Technology Guidance

Poly (ADP-ribose) polymerase inhibitors

for treating BRCA-mutated, HER2-negative advanced breast cancer

Technology Guidance from the MOH Drug Advisory Committee

Guidance Recommendations

The Ministry of Health's Drug Advisory Committee has recommended:

- ✓ Olaparib 100 mg and 150 mg tablets for treating germline BRCA-mutated, human epidermal growth factor receptor (HER2) negative, locally advanced or metastatic breast cancer in patients who have been previously treated with chemotherapy.

Subsidy status

Olaparib 100 mg and 150 mg tablets are recommended for inclusion on the Medication Assistance Fund (MAF) for the abovementioned indication with effect from 1 September 2022.

MAF assistance **does not** apply to olaparib 50 mg capsules or any formulations or strengths of talazoparib for treating BRCA-mutated, HER2-negative advanced breast cancer.

Clinical indications, subsidy class and MediShield Life claims eligibility for all drugs included in the evaluation are provided in the Annex.

Updated: 1 June 2026

Technology evaluation

1.1. The MOH Drug Advisory Committee ("the Committee") considered the evidence presented for the technology evaluation of poly (ADP-ribose) polymerase (PARP) inhibitors (olaparib and talazoparib) for treating germline BRCA-mutated, HER2-negative, advanced breast cancer (ABC). The Agency for Care Effectiveness (ACE) conducted the evaluation in consultation with clinical experts from the public healthcare institutions. Published clinical and economic evidence for both drugs was considered in line with their registered indications. Additional expert opinion was obtained from the MOH Oncology Drug Subcommittee (ODS) who assisted ACE ascertain the clinical value of the drugs under evaluation and provided clinical advice on their appropriate and effective use based on the available clinical evidence.

1.2. The evidence was used to inform the Committee's deliberations around four core decision-making criteria:

- Clinical need of patients and nature of the condition;
- Clinical effectiveness and safety of the technology;
- Cost-effectiveness (value for money) – the incremental benefit and cost of the technology compared to existing alternatives; and
- Estimated annual technology cost and the number of patients likely to benefit from the technology.

1.3. Additional factors, including social and value judgments, may also inform the Committee's subsidy considerations.

Clinical need

2.1. The Committee noted that approximately 35 patients are diagnosed with BRCA-mutated ABC each year in Singapore. Local clinical experts confirmed that patients are treated with PARP inhibitors (olaparib or talazoparib) if their condition has not improved with chemotherapy, in line with international clinical practice guidelines. In view of the current therapeutic gap in the MOH List of Subsidised Drugs, the Committee acknowledged the clinical need to consider PARP inhibitors for subsidy to improve treatment affordability and ensure appropriate care.

Clinical effectiveness and safety

3.1. The Committee reviewed the available clinical evidence (OlympiAD and EMBRACA studies) and noted that both olaparib and talazoparib led to statistically significantly longer progression-free survival (PFS) compared to standard of care [SoC] (e.g., capecitabine, eribulin, vinorelbine, gemcitabine) in patients with germline BRCA-mutated, HER2-negative ABC, respectively. However, in both studies, there was no statistically significant overall survival (OS) difference between treatment arms. The Committee noted that OlympiAD was not powered to detect an OS difference, and over 30% of patients in the SoC arm in EMBRACA received a subsequent PARP inhibitor post-study which may have confounded the results.

3.2. The Committee noted that both olaparib and talazoparib were associated with higher rates of nausea, vomiting and anaemia while SoC was associated with higher rates of neutropenia, palmar-plantar erythrodysesthesia and hepatic toxicity.

3.3. The Committee also noted that both olaparib and talazoparib led to clinically significant improvements in health-related quality of life compared to SoC.

3.4. The Committee acknowledged that there were no published head-to-head trials comparing olaparib and talazoparib or indirect treatment comparisons (ITC) from overseas HTA agencies. Results from a Bayesian fixed-effect ITC which were published as an abstract suggested that olaparib and talazoparib were clinically comparable in terms of PFS but differed in their safety profile, with olaparib associated with fewer haematological adverse events but an increased risk of nausea and vomiting compared with talazoparib.

Cost effectiveness

4.1. The manufacturers of olaparib and talazoparib were invited to submit value-based pricing (VBP) proposals for their products for subsidy consideration. The Committee agreed that a cost-minimisation approach was appropriate to assess the cost effectiveness of the olaparib and talazoparib, in view of their comparable efficacy.

4.2. The Committee noted that the manufacturer of olaparib agreed to a price-volume agreement (PVA) which would further improve cost-effectiveness and ensure budget certainty for all of its subsidised indications.[1-3] In view of acceptable cost-effectiveness at the proposed price and a PVA, the Committee concluded that a MAF listing for olaparib was appropriate.

[1] ACE Technology guidance for Review of cancer drugs for prostate cancer
[2] ACE Technology guidance for PARP inhibitors and bevacizumab for treating advanced ovarian cancer
[3] Update of MOH List of Subsidised Drugs to include treatments for various cancer conditions

4.3. Based on the manufacturer's proposal, the Committee agreed that talazoparib was not cost-effective compared to olaparib on a cost-minimisation basis.

Estimated annual technology cost

5.1. Based on local epidemiological rates and estimated drug utilisation in the public healthcare institutions, the annual cost impact in the first year of listing olaparib on the MAF was estimated to be between SG$1 million to less than SG$3 million.

Additional considerations

6.1. The Committee acknowledged that, contingent on subsidy listing, the manufacturer also agreed to continue the existing patient assistance programme (PAP) for olaparib in the public healthcare institutions, which would provide further savings to eligible patients in addition to MAF financial assistance.

Recommendations

7.1. Based on available evidence, the Committee recommended olaparib 100 mg and 150 mg tablets to be listed on the MAF for treating BRCA-mutated, HER2-negative ABC in view of the therapeutic gap in the MOH List of Subsidised Drugs and acceptable clinical and cost-effectiveness at the proposed price and PVA agreed with the manufacturer.

7.2. The Committee recommended not listing talazoparib on the MAF in view of unfavourable cost-effectiveness compared with olaparib.

ANNEX

Recommendations by the MOH Drug Advisory Committee

Drug preparation	Approved clinical indications	Subsidy Class (implementation date)	Eligible for MediShield Life claims (implementation date)
Olaparib 100 mg and 150 mg tablets	Treatment of germline BRCA-mutated, HER2-negative, locally advanced or metastatic breast cancer in patients previously treated with chemotherapy.	MAF (1 Sep 2022)	Yes[1] (1 Sep 2022)
Talazoparib 0.25 mg and 1 mg capsules	Treatment of germline BRCA-mutated, HER2-negative, locally advanced or metastatic breast cancer in patients previously treated with chemotherapy.	Not recommended for subsidy	Yes[1] (1 Sep 2022)

Abbreviations: BRCA, breast cancer gene; HER2, human epidermal growth factor receptor 2; MAF, Medication Assistance Fund.

[1] Please refer to MOH's website for the MediShield Life claim limit starting from the implementation date.

VERSION HISTORY

Guidance on poly (ADP-ribose) polymerase inhibitors for treating BRCA-mutated, HER2-negative advanced breast cancer

This Version History is provided to track any updates or changes to the guidance following the first publication date. It is not part of the guidance.

Publication of guidance

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Guidance updated to reflect MediShield Life claims eligibility

Date of Publication	1 Jun 2026