Technology Guidance

Ixekizumab and secukinumab

for treating active non-radiographic axial spondyloarthritis

Technology Guidance from the MOH Drug Advisory Committee

Guidance Recommendations

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

- ✓ Secukinumab 150 mg/mL solution for injection in prefilled pen for treating adults with active non-radiographic axial spondyloarthritis.

Funding status

Secukinumab 150 mg/mL solution for injection in prefilled pen is recommended for inclusion on the MOH Medication Assistance Fund (MAF) for the abovementioned indication from 1 August 2023.

Secukinumab should be used in line with additional clinical criteria for initial and continuing prescriptions for adult patients with active non-radiographic axial spondyloarthritis.

MAF assistance **does not** apply to ixekizumab, or any other formulations or strengths of secukinumab.

Published: 1 June 2023

Factors considered to inform the recommendations for funding

Technology evaluation

1.1. The MOH Drug Advisory Committee ("the Committee") considered the evidence presented for the technology evaluation of interleukin-17 (IL-17) inhibitors (ixekizumab and secukinumab) for treating adults with active non-radiographic axial spondyloarthritis (nr-axSpA). The Agency for Care Effectiveness (ACE) conducted the evaluation in consultation with clinical and patient experts from public healthcare institutions and local patient and voluntary organisations, respectively. Published clinical and economic evidence for both ixekizumab and secukinumab was considered in line with each agent's registered indication for use in this patient population.

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 funding considerations.

Clinical need

2.1. The Committee acknowledged that biologics are used in local practice to treat patients with active nr-axSpA defined by either a Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) score of 4 or more, or a C-Reactive Protein based Ankylosing Spondylitis Disease Activity Score (ASDAS-CRP) of 2.1 or more; and who have failed 2 sequential non-steroidal anti-inflammatory drugs (NSAIDs) at maximally tolerated doses for at least 4 weeks, unless contraindicated.

2.2. The Committee noted that approximately 20-60% of patients with active nr-axSpA are likely to require treatment with a biologic. Local clinical experts confirmed that either anti-tumour necrosis factor-alpha (TNFα) biologics or IL-17 inhibitors may be considered as first-line biologic therapy. While anti-TNFα biologics including biosimilars are already subsidised, the Committee acknowledged there was a clinical need to subsidise a non-anti-TNFα option, to improve affordability and ensure appropriate care for patients with active nr-axSpA.

2.3. The Committee considered testimonials from local patient experts about their experience with axial spondyloarthritis and the treatments they have received. The Committee heard that axial spondyloarthritis had a significant negative impact on patients' daily lives, causing symptoms such as joint stiffness, pain, and fatigue, which limited their mobility and prevented them from exercising and working. Patients also experienced a loss of confidence and depression. The Committee noted that patients welcomed the availability of more subsidised treatment options to reduce the financial burden associated with the high cost of biologic treatments.

Clinical effectiveness and safety

3.1. The Committee reviewed available clinical evidence from 2 phase III, double-blind randomised controlled trials (RCTs) comparing ixekizumab (COAST-X) or secukinumab (PREVENT) with placebo among patients with active nr-axSpA.

3.2. The Committee heard that at week 16 of these RCTs, both ixekizumab and secukinumab were associated with statistically significant improvements in the proportion of patients who achieved the Assessment of SpondyloArthritis international Society 40% response criteria (ASAS40) and a significantly increased proportion of patients who achieved a 50% improvement in BASDAI score (BASDAI50), compared with placebo.

3.3. The Committee noted that both IL-17 inhibitors were generally well-tolerated in the trials and had acceptable safety profiles. While ixekizumab and secukinumab were associated with higher rates of treatment-emergent adverse events compared with placebo, most of these events were reported to be mild-to-moderate in severity.

3.4. In the absence of head-to-head RCTs comparing both IL-17 inhibitors with each other, the Committee acknowledged the results of indirect comparisons and network meta-analyses considered by NICE (UK) and PBAC (Australia), and agreed that on balance, it was likely reasonable to consider both IL-17 inhibitors to be clinically comparable to each other in terms of efficacy and safety.

Cost effectiveness

4.1. In view of comparable efficacy and safety, the Committee agreed that a cost-minimisation approach was appropriate to evaluate the cost-effectiveness of ixekizumab and secukinumab.

4.2. The Committee reviewed the results of the cost-minimisation analysis, which showed that the treatment cost of secukinumab was lower than ixekizumab. The Committee also heard that the price of secukinumab in Singapore was comparable to that in overseas reference jurisdictions and considered secukinumab to be an acceptable use of healthcare resources.

Estimated annual technology cost

5.1. The Committee noted that the annual cost impact to the public healthcare system was estimated to be less than SG$1 million in the first year of listing secukinumab on the MAF for treating active nr-axSpA.

Recommendations

6.1. Based on available evidence, the Committee recommended secukinumab 150 mg/mL solution for injection in prefilled pen be listed on the MAF for treating adults with active nr-axSpA, in view of the clinical need and acceptable clinical- and cost-effectiveness.

6.2. Ixekizumab was not recommended for listing on the MOH List of Subsidised Drugs for treating adults with active nr-axSpA, due to unacceptable cost-effectiveness compared with secukinumab.