

**Supplementary data**

**Supplementary data S1.** Kaplan-Meier of overall survival (OS)(A), and cumulative incidence of local recurrence (B) in patients with macroscopic complete resection performed outside NETSARC reference centers (out-patients) with secondary resection (RE) or not (no secondary resection, No-RE).

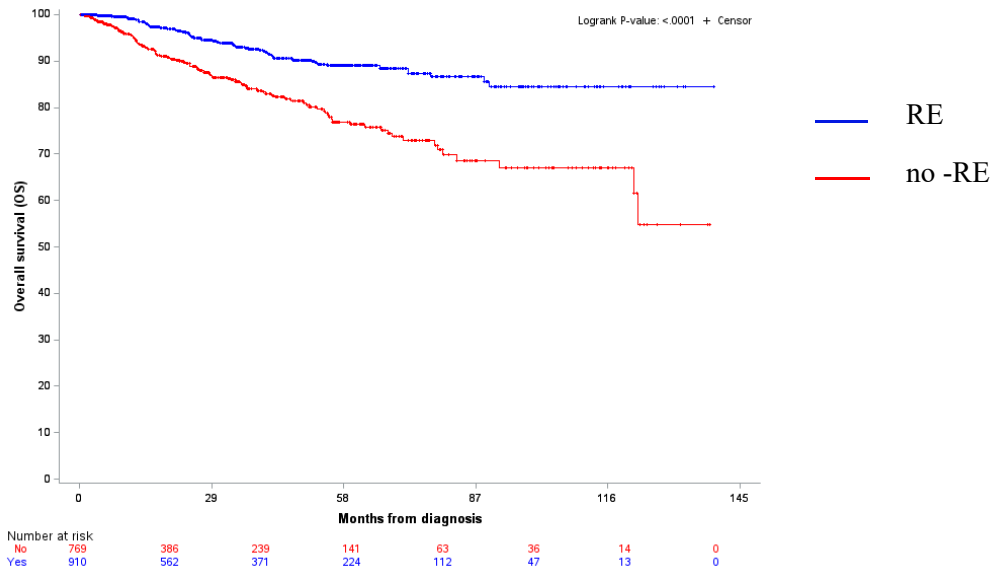
**Supplementary data S2.** Univariate and multivariate analysis for overall survival (OS) of out-patients first operated outside NETSARC center with complete macroscopic margins. Hazard ratio (HR) (95%CI); p value.

**Supplementary data S3.** Univariate and multivariate analysis for local relapse free survival (LRFS) in patients first operated outside NETSARC center (out-patients) with complete macroscopic margins. Hazard ratio (HR) (95%CI); p value.

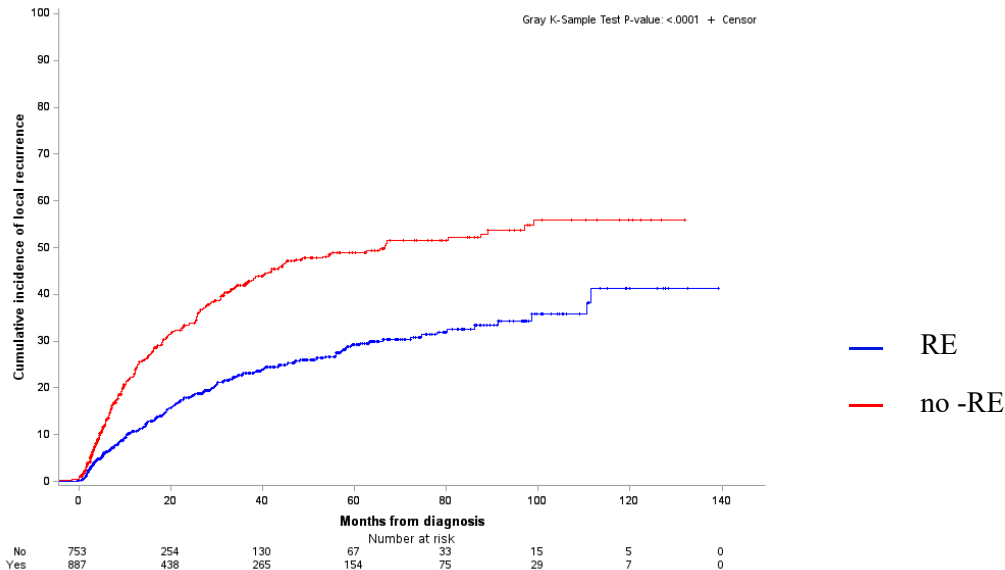
**Supplementary data (S4).** Propensity score matching analysis.

**Supplementary data S1. Kaplan-Meier of overall survival (OS)(A), and cumulative incidence of local recurrence (B) in patients with macroscopic complete resection performed outside NETSARC reference centers (out-patients) with secondary resection (RE) or not (no secondary resection, No-RE).**

**A**



**B**



Note. Local relapse free survival (LRFS) was computed from the diagnosis date to the date of last follow-up or the date of first local progression. Overall survival (OS) was defined as the time from the date of diagnosis to the date of the last follow-up or death due to any cause. Competing events to local recurrence were considered in a competing risk approach to estimate LRFS and non-parametric Gray's test were used to estimate and to compare cumulative incidence function between groups. Invalid time, censoring, or strata values A) n observations deleted =13; B) n observations deleted =57.

**Supplementary data S2. Univariate and multivariate analysis for overall survival (OS) of out-patients first operated outside NETSARC center with complete macroscopic margins.** Hazard ratio (HR) (95%CI); p value.

	Overall Survival			
	Unadjusted HR	Adjusted HR	Adjusted HR	Adjusted HR
<b>Age at diagnosis</b>	1.035 (1.025–1.045); <.0001	1.036 (1.024–1.048); <.0001	1.037 (1.025–1.049); <.0001	1.035 (1.023–1.047); <.0001
<b>Gender female (ref: male)</b>	0.928 (0.682–1.265); 0.6377	0.832 (0.586–1.181); 0.3029	0.846 (0.596–1.203); 0.3524	0.881 (0.617–1.258); 0.4868
<b>Size of the tumor (mm)</b>	1.005 (1.003–1.007); <.0001	1.004 (1.002–1.007); <b>0.0005</b>	1.004 (1.002–1.007); 0.0006	1.004 (1.002–1.007); <b>0.0006</b>
<b>Site of tumor (ref: lower limb)</b>				
Trunk/root member	1.679 (1.194–2.360); <b>0.0029</b>	1.427 (0.979–2.080); 0.0642	1.441 (0.988–2.100); 0.0575	1.530 (1.038–2.254); <b>0.0317</b>
Upper	0.838 (0.505–1.388); 0.4918	0.776 (0.447–1.346); 0.3663	0.775 (0.447–1.345); 0.3649	0.841 (0.481–1.470); 0.5440
<b>Depth of tumor (ref: superficial)</b>	0.906 (0.657–1.250); 0.5491	0.887 (0.618–1.273); 0.5149	0.875 (0.609–1.257); 0.4688	0.825 (0.572–1.190); 0.3032
<b>Grade (ref: grades 1–2)</b>				
Grade 3	2.132 (1.471–3.091); <.0001	1.783 (1.170–2.718); <b>0.0072</b>	1.775 (1.164–2.708); <b>0.0077</b>	1.751 (1.137–2.696); <b>0.0109</b>
Not gradable	1.619 (1.072–2.445); 0.0220	0.894 (0.365–2.189); 0.8060	0.885 (0.360–2.173); 0.7893	0.959 (0.379–2.428); 0.9303
<b>Histology (ref: others<sup>‡</sup>)</b>				
Leiomyosarcoma	0.404 (0.212–0.772); 0.0061	0.435 (0.189–1.004); <b>0.0512</b>	0.421 (0.182–0.975); 0.0434	0.463 (0.194–1.101); 0.0814
Liposarcoma	0.545 (0.285–1.041); 0.0661	0.380 (0.163–0.887); <b>0.0254</b>	0.358 (0.151–0.848); <b>0.0195</b>	0.376 (0.154–0.919); <b>0.0319</b>
Myxofibrosarcoma	0.776 (0.433–1.390); 0.3940	0.535 (0.239–1.197); 0.1278	0.514 (0.229–1.156); 0.1076	0.486 (0.207–1.141); 0.0973
Synovial sarcoma	0.520 (0.220–1.230); 0.1363	0.955 (0.333–2.742); 0.9320	0.952 (0.331–2.736); 0.9275	1.065 (0.362–3.128); 0.9093
Undifferentiated sarcoma	0.981 (0.576–1.672); 0.9447	0.741 (0.361–1.523); 0.4148	0.707 (0.342–1.463); 0.3503	0.735 (0.343–1.574); 0.4279
Miscellaneous sarcomas	0.915 (0.525–1.595); 0.7531	1.276 (0.603–2.700); 0.5238	1.274 (0.602–2.697); 0.5262	1.258 (0.589–2.688); 0.5531
<b>Re-excision (ref: no)</b>	0.407 (0.296–0.559); <.0001	0.504 (0.354–0.717); <b>0.0001</b>	0.470 (0.322–0.687); <.0001	0.588 (0.388–0.892); <b>0.0125</b>
<b>Quality of 1st surgery R0 (ref=R1 margin)</b>	1.373 (0.975–1.933); 0.0692	—	0.816 (0.536–1.243); 0.3443	—
<b>Quality of final surgery R0 (ref=R1 margin)</b>	0.485 (0.354–0.665); <.0001	—	—	0.701 (0.466–1.054); 0.0880

<sup>‡</sup>Osteosarcoma, rhabdomyosarcoma, chondrosarcoma, malignant peripheral nerve sheath tumour, suspicion of sarcoma, sarcoma not further specified, other sarcomas

**Supplementary data S3. Univariate and multivariate analysis for local relapse free survival (LRFS) in patients first operated outside NETSARC center (out-patients) with complete macroscopic margins.** Hazard ratio (HR) (95%CI); p value.

	Local relapse free survival			
	Unadjusted HR	Adjusted HR	Adjusted HR	Adjusted HR
<b>Age at diagnosis</b>	1.015 (1.010-1.021); <b>&lt;.0001</b>	1.012 (1.006-1.019); <b>0.0002</b>	1.013 (1.006-1.019); <b>0.0001</b>	1.013 (1.006-1.019); <b>0.0001</b>
<b>Gender female (ref: male)</b>	1.026 (0.848-1.240); 0.7946	1.064 (0.862-1.314); 0.5638	1.087 (0.879-1.343); 0.4432	1.089 (0.876-1.354); 0.4429
<b>Size of the tumor (mm)</b>	1.004 (1.003-1.006); <b>&lt;.0001</b>	1.002 (1.000-1.004); 0.1138	1.002 (1.000-1.004); 0.0685	1.002 (1.000-1.004); 0.1088
<b>Site of tumor (ref: lower limb)</b>				
Trunk/root member	1.083 (0.878-1.335); 0.4551	1.146 (0.903-1.455); 0.2618	1.155 (0.911-1.464); 0.2333	1.143 (0.898-1.454); 0.2766
Upper	1.047 (0.803-1.367); 0.7330	1.092 (0.810-1.473); 0.5646	1.088 (0.805-1.469); 0.5839	1.098 (0.808-1.492); 0.5512
<b>Depth of tumor (ref: superficial)</b>	1.220 (0.999-1.490); 0.0515	1.229 (0.984-1.536); 0.0690	1.209 (0.968-1.509); 0.0941	1.239 (0.990-1.551); 0.0616
<b>Grade (ref: grades 1–2)</b>				
Grade 3	1.303 (1.040-1.633); <b>0.0213</b>	1.139 (0.888-1.462); 0.3041	1.149 (0.895-1.476); 0.2751	1.122 (0.867-1.452); 0.3819
No grade assigned	1.107 (0.861-1.422); 0.4271	1.398 (0.841-2.325); 0.1963	1.428 (0.858-2.377); 0.1709	1.473 (0.850-2.553); 0.1675
<b>Histology (ref: others<sup>‡</sup>)</b>				
Leiomyosarcoma	0.586 (0.399-0.861); 0.0065	0.868 (0.505-1.492); 0.6086	0.833 (0.483-1.436); 0.5107	0.815 (0.460-1.443); 0.4827
Liposarcoma	0.883 (0.600-1.299); 0.5274	1.028 (0.624-1.694); 0.9138	0.945 (0.569-1.571); 0.8276	0.908 (0.529-1.558); 0.7248
Myxofibrosarcoma	1.173 (0.821-1.678); 0.3808	1.671 (1.010-2.763); <b>0.0457</b>	1.559 (0.935-2.600); 0.0885	1.428 (0.826-2.469); 0.2023
Synovial sarcoma	0.653 (0.380-1.120); 0.1214	0.784 (0.361-1.704); 0.5396	0.756 (0.348-1.643); 0.4805	0.666 (0.298-1.488); 0.3214
Undifferentiated sarcoma	0.963 (0.677-1.369); 0.8320	1.189 (0.729-1.938); 0.4884	1.098 (0.668-1.805); 0.7113	1.024 (0.605-1.735); 0.9283
Miscellaneous sarcomas	0.730 (0.496-1.076); 0.1119	0.727 (0.456-1.158); 0.1794	0.705 (0.444-1.120); 0.1386	0.658 (0.409-1.057); 0.0837
<b>Re-excision (ref: no)</b>	0.492 (0.406-0.595); <b>&lt;.0001</b>	0.511 (0.410-0.638); <b>&lt;.0001</b>	0.443 (0.345-0.570); <b>&lt;.0001</b>	0.706 (0.546-0.913); <b>0.0079</b>
<b>Quality of 1st surgery R0 (ref=R1 margins)</b>	1.085 (0.877-1.342); 0.4528	---	0.669 (0.501-0.895); <b>0.0067</b>	---
<b>Quality of final surgery R0 (ref=R1 margins)</b>	0.389 (0.320-0.472); <b>&lt;.0001</b>	---		0.499 (0.388-0.644); <b>&lt;.0001</b>

<sup>‡</sup>Osteosarcoma, rhabdomyosarcoma, chondrosarcoma, malignant peripheral nerve sheath tumour, suspicion of sarcoma, sarcoma not further specified, other sarcomas

**Supplementary data S4. Propensity score matching analysis:** after multiple imputations for handling missing covariates, we implemented the inverse probability of treatment weighting (IPTW), a method using the propensity score to control the potential selection bias associated with no categorization. The propensity score was the conditional probability for a patient to be re-excised, conditional on observable characteristics: age, gender, site of tumor, size of tumor, depth of tumor, histology, grade. The resulting graphs confirmed the previously observed better MFS in out NETSARC patients with re-excision ( $p=0.0006$ ).

