Extra information about the model predictions

The prediction model described in the article will be available at www.predictcancer.org. If the values of the variables are filled in, the predicted probability for 2 or 3 year overall survival and the 95% confidence intervals will be calculated. The model is only to be used for research purposes (this is also stated on the website). It is good to keep in mind that there is considerable uncertainty in predicting survival outcome. The point estimates of the model reflect the most likely probability.

Example of model predictions

Assume that a stage III NSCLC patient has the following characteristics:

Age: 76 years

Gender: female

WHO performance status: 1

GTV primary: 50 cc

Number of positive lymp node stations on the diagnostic PET scan: 2

Clinical T-stage: T2

The multidisciplinary team decides that this patient is eligible for concurrent chemoradiation;

the treatment group is thus: standard concomitant.

The patient did not receive surgery for the lung tumor nor was she previously treated with thoracic radiotherapy.

Results

According to the model the (most likely) probability for two-year survival will be 41% if an EQD_2 of 60 Gy is given with an OTT of 34 days.

If it would be possible to decrease the OTT with 4 days (OTT=30 days), the probability will be 47%.

If the patient would receive an EQD_2 of 66 Gy in 34 days, the expected 2 year survival is 45%.

So both options would improve the survival probability.

Finally, if the EQD_2 would be increased to 66 Gy while at the same time the OTT would be decreased to 30 days, the expected 2 year survival is 50%.

All these predicted probabilities are point estimates. The 95% confidence intervals, that can be calculated on the website together with the point estimates, overlap considerably.