Technology Guidance

Dacomitinib

for treating EGFR mutation-positive non-small-cell lung cancer

Technology Guidance from the MOH Drug Advisory Committee

Guidance Recommendations

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

- ✓ Dacomitinib 15 mg, 30 mg and 45 mg tablets for treating locally advanced or metastatic epidermal growth factor receptor (EGFR) mutation-positive non-small-cell lung cancer.

Subsidy status

Dacomitinib 15 mg, 30 mg and 45 mg tablets are recommended for inclusion on the MOH Standard Drug List (SDL) with effect from 3 August 2021.

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Factors considered to inform the recommendations for subsidy

Technology evaluation

1.1. The MOH Drug Advisory Committee ("the Committee") considered the evidence presented for the technology evaluation of dacomitinib for treating epidermal growth factor receptor (EGFR) mutation-positive non-small-cell lung cancer (NSCLC). The Agency for Care Effectiveness conducted the evaluation in consultation with clinical experts from the public healthcare institutions. Published clinical and economic evidence for dacomitinib was considered in line with its registered indication. Additional expert opinion was obtained from the MOH Oncology Drug Subcommittee (ODS) who assisted ACE ascertain the clinical value of dacomitinib and provided clinical advice on its 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 350 patients are diagnosed with EGFR mutation-positive advanced NSCLC each year in Singapore. In local clinical practice, tyrosine kinase inhibitors (TKIs) are standard of care for treating newly diagnosed, advanced EGFR mutation-positive NSCLC, in line with international clinical practice guidelines. None of the currently registered TKIs (afatinib, dacomitinib, erlotinib, gefitinib and osimertinib) are currently included in the MOH List of Subsidised Drugs, representing a therapeutic gap. The Committee noted that all patients with non-squamous NSCLC are routinely tested for the presence of oncogenic markers prior to beginning treatment, and up to 60% of patients in Singapore have EGFR mutations.

Clinical effectiveness and safety

3.1. The Committee reviewed the available clinical evidence (ARCHER 1050) and noted that dacomitinib demonstrated a statistically significant improvement in progression-free survival (PFS) compared with gefitinib. Dacomitinib also demonstrated overall survival (OS) benefit in an ad-hoc analysis, that was maintained over an extended median follow-up of 47.9 months, including in the Asian subgroup. Although the study excluded patients with brain metastasis, brain metastases developed as the site of progression was fewer in patients treated with dacomitinib than gefitinib.

3.2. The Committee noted that dacomitinib was associated with more grade ≥3 toxicity compared with gefitinib. The most commonly reported adverse events for dacomitinib were skin toxicities, dermatitis acneiform, paronychia and diarrhoea. Post-hoc analyses showed that the incidence of grade 3 adverse events decreased with dose reductions, while median PFS and OS remained similar.

3.3. The Committee noted there were no head to head studies comparing dacomitinib with either afatinib or osimertinib. Results from indirect evidence considered by NICE (UK) suggested that dacomitinib and afatinib were comparable in clinical efficacy, and osimertinib was associated with longer PFS compared with afatinib; however, the Committee acknowledged that NICE did not conduct a comparison of dacomitinib versus osimertinib.

Cost effectiveness

4.1. The manufacturer of dacomitinib offered a price reduction as part of their value-based pricing (VBP) proposal. The Committee acknowledged that the price proposed for dacomitinib was comparable to other jurisdictions such as Korea and Taiwan and considerably lower than the cost prices for all other TKIs in Singapore, and dacomitinib was dominant over gefitinib (proprietary brand), offering additional quality adjusted life years at a lower cost.

4.2. On the basis of acceptable cost-effectiveness at the price proposed by the manufacturer, the Committee agreed that an SDL listing for dacomitinib was appropriate for first-line treatment for advanced EGFR mutation positive NSCLC.

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 dacomitinib on SDL for treating advanced EGFR mutation-positive NSCLC was estimated to be between SG$1 million to less than SG$3 million.

Recommendation

6.1. Based on available evidence, the Committee recommended dacomitinib 15 mg, 30 mg, 45 mg tablets be listed on SDL for treating advanced EGFR mutation-positive NSCLC, in view of the current therapeutic gap in the MOH List of Subsidised Drugs and acceptable clinical effectiveness and cost effectiveness at the price proposed by the manufacturer.

About the Agency

The Agency for Care Effectiveness (ACE) was established by the Ministry of Health (Singapore) to drive better decision-making in healthcare through health technology assessment (HTA), clinical guidance, and education.

As the national HTA agency, ACE conducts evaluations to inform government subsidy decisions for treatments, diagnostic tests and vaccines, and produces guidance for public hospitals and institutions in Singapore.

This guidance is based on the evidence available to the MOH Drug Advisory Committee as at 16 March 2021 and 2 July 2021. It is not, and should not be regarded as, a substitute for professional or medical advice. Please seek the advice of a qualified healthcare professional about any medical condition. The responsibility for making decisions appropriate to the circumstances of the individual patient remains with the healthcare professional.

Find out more about ACE at www.ace-hta.gov.sg/about

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