Dutasteride, tamsulosin, alfuzosin and
dutasteride/tamsulosin combination

for the treatment of benign prostatic hyperplasia

Technology Guidance from the MOH Drug Advisory Committee

Guidance Recommendations

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

☑ Alfuzosin 10mg tablet for the treatment of benign prostatic hyperplasia.

Subsidy status

Alfuzosin 10mg tablet is recommended for inclusion on the MOH Standard Drug List (SDL).

SDL subsidy does not apply to tamsulosin 0.4mg tablet, dutasteride 0.5mg capsule or
dutasteride 0.5mg/tamsulosin 0.4mg capsule.

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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 dutasteride, tamsulosin, alfuzosin and dutasteride/tamsulosin combination product (Duodart) for the treatment of benign prostatic hyperplasia (BPH). The Agency for Care Effectiveness conducted the evaluation in consultation with clinical experts from the public healthcare institutions.

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
- 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 Alfuzosin and tamsulosin are alpha-1-adrenergic antagonists (alpha blockers) used for the relief of lower urinary tract symptoms (LUTS) associated with BPH. The use of alpha-blockers for bothersome moderate to severe LUTS is supported by local and international clinical guidelines and constitutes routine clinical practice. The Committee acknowledged that an alpha-blocker (terazosin) is already listed on SDL for the treatment LUTS.

2.2 Dutasteride is a 5-alpha-reductase inhibitor which is used in line with local clinical guidelines for the treatment and prevention of BPH progression in men with an enlarged prostate above 30-40cc secondary to BPH. The Committee noted that a drug within the same class (finasteride) is already listed on SDL for this indication.
2.3 In light of existing subsidised alternatives, the Committee considered that the clinical need to subsidise additional agents within the same therapeutic classes was low, but noted that the newer agents are preferred by local clinicians. Among the 5-alpha-reductase inhibitors, dutasteride is typically preferred for its longer half-life (5 weeks versus 8 hours for finasteride) which the clinicians suggested could improve treatment compliance. For the alpha-blockers, terazosin requires dose titration and close clinical monitoring, and therefore is often the least preferred agent within the class.

Clinical effectiveness and safety

3.1 On the basis of the available clinical evidence, the Committee agreed that all alpha-blockers (alfuzosin, tamsulosin and terazosin) were clinically comparable in improving symptoms of BPH and peak urinary flow. In terms of safety profile, the Committee noted no statistically significant differences between alfuzosin and terazosin. Tamsulosin, however, appeared to be associated with a higher risk of ejaculatory dysfunction but lower risk of vascular-related adverse events compared with terazosin.

3.2 For the 5-alpha-reductase inhibitors, the Committee noted that randomised clinical trials reported no statistically significant differences between patients treated with dutasteride or finasteride with regards to changes in total prostate volume, BPH symptoms and peak urinary flow. The incidence of adverse events was also comparable between the two drugs.

3.3 The Committee noted that the combination of an alpha-blocker and 5-alpha-reductase inhibitor was associated with greater improvements in symptom scores and risk of disease progression compared to monotherapy with either component. The Committee agreed that the incremental benefit associated with combination therapy was considered a class effect, with no clinically important differences in outcomes among the various drug combinations.
Cost effectiveness

4.1 In view of comparable clinical effectiveness among the alpha-blockers and between the 5-alpha-reductase inhibitors, the Committee considered a cost-minimisation approach was appropriate to select the lowest priced drug within each class for subsidy consideration.

4.2 Among the three alpha blockers, the Committee noted that the cost of alfuzosin was the lowest due to the availability of a generic formulation. Between the 5-alpha-reductase inhibitors, dutasteride was considerably more expensive than finasteride, and the Committee considered that its higher cost was not justified by any potential additional clinical outcomes it offered over finasteride.

4.3 For combination therapy, while the cost of the proprietary combination product comprising dutasteride and tamsulosin (Duodart) was lower than the combined cost of dutasteride and tamsulosin monotherapies, the Committee acknowledged that it was more expensive than other combinations of 5-alpha-reductase inhibitors and alpha blockers (e.g. alfuzosin plus finasteride). As such, the Committee considered that Duodart did not represent a cost-effective use of resources.

Estimated annual technology cost

5.1 The Committee noted that around 10,900 people with BPH in Singapore would benefit from government assistance for alfuzosin. The annual cost impact was estimated to be less than $500,000 in the first year of listing on the SDL.
Recommendation

6.1 On the basis of acceptable clinical and cost-effectiveness, the Committee recommended alfuzosin 10mg tablet for listing on the SDL.

6.2 The Committee concluded that subsidy of tamsulosin, dutasteride or dutasteride/tamsulosin combination (Duodart) was not justified at their current prices considering that subsidised alternative treatment options from the same classes, with comparable clinical effectiveness, were already available for patients.

About the Agency

The Agency for Care Effectiveness (ACE) is the national health technology assessment agency in Singapore residing within the Ministry of Health. It conducts evaluations to inform the subsidy of treatments, and produces guidance on the appropriate use of treatments for public hospitals and institutions in Singapore. When using the guidance, 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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