protoype of the DA provides clear information about the treatment options and their side-effects. Issues about the usability of the DA were reported and enabled us to improve and simplify the DA. The next step is to perform a study to establish the impact of the DA on the decisional conflict and the shared decision making process.

Conclusion: The systematic and iterative approach used to develop and validate the DA, allows to follow a thoroughly development process, and to gain knowledge about decisional needs.

Poster Viewing: 11: Clinical: Breast, head and neck

PV-0510
Evaluation of a breast cancer nomogram to predict local relapse after breast conserving therapy

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Purpose or Objective: Van Werkhoven et al. developed a nomogram to predict the 10-years ipsilateral breast relapse (IBR) after breast conserving therapy (BCT) for breast cancer (BC) based on the European Organisation for Research and Treatment of Cancer (EORTC) ‘boost no boost’-trial with a concordance probability estimate (CPE) of 0.68 (van Werkhoven E, et al. 2011, Radiother Oncol). The nomogram includes histologic grade, ductal carcinoma in situ (DCIS), tumour diameter, age, tamoxifen, chemotherapy and boost. The aim of this study was to evaluate the performance of that algorithm in an independent cohort.

Material and Methods: We retrospectively identified 1866 BC patients who underwent BCT with radiotherapy from 2000 to 2007. Two definitions of IBR were considered where simultaneous regional or distant recurrence were either censored (conform EORTC analysis) or included as event. Patient, tumour and treatment characteristics were evaluated in uni- and multivariable analysis. Firstly we assessed discrimination, i.e. the extent to which patients predicted to be at higher risk exhibit higher event rates than those deemed at lower risk, by the CPE. The CPE was determined based on a Cox model with time to IBR as outcome and the EORTC nomogram 10-years IBR-free probability as the only covariate. Secondly a calibration plot was drawn, showing the predicted 10-years IBR-free probabilities against observed Kaplan-Meier estimates, to reflect prediction accuracy, i.e. the absence of over- or underestimation.

Results: Median follow-up time was 10.75 years. Patients were on average older (58 vs 54 years), had a larger average tumour diameter (18 mm vs 15 mm) and were more likely to have received chemotherapy (29.7 % vs 15.7 %), to have a high grade disease (37.0 % vs 23.5 %) and to have received hormonal therapy in the validation group. Almost all patients (99.7 %) in the validation group received a boost. The CPE was 0.72. For the first definition a CPE of 0.58, and suboptimal calibration with an absolute difference of 0.12 between observed and predicted cumulative incidence rates was detected. For the second definition a CPE of 0.60, and suboptimal calibration with an absolute difference of 0.12 between observed and predicted cumulative incidence rates was detected. The nomogram demonstrated suboptimal discrimination, with a CPE of 0.54, and suboptimal calibration with an overestimation of the IBR-risk in general (Table 1 - Figure 1).

The nomogram demonstrated suboptimal discrimination, with a CPE of 0.54, and suboptimal calibration with an overestimation of the IBR-risk in general (Table 1 - Figure 1).