Dataset demographics	Initial diagnosis of Classical TN
Sample size (n)	104
Age (years)	60.3 ± 14.4
Sex (males : females)	44 : 60
Pain side (L : R)	38 : 66
Surgery (GK : MVD)	70 : 34
Surgery outcome	
Non-responders (n)	34
Recurrence within 5 y after surgery (n)	50
Pain-free for more than 5 years (n)	20

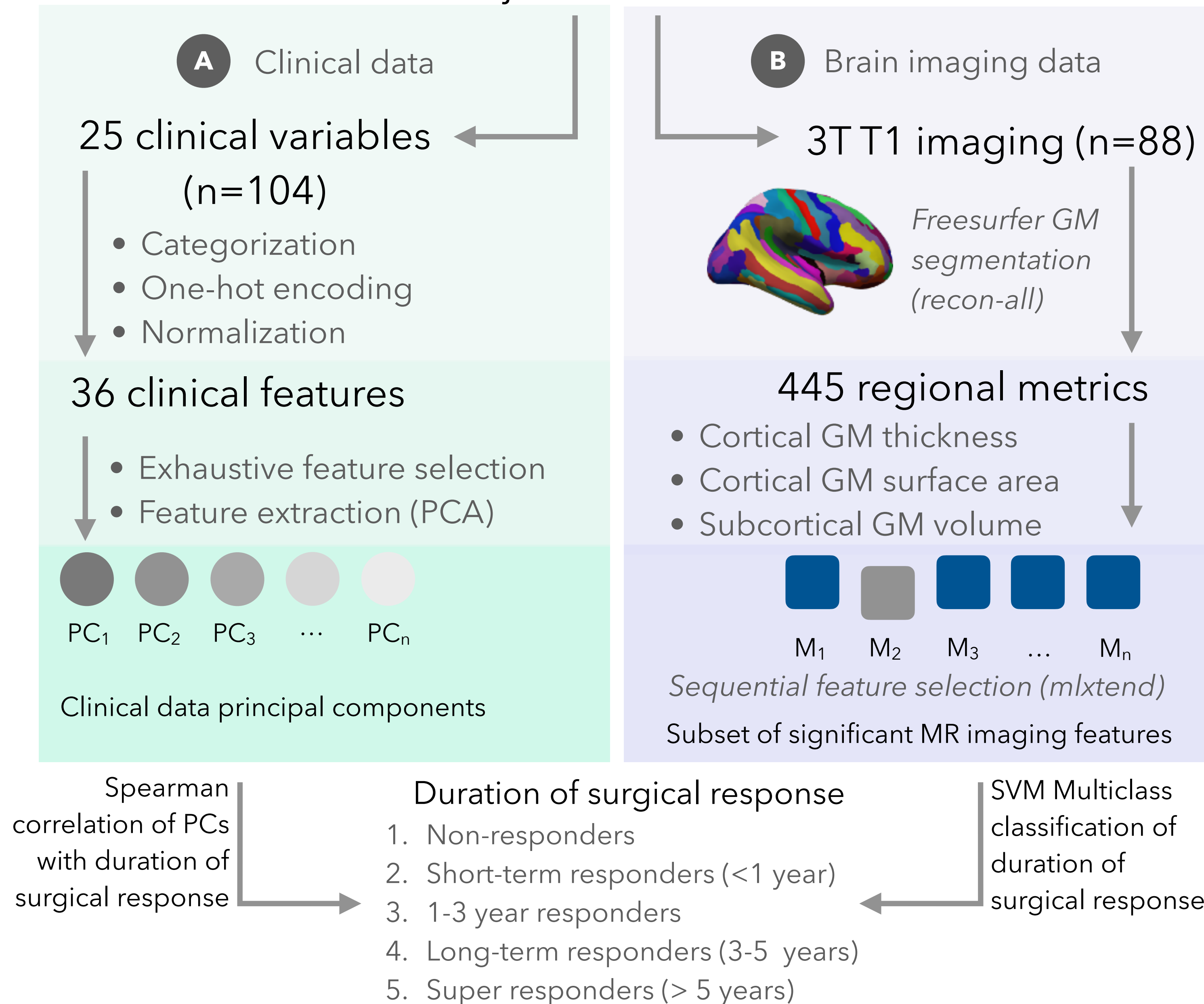Table 1. Demographic information of study population

Fig. 1: Processing pipeline. A - clinical data branch - clinical data undergoes transformation to categorical features, one-hot encoding and normalization. Principal component analysis (PCA) and exhaustive feature selection have been done. A set of features having the strongest correlation with surgical response duration was determined. B - Imaging branch - T1 data was processed in Freesurfer and regional gray matter metrics were extracted. Sequential feature selection and SVM Classification model were used to predict the duration of surgical response.