

# Shorter trastuzumab treatment for HER2+ breast cancer can be as effective, with fewer cardiac side-effects

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A phase III randomized clinical trial of 4,088 women with HER2-positive, early-stage breast cancer found that taking trastuzumab (Herceptin) for 6 months was non-inferior to the current standard of 12 months. The disease-free survival rate at four years was 89.4% with 6 months of therapy and 89.8% with 12 months of therapy. In addition, only 4% of women in the 6-month arm stopped trastuzumab early because of cardiac problems, compared with 8% in the 12-month arm.

"The Persephone trial's researchers worked closely with patient advocates. Everyone involved in this study is very excited by these results," said lead study author Helena Earl, MD, Professor of Clinical Cancer Medicine at the University of Cambridge in the United Kingdom. "We are confident that this will mark the first steps towards a reduction of the duration of trastuzumab [treatment](#) to 6 months in many [women](#) with HER2-positive breast cancer."

This is the largest trial to date examining the impact of shortening the duration of trastuzumab treatment, according to the authors. The results of the trial, Persephone, will be presented at the upcoming 2018 ASCO Annual Meeting in Chicago.

## About the Study

Trastuzumab was granted FDA approval based on the results of three major trials reported in 2005. In these [trials](#), the length of trastuzumab treatment was 12 months, and this treatment length quickly became the standard of care. Shortly thereafter, a small trial in Finland (FinHer) reported similar benefit from as little as 9 weeks of trastuzumab, prompting research interest in shortening treatment length to reduce side effects and costs.

In Persephone, half of the women took

trastuzumab for 6 months and the other half for 12 months. Women also received chemotherapy (anthracycline-based, taxane-based, or a combination of both) while enrolled in the trial. The non-inferiority design allowed the trial to help determine whether reduced duration of treatment can be as good as the standard treatment within pre-specified limits, which are set before the trial starts.

## Key Findings

The women in the trial were followed for a median of over five years. Researchers found that 89.4% of women in the 6-month arm and 89.8% in the 12-month arm were alive and free of [breast cancer](#) at four years. The trial demonstrated that 6 months of trastuzumab treatment was non-inferior to 12 months.

Only 4% of women who received trastuzumab for 6 months stopped treatment early due to heart problems, compared to 8% of those who took [trastuzumab](#) for 12 months.

## Next Steps

The researchers are currently analyzing their results to determine the impact of treatment length on quality of life, with qualitative feedback from trial participants. A detailed cost-effectiveness analysis is also underway.

Professor Earl stated that more research needs to be done to define the particular patients for whom treatment duration can be safely reduced. The researchers plan to analyze blood and tissue samples collected within the trial to look for biomarkers to identify different risk groups.

## More information:

[abstracts.asco.org/214/AbstView\\_214\\_217191.html](https://abstracts.asco.org/214/AbstView_214_217191.html)

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