

A dosimetric study comparing breast radiotherapy planned in prone versus supine position and via conformal 3D versus IMRT techniques: protocol B-POS

breast - dosimetry - gating - IMRT - prone - radiotherapy - supine

Breast cancer is the most frequently diagnosed cancer in women. Radiotherapy is an essential component of the curative treatment algorithm. The current standard of care is radiotherapy, in the supine position, to the whole breast by 3D conformal planning. However, several questions remain regarding dose delivery and technique optimization.

Can patient positioning improve dose homogeneity?

Can the prone position reduce error associated with patient breathing or decrease the dose to healthy organs and tissues? This study is designed to compare

prone versus (conventional) supine treatment and the impact of respiratory motion in each position.

The benefits of IMRT versus conventional 3D conformal planning (in each position) will be compared with regard to dose delivery to the breast, dose to healthy organs and tissues and cost-efficiency regarding

departmental resources. The results of this study will serve for the standardization of breast radiotherapy techniques within the Liège University Hospital.

For more information please contact:

Philippe Coucke

E-mail: pcoucke@chu.ulg.ac.be