

Missing value analysis table (%)

Patient_ID	0.000000
Age	0.000000
Survival_months	0.000000
Sex	0.000000
Sace	0.000000
Race	0.000000
Grade	29.968783
Surgery	0.000000
Radiotherapy	0.000000
Chemotherapy	0.000000
AFP	19.823101
Tumor size	11.914672
SEER stage	5.202914
Marital status	0.000000
AJCC T stage	0.000000
AJCC N stage	7.180021
AJCC M stage	8.636837
AJCC stage	8.636837
Macrovascular invasion	0.520291
1year_survival	9.261186
3years_survival	0.000000
5years_survival	0.000000
5years_survival	0.000000

dtype: float64

Figure S1 Proportion of missing data for each variable. AFP, alpha-fetoprotein; AJCC, American Joint Committee on Cancer; SEER, Surveillance, Epidemiology, and End Results; M, metastasis; N, node; T, tumor.