

POSTER PRESENTATION

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A review of the online prognostic model predict using the POSH cohort (women aged ≤ 40 years at breast cancer diagnosis)

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Introduction

Breast cancer is the most common cancer women in the UK, with approximately 50,000 new cases each year. PREDICT (<http://www.predict.nhs.uk>) is an online prognostic tool developed to help determine the best available treatment and long-term outcome for early breast cancer. This study was conducted to establish how well PREDICT performs in estimating survival in a large cohort of younger women (aged ≤ 40 years) recruited to the POSH study.

Methods

The UK POSH cohort includes data from 3000 women aged ≤ 40 years at breast cancer diagnosis. Study end-points were overall- and breast cancer specific-survival at 5-, 8-, and 10-years. Evaluation of PREDICT included model discrimination and comparison of the number of predicted versus observed events.

Results

PREDICT provided accurate long term (8- and 10-year) survival estimates for younger women. However, short term (5-year) estimates were less accurate, with the tool overestimating survival by 25%, and by 56% for patients with ER positive tumours. PREDICT also underestimated survival at 5-years for patients with ER negative tumours.

Conclusions

PREDICT is a user-friendly and reliable tool for providing accurate long-term survival estimates for younger women with breast cancer. However, the model requires further calibration for more accurate short-term estimates.

Prediction in the short-term may be most relevant for the increasing number of women considering risk-reducing bilateral mastectomy.

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