

MSAC application 1830

Genetic testing to identify homologous recombination repair (HRR) gene alterations in patients with metastatic castration-sensitive prostate cancer (mCSPC) to determine eligibility for treatment with PBS subsidised talazoparib.

Application for MBS eligible service or health technology

HPP Application number:

HPP200453

Application title:

Amendment to MBS items 73303 and 73304 to identify homologous recombination repair (HRR) gene alterations in patients with metastatic castration-sensitive prostate cancer (mCSPC) eligible for treatment under the Pharmaceutical Benefits Scheme (PBS).

Submitting organisation:

PFIZER AUSTRALIA PTY LTD

Submitting organisation ABN:

50008422348

Application description

Succinct description of the medical condition/s:

Prostate cancer is the most commonly diagnosed cancer in Australian men and remains a major cause of cancer-related morbidity and mortality. Patients with metastatic castration-sensitive prostate cancer (mCSPC) have advanced disease that has spread beyond the prostate but remains responsive to androgen deprivation therapy. Despite recent advances in treatment, patients with metastatic disease experience substantially poorer outcomes than those with localised disease. Approximately 25–30% of patients with metastatic prostate cancer harbour pathogenic alterations in genes involved in homologous recombination repair (HRR) pathways, including BRCA1, BRCA2, ATM, PALB2 and other clinically relevant HRR genes. Identification of HRR gene alterations is increasingly important because it may facilitate biomarker-informed treatment selection for patients with advanced prostate cancer.

Succinct description of the service or health technology:

The proposed technology amends MBS items 73303 and 73304 to enable NGS-based HRR panel testing in mCSPC to determine eligibility for relevant PBS treatment. Testing would use tumour tissue, with germline testing where tumour testing is not feasible. The amendment extends testing from mCRPC to mCSPC and expands scope

from BRCA1/2 to an HRR panel.

TALAPRO-3 supports this approach: patients with mCSPC were prospectively selected by HRR alteration status and evaluated for talazoparib plus enzalutamide. The proposed strategy identifies the same biomarker-defined population in practice.

TALAPRO-3 eligibility required an alteration in at least one of 12 HRR genes: ATM, ATR, BRCA1, BRCA2, CDK12, CHEK2, FANCA, MLH1, MRE11A, NBN, PALB2 and RAD51C.

NGS panel testing is established in Australia. The amendment does not introduce new methodology, infrastructure or referral pathways; it expands reportable genes and shifts testing earlier.

Application contact details

Are you the applicant, or are you a consultant or lobbyist acting on behalf of the applicant?

Applicant

Are you applying on behalf of an organisation, or as an individual?

Organisation

Applicant organisation name:

PFIZER AUSTRALIA PTY LTD

Application details

Does the implementation of your service or health technology rely on a new listing on the Pharmaceutical Benefits Scheme (PBS) and/or the Prescribed List?

Yes

Which list/schedule will the other health technologies be listed on?

Pharmaceutical Benefits Scheme

Is the application for a new service or health technology, or an amendment to an existing listed service or health technology?

Amendment

What is the nature of the amendment?

An amendment to the patient population under the existing item(s)

Justification for amendment:

This application seeks an amendment of existing MBS items 73303 and 73304 to enable identification of patients with mCSPC who harbour alterations in homologous recombination repair (HRR) genes and may be eligible for a relevant treatment under the PBS.

The testing platform and methodology are established and have previously been accepted by MSAC. HRR gene alterations, including BRCA1 and BRCA2, are detected using next-generation sequencing (NGS) multi-gene panels already in routine use in NATA-accredited Australian laboratories. MSAC has previously accepted this testing approach in prostate cancer: in Application 1618 (olaparib in metastatic castration-resistant prostate cancer [mCRPC]), MSAC supported MBS listing of NGS testing for BRCA1/2 variants and accepted that high analytical concordance had been demonstrated between the FoundationOne®CDx assay used in the pivotal trial and locally validated HRR panel assays. The specimen types, sequencing methodology, bioinformatic analysis, interpretation and reporting infrastructure are therefore unchanged from the previously evaluated service.

The concept of HRR gene testing beyond BRCA1/2 in prostate cancer is not novel to MSAC. The Ratified PICO for Application 1618 originally encompassed detection of pathogenic BRCA1/2 or ATM variants. The final MBS items were ultimately confined to BRCA1/2, reflecting the absence, at that time, of evidence that patients with ATM alterations derived clinical benefit from PARP inhibition. This application is distinguished by prospective, indication-specific evidence from the Phase III TALAPRO-3 study. Patients in TALAPRO-3 were prospectively identified using molecular testing and were required to harbour alterations in one of 12 pre-specified HRR genes. The study therefore evaluated a biomarker-defined population and provides the evidentiary basis for the broader HRR gene scope sought through this amendment.

HRR testing is generally performed once per patient. The amendment is expected to shift testing earlier in the disease pathway — to the mCSPC setting rather than mCRPC — rather than to introduce a separate additional test for individual patients. The net impact on the number of patients tested and on cost to the MBS is quantified in the utilisation section, taking into account the size of the mCSPC population and measures to avoid duplicate testing across disease stages.

The amendment extends the reportable gene scope from BRCA1/2 to the broader set of clinically relevant HRR genes, consistent with the biomarker-defined population evaluated in the Phase III TALAPRO-3 trial. It does not introduce a new test, testing methodology, laboratory infrastructure requirement or clinical referral pathway.

Relevant MBS items

Please select any relevant MBS items.

MBS item number	Selected reason type
73303	Expansion or amendment to existing item
73304	Expansion or amendment to existing item

What is the type of service or health technology?

Investigative

Please select the type of investigative health technology:

Molecular diagnostic tests

Please select the type of molecular diagnostics health technology:

Single gene assay

PICO sets

Application PICO sets:

PICO set name
Adult patients with metastatic castration-sensitive prostate cancer (mCSPC) requiring homologous recombination repair (HRR) gene alteration testing to determine eligibility for a relevant treatment under the Pharmaceutical Benefits Scheme (PBS). Intervention: NGS-based HRR gene panel testing

State the purpose(s) of the health technology for this PICO set and provide a rationale:

Purpose category:

Predictive

Purpose description:

To provide predictive information to support selection of a specific therapy or intervention

What additional purpose(s) could the health technology be used for, other than the purposes listed above for this PICO set?

Purpose category:

Other

Purpose description:

Rationale:

Identification of HRR gene alteration status to determine eligibility for biomarker-directed treatment under the PBS.

This purpose is addressed within the PICO set through the proposed intervention, proposed MBS item descriptors, and outcomes relating to change in clinical management and health outcomes. It has not been included as a separate standalone purpose because identification of HRR gene alteration status is inherent to the proposed testing intervention and its clinical value is realised through treatment selection and eligibility for PBS-funded biomarker-directed therapy

Population

Describe the population in which the proposed health technology is intended to be used:

Adult patients with metastatic castration-sensitive prostate cancer (mCSPC) whose tumours harbour homologous recombination repair (HRR) gene alterations and who may be eligible for a relevant treatment under the Pharmaceutical Benefits Scheme (PBS).

Select the most applicable Medical condition terminology (SNOMED CT):

Hormone sensitive prostate cancer

Intervention

Name of the proposed health technology:

Existing BRCA testing service MBS items 73303 & 73304 with the descriptors amended to (i) extend the eligible population from mCRPC to mCSPC (ii) expand the reportable gene scope from BRCA1/2 to a 12-gene HRR panel, using established NGS technology. The co-dependent therapy for which eligibility is determined is talazoparib with ENZA. consistent with TALAPRO-3 study.

Comparator

Nominate the appropriate comparator(s) for the proposed medical service (i.e. how is the proposed population currently managed in the absence of the proposed medical service being available in the Australian health care system). This includes identifying health care resources that are needed to be delivered at the same time as the comparator service:

No HRR gene alteration testing in the mCSPC setting. Patients with mCSPC are currently managed using standard treatment approaches,

Outcomes

Outcome description – please include information about whether a change in patient management, or prognosis, occurs as a result of the test information:

Test performance: The NGS multi-gene HRR panel platform is established and was accepted by MSAC for BRCA1/2 detection in prostate cancer (Application 1618 and 1765), including analytical concordance between the trial assay and locally validated panels. The assays used in TALAPRO-3 incorporated a 12-gene HRR panel and utilised established NGS methodology previously considered by MSAC. This application extends the reportable scope from BRCA1/2 to the broader HRR12 panel using the same underlying testing approach.

Predictive validity: Evidence that HRR gene alteration status identifies a biomarker-defined population for whom treatment benefit with talazoparib in combination with enzalutamide has been demonstrated, supported by prospective patient selection using a 12-gene HRR panel in the Phase III TALAPRO-3 study. Supportive evidence regarding biomarker-treatment interaction is available from TALAPRO-2 in mCRPC. Clinical utility rPFS (primary) and OS (key secondary) in patients with HRR-altered mCSPC identified using the proposed testing strategy, supported by ORR, PSA response, time to symptomatic skeletal event, safety and quality of life. Consistency of treatment effect across the HRR12 population, including exploratory by-gene subgroup analyses, will be examined as supportive evidence.

Change in management: proportion of patients identified as having HRR gene alterations and therefore eligible for biomarker-directed treatment, resulting in treatment selection informed by HRR status rather than standard management alone

Proposed MBS items

Please provide at least one proposed item with their descriptor and associated costs, for each population / intervention:

Proposed item:

AAAAA

MBS item number (where used as a template for the proposed item):

73303

Category number:

PATHOLOGY SERVICES

Category description:

GENETICS

Proposed item descriptor:

73303 (amended) – A test of tumour tissue from a patient with metastatic castration-sensitive prostate cancer, including subsequent characterisation of germline gene variants should tumour tissue testing undertaken during the same service be inconclusive, requested by a specialist or consultant physician, to detect homologous recombination repair (HRR) gene alterations (ATM, ATR, BRCA1, BRCA2, CDK12, CHEK2, FANCA, MLH1, MRE11A, NBN, PALB2 and RAD51C) to determine eligibility for a relevant treatment under the Pharmaceutical Benefits Scheme. Applicable once per primary tumour diagnosis.

Proposed MBS fee:

\$1,000.00

Indicate the overall cost per patient of providing the proposed health technology:

\$1,000.00

Please specify any anticipated out of pocket expenses:

\$250.00

Provide any further details and explain:

HRR panel testing is not currently MBS-funded for the mCSPC population. Testing is currently MBS-funded only for mCRPC (via 73303/73304). This application amends item 73303. The \$1,000 fee is consistent with the existing BRCA item. The proposed amendment does not require a fundamentally different testing methodology to that previously accepted by MSAC under Application 1618. MSAC previously supported reimbursement for tumour NGS testing that included BRCA1, BRCA2 and ATM, establishing a precedent that the MBS fee is associated with the genomic testing process rather than the number of individual genes analysed. Applicable once per primary tumour diagnosis.

Proposed item:

BBBBB

MBS item number (where used as a template for the proposed item):

73,304

Category number:

PATHOLOGY SERVICES

Category description:

GENETICS

Proposed item descriptor:

73304 (amended) - Detection of germline homologous recombination repair (HRR) gene alterations (ATM, ATR, BRCA1, BRCA2, CDK12, CHEK2, FANCA, MLH1, MRE11A, NBN, PALB2 and RAD51C), in a patient with metastatic castration-sensitive prostate cancer, for whom testing of tumour tissue is not clinically feasible, requested by a specialist or consultant physician, to determine eligibility for a relevant treatment under the Pharmaceutical Benefits Scheme. Applicable once per lifetime.

Proposed MBS fee:

\$1,000.00

Indicate the overall cost per patient of providing the proposed health technology:

\$1,000.00

Please specify any anticipated out of pocket expenses:

\$250.00

Provide any further details and explain:

HRR panel testing is not currently MBS-funded for the mCSPC population. Testing is currently MBS-funded only for mCRPC (via 73303/73304). This application amends item 73304. The \$1,000 fee is consistent with the existing BRCA item. The proposed amendment does not require a fundamentally different testing methodology to that previously accepted by MSAC under Application 1618. MSAC previously supported reimbursement for tumour NGS testing that included BRCA1, BRCA2 and ATM, establishing a precedent that the MBS fee is associated with the genomic testing process rather than the number of individual genes analysed. Applicable once per lifetime.

How is the technology / service funded at present? (For example: research funding; State-based funding; self-funded by patients; no funding or payments):

Currently MBS-funded only for mCRPC via items 73303 (somatic) and 73304 (germline), which support BRCA1/2 testing to determine eligibility for a relevant PBS treatment. It is not currently funded for mCSPC. This application seeks to amend items 73303/73304 to extend HRR panel testing to the mCSPC population, enabling biomarker-directed access to talazoparib plus enzalutamide under the PBS. As HRR testing is performed once per patient, testing undertaken in the mCSPC setting may offset a proportion of future testing that would otherwise occur in the mCRPC setting. Expected patient numbers and resulting utilisation are described in the utilisation section. The per-test fee is unchanged from the existing items.

Claims

In terms of health outcomes (comparative benefits and harms), is the proposed technology claimed to be superior, non-inferior or inferior to the comparator(s)?

Superior

Please state what the overall claim is, and provide a rationale:

Effectiveness: A clinical claim of superior effectiveness is made for the proposed HRR testing strategy linked to treatment with talazoparib plus enzalutamide compared with current management without biomarker-directed treatment. The claim is supported by evidence that HRR testing identifies patients with mCSPC who derive clinically meaningful benefit from talazoparib plus enzalutamide, as demonstrated in the pivotal Phase III TALAPRO-3 trial, which showed a statistically significant and clinically meaningful improvement in radiographic progression-free survival in the HRR-altered population.

Safety: Talazoparib plus enzalutamide is associated with a less favourable safety profile than enzalutamide alone; however, adverse events were generally manageable and did not result in a clinically meaningful deterioration in patient-reported quality-of-life outcomes

Estimated utilisation

Estimate the prevalence and/or incidence of the proposed population:

Eligible population: Based on the 10% PBS sample, approximately 3,260 patients initiated first-line therapy for mCSPC in 2025. These patients represent the population potentially eligible for HRR testing.

Current testing experience: Current MBS-funded BRCA testing in mCRPC is below the potentially eligible population. Approximately 1,381 MBS-funded BRCA tests were performed in calendar year 2025 under items 73303 and 73304, compared with an estimated mCRPC treatment population of approximately 3,000 patients, suggesting testing rates of approximately 46% in current Australian practice.

The proposed amendment would introduce HRR panel testing earlier in the disease pathway, in the mCSPC setting. However, experience in the mCRPC setting demonstrates that testing uptake is unlikely to be immediate or universal.

Accordingly, utilisation estimates assume a phased increase in uptake as clinician awareness, testing pathways and access arrangements mature.

Provide the percentage uptake of the proposed health technology by the proposed population:

Year 1 estimated uptake (%):

50%

Year 2 estimated uptake (%):

60%

Year 3 estimated uptake (%):

70%

Year 4 estimated uptake (%):

70%

Estimate the number of patients who will utilise the proposed technology for the first full year:

Year 1 ~1,630

Optionally, provide details:

Published literature suggests that pathogenic or likely pathogenic alterations within the proposed 12-gene HRR panel occur in approximately 25–30% of patients with metastatic prostate cancer. In a large genomic profiling study of patients with metastatic hormone-sensitive prostate cancer, HRR gene alterations were identified in 28.6% of patients, including 12.4% with BRCA1/2 alterations and 16.2% with non-BRCA HRR alterations (Olmos et al., Annals of Oncology (2025)).

Applying this prevalence range to the tested population indicates that approximately one-quarter to one-third of tested patients would be expected to have an HRR alteration and therefore be potentially eligible for treatment with talazoparib in combination with enzalutamide

Will the technology be needed more than once per patient?

No, once only

Consultation

List all entities that are relevant to the proposed service / health technology. The list can include professional bodies / organisations who provide, request, may be impacted by the service/health technology; sponsor(s) and / or manufacturer(s) who produce similar products; patient and consumer advocacy organisations or individuals relevant to the proposed service/health technology.

Entity who provides the health technology/service:

THE ROYAL COLLEGE OF PATHOLOGISTS OF AUSTRALASIA

Entities who request the health technology/service:

Urological Society of Australia and New Zealand (USANZ)

Medical Oncology Group of Australia (MOGA)

Entities who may be impacted by the health technology/service:

Medical Oncology Group of Australia (MOGA)

Urological Society of Australia and New Zealand (USANZ)

The Royal College of Pathologists of Australasia (RCPA)

Human Genetics Society of Australasia (HGSA)

Patient and consumer advocacy organisations relevant to the proposed service/health technology:

Prostate Cancer Foundation of Australia (PCFA)

Regulatory information

Would the proposed health technology involve the use of a medical device, in-vitro diagnostic test, radioactive tracer or any other type of therapeutic good?

Yes

Has it been listed or registered or included in the Australian Register of Therapeutic Goods (ARTG) by the Therapeutic Goods Administration (TGA)?

No

Is the therapeutic good classified by the TGA as either a Class III or Active Implantable Medical Device (AIMD) against the TGA regulatory scheme for devices?

Class III

Is the therapeutic good to be used in the service exempt from the regulatory requirements of the Therapeutic Goods Act 1989?

No

Is the therapeutic good classified by the TGA as for Research Use Only (RUO)?

No

Is the therapeutic good in the process of being considered by the TGA?

No

Please provide details of when you intend to lodge an ARTG inclusion application, or provide a rationale if you do not intend to lodge an ARTG inclusion application:

The sponsor does not intend to lodge an ARTG application. The sponsor asserts with a high level of confidence that the use of established genetic testing is currently performed across NATA-accredited Australian pathology laboratories.

Codependent details

Will a submission be made to the Pharmaceutical Benefits Advisory Committee (PBAC)?

Yes

Please provide a rationale for the codependency and indicate how the proposed PBS restriction would reference the intervention(s) proposed for MSAC consideration:

A co-dep submission will be made to the PBAC seeking listing of talazoparib in combination with enzalutamide for patients with mCSPC whose tumours harbour an HRR gene alteration.

MBS funding of HRR panel testing would support biomarker-directed treatment selection by identifying patients eligible for PBS-subsidised talazoparib plus enzalutamide. The proposed MBS service and PBS listing are therefore linked: the

test identifies the biomarker-defined population for treatment, and the clinical utility of the test in this application is derived from its role in informing access to the linked PBS-subsidised therapy.

Accordingly, the PBS restriction for talazoparib plus enzalutamide is expected to require evidence of an HRR gene alteration consistent with the biomarker-defined population evaluated in TALAPRO-3. The TALAPRO-3 study provides the clinical evidence supporting both the proposed test population and the linked treatment.