



Northern Treatment  
Advisory Group

## Northern (NHS) Treatment Advisory Group

### Treatment Appraisal: Decision Summary

Date	2 <sup>nd</sup> June 2015
Appraisal & Details	<p><b>Teriparatide (Forsteo®, Eli Lilly) for the treatment of (bisphosphonate-induced) atypical fractures.</b></p> <p>The NHS Northern Treatment Advisory Group was requested by a member organisation to conduct an appraisal of, and issue a recommendation on the unlicensed use of teriparatide for the treatment of (bisphosphonate induced) atypical fractures.</p>
Recommendation	<p><b>The NHS Northern Treatment Advisory Group does not recommend the use of teriparatide for the treatment of (bisphosphonate induced) atypical fractures (unlicensed indication).</b></p> <p>The group was concerned about the paucity of the data, lack of evidence of robust clinical efficacy of treatment and considered that it did not represent a cost-effective treatment option. However individual patients in exceptional circumstances may be suitable for treatment. Such cases must be referred via local individual funding request mechanisms.</p>
Clinical evidence summary	<p>There is little published evidence for the efficacy of teriparatide in atypical fractures. The majority of evidence is in the form of case reports; no robust randomised controlled trials have been performed. Concurrent pharmacological or surgical treatments, reported outcomes, time to teriparatide initiation, and treatment duration varied between reports.</p> <p>Overall, the results of published case reports and other small studies appear positive but are difficult to interpret. The optimal regimen and precise place in therapy of teriparatide compared to surgery remain uncertain.</p>
Safety	<p>Adverse effects are likely to be similar to those seen for its licensed indication. Most commonly reported adverse effects are nausea, limb pain, headache and dizziness. There are concerns that long term use of teriparatide may be associated with an increased risk of osteosarcoma. Treatment should therefore be limited to a maximum of 24 months.</p>
Patient Perspective	<p>There are no clear guidelines for the treatment of atypical fractures caused by bisphosphonates with limited options available for treatment. Some patients may prefer medical therapy as opposed to surgery however risks and benefits of all options should be discussed with patients.</p>
Cost analysis summary	<p>Teriparatide is a high-cost PbR-excluded drug.</p> <p>One maximum length course of 20 micrograms per day for two years costs £6,525.12 per patient. Comparisons with existing treatments are difficult as there is no definitive standard therapy. Patients will need to be suitably trained in order to self-administer teriparatide and use would be limited to 24 months.</p> <p>Using a rough estimation, there are approximately six atypical fractures caused by bisphosphonates in the NTAG region per year. Treating these fractures with teriparatide would equate to £39,150.72, spread over two years.</p>
Financial impact PbR: Excluded.	<p>This financial impact of this recommendation is expected to be nil.</p>

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