



# ECIBC recommendation on 70 gene signature test for patients who have hormone receptor positive, HER-2 negative, lymph node negative or up to 3 lymph nodes positive invasive breast cancer to guide the use of chemotherapy (subgroup: high clinical risk)

## Bibliography

### Evidence of effects

Knauer M, Mook S, Rutgers EJ, Bender RA, Hauptmann M, van de Vijver MJ, et al. The predictive value of the 70-gene signature for adjuvant chemotherapy in early breast cancer. *Breast Cancer Res Treat*. 2010 Apr;120(3):655-61

Cardoso F, van't Veer LJ, Bogaerts J, Slaets L, Viale G, Delaloge S et al. 70-Gene Signature as an Aid to Treatment Decisions in Early-Stage Breast Cancer. *N Engl J Med*. 2016 Aug 25;375(8):717-29.

### Values

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### Resources required

Ward S, Scope A, Rafia R, Pandor A, Harnan S, Evans P, et al.. Gene expression profiling and expanded immunohistochemistry tests to guide the use of adjuvant chemotherapy in breast cancer management: a systematic review and cost-effectiveness analysis. . *Health Technol Assess*. 2013 Oct;17(44):1-302.

Kondo M, Hoshi SL, Ishiguro H, Toi M. Economic evaluation of the 70-gene prognosis-signature (MammaPrint®) in hormone receptor-positive, lymph node-negative, human epidermal growth factor receptor type 2-negative early stage breast cancer in Japan. *Breast Cancer Res Treat*. 2012 Jun;133(2):759-68.

### Cost effectiveness

Blok EJ, Bastiaannet E, van den Hout WB, Liefers GJ, Smit VTHBM, Kroep JR, et al. Systematic review of the clinical and economic value of gene expression profiles for invasive early breast cancer available in Europe. *Cancer Treat Rev*. 2018 Jan;62:74-90

Wang SY, Dang W, Richman I, Mougalian SS, Evans SB, Gross CP. Cost-Effectiveness Analyses of the 21-Gene Assay in Breast Cancer: Systematic Review and Critical Appraisal. *J Clin Oncol*. 2018 Jun 1;36(16):1619-1627.

### Equity

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### Acceptability

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### Feasibility

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