

The National Breast Clinical Reference Group – Benefit of Adjuvant Bisphosphonates in Postmenopausal women

The National Breast Clinical Reference Group has recommended in their draft guidance that adjuvant bisphosphonates should be considered for all postmenopausal breast cancer patients. The evidence is summarized below and it is recommended that MDT Leads use this data to discuss with commissioners how a local adjuvant bisphosphonate service might be commissioned.

Headline Benefits

In a meta-analysis of data on 18766 women from trials in early breast cancer that randomized between bisphosphonate and control there was a:

- 28% reduction in bone recurrence
- 18% reduction in cancer mortality
- 3.3% absolute reduction in mortality at 10 years

97% of studies were of between 2 and 5 years of bisphosphonate therapy.

Median follow up was 5.6 woman-years.

There was definite benefit only in postmenopausal women (11767), with highly significant reductions in:

- 1] recurrence (RR 0.86, 95% CI 0.78-0.94; 2p=0.002)
- 2] distant recurrence (bone or otherwise, RR 0.82, 95% CI 0.74-0.92; 2p=0.003)
- 3] bone recurrence (RR 0.72, 0.60-0.86; 2p=0.002)
- 4] breast cancer mortality (RR 0.82, 95% CI 0.73-0.93; 2p=0.02)

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The absolute gain from treatment at 10 years was 3.3% for breast cancer mortality (95% CI 0.8-5.7) and 2.2% for bone recurrence (95% CI 0.6-3.8)

5) reduction in bone fractures (RR 0.85, 95%CI 0.75-0.97; 2p=0.02).

Reductions in bone recurrence and breast cancer mortality did not depend on patient or clinic-pathological primary tumour characteristics, including oestrogen receptor status, nodal status, tumour grade or concomitant chemotherapy.

Analyzing bone recurrence, the most reliable end-point for the sub-group analyses, there was no significant effect from the class or duration of bisphosphonate but pamidronate showed no benefit. Early data presented at ASCO 2015 indicated no obvious benefit of one bisphosphonate over another in the adjuvant setting (Gralow et al, Study S0307 J Clin Oncol 33, 2015 suppl; abstr 503).

These data are compelling and the benefits of adjuvant bisphosphonates in postmenopausal women are as large if not larger than a number of adjuvant interventions used routinely in early breast cancer.

It is recommended that MDT Leads use this data to discuss with commissioners how a local adjuvant bisphosphonate service might be commissioned.

This meta-analysis has been published in the Lancet by the Early Breast Cancer Trialists Collaborative Group (EBCTCG) (on-line open access July 23rd 2015; <http://press.thelancet.com/EBCTCG2.pdf>).

On behalf of the National Breast Clinical Reference Group and UK Breast Cancer Group Meeting 2016.