

# Dutasteride, tamsulosin, alfuzosin and dutasteride/tamsulosin combination

*for treating benign prostatic hyperplasia*

Technology Guidance from the MOH Drug Advisory Committee

## Guidance Recommendations

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

- ✓ Alfuzosin 10 mg tablet and dutasteride 0.5 mg capsule for treating benign prostatic hyperplasia.

### Subsidy status

Alfuzosin 10 mg tablet and dutasteride 0.5 mg capsule are recommended for inclusion on the MOH Standard Drug List (SDL).

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

*Update published on 1 April 2020*

## 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 treating benign prostatic hyperplasia (BPH) in January 2018. The Agency for Care Effectiveness conducted the evaluation in consultation with clinical experts from the public healthcare institutions. Published clinical evidence for all treatments was considered in line with the registered indications.
- 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.
- 1.4 In October 2019, the Committee reconsidered listing dutasteride on the SDL following the availability of generic formulations in Singapore.

### 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 the 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 the 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 Among the three alpha blockers, the Committee – at the January 2018 meeting - 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.
- 4.2 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.
- 4.3 In October 2019, the Committee agreed that the cost of dutasteride was reasonable and could be considered an acceptable use of healthcare resources following the availability of a generic formulation.

## Estimated annual technology cost

- 5.1 The Committee noted that the annual cost impact was estimated to be less than SG\$500,000 in the first year of listing alfuzosin or dutasteride on the SDL.

## Recommendation

- 6.1 On the basis of acceptable clinical and cost-effectiveness, the Committee recommended alfuzosin 10 mg tablet for listing on the SDL in January 2018. Dutasteride was subsequently recommended for listing on the SDL in October 2019.
- 6.2 The Committee concluded that subsidy of tamsulosin 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.

## VERSION HISTORY

### Guidance on dutasteride, tamsulosin, alfuzosin and dutasteride/tamsulosin combination for treating benign prostatic hyperplasia

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**

Date of Publication 2 Jul 2018

#### **Guidance updated to extend SDL listing to dutasteride**

Date of Publication 1 Apr 2020

#### **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. The guidance is based on the evidence available to the Committee as at 7 October 2019. This guidance 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.

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