

**Table S1:** List of main variable.

Variable name	Variable Label	assigned variable names	Variable Format
Age at enrolment	Age in year	Age_diag	numeric
Smoking status at diagnosis	1=Current; 2=Former ; 3=Never	TABAC_BI	character
Diabetes	0=No; 1=Yes;	Diabete_atcd	character
Hypertension	0=No; 1=Yes;	HTA_atcd	character
Dyslipidemia	0=No; 1=Yes;	dyslipidemie_atcd	character
BMI	kg/m2	IMC_BI	numeric
Tumour size (pT)	0=T0; 1=T1; 2=T2; 3=T3	PTGlobal	character
Nodal status (pN)	0=0; 1=1; 3=2; 4=3	PN_M0	character
Tumour histology	1=Infiltrating Ductal; 2=Lobular; 3=Others (including mixed).	Tumour_histo	character
Hormone Receptors positive	0=Negative; 1=Positive;	HR	character
Estrogen receptors	0=Negative; 1=Positive;	RE	character
Progesterone receptors	0=Negative; 1=Positive;	RP	character
HER2	0=Negative; 1=Positive;	HER2	character
SBR Grading	1=I; 2=II; 3=III.	GRADE	character
Ki67	0=No; 1=Yes;	Ki67	character
Percent of Ki67	%	POURCKI67	numeric
Type of chemotherapy	0=No chemotherapy; 1=Neo-adjuvant chemotherapy; 2=Adjuvant chemotherapy; 3=Peri-adjuvant chemotherapy (neo + adjuvant);	CHIMIOTYP	character
Hormonal therapy	0=No; 1=Yes;	Tumour_histo	character
Trastuzumab treatment	0=No; 1=Yes;	Base_herceptin	character
Lumpectomy	0=No; 1=Yes;	TUMOR_	character
Total mastectomy	0=No; 1=Yes;	MASTR_	character
Sentinel node	0=No; 1=Yes;	GANGLS_	character
Axillary dissection	0=No; 1=Yes;	CURAGE_	character

Radiation therapy	0=No; 1=Yes;	RADIO_	character
Patients with boost	0=No; 1=Yes;	Boost_	character
Lymph node levels treated	0=None; 1=Yes;	Aires_GG_	character
Level 1	0=None; 1=Yes;	I_all_	character
Level 2	0=None; 1=Yes;	II_all_	character
Level 3	0=None; 1=Yes;	III_all_	character
Level 4	0=None; 1=Yes;	IV_all_	character
Internal mammary chain	0=None; 1=Yes;	CMI_all_	character
Irradiation techniques	0=3D; 1=IMRT	Technique_	character
Fractionation regimens	0=Normofractionation 25-fractions; 1=Hypofractionation 15-16 fractions; 2=Hypofractionation and Partial breast irradiation;	Fractionnement__NF0__HF1_	character