined submission prepared and considered jointly by MSAC and the PBAC	• For reconsideration by the PBAC or MSAC, after previous consideration, where one committee has foreshadowed support for a technology in the pairing. • Individual submissions for each of the technologies are lodged simultaneously and considered by MSAC and the PBAC, respectively, in parallel

[50] MSAC Website, What is co-dependent technology, http://www.msac.gov.au/internet/msac/publishing.nsf/Content/factsheet-09

[51] PBAC Website, Product type 4 – Codependent technologies, https://pbac.pbs.gov.au/product-type-4-codependent-technologies.html

[52] PBS Website, Codependent submission processes, https://www.pbs.gov.au/pbs/industry/listing/procedure-guidance/6-consideration-submissions/6-11-codependent-submission-processes

[53] PBS Website, Public Summary Documents, https://www.pbs.gov.au/info/industry/listing/elements/pbac-meetings/psd/public-summary-documents-by-product

Integrated codependent submission	Streamlined codependent submission

• Documents for the medicinal and medical service components
  ○ same evaluation group
  ○ joint evaluation document
  ○ PBAC and MSAC ESC joint meeting
  ○ joint ESC Advice document
	• An overview of the streamlined submission to MSAC is prepared by the Department and provided to the applicant according to the standard pre-MSAC process. In some circumstances, the streamlined component of the submission is to PBAC.
	• Resubmissions where one committee (PBAC or MSAC) has not supported/recommended

Where an applicant makes an integrated codependent submission, the Intent to Apply form is required four weeks prior to the MSAC submission due day. The MSAC submission date is typically four weeks earlier than the corresponding PBAC submission due day (the MSAC submission due day corresponds with the date of the previous meeting of MSAC ESC). As a result, the Intent to Apply form for an integrated codependent submission is required eight weeks before the usual PBAC submission due day and the integrated codependent submission due day is four weeks before the usual PBAC submission due day. The steps for consideration of a codependent submission are included in Figure 7.

8.3 Issues raised through the House of Representatives Inquiry

Pharmaceutical companies expressed concern that the current process of having two committees consider codependent PBS and MBS listings is creating delays.

8.4 Timeframes for PBS and MBS listing of codependent technologies

The timeframes for listing PBS MBS codependent technologies is similar to that for PBS medicines with the exception of the PBAC submission to earliest possible date to submit pricing offer period (see Figures 14 and 15). This is period is longer, due to the earlier date required for submission and interdependency of committee recommendations (see Figure 15 example for larotrectinib).

The MBS technology and the PBS medicine are subsidised on the same day (see Figure 14).

Figure 14. Timeframes for integrated codependent PBS listing compared with PBS new medicine listing

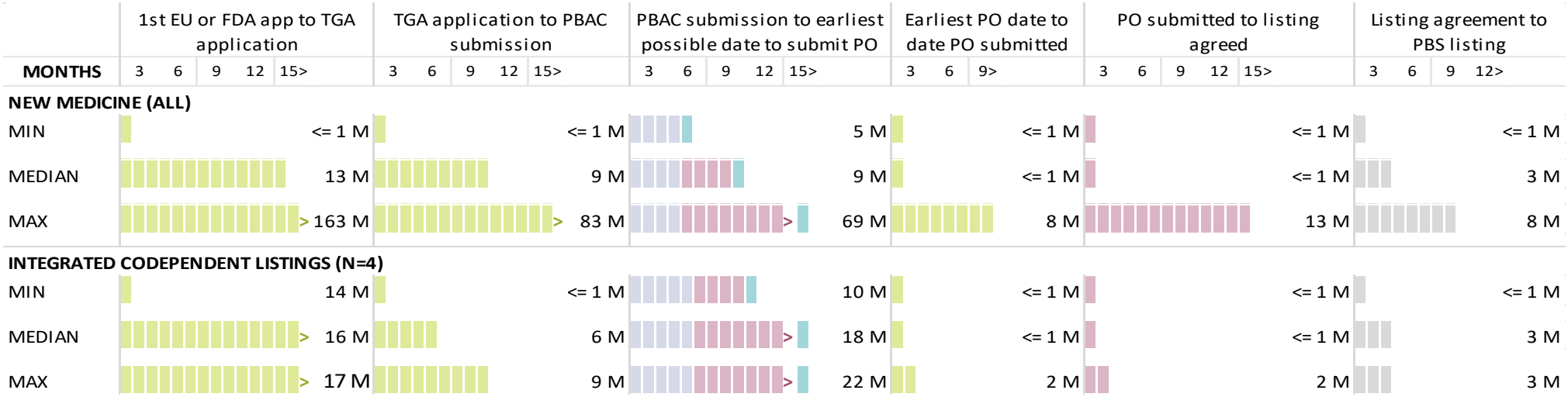
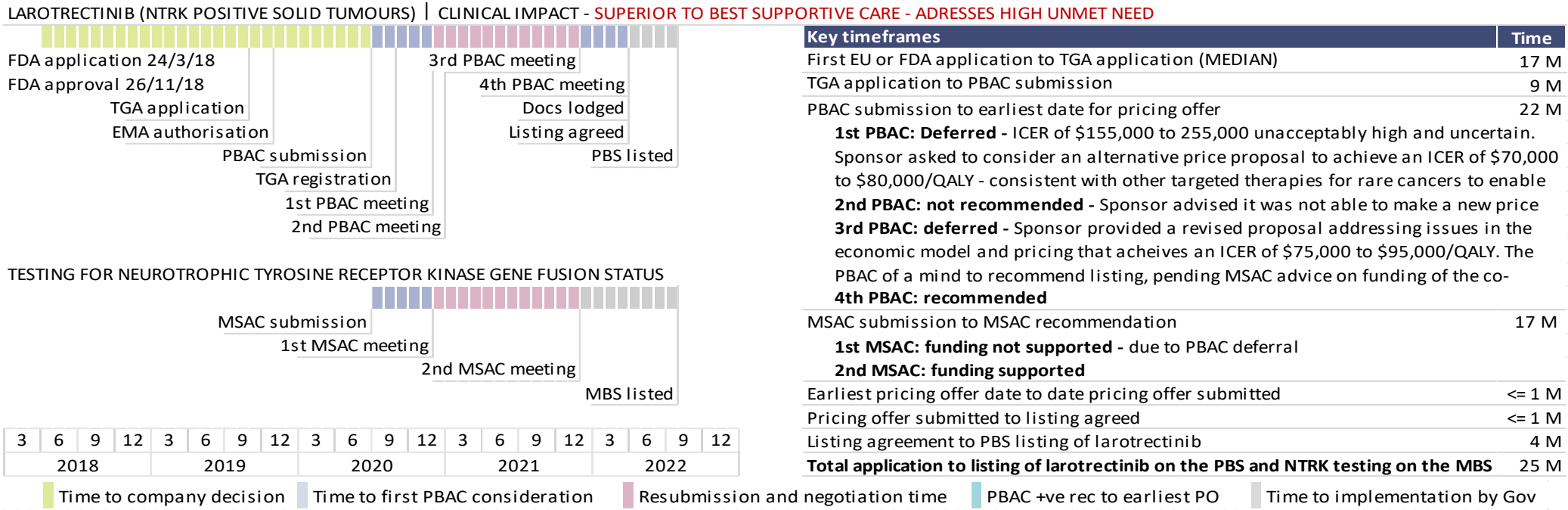


Figure 15. Example timeframe - integrated codependent PBS MBS listing



Key timeframes	Time
First EU or FDA application to TGA application (MEDIAN)	17 M
TGA application to PBAC submission	9 M
PBAC submission to earliest date for pricing offer	22 M
1st PBAC: Deferred - ICER of $155,000 to 255,000 unacceptably high and uncertain. Sponsor asked to consider an alternative price proposal to achieve an ICER of $70,000 to $80,000/QALY - consistent with other targeted therapies for rare cancers to enable	
2nd PBAC: not recommended - Sponsor advised it was not able to make a new price	
3rd PBAC: deferred - Sponsor provided a revised proposal addressing issues in the economic model and pricing that acheives an ICER of $75,000 to $95,000/QALY. The PBAC of a mind to recommend listing, pending MSAC advice on funding of the co-	
4th PBAC: recommended	
MSAC submission to MSAC recommendation	17 M
1st MSAC: funding not supported - due to PBAC deferral	
2nd MSAC: funding supported	
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing of larotrectinib	4 M
Total application to listing of larotrectinib on the PBS and NTRK testing on the MBS	25 M

9 High cost highly specialised therapies

9.1 Background

Funding arrangements for high cost, HSTs are set out in the 2020-25 NHRA addendum. The NHRA defines high cost, HSTs as:

'TGA approved medicines and biologicals delivered in public hospitals where the therapy and its conditions of use are recommended by MSAC or PBAC; and the average annual treatment cost at the commencement of funding exceeds $200,000 per patient (including ancillary services) as determined by the MSAC or PBAC with input from the Independent Hospital Pricing Authority; and where the therapy is not otherwise funded through a Commonwealth program or the costs of the therapy would be appropriately funded through a component of an existing pricing classification.'[54]

The NHRA states that funding arrangements for HSTs recommended for delivery in a public hospital setting by MSAC will be determined on the basis of hospital funding contributions specified in Schedule A with the following exceptions for the term of this addendum:

a. The Commonwealth, for these types of therapies, will provide a contribution of 50 percent of the growth in the efficient price or cost (including ancillary services), instead of 45 per cent; and
b. They will be exempt from the funding cap at clause A56 for a period of two years from the commencement of service delivery of the new treatment.
c. Upon commencement of service delivery of the new treatment in a state, the state may request advice form the administrator on the operation of the cap exemption for that treatment in that state.

As at 31 December 2023, there are five HSTs funded under the NHRA arrangements.

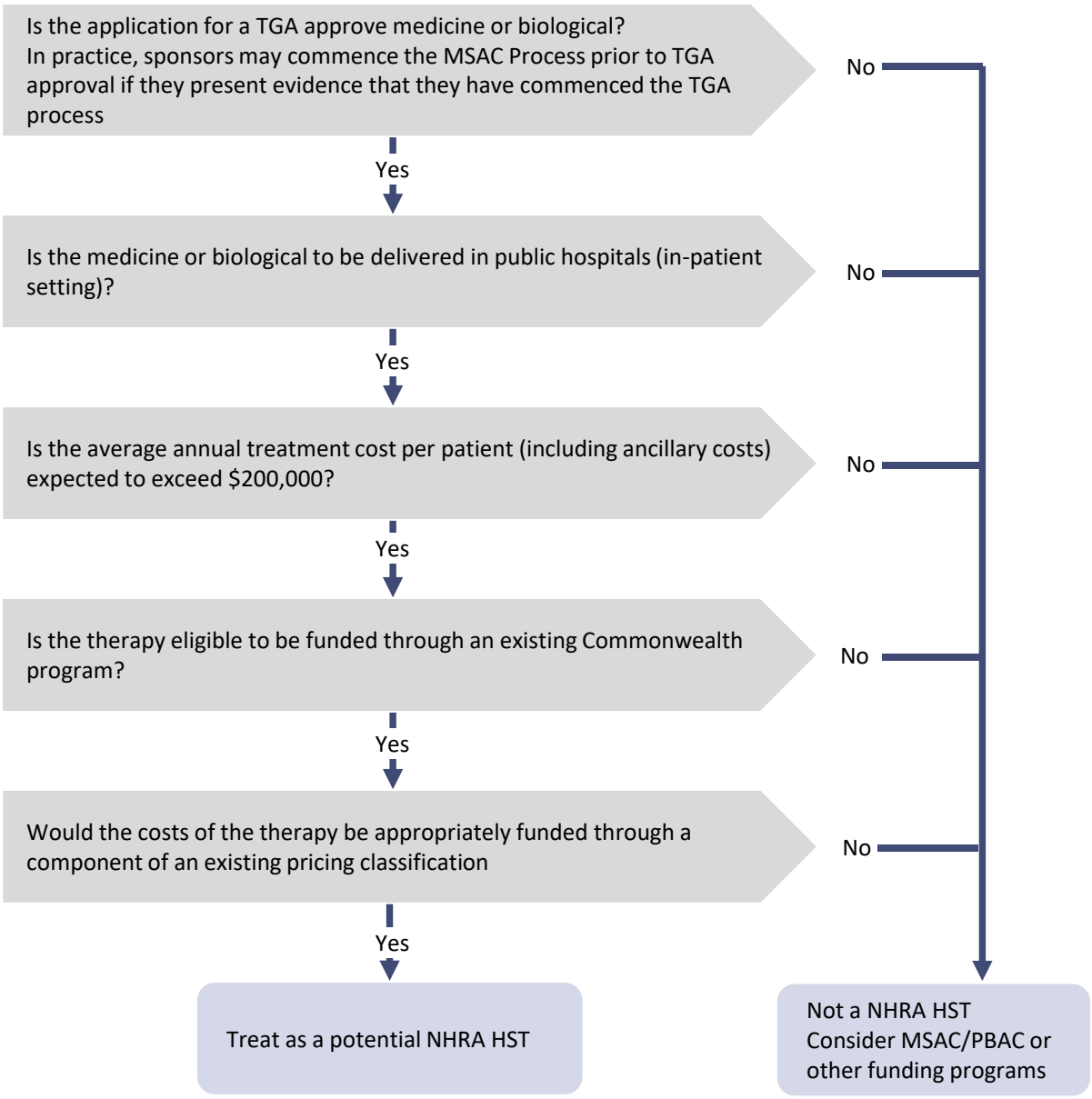
9.2 Funding process for high cost, HSTs

The MSAC and PBAC Chairs, together with a representative from each state and territory jointly decide on which HTA advisory committee should assess the application for a new drug or therapy, and whether it meets the definition of a high cost, HST.

Once a decision is made, the Department will advise the applicant whether the application was determined to meet the criteria for a high cost, HST. The criteria for determining whether an application meets the criteria for a high cost, HST under the NHRA is set out in Figure 16.

[54] Federal Financial Relations, National Health Reform Agreement, Appendices A and B, https://federalfinancialrelations.gov.au/sites/federalfinancialrelations.gov.au/files/2021-07/NHRA_2020-25_Addendum_consolidated.pdf

Figure 16. Decision tree for determining if a health technology should be treated as a potential NHRA high cost, HST



9.2.1 Who considers submissions?

Where an application is determined to meet the criteria for an HST, the MSAC assessment pathway will apply. Where an application is determined not to meet the criteria for an HST, other funding programs, such as the PBS will be considered.

9.2.2 Consideration of evidence from patients, consumers and others

Evidence from patients, consumers and others are considered through the existing consultations in the MSAC process.

9.2.3 What assessment is made and what information is used to make the assessment?

The assessment and information is the same as that required for other submissions considered by MSAC, with the addition of submissions from state and territory health departments. Details of the assessment of HSTs are detailed in the draft HST Framework.

9.2.4 Pathway from application to funding?

MSAC process

The normal pathways for appraisal by MSAC apply to HSTs.

Post-MSAC process

Following a supportive MSAC recommendation, the Commonwealth and sponsor company negotiate an overarching Deed of Agreement in line with MSAC's conditions for funding. States and territories are notified on the same day that the company agrees to the recommendations of MSAC. States and territories decide when and where the therapy will be provided.[55]

9.3 Issues raised through the House of Representatives Inquiry

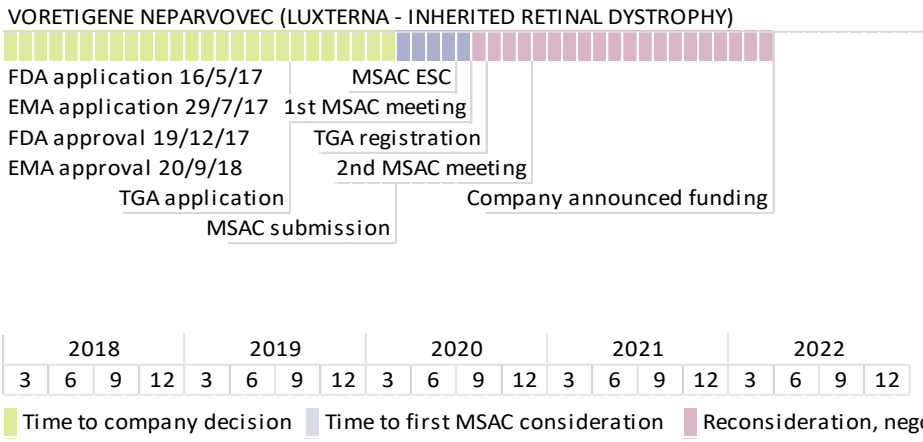
Pharmaceutical companies expressed the view that companies seeking to bring new types of technologies such as precision therapies are finding it difficult to determine the appropriate pathway – particularly for gene therapies which could be subsidised either through the PBS or funded under HST arrangements. There was also a perception among pharmaceutical companies, that for some technologies, there was no pathway for funding – although these technologies were not identified.

9.4 Timeframes for funding HSTs

The timeframes for assessment of HSTs are the same as for other health technologies considered by the MSAC. As with MBS listings, there is no specific timeframe for the funding of an HST following advice from MSAC.

[55] Federal Financial Relations, National Health Reform Agreement, Appendices A and B, https://federalfinancialrelations.gov.au/sites/federalfinancialrelations.gov.au/files/2021-07/NHRA_2020-25_Addendum_consolidated.pdf

Figure 17. Example timeframe – HST



Key timeframes	Time
First EU or FDA application to TGA application	26 M
TGA application to MSAC submission	7 M
MSAC submission to MSAC recommendation for funding	9 M
1st MSAC meeting: deferred - MSAC agreed that the available evidence indicates VN improves vision in patients with inherited retinal dystrophy. However MSAC considered there were significant uncertainties with the economic modelling resulting in a high and uncertain cost-effectiveness, and with the financial estimates.	
2nd MSAC meeting: supported - MSAC agreed the applicant had addressed many of the matters it had raised in its first consideration.	
Recommendation to funding	16 M
Total application to listing	25 M

10 National Blood Arrangements

10.1 Background

Regulation of blood

Blood and blood components (including haematopoietic progenitor cells), are regulated under the TG Act as medicines.[56]

National Blood Authority

The NBA is a statutory agency established under the *National Blood Authority Act 2003* within the Australian Government Health portfolio. The NBA manages and coordinates arrangements for the supply of blood and blood products and services on behalf of the Commonwealth, state and territory governments.[57]

National Blood Agreement

The National Blood Agreement (the Agreement) between the Commonwealth, state and territory governments, implements a coordinated national approach to policy setting, governance and management for the Australian blood sector.[58] The primary objectives under the Agreement are to provide an adequate, safe, secure, and affordable supply of blood products, blood related products and blood related services and promote safe, high-quality management and use of blood products, blood related products and blood related services in Australia. The Agreement describes the process for determining the products which are supplied through the National Product Price List.[59] All state and territory governments must approve the supply and funding of products under Schedule 4 of the Agreement, with:

- 63% of the funding provided by the Australian Government
- 37% provided by state and territory governments.

The operating costs of the National Blood Arrangements (the Arrangements) are also jointly funded by the Commonwealth, state and territory governments. Anyone can propose changes to products or services that are publicly funded under the Arrangements. Proposals to change the products and services funded under the Arrangements usually come from suppliers with new products, the TGA, other bodies with responsibilities in relation to safety and quality, or patient groups.

10.2 Funding process for blood products

In all instances, applications are made to the NBA. In order to make the application process consistent, a comprehensive Multi-Criteria Analysis Framework has been developed to assess proposals and is undertaken by the NBA. Consideration of funding proposals is initially undertaken by the JBC which consists of senior government officials with member representation from the

[56] TGA, Blood and blood components, https://www.tga.gov.au/blood-and-blood-components
[57] National Blood Authority, About the NBA, https://www.blood.gov.au/about-nba.
[58] National Blood Authority, National Blood Agreement, https://www.blood.gov.au/system/files/documents/nba-national-blood-agreement.pdf
[59] National Blood Authority, What blood products are supplied – National Product Price List, https://www.blood.gov.au/national-product-price-list

Australian Government, the six state governments and two territory governments. The JBC's key functions are to:

- Consider applications for new products to be funding under the Arrangements.
- Participate in the development of the national supply plan and budget.
- Consider advice from the NBA, and to consider and advise the NBA of national blood supply issues.
- Oversee the NBA's role in relation to contracts with bodies involved in the collection, production and distribution of products for the purposes of the national blood supply.

Where appropriate, the JBC may also request an evidence-based evaluation by MSAC on the safety, clinical effectiveness or cost effectiveness of the proposal. Once tMSAC makes a recommendation, the application must go back to JBC for further consideration and final decision.

If governments agree to fund a new product, the NBA will negotiate with the supplier to achieve the best value for money.

10.3 Issues raised through the House of Representatives Inquiry

The issues raised in the Inquiry relevant to blood arrangements were the same as those that related to timeframes for the MSAC and post-MSAC processes discussed in Section 7.

10.4 Timeframes for funding blood products

There are no specific timeframes for the funding of blood products.

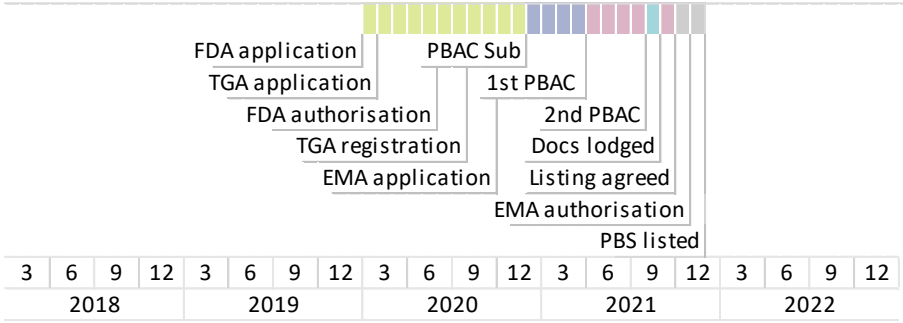
11 Appendix A – List of HTA committees and sub-committees

Advisory bodies	Roles
PBAC	Pharmaceutical Benefits Advisory Committee: Is an independent expert body appointed by the Australian Government. Members include doctors, health professionals, health economists and consumer representatives. Its primary role is to recommend new medicines for listing on the Pharmaceutical Benefits Committee (PBS).
PBAC ESC	PBAC Economics Sub Committee: Assesses clinical and economic evaluations of medicines submitted to PBAC for listing, and advises PBAC on the technical aspects of these evaluations.
DUSC	Drug Utilisation Sub Committee: Advises PBAC on estimates of projected usage and financial cost for medicines and the actual utilisation of medicines..
MSAC	Medical Services Advisory Committee: Appraises new medical services proposed for public funding and provides advice to Government on whether a new medical service should be publicly funded (and if so, circumstances) on an assessment of its comparative safety, clinical effectiveness, cost-effectiveness and total cost, using the best available evidence.
MSAC ESC	MSAC Evaluation Sub-committee: A standing sub-committee of MSAC with membership to include health economics, epidemiology, public health, consumer and clinical expertise. Its focus is to provide advice on the quality, validity and relevance of internal and external assessments for applications being considered by MSAC.
MSAC PASC	The PICO Advisory Sub-committee: A standing sub-committee of MSAC with membership to include decision analysis, health economics, epidemiology, public health, consumer and clinical expertise. Its focus is on the task of confirming the population, intervention, prior test, comparator and outcomes (PICO/PPICO) of the application's proposed medical service. This in turn informs the construction of decision analytic for the economic evaluation that is subsequently conducted during the assessment stage of the process.
ATAGI	Australian Technical Advisory Group on Immunisation: Advises the Minister for Health and Aged Care on the administration of vaccines including those on the National Immunisation Program (NIP) and other immunisation issues. ATAGI also advises the PBAC on evidence relating to vaccines and their effectiveness for use in Australia.
LSDP EP	Life Saving Drugs Program Expert Panel: Considers all applications to list new medicines on the Life Saving Drugs Program (LSDP). The LSDP EP assesses medicines, listens to stakeholders, and advises the Chief Medical Officer about listing medicines. It also reviews medicines already on the LSDP program.

12 Appendix B – Example timelines for new medicines

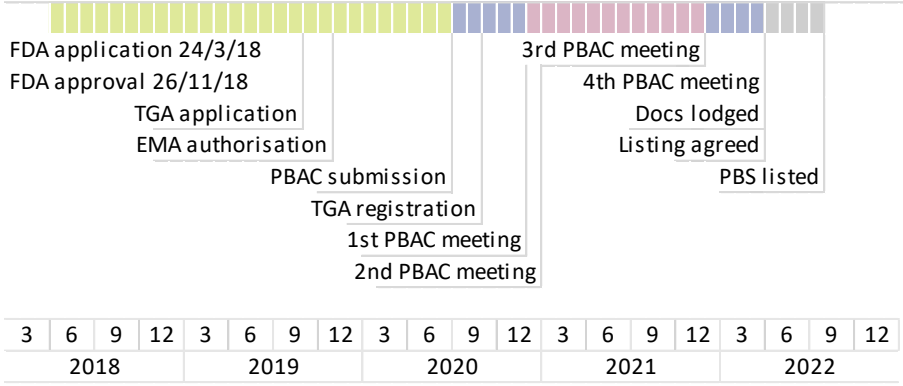
Figure 18. Example timeframes (min, median and max of different stages)*

RIPRETINIB (GIST) | CLINICAL IMPACT - SIGNIFICANT IMPROVEMENT OVER STANDARD OF CARE FOR SOME PATIENTS



Key timeframes	Time
First EU or FDA application to TGA application	<=1 M
TGA application to PBAC submission	10 M
PBAC submission to earliest date for pricing offer	9 M
1st PBAC: Not recommended - early resolution pathway - ICER unacceptably high and uncertain. Overestimated proportion of imatinib patients that go onto sunitinib. **2nd PBAC: Recommended -** Price reduction offered. Model assumptions revised.	
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing	3 M

LAROTRECTINIB (NTRK POSITIVE SOLID TUMOURS) | CLINICAL IMPACT - SUPERIOR TO BEST SUPPORTIVE CARE - ADRESSES HIGH UNMET NEED

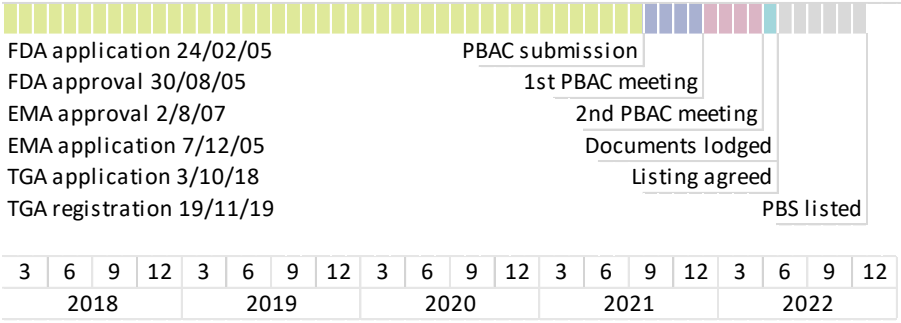


Key timeframes	Time
First EU or FDA application to TGA application	17 M
TGA application to PBAC submission	9 M
PBAC submission to earliest date for pricing offer	22 M
1st PBAC: Deferred - ICER of $155,000 to 255,000 unacceptably high and uncertain. Sponsor asked to consider an alternative price proposal to achieve an ICER of $70,000 to $80,000/QALY - consistent with other targeted therapies for rare cancers to enable early resolution and potential PBS listing. **2nd PBAC: not recommended -** Sponsor advised it was not able to make a new price proposal. **3rd PBAC: deferred -** Sponsor provided a revised proposal addressing issues in the economic model and pricing that acheives an ICER of $75,000 to $95,000/QALY. The PBAC of a mind to recommend listing, pending MSAC advice on funding of the co-dependent NTRK testing. **4th PBAC: recommended**	
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing	4 M

Time to company decision | Time to first PBAC consideration | Resubmission and negotiation time | PBAC +ve rec to earliest PO | Time to implementation by Gov

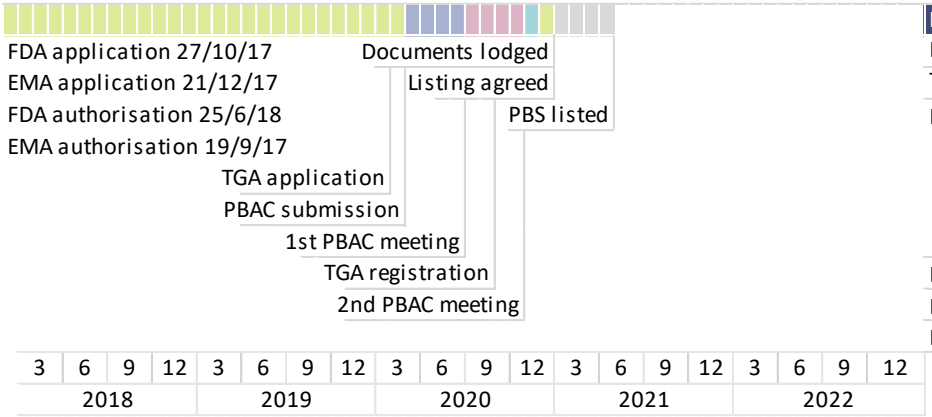
* Reasons for the PBAC decisions are abbreviated and do not reflect the totality of the PBAC's reasoning. For full reasons for PBAC recommendations see the relevant public summaries.

MECASERMIN (IGF 1 DEFICIENCY) | CLINICAL IMPACT - MODEST IMPROVEMENT IN HEIGHT OUTCOMES



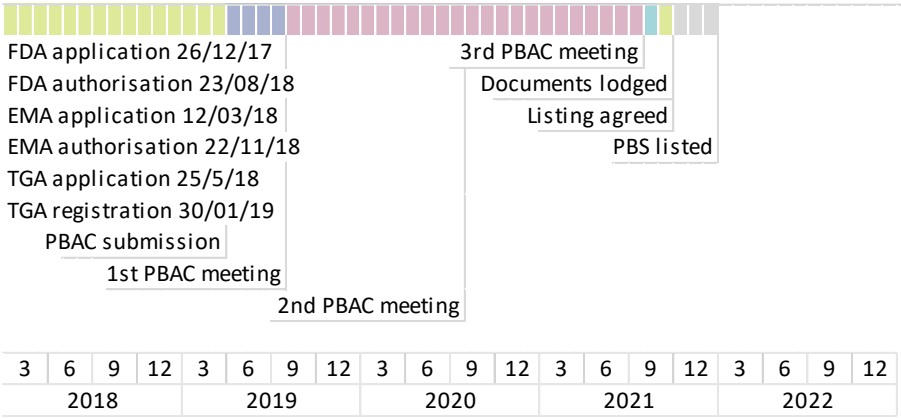
Key timeframes	Time
First EU or FDA application to TGA application	163 M
TGA application to PBAC submission	33 M
PBAC submission to earliest date for pricing offer	9 M
1st PBAC: not recommended - Proposed PBS criteria inadequately defined the patient population. ICER unacceptably high and uncertain. Estimated utilisation uncertain and required further validation. **2nd PBAC: recommended -** Concerns addressed via proposed risk sharing arrangement	
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing	5 M

CANNABIDIOL (DRAVET SYNDROME) | CLINICAL IMPACT - SIGNIFICANT IMPROVEMENT OVER STANDARD OF CARE FOR SOME PATIENTS



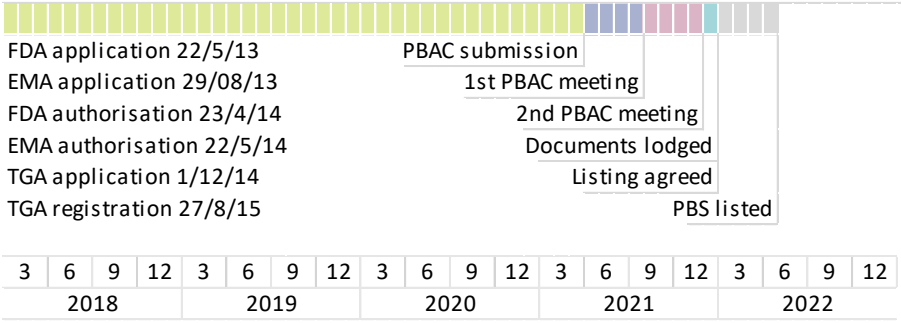
Key timeframes	Time
First EU or FDA application to TGA application	28 M
TGA application to PBAC submission	<=1 M
PBAC submission to earliest date for pricing offer	9 M
1st PBAC: deferred - further clarity on the clinical place required to inform appropriate initial and continuing restriction criteria, cost-effectveness and financial implications. TGA delegate supportive of registration but a number of issues were referred to the Advisory Commmittee on Medicines for advice. **2nd PBAC: recommended -** following discussion with clinicians on clinical place in therapy	
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing	3 M

LANADELUMAB (HEREDITARY ANGIOEDEMA) | CLINICAL IMPACT - SIGNIFICANT IMPROVEMENT OVER STANDARD OF CARE FOR SOME PATIENTS - ADDRESSES HIGH UNMET NEED



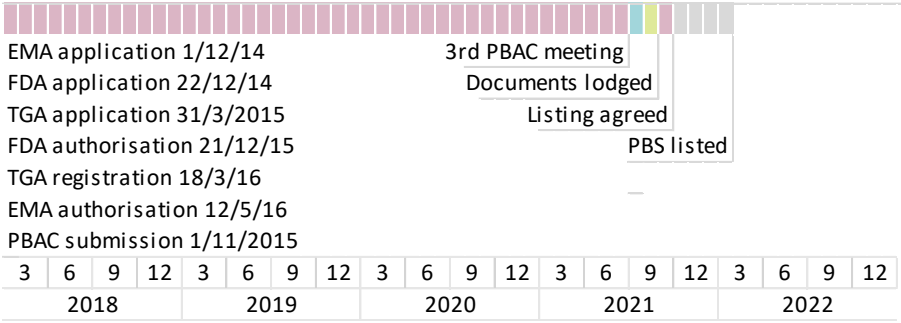
Key timeframes	Time
First EU or FDA application to TGA application	5 M
TGA application to PBAC submission	10 M
PBAC submission to earliest date for pricing offer	29 M
1st PBAC: not recommended - clinical need and appropriate role broader than proposed restriction. Comparator and financial estimates not appropriate given broader role. **2nd PBAC: deferred** - further information required about the most appropriate patient population. ICER high and uncertain. Financial estimates sensitive to dosage regimen notwithstanding small difference between dosage regimens used in the trial. High risk of usage outside of restrictions. **3rd PBAC: recommended** - issues raised in previous meeting addressed. Financial risk managed by proposed Risk Sharring Arrangement.	
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing	3 M

SILTUXIMAB (IDIOPATHIC MULTICENTRIC CASTLEMAN DISEASE) | CLINICAL IMPACT - SUPERIOR TO PLACEBO



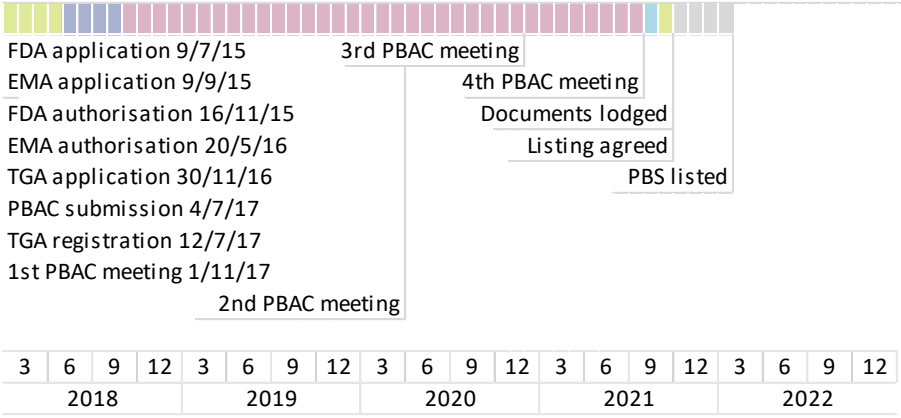
Key timeframes	Time
First EU or FDA application to TGA application	15 M
TGA application to PBAC submission	75 M
PBAC submission to earliest date for pricing offer **1st PBAC: not recommended - early re-entry pathway** - ICER high and uncertain at proposed price. Proposed number of patients to be treated uncertain. **2nd PBAC: recommended** - concerns addressed.	9 M
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing	3 M

SELEXIPAG (PULMONARY ARTERIAL HYPERTENSION) | CLINICAL IMPACT - SIGNIFICANT IMPROVEMENT OVER STANDARD OF CARE FOR SOME PATIENTS



Key timeframes	Time
First EU or FDA application to TGA application	4 M
TGA application to PBAC submission	7 M
PBAC submission to earliest date for pricing offer	57 M
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing	4 M

DARATUMUMAB (MULTIPLE MYELOMA) | CLINICAL IMPACT - SIGNIFICANT IMPROVEMENT OVER STANDARD OF CARE FOR SOME PATIENTS



Key timeframes	Time
First EU or FDA application to TGA application	17 M
TGA application to PBAC submission	8 M
PBAC submission to earliest date for pricing offer	37 M
1st PBAC: not recommended - very high and uncertain ICERs, and preference to have both combinations of therapies available for relapsed or refractory multiple myeloma patients, as well as monotherapy for patients no longer suitable for treatment with bortezomib or lenalidomide. **2nd PBAC: not recommended -** due to high and uncertain ICER. PBAC also concerned about very high estimated financial implicatations. PBAC concerned that proposed listing would result in possible inequity because some patient smay respond better to combination with lenalidomide and **3rd PBAC: deferred -** PBAC requested revisions to the economic model, estimated financial implications and proposed Risk Sharing Arrangement. PBAC Remained concerned that proposed clinical place was narrow and may result in inequities. **4th PBAC: recommended -** Sponsor made requested revisions. Compassionate supply of daratumumab to all eligible MM pathiets who have no other PBS-funded treatement options addressed concerns regarding equity of access.	
Earliest pricing offer date to date pricing offer submitted	<= 1 M
Pricing offer submitted to listing agreed	<= 1 M
Listing agreement to PBS listing	4 M