

## Original eSTS data

Characteristics	Total (N = 3826)
Gender (%)	
Female	1680 (43.91%)
Male	2011 (52.56%)
Missing	135 (3.53%)
Mean age in years (sd)	59.40 (18.10)
Mean tumor size in cm (sd)	9.04 (5.77)
Surgical margin (%)	
$R_0$	3028 (79.14%)
$R_{1-2}$	515 (13.46%)
Missing	283 (7.40%)
Adjuvant chemotherapy (%)	
No	3189 (83.35%)
Yes	470 (12.28%)
Missing	167 (4.36%)
Tumor grade (%)	
II	639 (16.70%)
III	3111 (81.31%)
Missing	76 (1.99%)
Histological subtype (%)	
Myxofibrosarcoma	689 (18.01%)
Synovial sarcoma	411 (10.74%)
MFH/UPS/NOS	1204 (31.47%)
Leiomyosarcoma	368 (9.62%)
Liposarcoma	388 (10.14%)
Other	452 (11.81%)
Missing	314 (8.21%)
Tumor depth (%)	
Superficial	912 (23.84%)
Deep	2493 (65.16%)
Missing	421 (11.00%)
Radiotherapy (%)	
No	1331 (34.79%)
Neoadjuvant	517 (13.51%)
Adjuvant	1878 (49.09%)
Missing	100 (2.61%)

Table S1: **Patient demographics before the imputation.** sd, standard deviation;  $R_0$ , negative margin;  $R_{1-2}$ , positive margin with tumor cells in the inked surface of the resection margin; MFH/UPS/NOS, alignant fibrous histiocytoma / undifferentiated pleomorphic sarcoma / (pleomorphic) soft tissue sarcomas not-otherwise-specified; histology "Other", angiosarcoma, clear cell sarcoma, conventional fibrosarcoma, epithelioid sarcoma, giant cell sarcoma, malignant granular cell tumor, malignant peripheral nerve sheath tumor, rhabdomyosarcoma (adult form), spindle cell sarcoma, unclassified soft tissue sarcoma and undifferentiated sarcoma.