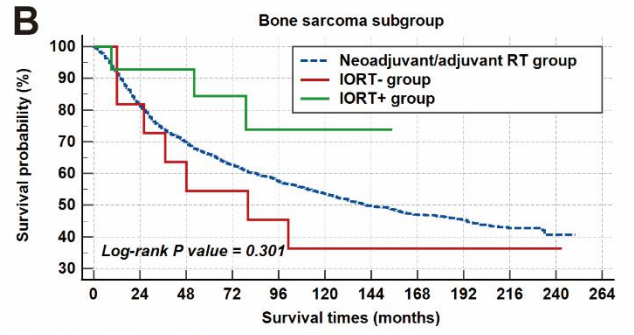


| Neoadjuvant/adjuvant RT group | | | | | | |
|-------------------------------|-------|------|------|------|----|---|
| 20818 | 10415 | 5965 | 3157 | 1307 | 21 | 0 |
| IORT- group | | | | | | |
| 178 | 94 | 41 | 19 | 5 | 0 | 0 |
| IORT+ group | | | | | | |
| 215 | 123 | 58 | 40 | 15 | 1 | 0 |



| Neoadjuvant/adjuvant RT group | | | | | | | | | | | |
|-------------------------------|------|------|------|-----|-----|-----|-----|-----|-----|----|---|
| 2955 | 2108 | 1574 | 1240 | 957 | 729 | 521 | 370 | 243 | 134 | 39 | 0 |
| IORT- group | | | | | | | | | | | |
| 11 | 9 | 6 | 6 | 5 | 4 | 3 | 2 | 1 | 1 | 1 | 0 |
| IORT+ group | | | | | | | | | | | |
| 14 | 12 | 11 | 8 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |

Supplementary Figure 1 Subgroup analyses of survival times in different groups, stratified by histological types.

Supplementary Table 1. Demographic and clinicopathological characteristics of patients with the treatment of IORT alone (IORT- group) or the combination of IORT and neoadjuvant/ adjuvant RT (IORT+ group).

| Characteristics | IORT- group | IORT+ group | P-value |
|--------------------------------|--------------------|--------------------|----------------|
| Gender | | | |
| Male | 104 (54.7) | 131 (57) | <i>0.648</i> |
| Female | 86 (45.3) | 99 (43) | |
| Marital status | | | |
| Unmarried | 85 (44.7) | 96 (41.7) | <i>2.582</i> |
| Married | 100 (52.6) | 132 (57.4) | |
| Unknown | 5 (2.6) | 2 (0.9) | |
| Race | | | |
| White | 152 (80) | 189 (82.2) | <i>0.836</i> |
| Black | 11 (5.8) | 9 (3.9) | |
| Others | 27 (14.2) | 32 (13.9) | |
| Unknown | 0 (0) | 0 (0) | |
| Median household income | | | |
| < \$65,000 | 37 (19.5) | 63 (27.4) | <i>8.951</i> |
| \$65,000 - \$75,000 | 33 (17.4) | 20 (8.7) | |
| > \$75,000 | 120 (63.2) | 147 (63.9) | |
| Unknown | 0 (0) | 0 (0) | |
| Histology | | | |
| Osteosarcoma | 2 (1.1) | 1 (0.4) | <i>0.700</i> |
| Chondrosarcoma | 4 (2.1) | 4 (1.7) | |
| Ewing sarcoma | 3 (1.6) | 3 (1.3) | |
| Fibromatous neoplasms | 32 (16.8) | 41 (17.8) | |
| Liposarcoma | 40 (21.1) | 55 (23.9) | |
| Synovial sarcoma | 20 (10.5) | 26 (11.3) | |
| Leiomyosarcoma | 28 (14.7) | 19 (8.3) | |
| Rhabdomyosarcoma | 7 (3.7) | 12 (5.2) | |
| Gastrointestinal stromal tumor | 4 (2.1) | 1 (0.4) | |
| Spindle cell sarcoma | 8 (4.2) | 12 (5.2) | |
| Epithelioid sarcoma | 3 (1.6) | 2 (0.9) | |
| Chordoma | 1 (0.5) | 5 (2.2) | |
| Giant cell sarcoma | 15 (7.9) | 20 (8.7) | |
| Other soft tissue sarcomas | 22 (11.6) | 28 (12.2) | |
| Other bone tumors | 1 (0.5) | 1 (0.4) | |
| Primary site | | | |
| Limb | 94 (49.5) | 138 (60) | <i>0.064</i> |
| Trunk | 46 (24.2) | 55 (23.9) | |
| Head, face, neck | 1 (0.5) | 1 (0.4) | |
| Other sites | 47 (24.7) | 36 (15.7) | |
| Unknown | 2 (1.1) | 0 (0) | |
| Grade | | | |

| | | | |
|--|------------|------------|-------|
| Well differentiated; Grade I | 32 (16.8) | 19 (8.3) | |
| Moderately differentiated; Grade II | 39 (20.5) | 45 (19.6) | |
| Poorly differentiated; Grade III | 45 (23.7) | 64 (27.8) | 0.084 |
| Undifferentiated; anaplastic; Grade IV | 42 (22.1) | 63 (27.4) | |
| Unknown | 32 (16.8) | 39 (17) | |
| SEER Stage | | | |
| Localized | 90 (47.4) | 115 (50) | |
| Regional | 55 (28.9) | 61 (26.5) | 0.886 |
| Distant | 12 (6.3) | 17 (7.4) | |
| Unknown | 33 (17.4) | 37 (16.1) | |
| T stage | | | |
| T1 | 41 (21.6) | 45 (19.6) | |
| T2 | 94 (49.5) | 132 (57.4) | |
| T3 | 5 (2.6) | 4 (1.7) | 0.533 |
| T4 | 2 (1.1) | 3 (1.3) | |
| Unknown | 48 (25.3) | 46 (20) | |
| N stage | | | |
| N0 | 136 (71.6) | 179 (77.8) | |
| N1 | 7 (3.7) | 12 (5.2) | 0.125 |
| Unknown | 47 (24.7) | 39 (17) | |
| M stage | | | |
| M0 | 137 (72.1) | 175 (76.1) | |
| M1 | 10 (5.3) | 16 (7) | 0.298 |
| Unknown | 43 (22.6) | 39 (17) | |
| Bone metastasis | | | |
| No | 108 (56.8) | 137 (59.6) | |
| Yes | 1 (0.5) | 3 (1.3) | 0.575 |
| Unknown | 81 (42.6) | 90 (39.1) | |
| Brain metastasis | | | |
| No | 110 (57.9) | 140 (60.9) | |
| Yes | 0 (0) | 0 (0) | 0.536 |
| Unknown | 80 (42.1) | 90 (39.1) | |
| Liver metastasis | | | |
| No | 107 (56.3) | 139 (60.4) | |
| Yes | 3 (1.6) | 1 (0.4) | 0.375 |
| Unknown | 80 (42.1) | 90 (39.1) | |
| Lung metastasis | | | |
| No | 109 (57.4) | 133 (57.8) | |
| Yes | 1 (0.5) | 7 (3) | 0.158 |
| Unknown | 80 (42.1) | 90 (39.1) | |
| Chemotherapy | | | |
| No/Unknown | 137 (72.1) | 134 (58.3) | 0.003 |
| Yes | 53 (27.9) | 96 (41.7) | |