ANZBMS Guidance on the Current Teriparatide Shortage

The ANZBMS is aware of an ongoing national shortage of teriparatide (PTH 1-34), which is presenting significant challenges for clinicians and patients. Current advice indicates that supply may resume in November 2025; however, this date remains uncertain and may be subject to further delay.

Clinical impact

Teriparatide is a key anabolic therapy for severe osteoporosis and is occasionally used off-label for treatment of osteonecrosis of the jaw and fracture non-union. Abrupt cessation of teriparatide leads to a loss of anabolic effect, decline in bone mineral density (BMD), and reduced fracture protection (1,2). Unlike denosumab, the effects of teriparatide wane gradually after discontinuation, without a rebound phenomenon.

The potential clinical consequences of the current national shortage include an increased risk of fragility fractures, particularly in patients at highest fracture risk, and the potential for loss of BMD gains achieved over months or years of therapy.

Given the heterogeneity of patients affected, an individualised management strategy is essential. Decisions should consider fracture risk, prior therapy, BMD trajectory, comorbidities, and contraindications for alternative agents.

This statement is intended to provide interim guidance and reassurance for clinicians and patients until teriparatide supply is restored.

Management considerations

While there is no perfect substitute for teriparatide, clinicians may wish to consider the following interim options in patients affected by this shortage

Second daily administration: In patients with existing supply, second daily administration may extend supply however there is limited data for its efficacy at this dose.

Alternative therapies:

For patients treated with teriparatide for < 12 months consider:

- Treatment naive patients who are receiving teriparatide as first-line treatment may switch to a less potent anti-resorptive such as oral risedronate or alendronate if tolerated until supply of teriparatide returns
- Patients with preceding zoledronic acid or oral bisphosphonate therapy could resume an anti-resorptive such as oral risedronate or alendronate (if not contraindicated) until supply of teriparatide returns. Alternatively, these patients could safely withhold all therapy for up to three months and resume teriparatide upon return of supply (3).
- **Romosozumab**. Observational data suggest that romosozumab favourably affects bone density when administered after a course of teriparatide (4). However, this approach does not meet criteria for Pharmaceutical Benefits Scheme (PBS) reimbursement and as such would need to be funded privately by the patient.

- **Raloxifene**. Sequential therapy with raloxifene after teriparatide maintains BMD gains (5). However, its use is limited to early-postmenopausal women without risk factors for venous thromboembolism.

For patients on teriparatide > 12 months consider transition to maintenance anti-resorptive medications without the resumption of teriparatide

- In patients 12-24 months into their course of teriparatide, early consolidation with anti-resorptive agents such as bisphosphonates or denosumab may be considered.

Patient communication:

Patients should be informed of the shortage, the expected timeline for resolution, and the potential strategies for managing their bone health during this period. Shared decision-making is crucial.

We recognise that this shortage has no straightforward solution and that management must be individualised. ANZBMS will continue to monitor the situation closely and update members as further information becomes available.

REFERENCES

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